

GraybaR

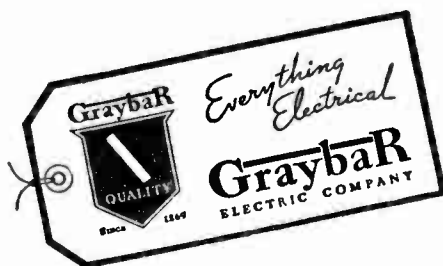
GENERAL CATALOG

No. 103



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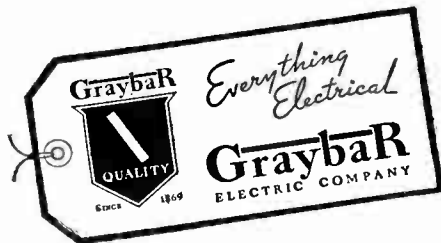
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— CATALOG NO. 103 —

GraybaR

ELECTRIC COMPANY



YOU have in your possession what we believe to be the most complete catalog of electrical materials yet published. Approximately 50,000 items, covering most frequently or widely used items, are included. However, the scope of the electrical industry has increased so rapidly that even with this tremendous variety of listings you may not find just what you want. We hope, if this is true, that you will call our nearest office and warehouse (see list in back of catalog), and they will make every attempt to secure it for you.

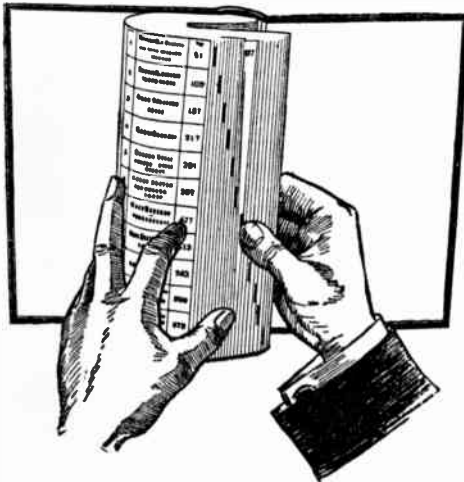


PRICES IN THIS CATALOG ARE APPROXIMATE LIST PRICES
AND SUBJECT TO CHANGE WITHOUT NOTICE



PRICE OF THIS CATALOG IS \$5.00 POSTPAID

HOW TO USE THE Section Finder



A BLACK GUIDE MARK is printed on the outer margin of the first page of each section of this catalog. In each instance the guide mark is printed directly opposite the wording on this end sheet which refers to the particular section.

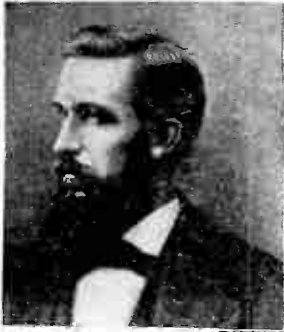
1—Fold back the pages of the catalog as shown in the illustration, which will expose the edges of the guide marks.

2—Place the thumb of the right hand on the mark opposite the marginal section which contains the kind of goods sought.

This will open the catalog at the beginning of the desired section.

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AT YOUR SERVICE



GRAY



BARTON



A 79-Year Background of Experience

THEN

The illustration above of the two founders—Gray and Barton—whose names were combined to make Graybar, and the original factory, sales and office force, almost tells the story without words.

The business in those early days before electric lighting, before central stations, and in fact, before 98% of the electrical things so familiar today, was a very simple business.

Bells, Buzzers, Telegraph Equipment, and Annunciators were made in this small plant and sold by a top-hatted sales force of two or three men.

NOW

Graybar makes available through more than 90 distributing houses, the products of nearly 300 manufacturers. From coast to coast and border to border, wholesale electrical buyers can find prompt, intelligent service on almost everything electrical. Dependable products, knowledge of your electrical needs and the willingness to stand back of everything we supply are also features of Graybar Service.

We hope that this catalog of 1116 pages, listing the more frequently used electrical items of all types, except household appliances, will prove of value to you.

PRICES

Prices found in this catalog are revised to agree with the latest lists at the time of going to press. It is understood that they are subject to change without notice and are, therefore, not offered by us as a quotation. It is contemplated that all prices are for shipment from our warehouse unless otherwise specified.

ORDERS

Where possible, we have placed opposite each article a catalog number. When ordering give the catalog number and description of the article required.

You are requested to specify the routing over which you prefer shipments to be made. In the absence of specific instructions, we shall use our best judgment in selecting the route, but we are not responsible for extra trucking expenses at destination.

TERMS

Our terms are 30 days net from date of invoice.

Payments may be made by check, bank draft, postal or express money order, drawn to the order of or endorsed to the order of the Graybar Electric Company, Inc.

Payments in currency through the mails even if registered are not recommended and are at sender's risk. We are not responsible for loss or miscarriage of the mails.

Receipts are not issued for remittances unless requested. Our endorsement on remittance is acknowledgment of the receipt of the funds.

We solicit new accounts on a credit basis, and in order to give prompt service, request that where you are not rated by the Commercial Agencies, references or other information of a credit character be forwarded with the order. These will be immediately acted upon, and the results held in strict confidence for our sole use and, when reasonably satisfactory, shipment will follow with all possible dispatch.

To avoid the delay incidental to communicating with references, etc., it would be mutually convenient, when immediate shipment is desired, to send cash in advance or instruct us to ship C. O. D. by express, or parcel post (insured if so instructed) or by freight subject to sight draft through a local bank against bill of lading.

We shall advise the terms on future orders promptly after communications from references are received.

RETURNED GOODS

We can take no responsibility for any material returned without our authorization. Where we give shipping instructions for returning goods, they should be carefully followed to avoid delay and difficulty in issuing credit.

SHIPMENTS

As experienced packers are employed, and as reasonable care is used in packing, we cannot be held responsible for breakage in packages which are delivered in "good order" by the carrier.

Shipments of glassware are made at your risk.

Goods ordered to be shipped by parcel post will be sent only at the purchaser's risk of loss or damage.

Goods are sold f. o. b. shipping point unless otherwise specifically stated.

RESPONSIBILITY

All statistical information contained in this catalog, pertaining to *Strength* and *Proper Working Loads* of material, tools or machines is derived from tables compiled by the Manufacturers thereof, and is reprinted by us for the convenience of the buyer. This information is necessarily based upon *use under proper working conditions*. We assume no responsibility by this reprint, and in no way do we give you a guarantee, expressed or implied, on any material.

Habirshaw Small Diameter Building Wire

600 Volts, N.E.C.

Habirdure—Type T & TW

All Thermoplastic Insulated Type



Type T & TW Building Wire differs from the conventional rubber insulated braided building wires in that the insulation consists of a wall of Habirdure, a synthetic resin. Habirdure has exceptionally high dielectric strength, is practically non-aging and is highly resistant to moisture, oil, acids, and alkalis. The tough nature of the material makes it unnecessary to use a braided covering for protection against mechanical injury. The omission of an overall braiding reduces the outside diameter to a minimum and makes Type T & TW the smallest of the Building Wires. Its hard, smooth surface makes it extremely easy to pull. Type T & TW is furnished in a range of bright, fadeless colors which are unaffected under the roughest possible handling during installation.

Habirdure Type T is approved in the National Electrical Code as general purpose wiring for operation at 60°C. in sizes up to 4/0 A.W.G. Sizes larger than 4/0 are approved for open wiring only.

Habirdure is also approved by the Underwriters' Laboratories (Guide Card 460-190Y file E 13092) for the following uses:

On switchboards where oil is not present and temperatures do not exceed 80°C.

Within appliances when exposed to oil and temperatures not exceeding 60°C.

Within appliances when exposed to air and temperatures not exceeding 80°C.

Habirdure Type TW is approved for use in wet locations in place of lead covered cable when the temperature does not exceed 60°C.

Habirdure Type T & TW can be supplied in the following standard colors, black, white, red, green, orange, blue, yellow, brown and purple.

Size A.W.G. or CM	Wall Thk. 64ths In.	Approx. O.D. In.	Approx. Wt. per 1000 Feet	Size A.W.G. or CM	Wall Thk. 64ths In.	Approx. O.D. In.	Approx. Wt. per 1000 Feet
20	1 2	.098	7	2	7 4	.433	267
	7 2	.102	8		19 4	.433	267
18	1 2	.106	9		37 4	.433	267
	7 2	.112	10	1	19 5	.508	339
	19 2	.112	10		37 5	.508	339
16	1 2	.118	13		61 5	.508	339
	7 2	.124	14	1/0	19 5	.549	415
	19 2	.125	14	2/0	19 5	.595	515
14	1 2	.131	20	3/0	19 5	.647	635
	7 2	.139	22	4/0	19 5	.705	785
	19 2	.140	22	250,000	37 6	.788	925
12	1 2	.148	28	300,000	37 6	.843	1095
	7 2	.158	31	350,000	37 6	.895	1260
	19 2	.159	31	400,000	37 6	.942	1430
10	1 2	.169	41	500,000	37 6	1.029	1760
	7 2	.182	45	600,000	61 7	1.143	2100
	19 2	.183	45	700,000	61 7	1.214	2420
8	1 3	.228	69	750,000	61 7	1.249	2600
	7 3	.244	75	800,000	61 7	1.282	2740
	19 3	.245	75	900,000	61 7	1.345	3100
6	1 4	.292	110	1,000,000	61 7	1.404	3420
	7 4	.323	119	1,250,000	91 8	1.577	4220
	19 4	.323	119	1,500,000	91 8	1.702	5050
	37 4	.323	119	1,750,000	127 8	1.817	5860
4	7 4	.372	176	2,000,000	127 8	1.922	6700
	19 4	.372	176				
	37 4	.372	176				

Habirshaw Rubber Covered Braided Wire and Cable

600 Volts N.E.C.S.

Type R Code Grade—Solid—Single Conductor



Size A.W.G. No.	Thick. Insulation 64ths In.	Approx. O.D. Inches	Single Braided Std. Pkg. Feet	Type Package Bundle	Shipping Wt. Lb. per 1000 Feet
*18	1	.10	5000	5 Coils	10
*16	1	.11	5000	5 Coils	14
18	2	.13	5000	5 Coils	14
16	2	.14	5000	5 Coils	18
14	2	.16	2500	75 Coils	26
12	2	.18	2500	75 Coils	35
10	3	.23	2500	75 Coils	55
8	4	.28	500	7 Coils	86
6	4	.32	500	7 Coils	120
4	4	.38	500	7 Coils	180
Double Braided					
14	2	.18	2500	5 Coils	30
12	2	.21	2500	5 Coils	39
10	3	.26	2500	5 Coils	62
8	4	.32	500	7 Coils	96
6	4	.36	500	7 Coils	135
4	4	.41	500	7 Coils	190

Type R Code Grade—Stranded—Single Conductor



Size A.W.G. No.	Thick. Insulation 64ths In.	Approx. O.D. Inches	Single Braided Std. Pkg. Feet	Type Package Bundle	Shipping Wt. Lb. per 1000 Feet
14	2	.17	2500	5 Coils	28
12	2	.19	2500	5 Coils	36
10	3	.23	2500	5 Coils	59
8	4	.30	500	7 Coils	93
6	4	.36	500	7 Coils	135
4	4	.40	500	7 Coils	195
2	4	.46	500	7 Coils	285
Double Braided					
14	2	.20	2500	5 Coils	31
12	2	.22	2500	5 Coils	41
10	3	.27	2500	5 Coils	67
8	4	.33	500	7 Coils	103
6	4	.38	500	7 Coils	145
4	4	.45	500	7 Coils	205
2	4	.51	500	7 Coils	295
1	5	.59	1000	Reel, 30"	435
1/0	5	.63	1000	Reel, 36"	560
2/0	5	.67	1000	Reel, 36"	660
3/0	5	.73	1000	Reel, 36"	780
4/0	5	.78	1000	Reel, 36"	930

*Fixture Wire.
†Can also be furnished in 500-foot coils put up in individual cartons.

‡Single coils paper wrapped.

Habirshaw Rubber Covered Flexible Cable

Type R Code Grade—Single Conductor

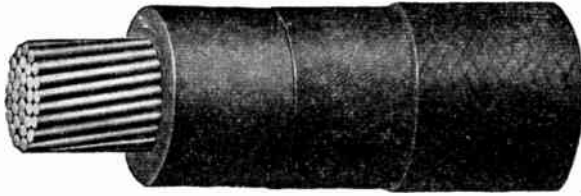


Size B&S	No. of Wires	Size Wires	Thickness Wall In.	Diameter Over All In.	Approx. Wt. Lb. per 1000 Feet
0000	133	.0399	5/64	.850	900
000	133	.0356	5/64	.780	730
00	133	.0317	5/64	.725	610
0	133	.0282	5/64	.670	490
1	133	.0251	5/64	.610	415
2	133	.0226	5/64	.550	325
4	49	.0291	5/64	.477	212
6	49	.0231	5/64	.423	146
8	49	.0183	5/64	.321	93
10	37	.0168	5/64	.240	55
12	19	.0186	5/64	.190	32
14	19	.0147	5/64	.170	24

Habirshaw Rubber Covered Braided Wire and Cable

600 Volts N.E.C.

Type R Code Grade—Circular Mil —Stranded Single-Conductor



Size Circular Mils	Thick. Insulation 64ths In.	Approx. O.D. In.	Std. Pkg. Feet	Type Package	Shipping Wt. Lb. per 1000 Feet
250000	6	.86	1000	Reel, 36"	1090
300000	6	.92	1000	Reel, 42"	1390
350000	6	.87	1000	Reel, 42"	1560
400000	6	1.02	1000	Reel, 42"	1740
450000	6	1.06	1000	Reel, 42"	1905
500000	6	1.10	1000	Reel, 42"	2095
600000	7	1.21	500	Reel, 42"	2695
650000	7	1.24	500	Reel, 42"	2890
700000	7	1.28	500	Reel, 42"	3055
750000	7	1.32	500	Reel, 42"	3230
800000	7	1.35	500	Reel, 42"	3400
900000	7	1.41	500	Reel, 42"	3740
1000000	7	1.47	500	Reel, 42"	4070
1250000	8	1.64	500	Reel, 48"	5490
1500000	8	1.76	500	Reel, 48"	6305
1750000	8	1.88	500	Reel, 56"	7590
2000000	8	1.98	500	Reel, 56"	8420

Unless otherwise specified the above lengths and packing will be furnished. Where special lengths are required, this should be specially noted on orders.

Type RD Code Grade—Twin Flat-Conductor



Solid

Size A.W.G. No.	Thick. Insulation 64ths In.	Approx. O.D. In.	Std. Pkg. Feet	Type Package	Shipping Wt. Lb. per 1000 Feet
14	2	.20x.35	500	Coil	63
12	2	.22x.39	500	Coil	81
10	3	.26x.49	500	Coil	125
8	4	.32x.60	500	Coil	190
6	4	.36x.68	1000	Reel, 30"	325

Stranded

14	2	.21x.37	500	Coil	65
12	2	.23x.41	500	Coil	84
10	3	.27x.52	500	Coil	130
8	4	.33x.64	500	Coil	200
6	4	.38x.72	1000	Reel, 30"	340

Coils paper wrapped.

NOTE. For both cable and wire corrugated paper is used on reels up to 42 inches inclusive. Lagging is used only when specified. Sizes 48 to 84 inches inclusive, lagged.

Reels

Some sizes and kinds of wires necessarily must be shipped on reels.

In such cases the reels will be billed at cost and credited at full billing value, if returned to mill in good condition within twelve months of shipping date.

Obtain return tags and shipping instructions before shipping reels.

Habirshaw Rubber Covered Braided Wire Type RM, N. E. C. S.—3-Conductor—Solid 600 Volts



Each conductor of the 3-Conductor Rubber Covered House Wire is insulated by Black Core rubber compound. The covering over insulation is a 2 to 6 A.W.G., one rubber filled tape, and an 8 to 14 A.W.G., one saturated braid.

The conductors are grouped by twisting. They are filled with jute, covered by one rubber filled tape. The whole is covered by a saturated cotton braid.

Size A.W.G. Gauge	No. of Strands	Rubber Wall 64th Inch	Approximate O.D. Inches	Std. Pkg. Feet	Type Package	Shipping Wt. Lb. per 1000 Feet
14	1	3	.413	1000	Reel, 30"	128
12	1	3	.450	1000	Reel, 30"	165
10	1	3	.579	1000	Reel, 30"	260
8	1	4	.703	1000	Reel, 36"	401
6	1	4	.792	1000	Reel, 36"	572

NOTE.—Corrugated paper used on reels up to 42 inches, inclusive, lagging used on above sizes only when specified. Sizes 48 to 84 inches inclusive, lagged.

Habirshaw Rubber Covered Braided Cable Type RM, N.E.C.S.—3-Conductor—Stranded 600 Volts



The 3-conductor stranded code house cable is used under the same conditions as solid 3-conductor code house cable unless greater flexibility is required, especially in larger sizes.

Number of conductors, 3.

Range of sizes, 500,000 cm to 14 A. W. G., stranded.

Insulation on each conductor, "Black Core" rubber compound.

Covering over insulation, 500,000 cm to 6 A.W.G., one rubber filled tape, 8 to 14 A. W. G., one saturated braid.

Grouping of conductors, twisted.

Fillers, jute.

Covering over jute, one rubber filled tape.

Covering over all, one saturated braid.

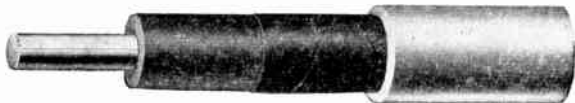
Size A.W.G. Gauge	No. of Strands	Rubber Wall 64th Inch	Approximate O.D. Inches	Std. Pkg. Feet	Type Package	Shipping Wt. Lb. per 1000 Feet
14	7	2	.433	1000	Reel, 30"	157
12	7	2	.474	1000	Reel, 30"	195
10	7	3	.592	1000	Reel, 30"	280
8	7	4	.742	1000	Reel, 36"	434
6	7	4	.839	1000	Reel, 36"	617
4	7	4	.942	1000	Reel, 42"	861
3	7	4	1.002	1000	Reel, 42"	1035
2	7	4	1.071	1000	Reel, 42"	1246
1	19	5	1.224	1000	Reel, 48"	1584
1/0	19	5	1.312	500	Reel, 42"	1914
2/0	19	5	1.409	500	Reel, 48"	2319
3/0	19	5	1.520	500	Reel, 48"	2824
4/0	19	5	1.645	500	Reel, 56"	3451
250000cm	37	6	1.815	500	Reel, 56"	4110
300000cm	37	6	1.933	500	Reel, 62"	4819
350000cm	37	6	2.043	500	Reel, 62"	5520
400000cm	37	6	2.144	500	Reel, 62"	6216
450000cm	37	6	2.239	500	Reel, 62"	6910
500000cm	37	6	2.329	500	Reel, 62"	7597

NOTE.—Corrugated paper used on reels up to 42 inches inclusive, lagging used on above sizes only when specified. Sizes 48 to 84 inclusive, lagged.

Habirshaw Rubber and Lead Covered Cable

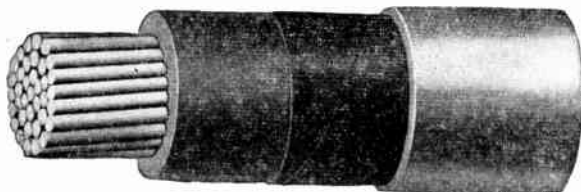
600 Volts N.E.C.S.

Type RL Code Grade—Solid—Single Conductor



Size A.W.G. No.	No. of Strands Concentric	Thickness Insulation 64ths In.	Thickness Lead Sheath 64ths Inch	Diameter Over Lead Inches	Approx. Ship. Wt. Lb. per 1000 Ft.
18	1	2	2	.19	115
16	1	2	2	.20	125
14	1	2	2	.21	138
12	1	2	2	.22	156
10	1	3	3	.32	285
8	1	4	3	.38	335
6	1	4	4	.47	545
4	1	4	4	.52	640

Type RL Code Grade—Stranded—Single-Conductor



14	7	2	2	.22	141
12	7	2	2	.22	161
10	7	3	3	.32	300
8	7	4	3	.38	445
6	7	4	4	.47	575
4	7	4	4	.52	680
3	7	4	4	.55	745
2	7	4	4	.58	825
1	19	5	4	.64	1015
1/0	19	5	4	.68	1120
2/0	19	5	4	.73	1270
3/0	19	5	4	.78	1440
4/0	19	5	4	.84	1645

C. M.					
250,000	37	6	5	.95	2355
300,000	37	6	5	1.00	2595
350,000	37	6	5	1.06	2950
400,000	37	6	5	1.10	3180
450,000	37	6	5	1.14	3400
500,000	37	6	5	1.19	3610
600,000	61	7	6	1.33	4665
650,000	61	7	6	1.36	4890
700,000	61	7	6	1.40	5355
750,000	61	7	6	1.43	5575
800,000	61	7	6	1.47	5785
900,000	61	7	6	1.53	6210
1,000,000	61	7	6	1.59	6625
1,250,000	91	8	7	1.79	8645
1,500,000	91	8	7	1.91	9655
1,750,000	127	8	7	2.02	11300
2,000,000	127	8	7	2.13	12305

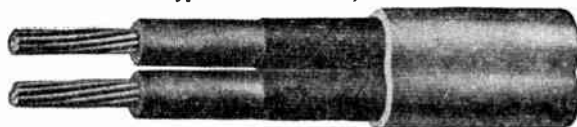
Type RDL Code Grade—Solid—Twin Flat-Conductor



18	1	2	2	.19x.33	185
16	1	2	2	.20x.35	200
14	1	2	2	.21x.35	202
12	1	2	3	.24x.42	253
10	1	3	3	.32x.55	465
8	1	4	3	.38x.66	560
6	1	4	4	.47x.81	900
4	1	4	4	.52x.91	1075

Habirshaw Lead Covered Cable

Stranded Twin Flat Conductor
Type RDL—600 Volts, N.E.C.S.



Used under the same conditions as stranded single conductor lead covered wire. Sizes range from 0000 to 14 A.W.G., stranded. Black Core rubber compound insulation on each conductor. Rubber filled tape or braid covering over insulation. Conductors grouped parallel. When specified, round cable with 2 conductors twisted will be furnished. Covering over all is lead sheath. Type letter R D L.

Size A.W.G.	No. of Strands Concentric	Thickness Insulation 64ths Inch	Thickness Lead Sheath 64ths Inch	Diameter Over Lead Inches	Approx. Ship. Wt. Lbs. per 1000 Ft.
14	7	2	2	.21x.35	210
12	7	2	2	.24x.42	265
10	7	3	3	.335x.575	485
8	7	4	3	.395x.695	580
6	7	4	4	.465x.804	955
4	7	4	4	.510x.900	1140
3	7	4	4	.540x.955	1270
2	7	4	4	.570x1.020	1670
1	19	5	5	.675x1.190	2170
1/0	19	5	5	.715x1.275	2550
2/0	19	5	5	.760x1.365	2835
3/0	19	5	5	.810x1.470	3185
4/0	19	5	5	.870x1.585	3835

Habirshaw Lead Covered Cable

Type RML—600 Volts, N.E.C.S.



Used for 3-phase circuits. Stranded are used where extra flexibility is required in smaller sizes and always in larger sizes where solid conductors would make cable too stiff to handle.

Contains 3 conductors. Sizes range from 500,000 cm. to 14 A. W. G. Each conductor insulated with Black Core rubber compound. Insulation covered by rubber filled tape. Conductors twisted, filled with jute. Rubber-filled tape covering over jute. Lead sheath covering over all.

Stranded, 3-Conductor Round

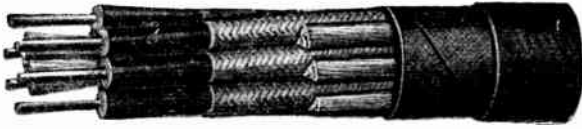
Size A.W.G.	No. of Strands Concentric	Thickness Insulation 64ths Inch	Thickness Lead Sheath 64ths Inch	Diameter Over Lead Inches	Approx. Ship. Wt. Lbs. per 1000 Ft.
14	7	2	3	.46	450
12	7	2	3	.50	490
10	7	3	4	.64	890
8	7	4	4	.77	1060
6	7	4	4	.92	1595
4	7	4	5	1.03	2120
3	7	4	5	1.09	2455
2	7	4	5	1.16	2705
1	19	5	6	1.33	3695
1/0	19	5	6	1.42	4335
2/0	19	5	6	1.52	4785
3/0	19	5	6	1.63	5805
4/0	19	5	7	1.79	6910
250,000	37	6	7	1.96	7710
300,000	37	6	7	2.08	9110
350,000	37	6	7	2.19	9845
400,000	37	6	8	2.32	11145
450,000	37	6	8	2.42	11860
500,000	37	6	8	2.50	12580

Solid, 3-Conductor Round

18	1	2	3	.41	375
16	1	2	3	.44	405
14	1	2	3	.46	435
12	1	2	3	.50	470
10	1	3	4	.64	850
8	1	4	4	.77	1005
6	1	4	4	.92	1265
4	1	4	5	1.03	2010

Habirshaw Solid Traffic Control Cable

600 Volts



Habirshaw Traffic Signal Control Cables are suitable for general application in control circuits rated at 600 volts or less. For normal installations, and particularly in aerial circuits, this type of cable is constructed with an overall braid covering.

A cotton braid is normally furnished, conforming to the heavy braid requirements of A.S.T.M. Designation D27, latest revision thereof. However, if desired, a cotton loom covering can be supplied.

Habirshaw Traffic Signal Control Cables can be supplied in accordance with various specifications, however, the specification for Rubber Insulated, Heavy Braid or Loom Covered Multi-Conductor Signal Cable of the International Municipal Signal Association, Inc., is normally followed.

The individual rubber insulated conductors of Habirshaw Traffic Signal Control Cable are normally enclosed in a colored cotton braid, conforming to N.E.M.A. Standard Color Coding.

Size A.W.G. No.	CONDUCTORS		Thick- ness Insu- lation Inches	BRAID FINISHED CABLE	
	No.	Diameter Inches		Overall Diameter Inches	Weight per 1000 Feet
14	2	.06408	$\frac{3}{64}$	.43x.24	78
14	3	.06408	$\frac{3}{64}$	.50	138
14	4	.06408	$\frac{3}{64}$	.55	172
14	5	.06408	$\frac{3}{64}$	.60	209
14	6	.06408	$\frac{3}{64}$	.66	248
14	7	.06408	$\frac{3}{64}$	.66	269
14	8	.06408	$\frac{3}{64}$	.75	324
14	9	.06408	$\frac{3}{64}$	.80	357
14	10	.06408	$\frac{3}{64}$	.86	408
14	12	.06408	$\frac{3}{64}$	.90	464
12	2	.08081	$\frac{3}{64}$	.47x.27	99
12	3	.08081	$\frac{3}{64}$	.53	173
12	4	.08081	$\frac{3}{64}$	.59	218
12	5	.08081	$\frac{3}{64}$	.65	265
12	6	.08081	$\frac{3}{64}$	.72	317
12	7	.08081	$\frac{3}{64}$	.72	355
12	8	.08081	$\frac{3}{64}$	.81	415
12	9	.08081	$\frac{3}{64}$	.87	467
12	10	.08081	$\frac{3}{64}$	.93	522
12	12	.08081	$\frac{3}{64}$	.96	597
10	2	.1019	$\frac{3}{64}$	.52x.29	131
10	3	.1019	$\frac{3}{64}$	.58	255
10	4	.1019	$\frac{3}{64}$	.64	285
10	5	.1019	$\frac{3}{64}$	.72	355
10	6	.1019	$\frac{3}{64}$	.79	401
10	7	.1019	$\frac{3}{64}$	.79	470
10	8	.1019	$\frac{3}{64}$	.88	545
10	9	.1019	$\frac{3}{64}$	.94	605
10	10	.1019	$\frac{3}{64}$	1.01	688
10	12	.1019	$\frac{3}{64}$	1.05	778

Conductors of stranded construction can be furnished, also cables with lead sheath.

Nos. 14 and 12 can be furnished with $\frac{3}{64}$ inch insulation where required.

Habirshaw Signal Wire and Cable

Association of American Railroads, Signal Division
Standard

Railway signal wire is made to conform with the exacting specifications of the Association of American Railroads, Signal Section Standard and represents the standard engineering practice in this line.

The present Association of American Railroads, Signal Section Standard specification for rubber insulation is a development resulting from a study of the manufacture, inspection and use of rubber insulated wire extending over a period of many years, by a strong and representative committee of signal engineers who have given considerable time and attention to this subject. The specification has undergone changes in this time and every change has improved the product and confirmed the opinion of signal engineers as to the excellent quality of the insulation which it exacts. Habirshaw also makes a higher grade signal wire known as Habirite signal wire which is recommended for locations where operating conditions are exceptionally severe.

Habirshaw has specialized on A.A.R. Signal wire and makes all standard types including the following:

Rubber Insulated Signal Wire for 600 Volts or Less



Single conductor, solid or stranded.

Range of sizes, Nos. 1/0 to 18 A.W.G.

Insulation, A.A.R. Signal Section compound.

Covering over insulation is one cotton braid, weather-proof saturated and finished.

Thickness of insulation: Nos. 18 and 16 A.W.G., $\frac{3}{32}$ inch; Nos. 14 to 9 A.W.G., $\frac{5}{64}$ inch; Nos. 8 to 4 A.W.G., $\frac{3}{32}$ inch; and Nos. 2 to 1/0 A.W.G., $\frac{1}{16}$ inch.

Aerial Braided Cable, for 600 Volts or Less



Number of conductors as specified.

Range of sizes, Nos. 1/0 to 18 A.W.G., solid or stranded.

Insulation, A.A.R. Signal Section compound.

Paraffined jute fillers. Has one rubber filled tape over assembly; one cotton braid weatherproof saturated and finished overall. Can be furnished lead covered if requested.

Thickness of insulation: Nos. 18 and 16 A.W.G., $\frac{3}{32}$ inch; Nos. 14 to 9 A.W.G., $\frac{5}{64}$ inch; Nos. 8 to 4 A.W.G., $\frac{3}{32}$ inch; and Nos. 2 to 1/0 A.W.G., $\frac{1}{16}$ inch.

Habirshaw Control Cable



Station control cables are used for the remote control of outdoor or automotive substations and are installed in conduit being either braid or lead covered.

Number of conductors, as required.

Usual size, 19 No. 22 A.W.G. or 19 No. 25 A.W.G.

Insulation on each conductor, rubber compound of quality specified.

Thickness of insulation each conductor, $\frac{3}{64}$ inch, for 600-volt service unless otherwise specified.

Covering over insulation, colored dry cotton braid.

Grouping of conductors, cabled.

Fillers, dry jute.

Covering over assembly, one rubber filled tape.

Covering overall, one weatherproof saturated cotton braid, lead rubber jacket, neoprene or nometal sheath, as specified.

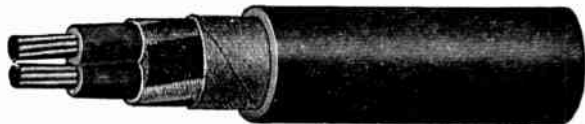
Identification of circuits may be made by ridged tracer in each layer of conductors, by color of rubber, or by colored braids on the conductors according to N.E.M.A. color code.

Upon receipt of inquiry stating conditions of service, our Engineering Department will furnish additional data.

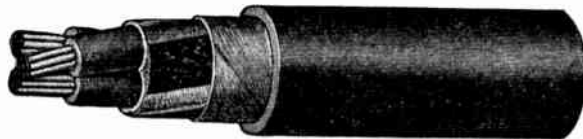
Habirshaw Habirprene Sheathed Parkway Cable



Single Conductor



Two-Conductor



Three-Conductor

Habirshaw Neoprene Sheathed Parkway cables are designed for use either in ducts or buried directly in the ground.

Insulation. These cables are regularly furnished with Habirducat type insulation, but can be supplied with any of the standard types of insulation.

Sheath. A tough, abrasion resisting Habirprene sheath designed to withstand exposure to moisture, alkalies and acids and meeting the requirements of A.S.T.M. Spec. D-752.

Tough rubber sheaths can be furnished as an alternate to Neoprene.

Single Conductor Cables have no separation between insulation and sheath.

Multiple Conductor Cables have a rubber-filled tape over each conductor; jute fillers and a rubber-filled tape over the assembly under the sheath.

These cables are designed to conform to the dimensional requirements of IPCEA for rubber-sheathed cables.

When conditions are unusually severe, cables with heavier sheaths can be furnished.

Data for sizes and voltages not listed herein will be furnished upon application.

600 Volts

Single-Conductor

Size A.W.G.	Strands	Thickness Insulation 64ths Inches	Thickness Sheath 64ths Inches	Approx. O.D. Inches	Approx. Wt., Lb. per 1000 Feet
14	1	3	1	.19	40
12	1	3	1	.21	49
10	1	3	1	.23	66
8	1	4	1	.29	104
6	7	4	2	.38	147
4	7	4	2	.42	190
2	7	4	2	.48	286
1	19	5	3	.59	376
1/0	19	5	3	.63	418
2/0	19	5	3	.67	558
3/0	19	5	3	.72	686
4/0	19	5	3	.78	842

Two-Conductor (Round)

Size A.W.G.	Strands	Thickness Insulation 64ths Inches	Thickness Sheath 64ths Inches	Approx. O.D. Inches	Approx. Wt., Lb. per 1000 Feet
14	1	3	3	.47	98
12	1	3	3	.51	140
10	1	3	4	.61	168
8	1	4	4	.73	241
6	7	4	5	.87	357
4	7	4	5	.96	522
2	7	4	5	1.06	665
1	19	5	6	1.16	888
1/0	19	5	6	1.34	980
2/0	19	5	6	1.43	1278
3/0	19	5	6	1.53	1530
4/0	19	5	6	1.65	1852

Three-Conductor

Size A.W.G.	Strands	Thickness Insulation 64ths Inches	Thickness Sheath 64ths Inches	Approx. O.D. Inches	Approx. Wt., Lb. per 1000 Feet
14	1	3	3	.50	149
12	1	3	3	.53	192
10	1	3	4	.65	247
8	1	4	4	.77	373
6	7	4	5	.92	501
4	7	4	5	1.03	707
2	7	4	5	1.13	953
1	19	5	6	1.34	1264
1/0	19	5	6	1.43	1522
2/0	19	5	6	1.53	1794
3/0	19	5	6	1.64	2182
4/0	19	5	7	1.79	2740

2001 to 3000 Volts Single-Conductor

Size A.W.G.	Strands	Thickness Insulation 64ths Inches	Thickness Sheath 64ths Inches	Approx. O.D. Inches	Approx. Wt., Lb. per 1000 Feet
4	7	8	2	.55	264
2	7	8	3	.61	391
1	19	8	3	.68	458
1/0	19	8	3	.72	537
2/0	19	8	3	.76	631
3/0	19	8	3	.82	763
4/0	19	8	3	.88	851

Two-Conductor (Round)

Size A.W.G.	Strands	Thickness Insulation 64ths Inches	Thickness Sheath 64ths Inches	Approx. O.D. Inches	Approx. Wt., Lb. per 1000 Feet
4	7	8	6	1.24	652
2	7	8	6	1.36	903
1	19	8	6	1.44	1047
1/0	19	8	6	1.53	1230
2/0	19	8	6	1.62	1449
3/0	19	8	7	1.75	1734
4/0	19	8	7	1.87	2101

Three-Conductor

Size A.W.G.	Strands	Thickness Insulation 64ths Inches	Thickness Sheath 64ths Inches	Approx. O.D. Inches	Approx. Wt., Lb. per 1000 Feet
4	7	8	6	1.33	995
2	7	8	6	1.46	1341
1	19	8	6	1.54	1515
1/0	19	8	6	1.63	1778
2/0	19	8	7	1.76	2133
3/0	19	8	7	1.87	2561
4/0	19	8	7	2.00	3057

4001 to 5000 Volts

Single-Conductor

Size A.W.G.	Strands	Thickness Insulation 64ths Inches	Thickness Sheath 64ths Inches	Approx. O.D. Inches	Approx. Wt., Lb. per 1000 Feet
10	3	10	3	.64	327
10	3	10	3	.70	437
1	19	10	3	.74	503
1/0	19	10	3	.78	581
2/0	19	10	3	.83	617
3/0	19	10	3	.88	820
4/0	19	10	4	.94	1037

Two-Conductor (Round)

Size A.W.G.	Strands	Thickness Insulation 64ths Inches	Thickness Sheath 64ths Inches	Approx. O.D. Inches	Approx. Wt., Lb. per 1000 Feet
10	6	10	6	1.37	757
10	6	10	6	1.44	1042
1	19	10	6	1.56	1158
1/0	19	10	6	1.65	1369
2/0	19	10	7	1.77	1592
3/0	19	10	7	1.88	1885
4/0	19	10	7	1.99	2248

Three-Conductor

Size A.W.G.	Strands	Thickness Insulation 64ths Inches	Thickness Sheath 64ths Inches	Approx. O.D. Inches	Approx. Wt., Lb. per 1000 Feet
10	6	10	6	1.47	1145
10	6	10	6	1.59	1496
1	19	10	6	1.68	1680
1/0	19	10	7	1.80	2009
2/0	19	10	7	1.90	2363
3/0	19	10	7	2.01	2758
4/0	19	10	7	2.13	3273

Nos. 14 and 12, 600 volts can be furnished with 2/64 inch insulation where required.

Habirshaw Steel Tape Parkway Cable



Single-Conductor



2-Conductor—Flat

Parkway cables are used for transmission and distribution where it is preferable to bury the cables directly in the ground rather than to put them in ducts. Any kind of cable will be furnished with park cable covering, but the following types are in general use for distribution purposes.

Insulation on each conductor, Black Core rubber compound for 5000 volts or less. For higher voltage, special high voltage rubber.

Covering over insulation, rubber filled tape. Covering over tape, lead sheath.

Covering over lead sheath, asphalted jute.

Protective armor, two ungalvanized steel tapes, wound in the same direction, the outer tape covering the spaces between turns of the inner tape.

Outside covering, asphalted jute.

Parkway cables with galvanized steel tapes will be furnished when so specified.

Habirshaw Parkway Cables are made to conform to I.P.C.E.A. standards for rubber insulation and metallic coverings.

0/600 Volts

1-Conductor—Rubber Insulated

Size A.W.G. No.	No. of Strands Con-centric	Thick. Insulation 64ths In.	Thick. Lead Covering 64ths In.	Thick. Steel Tape Armor In.	FINISHED CABLE		
					Overall O.D. In.	Net Wt. Lb. per 1000 Feet	Ship. Wt. Lb. per 1000 Feet
14	1	3	3	.020	.632	430	516
12	1	3	3	.020	.649	463	556
10	1	3	3	.020	.670	507	608
8	1	4	3	.020	.727	610	732
6	1	4	3	.020	.761	696	835
4	7	4	3	.020	.831	863	1036
2	7	4	4	.020	.922	1205	1446
1	19	5	4	.020	.993	1400	1680
1/0	19	5	4	.020	1.035	1543	1851
2/0	19	5	4	.020	1.079	1715	2058
3/0	19	5	4	.020	1.156	1915	2298
4/0	19	5	5	.020	1.245	2405	2886

2-Conductor—Rubber Insulated—Flat

14	1	3	3	.020	.657x	.845	569	683
12	1	3	3	.020	.674x	.879	625	750
10	1	3	4	.020	.726x	.952	835	1002
8	1	4	4	.020	.783x1	.066	1053	1264
6	1	4	4	.020	.817x1	.134	1193	1434
4	7	4	5	.020	.918x1	.307	1718	2062
2	7	4	5	.030	1.038x1	.485	2265	2718
1	19	5	5	.030	1.109x1	.629	2672	3206
1/0	19	5	6	.030	1.182x1	.740	3245	3894
2/0	19	5	6	.030	1.227x1	.834	3605	4326
3/0	19	5	6	.030	1.278x1	.934	4036	4843
4/0	19	5	6	.030	1.336x2	.050	4550	5460

3-Conductor—Rubber Insulated

14	1	3	4	.020	.934	1015	1218
12	1	3	4	.020	.971	1112	1334
10	1	3	4	.020	1.014	1226	1471
8	1	4	4	.020	1.138	1542	1850
6	1	4	5	.020	1.243	2015	2418
4	7	4	5	.030	1.463	2800	3360
1	7	4	5	.030	1.582	3370	4044
2	19	5	6	.030	1.767	4290	5148
1/0	19	5	6	.030	1.855	4760	5712
2/0	19	5	6	.030	1.952	5300	6360
3/0	19	5	6	.030	2.063	5980	7176
4/0	19	5	7	.030	2.219	7200	8640

Nos. 14 and 12 for 600 volts can be furnished with 3/4 inch insulation where required.

Habirshaw Steel Tape Parkway Cable

Continued

1001/2000 Volts

1-Conductor—Rubber Insulated

Size A.W.G. No.	No. of Strands Con-centric	Thick. Insulation 64ths In.	Thick. Lead Covering 64ths In.	Thick. Steel Tape Armor In.	FINISHED CABLE		
					Overall O.D. In.	Net Wt. Lb. per 1000 Feet	Ship. Wt. Lb. Per 1000 Feet
14	1	5	3	.020	.694	537	644
12	1	5	3	.020	.711	571	685
10	1	5	3	.020	.732	615	738
8	1	5	3	.020	.758	666	799
6	1	6	3	.020	.823	810	972
4	7	6	4	.020	.925	1129	1355
2	7	6	4	.020	.985	1348	1618
1	19	7	4	.020	1.056	1545	1854
1/0	19	7	4	.020	1.097	1692	2028
2/0	19	7	4	.020	1.167	1863	2236
3/0	19	7	5	.020	1.250	2293	2752
4/0	19	7	5	.020	1.308	2581	3097

2001/3000 Volts

1-Conductor—Rubber Insulated

14	1	7	3	.020	.757	645	774
12	1	7	3	.020	.774	680	816
10	1	7	3	.020	.795	724	869
8	1	7	3	.020	.821	780	936
6	1	8	4	.020	.917	1072	1286
4	7	8	4	.020	.987	1277	1532
2	7	8	4	.020	1.047	1492	1790
1	19	8	4	.020	1.087	1617	1940
1/0	19	8	4	.020	1.153	1765	2118
2/0	19	8	4	.020	1.198	1934	2320
3/0	19	8	5	.020	1.281	2387	2864
4/0	19	8	5	.020	1.339	2668	3202

3001/4000 Volts

1-Conductor—Rubber Insulated

14	1	9	3	.020	.819	752	902
12	1	9	3	.020	.836	787	944
10	1	9	3	.020	.857	833	1000
8	1	9	4	.020	.914	1045	1254
6	1	9	4	.020	.948	1146	1375
4	7	9	4	.020	1.028	1352	1622
2	7	9	4	.020	1.078	1561	1873
1	19	9	4	.020	1.143	1690	2028
1/0	19	9	4	.020	1.184	1840	2208
2/0	19	9	5	.020	1.259	2247	2696
3/0	19	9	5	.020	1.312	2480	2976
4/0	19	9	5	.020	1.370	2752	3302

4001/5000 Volts

1-Conductor—Rubber Insulated

14	1	10	3	.020	.851	806	967
12	1	10	3	.020	.868	842	1010
10	1	10	4	.020	.920	1040	1248
8	1	10	4	.020	.946	1118	1342
6	1	10	4	.020	.980	1220	1464
4	7	10	4	.020	1.050	1425	1710
2	7	10	4	.020	1.135	1630	1956
1	19	10	4	.020	1.175	1765	2118
1/0	19	10	5	.020	1.247	2142	2570
2/0	19	10	5	.020	1.292	2339	2807
3/0	19	10	5	.020	1.344	2570	3084
4/0	19	10	5	.030	1.443	3008	3610

2001/3000 Volts

2-Conductor—Rubber Insulated—Flat

8	1	7	5	.020	.908x1	.276	1550	1860
6	1	7	5	.020	1.033x1	.475	2035	2442

3001/4000 Volts

2-Conductor—Rubber Insulated—Flat

8	1	9	5	.030	1.030x1	.469	1971	2365
6	1	9	5	.030	1.064x1	.538	2182	2618

4001/5000 Volts

2-Conductor—Rubber Insulated—Flat

8	1	10	5	.030	1.062x1	.533	2120	2544
6	1	10	5	.030	1.096x1	.601	2330	2796

Habirshaw Varnished Cambric Insulated Cable



Varnished Cambric Insulated Cable is used: In power stations and sub-stations for connecting machinery and apparatus of all voltages (see Apparatus Cable and Station Cable); In buildings in place of rubber insulated cable, where special reliability is desired; On vibrating structures where paper insulation cannot be used due to the crystallization of the lead sheath.

Insulation consists of varnished cambric tapes applied helically to the conductor with intervening layers of mineral base grease.

Varnished Cambric Insulated Cable is covered as follows: Apparatus cable, saturated cotton braid or varnished treated braid; Station cable, flameproof braid; Building mains, a saturated cotton braid or a rubber filled tape and one saturated cotton braid; Underground cable, lead sheath; Cable for outdoor structures, a rubber filled cotton tape, two galvanized steel tapes, and a layer of asphalted jute under and over the armor.

Upon receipt of inquiry stating conditions of service, our Engineering department will furnish additional data.

Specifications

Walls of Varnished Cambric, Inches

Single Conductor and Multiple Conductor Shielded Cables				Multiple Conductor Belted Cable			
Rated Voltage Volts Phase to Phase	Size A.W.G. or C.M.	Neutral Grounded	Neutral Ungrounded	Rated Voltage Volts Phase to Phase	Size A.W.G. or C.M.	NEUTRAL GROUNDED Cond. Belt	NEUTRAL UNGROUNDED Cond. Belt
0-600	14-8	.047	.047	0-600	14-8	.047	.047
	7-2	.063	.063		7-2	.063	.063
	1-4/0	.078	.078		1-4/0	.078	.078
	213,000-500,000	.094	.094		213,000-500,000	.094	.094
*601-1000	500,001-1,000,000	.109	.109	*601-1000	500,001-1,000,000	.094	.031
	Over 1,000,000	.125	.125		Over 1,000,000	.109	.031
	14-2	.063	.063		14-2	.063	.063
	1-4/0	.078	.078		1-4/0	.078	.078
1001-2000	213,000-500,000	.094	.094	1001-2000	213,000-500,000	.094	.094
	500,001-1,000,000	.109	.109		500,001-1,000,000	.094	.031
	Over 1,000,000	.125	.125		Over 1,000,000	.094	.031
	12-2	.078	.078		12-2	.078	.078
2001-3000	1-4/0	.094	.094	2001-3000	1-4/0	.094	.094
	213,000-500,000	.109	.109		213,000-500,000	.094	.031
	500,001-1,000,000	.109	.109		500,001-1,000,000	.094	.031
	Over 1,000,000	.125	.125		Over 1,000,000	.109	.031
*3001-4000	8-4/0	.109	.109	*3001-4000	8-4/0	.094	.047
	213,000-500,000	.125	.125		213,000-500,000	.094	.047
	500,001-1,000,000	.125	.125		500,001-1,000,000	.094	.063
	Over 1,000,000	.141	.141		Over 1,000,000	.109	.063
4001-5000	8-4/0	.141	.141	4001-5000	8-4/0	.094	.063
	213,000-1,000,000	.156	.156		213,000-1,000,000	.109	.063
	Over 1,000,000	.156	.156		Over 1,000,000	.109	.078
	8-4/0	.141	.141		8-4/0	.094	.078
5001-6000	213,000-1,000,000	.156	.156	5001-6000	213,000-1,000,000	.109	.078
	Over 1,000,000	.172	.172		Over 1,000,000	.109	.078
	8 and Larger	.156	.172		8 and Larger	.109	.078
	6 and Larger	.172	.188		6 and Larger	.109	.094
*6001-7000	6 and Larger	.188	.203	*6001-7000	6 and Larger	.125	.094
	8001-9000	.188	.231		8001-9000	.141	.094
	9001-10000	.203	.250		9001-10000	.156	.094
	10001-11000	.203	.250		10001-11000	.156	.109
11001-12000	6 and Larger	.219	.250	11001-12000	6 and Larger	.172	.109
	6 and Larger	.234	.281		6 and Larger	.188	.109
	6 and Larger	.234	.297		6 and Larger	.203	.109
	6 and Larger	.250	.328		6 and Larger	.219	.109
*14001-15000	4 and Larger	.266	.344	*14001-15000	4 and Larger	.219	.109
	4 and Larger	.281	.359		4 and Larger	.219	.109
	4 and Larger	.297	.391		4 and Larger	.219	.109
	4 and Larger	.313	.422		4 and Larger	.219	.109
19001-20000	2 and Larger	.328	.438	19001-20000	2 and Larger	.328	.438
	2 and Larger	.344	.453		2 and Larger	.344	.453
	2 and Larger	.359	.468		2 and Larger	.359	.483
	2 and Larger	.375	.499		2 and Larger	.375	.514
*22001-23000	2 and Larger	.391	.514	*22001-23000	2 and Larger	.391	.514
	2 and Larger	.406	.545		2 and Larger	.406	.545
	2 and Larger	.422	.576		2 and Larger	.422	.576
	2 and Larger	.438	.607		2 and Larger	.438	.607
27001-28000	1 and Larger	.453	.607	27001-28000	1 and Larger	.453	.607

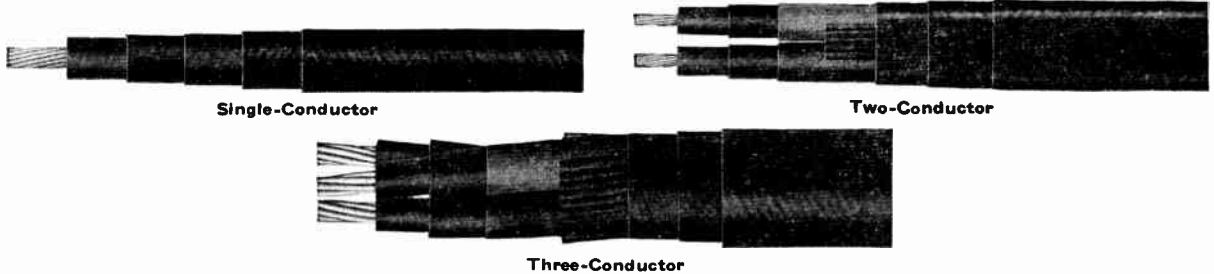
*Recommended by the N.E.M.A.—N.E.L.A. Joint Committee on voltage standardization as "preferred voltage ratings" for general apparatus.

All cables have an operating tolerance of 5% above the rated voltage except those rated at 15,000 volts and below which have no operating tolerance. All cables for three-phase circuits are rated on the conductor to conductor basis.

Unless otherwise specified, two-conductor cable will be of the round type.

Specifications listed above are recommended by I.P.C.E.A.

Habirshaw Trench Type Nometal Cable For Direct Burial in Earth



Habirshaw Nometal Cable is adapted to the following types of services:
POWER COMPANIES. Low and medium tension networks, series and multiple street lighting, underground service entrances, rural underground distribution, etc.
RAILROADS. Signalling, power and lighting for yards.
MUNICIPALITIES. Street lighting, traffic signals.
AIRPORTS. Lighting and signalling.
INDUSTRIAL PLANTS. Lighting and power in yards.

The salient feature of Habirshaw Nometal Cable is that it alone of all the non-metallic trench cables has a continuous, homogeneous, non-fibrous sheath. The Habirshaw Nometal sheath is of vulcanized oil compound, a material known for half a century for water and acid-proofness, resistance to air and ozone, oxidation and decay, and general permanence.

Habirshaw Nometal Cable can be supplied with a special covering when it is desired to install it into ducts for network systems or other special service. Complete information sent on request.

600 Volts

Single-Conductor					
Size A.W.G. No.	Thickness Insulation 64ths Inches	Sheath Mils	Inner Jute Mils	Outer Jute Mils	Approx. O.D. In.
14	3	50	38	62	.488
12	3	50	38	62	.505
10	3	50	38	62	.526
8	4	50	38	62	.584
6	4	50	38	62	.639
4	4	50	38	62	.687
2	4	50	38	62	.747
1	5	50	38	62	.818
1/0	5	50	38	62	.859
2/0	5	50	38	62	.904
3/0	5	50	38	62	.956
4/0	5	50	38	62	1.014

Two-Conductor					
Size A.W.G. No.	Thickness Insulation 64ths Inches	Sheath Mils	Inner Jute Mils	Outer Jute Mils	Approx. O.D. In.
14	3	50	38	62	.806x .518
12	3	50	38	62	.840x .535
10	3	50	38	62	.882x .550
8	4	50	38	62	.996x .613
6	4	50	38	62	1.108x .669
4	4	50	38	62	1.204x .717
2	4	50	38	62	1.324x .777
1	5	50	38	62	1.506x .878
1/0	5	50	58	62	1.588x .929
2/0	5	50	58	62	1.678x .974
3/0	5	50	58	62	1.782x1.026
4/0	5	50	58	62	1.898x1.084

Three-Conductor					
Size A.W.G. No.	Thickness Insulation 64ths Inches	Sheath Mils	Inner Jute Mils	Outer Jute Mils	Approx. O.D. In.
14	3	50	38	62	.848
12	3	50	38	62	.884
10	3	50	38	62	.930
8	4	50	38	62	1.055
6	4	50	38	62	1.175
4	4	50	38	62	1.279
2	4	50	38	62	1.408
1	5	50	58	62	1.601
1/0	5	50	58	62	1.690
2/0	5	50	58	62	1.786
3/0	5	50	58	62	1.898
4/0	5	50	58	62	2.023

3000 Volts

Single-Conductor					
Size A.W.G. No.	Thickness Insulation 64ths Inches	Sheath Mils	Inner Jute Mils	Outer Jute Mils	Approx. O.D. In.
10	7	50	38	62	.651
8	7	50	38	62	.677
6	8	50	38	62	.764
4	8	50	38	62	.812
2	8	50	38	62	.872

Two-Conductor					
Size A.W.G. No.	Thickness Insulation 64ths Inches	Sheath Mils	Inner Jute Mils	Outer Jute Mils	Approx. O.D. In.
8	7	50	38	62	1.184x .707
6	8	50	38	62	1.358x .794
4	8	50	58	62	1.494x .882

Three-Conductor					
Size A.W.G. No.	Thickness Insulation 64ths Inches	Sheath Mils	Inner Jute Mils	Outer Jute Mils	Approx. O.D. In.
8	7	50	38	62	1.257
6	8	50	58	62	1.485
4	8	50	58	62	1.588
2	8	50	58	62	1.717

5000 Volts

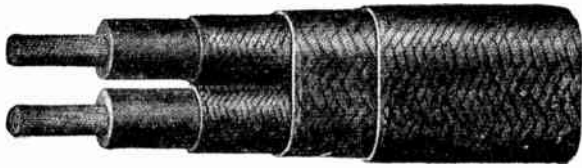
Single-Conductor					
Size A.W.G. No.	Thickness Insulation 64ths Inches	Sheath Mils	Inner Jute Mils	Outer Jute Mils	Approx. O.D. In.
10	10	50	38	62	.744
8	10	50	38	62	.771
6	10	50	38	62	.826
4	10	50	38	62	.874

Two-Conductor					
Size A.W.G. No.	Thickness Insulation 64ths Inches	Sheath Mils	Inner Jute Mils	Outer Jute Mils	Approx. O.D. In.
10	10	50	38	62	1.320x .775
8	10	50	38	62	1.372x .801
6	10	50	58	62	1.524x .897
4	10	50	58	62	1.620x .945

Three-Conductor					
Size A.W.G. No.	Thickness Insulation 64ths Inches	Sheath Mils	Inner Jute Mils	Outer Jute Mils	Approx. O.D. In.
10	10	50	38	62	1.404
8	10	50	58	62	1.500
6	10	50	58	62	1.621
4	10	50	58	62	1.724
2	10	50	58	62	1.853

Nos. 14 and 12 can be furnished with 3/16 inch insulation where required.

Habirshaw Pole and Bracket Cable 600 Volts



This type of cable is recommended for wiring between the pole base and the lighting fixture inside an ornamental pole and between the overhead circuit and the lighting fixture on a street lighting bracket; for internal or external wiring, or for any other application requiring a two-conductor, flexible cable insulated for 600 volts and less between conductors, and for higher voltages used in series street lighting between the conductor and ground.

Non-Belted—Two-Conductor

The construction consists of tinned copper conductors, rubber insulation, rubber filled tape or saturated braid on each conductor, the two insulated conductors laid parallel with one rubber filled tape and single cotton braid overall saturated with weatherproof compound and finish.

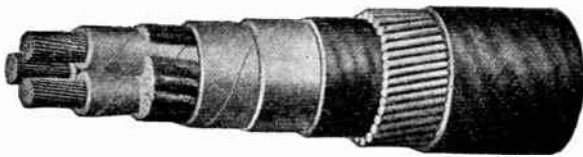
Application: For 600-volt service for plain conductors, and 0 to 600 volts, 2001 to 3000 volts, 3001 to 4000 volts service between conductors and ground.

Belted—Two-Conductor

The construction consists of tinned copper conductors, rubber insulation, rubber filled tape or saturated braid on each conductor, the two insulated conductors laid parallel, rubber belt, rubber filled tape and single braid or double braid overall, saturated with weather-proof compound and finished.

Application: For 600-volt service between conductors, and 4001 to 6000 volts, 7001 to 9000 volts, and 9001 to 10,000 volts between conductors and ground.

Habirshaw Armored Submarine Cable



Armored cable, or submarine cable, as it is sometimes called, is used under water for crossing rivers, bays and lakes.

Armored cable may be insulated with paper, varnished cambric or rubber compound. If insulated with paper or varnished cambric, a lead sheath is required. If insulated with rubber compound, a lead sheath is preferable, but may be omitted where the water, in which the cable is to be laid, does not contain injurious impurities and does not attain an unusually high temperature. If the cable is rubber insulated and not lead covered, it has a rubber filled cotton tape.

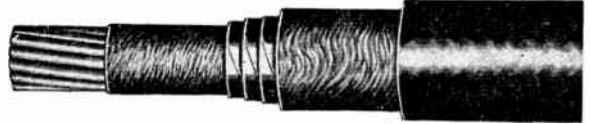
The leaded or taped core is served with jute yarn, run through hot asphalt compound, then armored with galvanized steel wires, *run through hot asphalt compound, served with two layers of yarn and finally run through asphalt compound.

The asphalt and jute over the armor may be omitted, if desired.

Upon receipt of inquiry stating the conditions of service, our Engineering Department will furnish additional data.

*Hot asphalt compound is also applied during armoring at the points where the armor wires come into contact, insuring complete sealing of the armor.

Habirshaw Braided A.V.C Power Cable Stranded Conductor 600 Volts



Insulated with felted asbestos, varnished cambric, felted asbestos and asbestos braid.

For general power wiring, either open or in conduit where heat with limited moisture or vapor is encountered. It will maintain uninterrupted service under conditions prohibitive to ordinary insulations.

Steel mills, boiler rooms, industrial plants, refineries, power plants, soaking pits, furnaces, ovens, lehrs, tender frames, and steam tunnels present many applications for this heat and moisture-resistant cable.

Finished black with a compound that will resist heat, flame, moisture, oil and corrosive vapors.

Where exposed to excessive moisture, lead covered cables should be used.

Approved by Underwriters' Laboratories.

Available in 1000, 2000, 3000, 5000, and 8000-volt construction.

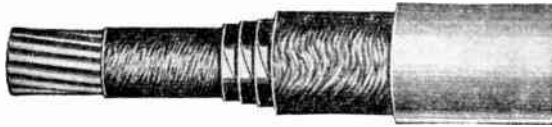
Size A.W.G.	Stranding	Bare Diam. In.	*Avg. Nom. Fin. Diam. In.	STD. SHIP. LENGTHS, Ft.		Approx. Net Wt. Lb. per 1000 Feet
				Coils	Reels	
18	7/.0151	.045	.255	1000	....	33
16	7/.0193	.058	.270	1000	....	39
14	7/.0242	.073	.285	1000	....	46
12	7/.0305	.092	.305	1000	....	59
10	7/.0385	.116	.330	500	....	76
8	7/.0486	.146	.360	500	....	100
6	7/.0612	.184	.395	500	1000	141
5	7/.0688	.206	.420	...	1000	166
4	7/.0772	.232	.445	...	1000	198
3	7/.0867	.260	.470	...	1000	238
2	7/.0974	.292	.505	...	1000	287
1	19/.0664	.332	.585	...	1000	371
1/0	19/.0745	.373	.625	...	1000	476
2/0	19/.0837	.418	.670	...	1000	571
3/0	19/.0940	.470	.720	...	1000	690
4/0	19/.1055	.528	.780	...	1000	839

Size C.M.	Stranding	Bare Diam. In.	*Avg. Nom. Fin. Diam. In.	STD. SHIP. LENGTHS, Ft.		Approx. Net Wt. Lb. per 1000 Feet
				Coils	Reels	
250,000	37/.0822	.575	.885	...	500	1017
300,000	37/.0900	.630	.940	...	500	1188
350,000	37/.0973	.681	.995	...	500	1357
400,000	37/.1040	.728	1.040	...	500	1525
450,000	37/.1103	.772	1.085	...	500	1692
500,000	37/.1162	.814	1.125	...	500	1860
550,000	61/.0950	.855	1.165	...	500	2027
600,000	61/.0992	.893	1.205	...	500	2193
650,000	61/.1032	.929	1.240	...	500	2359
700,000	61/.1071	.964	1.275	...	500	2524
750,000	61/.1109	.998	1.310	...	500	2689
800,000	61/.1145	1.031	1.345	...	500	2854
850,000	61/.1180	1.062	1.375	...	500	3018
900,000	61/.1215	1.093	1.405	...	500	3182
950,000	61/.1248	1.123	1.435	...	500	3346
1,000,000	61/.1280	1.152	1.465	...	500	3510

*A tolerance of plus or minus 5% is necessary due to variations in process of manufacture. Dielectric test voltages in kilovolts, 2.5 for sizes 18 to 8, 3.0 for 6 to 4/0 and 4.0 for 250,000 to 1,000,000 C.M.

Habirshaw Lead Sheathed A.V.C. Power Cable

**Stranded Conductor
600 Volts**



Recommended for use in conduit exposed to widely varying conditions throughout its length.

It is particularly suitable for power stations located at tidewater where ducts are sometimes flooded but other parts of the same circuit are exposed to high temperature, also where condensation is especially heavy, as in ashpits where it is the practice to wet down ashes.

Lead sheathed cable is of standard A.V.C. construction, except that a lead sheath has been substituted for the asbestos braid.

The lead sheath enables this cable to stand up successfully when completely and continually submerged.

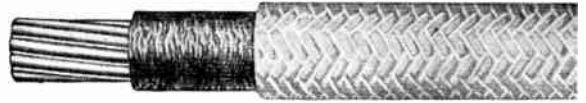
Approved by Underwriters' Laboratories

Size A.W.G.	Stranding	Bare Diam. In.	*Avg. Nom. Fin. Diam. In.	Std. Ship. Length of Reels Ft.	Approx. Net Wt. Lb. per 1000 Feet
18	7/.0151	.045	.290	1000	209
16	7/.0193	.058	.305	1000	224
14	7/.0242	.073	.320	1000	243
12	7/.0305	.092	.340	1000	267
10	7/.0385	.116	.360	1000	301
8	7/.0486	.146	.390	1000	348
6	7/.0612	.184	.430	1000	412
5	7/.0688	.206	.450	1000	454
4	7/.0772	.232	.480	1000	504
3	7/.0867	.260	.505	1000	563
2	7/.0974	.292	.570	1000	774
1	19/.0664	.332	.620	1000	890
1/0	19/.0745	.373	.660	1000	1005
2/0	19/.0837	.418	.705	1000	1144
3/0	19/.0940	.470	.755	1000	1313
4/0	19/.1055	.528	.815	1000	1516
250,000	37/.0822	.575	.955	500	2033
300,000	37/.0900	.630	1.010	500	2269
350,000	37/.0973	.681	1.060	500	2500
400,000	37/.1040	.728	1.105	500	2724
450,000	37/.1103	.772	1.150	500	2944
500,000	37/.1162	.814	1.190	500	3161
550,000	61/.0950	.855	1.265	500	3786
600,000	61/.0992	.893	1.305	500	3923
650,000	61/.1032	.929	1.340	500	4140
700,000	61/.1071	.964	1.375	500	4356
750,000	61/.1109	.998	1.410	500	4570
800,000	61/.1145	1.031	1.440	500	4783
850,000	61/.1180	1.062	1.470	500	5042
900,000	61/.1215	1.093	1.505	500	5201
950,000	61/.1248	1.123	1.535	500	5407
1,000,000	61/.1280	1.152	1.560	500	5613

*A tolerance of plus or minus 5% is necessary due to variations in process of manufacture. Dielectric test voltages in kilovolts, 2.5 for sizes 18 to 8. 3.0 for 6 to 4/0 and 4/0 for 250,000 to 1,000,000 C.M.

Habirshaw All-Asbestos Power and Rheostat Cable

**Stranded Conductor
600 Volts**



All-Asbestos Power and Rheostat Cable is recommended for open wiring at 600 volts or less where subjected to heat, fumes, oil, grease, or fire hazard, and in applications such as grid jumper connections, connections from grids to faceplates, switchboard wiring in hot locations, elevator and locomotive panel wiring.

Approved by the Underwriters' Laboratories.

Size A.W.G.	Stranding	Bare Diam. In.	*Avg. Nom. Fin. Diam. In.	Std. Ship. Lengths, Ft. Coils	Reels	Approx. Net Wt. Lb. per 1000 Feet
18	7/.0151	.045	.215	1000	....	26
16	7/.0193	.058	.230	1000	....	31
14	7/.0242	.073	.245	1000	....	38
12	7/.0305	.092	.265	1000	....	48
10	7/.0385	.116	.290	500	....	63
8	7/.0486	.146	.320	500	....	87
6	7/.0612	.184	.395	500	1000	132
5	7/.0688	.206	.420	....	1000	157
4	7/.0772	.232	.445	....	1000	188
3	7/.0867	.260	.470	....	1000	227
2	7/.0974	.292	.505	....	1000	274
1	19/.0664	.332	.605	....	1000	388
1/0	19/.0745	.373	.645	....	1000	462
2/0	19/.0837	.418	.690	....	1000	555
3/0	19/.0940	.470	.740	....	1000	672
4/0	19/.1055	.528	.800	....	1000	819
250,000	37/.0822	.575	.905	....	500	982
300,000	37/.0900	.630	.960	....	500	1219
350,000	37/.0973	.681	1.015	....	500	1317
400,000	37/.1040	.728	1.060	....	500	1482
450,000	37/.1103	.772	1.105	....	500	1647
500,000	37/.1162	.814	1.145	....	500	1812
550,000	61/.0950	.855	1.185	....	500	1977
600,000	61/.0992	.893	1.225	....	500	2142
650,000	61/.1032	.929	1.260	....	500	2307
700,000	61/.1071	.964	1.295	....	500	2470
750,000	61/.1109	.998	1.330	....	500	2631
800,000	61/.1145	1.031	1.365	....	500	2796
850,000	61/.1180	1.062	1.395	....	500	2961
900,000	61/.1215	1.093	1.425	....	500	3126
950,000	61/.1248	1.123	1.455	....	500	3291
1,000,000	61/.1280	1.152	1.485	....	500	3456

*A tolerance of plus or minus 5% is necessary due to variations in process of manufacture. Dielectric test voltage 1.5 kilovolts on all sizes.

**Habirshaw Motor Lead Wire
Single Conductor—600 Volts**



Habirshaw extra flexible motor lead wire is available with tinned copper or bare copper conductor, with or without cotton separator, insulation N.E.C. rubber and weather-proof or lacquer finish braid.

Size A.W.G.	Thickness Inches	Stranding	Coils Feet	Ship. Wt., Lb. per 1000 Ft.
18	1/32	16x30	500	14
16	1/32	26x30	500	18
14	3/64	41x30	500	32
12	3/64	65x30	500	43
10	3/64	105x30	500	55
8	3/64	133x29	250	121
6	3/64	133x27	250	136
4	3/64	133x25	250	194

Phelps Dodge Bare Copper Wire and Cable

The Bare Copper Wire and Cable listed below are manufactured by the American Copper Products Division of Phelps Dodge Copper Products Corporation at their mills, Bayway, New Jersey.

They are all made, unless otherwise specified, to the specifications of the American Society for Testing Materials which are the recognized American Standard.

Solid Conductor



Size A.W.G. No.	Diam. In.	Cap. C.M.	WEIGHT, POUNDS		
			Per 1000 Feet	Per Mile	Std. Pkg. in Coils
14	.064	4107	12.43	66	250
13	.072	5178	15.68	83	250
12	.081	6530	19.77	104	250
11	.091	8234	24.92	132	250
10	.102	10380	31.43	166	250
9	.114	13090	39.63	209	250
8	.128	16510	49.97	264	250
7	.144	20820	63.02	333	250
6	.162	26250	79.46	420	250
5	.182	33100	100.2	529	250
4	.204	41740	126.4	667	250
3	.229	52630	159.3	811	250
2	.258	66370	200.9	1061	250
1	.289	83690	253.3	1338	250

Concentric Strands



Size A.W.G.	Standard Stranding	WEIGHT, POUNDS	
		Per 1000 Feet	Per Mile
8	7	51	269
6	7	81	428
5	7	102	540
4	7	129	681
3	7	163	858
2	7	205	1082
1	7	258	1364
1/0	7	326	1720
2/0	7	411	2170
3/0	7	518	2736
4/0	19 or 7	653	3450

Size C.M.	Standard Stranding	WEIGHT, POUNDS	
		Per 1000 Feet	Per Mile
250,000	19	772	4076
300,000	19	926	4891
350,000	19	1081	5706
400,000	19	1235	6521
450,000	37	1389	7336
500,000	37	1544	8151
550,000	37	1698	8965
600,000	37	1853	9781
650,000	61	2007	10600
700,000	61	2161	11410
750,000	61	2316	12227
800,000	61	2470	13040
850,000	61	2624	13850
900,000	61	2779	14670
950,000	61	2933	15490
1,000,000	61	3088	16300

Phelps Dodge Weatherproof Wire and Cable

Triple Braid—URC Finish

Weather-resisting wires and cables (weatherproof) with the saturant and finish of similar character known to the industry as Type URC.

Solid



Size A.W.G. No.	Wt. Lb. per 1000 Feet	STANDARD PACKAGE, FT.		APPROX. NET WT., LB.	
		Reels	Coils	Reels	Coils
*14	25	.....	900	.....	23
*12	35	.....	700	.....	25
*10	53	4500	1750	239	93
9	62	.....	.....	.....	.....
*8	75	3400	2200	255	165
6	112	2860	1430	320	160
5	135	2200	1100	297	149
4	164	1700	875	279	144
3	199	1400	1400	279	279
2	260	1250	1250	325	325
1	316	990	990	313	313
1/0	407	3500	760	1425	309
2/0	502	3000	600	1506	301
3/0	629	2500	500	1572	315
4/0	767	2000	400	1534	307

*Also furnished in bundles, 100 pounds to a bundle.

Stranded



Size A.W.G. No.	Wt. Lb. per 1000 Feet	Standard Package Reels Feet	Net Wt. Lb. Std. Pkg. Reels
6	115	3000	345
5	140	2000	280
4	170	2000	340
3	206	1500	309
2	270	1250	338
1	328	1000	328
0	424	4000	1700
00	522	3500	1830
000	653	3000	1960
0000	800	2500	2000

Size C.M. No.	Wt. Lb. per 1000 Feet	Standard Package Reels Feet	Net Wt. Lb. Std. Pkg. Reels
300,000	1,174	3000	3522
350,000	1,345	2500	3363
400,000	1,553	2400	3727
450,000	1,724	2000	3448
500,000	1,894	2000	3788
600,000	2,235	1600	3576
700,000	2,650	1500	3975
750,000	2,822	1400	3951
800,000	2,992	1250	3740
900,000	3,332	1000	3332
1,000,000	3,674	1000	3674
1,250,000	4,508	800	3606
1,500,000	5,380	700	3766
1,750,000	6,193	600	3716
2,000,000	7,008	500	3504

Phelps Dodge Slow Burning Wire and Cable

Underwriters' Approved
Solid—Triple Braid

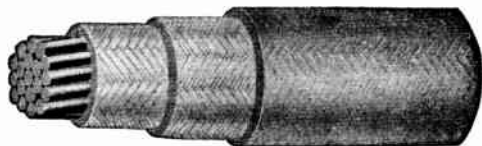


All three braids of cotton are thoroughly saturated with white fireproof compound. The compound used on the outer braid becomes very hard, but still the wire retains its flexibility. As this insulation does not deteriorate in a continued high temperature, it is especially suitable for engine and boiler rooms, furnaces, and foundries.

Size A.W.G. No.	Wt. Lb. per 1000 Feet	STANDARD PACKAGE, Ft.		APPROX. NET WT., LB.	
		Reels	Coils	Reels	Coils
14	40	....	....	....	*100
12	55	....	....	....	*100
10	80	....	....	....	*100
8	110	....	....	....	*100
6	160	....	1430	....	229
4	220	....	875	....	193
2	320	....	1250	....	400
1	385	....	990	....	361
1/0	495	3500	760	1733	376
2/0	600	3000	600	1800	360
3/0	760	2500	500	1900	380
4/0	925	2000	400	1850	370

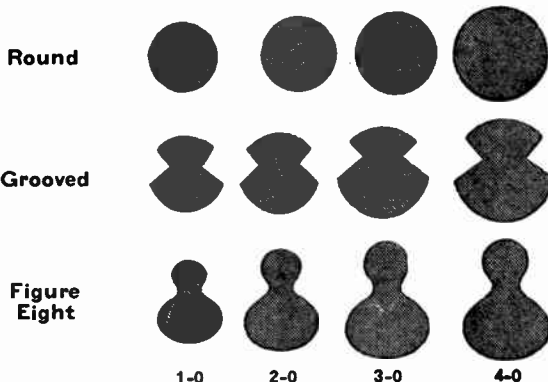
*Approximate weight per bundle.

Stranded—Triple Braid



Size A.W.G. No.	Wt. Lb. per 1000 Feet	STANDARD PACKAGE, Ft.		APPROX. NET WT., LB.	
		Reels	Coils	Reels	Coils
8	105	....	2000	....	210
6	165	....	1500	....	248
5	195	....	1250	....	181
4	230	....	1000	....	230
3	280	....	1320	....	370
2	335	....	1000	....	335
1	380	....	800	....	304
1/0	510	3500	700	1785	357
2/0	625	3000	600	1875	375
3/0	785	2500	500	1963	393
4/0	960	4000	400	3840	384

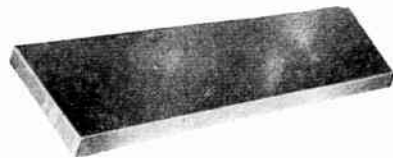
Phelps Dodge Trolley Wire



Furnished round, grooved, or in figure 8.

Size A.W.G. No.	Diameter Mils	Ohms per 1000 Feet	Ohms per Mile	Wt. Lb. per 1000 Feet	Wt. Lb. per Mile
1/0	325	.1011	.5340	319.5	1687
2/0	365	.0802	.4235	402.8	2127
3/0	410	.0636	.3359	507.9	2682
4/0	460	.0504	.2663	640.5	3382

Phelps Dodge Rectangular Copper Bus Bar



P-D Rectangular Copper Bus Bars are guaranteed to have a minimum conductivity of 98%. They are manufactured by the extrusion process, instead of being drawn assuring even temper and full straight edges.

P-D bars fully comply with the latest A.S.T.M. specification, but can be manufactured to individual specification when specified.

Size Bar Inches	Cross Section Square Inches	*Carrying Capacity Amperes	Weight Pounds per Foot
1/8x2	.250	250	.962
1/8x2 1/2	.313	313	1.205
1/4x3	.375	375	1.444
1/4x2	.500	500	1.925
1/4x2 1/2	.625	625	2.41
1/4x3	.750	750	2.89
1/4x4	1.000	1000	3.85
3/8x3	1.125	1125	4.33
3/8x4	1.500	1500	5.77

*At current density of 1000 amperes.

**Phelps Dodge Seamless Copper Bus Tubing
Bulldog Brand**



The advantages due to the inherent properties of tubular bus bars for high amperages have been a deciding factor in the increasing use of copper tubes for outdoor busses. Bulldog copper bus bar tubes have a minimum conductivity of 98%, can be bent to meet special field conditions, or flattened for terminal connections.

Uniform in temper, accurately manufactured to size by the extrusion process, Bulldog copper bus tubes lend themselves readily to clamp connectors or internal splices.

Standard Weight Copper Tubing

I.P.S. Inches	O.D. Inches	I.D. Inches	Area C.M.	Carrying Capacity Amperes	Weight Pounds Per Foot
1/2	.840	.626	317,471	317	.955
3/4	1.05	.822	423,524	424	1.30
1	1.315	1.063	633,016	633	1.82
1 1/4	1.66	1.368	851,200	851	2.63
1 1/2	1.90	1.600	1,017,900	1018	3.20
2	2.375	2.063	1,368,136	1368	4.22

Extra Heavy Copper Tubing

1/2	.840	.542	411,834	412	1.25
3/4	1.05	.736	560,804	561	1.71
1	1.315	.951	824,824	825	2.51
1 1/4	1.66	1.272	1,137,616	1138	3.46
1 1/2	1.90	1.494	1,377,964	1178	4.19
2	2.375	1.933	1,904,136	1904	5.80

**Phelps Dodge P-M-G Rigid Conduit and
EMT Tubing**

P-M-G conduit is available in both standard heavy wall rigid conduit and thin-wall electrical metallic tubing. P-M-G metal is a rustless alloy of unusually high tensile strength.

This conduit is recommended for use where severe corrosive conditions exist and is suitable for such installations as chemical plants, railroad terminals, dairy barns, textile finishing and dye plants, also installations in coastal areas or where conduit might be directly subjected to salt spray.

P-M-G conduit is fully approved by Underwriters' Laboratories and fittings of the same alloy are available from many manufacturers. Complete bulletin on request.

General Cable *Guardian Rubber Insulated Building Wire and Cable

Code Grade Type R—600 Volts
(Conforming to all Requirements of Federal Specification J-C-103)

Heat-Resisting Grade—Type RH—600 Volts
(Conforming to all Requirements of Federal Specification J-C-103)

Moisture-Resisting Grade Type RW—600 Volts
(Approved by Underwriters' Laboratories for Use in Wet Locations)

Solid Conductors, Single Braid



Size A.W.G.	No. of Strands	CONDUCTOR		Insulation Thickness Inches	Overall Diameter Inches	Wt. Lb. per 1000 Ft.
		Individual Strands Inches	Diameter Inches			
14	Solid	.....	.06408	3/64	.16	22
14	Solid	.....	.06408	3/64	.19	26
12	Solid	.....	.08081	3/64	.18	31
12	Solid	.....	.08081	3/64	.21	35
10	Solid	.....	.1019	3/64	.23	50
8	Solid	.....	.1285	3/64	.28	82
6	Solid	.....	.1620	3/64	.32	115
Stranded Conductors, Single Braid						
14	7	.0242	.0726	3/64	.17	24
14	7	.0242	.0726	3/64	.20	27
12	7	.0305	.0915	3/64	.19	33
12	7	.0305	.0915	3/64	.22	37
10	7	.0385	.116	3/64	.24	54
8	7	.0486	.146	3/64	.30	83

Solid Conductors, Double Braid or Tape and Braid



14	Solid	.....	.06408	3/64	.19	25
14	Solid	.....	.06408	3/64	.22	29
12	Solid	.....	.08081	3/64	.21	34
12	Solid	.....	.08081	3/64	.24	38
10	Solid	.....	.1019	3/64	.26	55
8	Solid	.....	.1285	3/64	.32	88
6	Solid	.....	.1620	3/64	.36	124
Stranded Conductors, Double Braid or Tape and Braid						
14	7	.0242	.0726	3/64	.20	27
14	7	.0242	.0726	3/64	.23	30
12	7	.0305	.0915	3/64	.22	37
12	7	.0305	.0915	3/64	.25	40
10	7	.0385	.116	3/64	.27	59
8	7	.0486	.146	3/64	.33	95
6	7	.0612	.184	3/64	.38	134
4	7	.0772	.232	3/64	.45	195
3	7	.0867	.260	3/64	.48	235
2	7	.0974	.292	3/64	.51	287
1	19	.0664	.332	3/64	.59	359
1/0	19	.0745	.373	3/64	.63	438
2/0	19	.0837	.418	3/64	.67	535
3/0	19	.0940	.470	3/64	.73	657
4/0	19	.1055	.528	3/64	.78	807
MCM						
250	37	.0822	.575	5/64	.86	961
300	37	.0900	.630	5/64	.92	1137
350	37	.0973	.681	5/64	.97	1308
400	37	.1040	.728	5/64	1.02	1479
500	37	.1162	.814	5/64	1.10	1814
600	61	.0992	.893	7/64	1.21	2184
700	61	.1071	.964	7/64	1.28	2515
750	61	.1109	.998	7/64	1.32	2689
800	61	.1145	1.031	7/64	1.35	2851
900	61	.1215	1.094	7/64	1.41	3174
1000	61	.1280	1.152	7/64	1.47	3515
1250	91	.1172	1.289	8/64	1.64	4399
1500	91	.1284	1.412	8/64	1.76	5243
1750	127	.1174	1.526	8/64	1.88	6060
2000	127	.1255	1.631	8/64	1.98	6881

*Trade Mark.

†Not listed in National Electrical Code.

‡Types R and RH only.

§Type RW Only.

For current carrying capacity—National Electrical Code—see index.

General Cable *Guardian Synthetic Insulated Building Wire and Cable

*Gencaseal Type T Small Diameter—600 Volts

*Gencaseal Type TW Small Diameter—600 Volts
(Approved by Underwriters' Laboratories for Use in Wet Locations)



Solid Conductors, No Outer Covering

Size A.W.G.	Insulation Thickness Inches	Overall Diameter Inches	Wt. Lb. per 1000 Feet	Size A.W.G.	Insulation Thickness Inches	Overall Diameter Inches	Wt. Lb. per 1000 Feet
14	3/64	.130	20	10	3/64	.168	41
12	3/64	.147	28	8	3/64	.227	69

Stranded Conductors, No Outer Covering

14	3/64	.140	22	3/0	5/64	.634	633
12	3/64	.158	30	4/0	5/64	.692	787
10	3/64	.182	44	MCM			
8	3/64	.246	75	250	5/64	.763	914
6	3/64	.314	119	300	5/64	.819	1084
4	3/64	.363	176	350	5/64	.870	1267
2	3/64	.423	263	500	5/64	1.002	1751
1	3/64	.496	339	600	5/64	1.112	2098
1/0	3/64	.537	416	750	5/64	1.217	2595
2/0	3/64	.583	514	900	5/64	1.314	3084
				1000	5/64	1.373	3414

*Trade-mark.

For current carrying capacity—N.E.C.—see index.

General Cable *Guardian Rubber Insulated Building Wire and Cable

Lead Sheathed Code Grade Type RL—600 Volts

(Conforming to all Requirements of Federal Specification J-C-101-b)

Lead Sheathed—Heat-Resisting

Grade Type RHL—600 Volts

(Conforming to all Requirements of Federal Specification J-C-103)

Solid Conductors



Size A.W.G.	No. of Strands	CONDUCTORS		Insulation Thickness Inches	Sheath Thickness Inches	Overall Diameter Inches	Wt. Lb. per 1000 Feet
		Individual Strands	Diam. In.				
14	Solid	.....	.06408	3/64	3/64	.22	95
12	Solid	.....	.08081	3/64	3/64	.24	115
10	Solid	.....	.1019	3/64	3/64	.32	260
8	Solid	.....	.1285	3/64	3/64	.38	320
6	Solid	.....	.1620	3/64	3/64	.47	520
4	Solid	.....	.2043	3/64	3/64	.51	620

Stranded Conductors



14	7	.0242	.0726	3/64	3/64	.22	102
12	7	.0305	.0915	3/64	3/64	.24	127
10	7	.0385	.116	3/64	3/64	.32	260
8	7	.0486	.146	3/64	3/64	.38	320
6	7	.0612	.184	3/64	3/64	.47	520
4	7	.0772	.232	3/64	3/64	.52	620
2	7	.0974	.292	3/64	3/64	.58	770
1	19	.0664	.332	3/64	3/64	.64	930
1/0	19	.0745	.373	3/64	3/64	.68	1060
2/0	19	.0837	.418	3/64	3/64	.73	1210
3/0	19	.0940	.470	3/64	3/64	.78	1370
4/0	19	.1055	.528	3/64	3/64	.84	1570
MCM							
250	37	.0822	.575	5/64	5/64	.95	2030
300	37	.0900	.630	5/64	5/64	1.00	2270
350	37	.0973	.681	5/64	5/64	1.06	2490
400	37	.1040	.728	5/64	5/64	1.10	2720
500	37	.1162	.814	5/64	5/64	1.19	3160
600	61	.0992	.893	7/64	7/64	1.33	3980
700	61	.1071	.964	7/64	7/64	1.40	4420
750	61	.1109	.998	7/64	7/64	1.43	4620
800	61	.1145	1.031	7/64	7/64	1.47	4850
900	61	.1215	1.093	7/64	7/64	1.53	5265
1000	61	.1280	1.152	7/64	7/64	1.59	5690
1250	91	.1172	1.289	8/64	7/64	1.79	6890
1500	91	.1284	1.412	8/64	7/64	1.91	7875
1750	127	.1174	1.526	8/64	7/64	2.02	8890
2000	127	.1255	1.631	8/64	7/64	2.13	9850

*Trade-mark.

†Not listed in National Electrical Code.

For current carrying capacity—N.E.C.—see index.

General Cable *Guardian Rubber Insulated Building Wire and Cable

Code Grade Type RD—600 Volts
(Conforming to all Requirements of Federal Specification J-C-103)

Heat-Resisting Grade Type RHD—600 Volts
(Conforming to all Requirements of Federal Specification J-C-103)

Moisture-Resisting Grade Type RWD—600 Volts
(Approved by Underwriters' Laboratories for Use in Wet Locations)



Solid Conductors, Double Braid

Size A.W.G.	No. of Strands	CONDUCTORS		Insulation Thickness Inches	Overall Diameter Inches	Wt. Lb. per 1000 Ft.
		Diameter Individual Strands Inches	Diameter Inches			
†14	Solid	.....	.06408	3/64	.35x.19	54
14	Solid	.....	.06408	3/64	.41x.22	62
†12	Solid	.....	.08081	3/64	.39x.21	66
12	Solid	.....	.08081	3/64	.45x.24	82
10	Solid	.....	.1019	3/64	.49x.26	114
8	Solid	.....	.1285	3/64	.60x.32	174
6	Solid	.....	.1620	3/64	.68x.36	285

Stranded Conductors, Double Braid

†14	7	.0242	.0726	3/64	.37x.20	56
14	7	.0242	.0726	3/64	.43x.23	64
†12	7	.0305	.0915	3/64	.41x.22	68
12	7	.0305	.0915	3/64	.47x.25	84
10	7	.0386	.116	3/64	.52x.27	124
8	7	.0486	.146	3/64	.64x.33	186
6	7	.0612	.184	3/64	.72x.38	295

Lead Sheathed Code Grade Type RDL—600 Volts
(Conforming to all Requirements of Federal Specification J-C-103)

Lead Sheathed Heat-Resisting Grade Type RHDL—600 Volts
(Conforming to all Requirements of Federal Specification J-C-103)



Solid Conductors

Size A.W.G.	No. of Strands	CONDUCTORS		Insulation Thickness In.	Sheath Thickness In.	Overall Diam. In.	Wt. Lb. per 1000 Feet
		Diameter Individual Strands In.	Diam. In.				
14	Solid	.....	.06408	3/64	3/64	.38x.22	166
12	Solid	.....	.08081	3/64	3/64	.45x.27	297
10	Solid	.....	.1019	3/64	3/64	.55x.32	410
8	Solid	.....	.1285	3/64	3/64	.66x.38	540
†6	Solid	.....	.1620	3/64	3/64	.81x.47	852
†4	Solid	.....	.2043	3/64	3/64	.91x.52	1045
14	7	.0242	.....	3/64	3/64	.40x.23	177
12	7	.0305	.....	3/64	3/64	.47x.28	316

Stranded Conductors

10	7	.0385	.116	3/64	3/64	.55x.32	410
8	7	.0486	.146	3/64	3/64	.66x.38	540
6	7	.0612	.184	3/64	3/64	.81x.47	852
4	7	.0772	.232	3/64	3/64	.91x.52	1045
2	7	.0974	.292	3/64	3/64	1.03x.58	1310
1	19	.0664	.332	5/64	5/64	1.19x.67	1860
1/0	19	.0745	.373	5/64	5/64	1.27x.72	2120
2/0	19	.0837	.418	5/64	5/64	1.36x.76	2395
3/0	19	.0940	.470	5/64	5/64	1.47x.81	2730
4/0	19	.1055	.528	5/64	5/64	1.58x.87	3120

*Trademark.

†Types RD and RHD only.

‡Not listed in National Electrical Code.

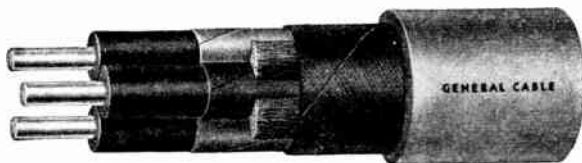
For current carrying capacity—National Electrical Code—see index.

General Cable *Guardian Rubber Insulated Building Wire and Cable

Lead Sheathed Code Grade Type RML—600 Volts
(Conforming to all Requirements of Federal Specification J-C-103)

Lead Sheathed Heat-Resisting Grade Type RHML—600 Volts
(Conforming to all Requirements of Federal Specification J-C-103)

Solid Conductors



Size A.W.G.	No. of Strands	CONDUCTORS		Insulation Thickness In.	Sheath Thickness In.	Overall Diam. In.	Wt. Lb. per 1000 Feet
		Diameter Individual Strands In.	Diam. In.				
14	Solid	..	.06408	3/64	3/64	.51	485
12	Solid	..	.08081	3/64	3/64	.57	543
10	Solid	..	.1019	3/64	3/64	.65	743
8	Solid	..	.1285	3/64	3/64	.77	978
†6	Solid	..	.1620	3/64	3/64	.88	1,378
†4	Solid	..	.2043	3/64	3/64	1.03	1,704

Stranded Conductors



14	7	.0242	.0726	3/64	3/64	.52	508
12	7	.0305	.0915	3/64	3/64	.60	569
10	7	.0385	.116	3/64	3/64	.68	770
8	7	.0486	.146	3/64	3/64	.81	960
6	7	.0612	.184	3/64	3/64	.93	1,470
4	7	.0772	.232	3/64	3/64	1.09	1,780
2	7	.0974	.292	3/64	3/64	1.16	2,240
1	19	.0664	.332	5/64	5/64	1.33	2,980
1/0	19	.0745	.373	5/64	5/64	1.42	3,340
2/0	19	.0837	.418	5/64	5/64	1.52	3,830
3/0	19	.0940	.470	5/64	5/64	1.63	4,370
4/0	19	.1055	.528	5/64	5/64	1.79	5,430
MCM							
250	37	.0822	.575	6/64	7/64	1.96	6,320
300	37	.0900	.630	6/64	7/64	2.08	7,100
350	37	.0973	.681	6/64	7/64	2.19	7,830
400	37	.1040	.728	6/64	8/64	2.32	9,130
500	37	.1162	.814	6/64	8/64	2.50	10,550

*Trade mark.

†Not listed in National Electrical Code.

Either tape or braid will be furnished on individual conductors.

For current carrying capacity—National Electrical Code—see index.

General Cable *Guardian Rubber Insulated Fixture Wire

Code Grade Underwriters' Type RF—300 Volts—1/64-Inch Insulation

600 Volts—3/64-Inch Insulation
Solid or Stranded Conductors, Single Braid

Size A.W.G.	Insulation Thickness Inches	Overall Diameter Inches	Wt. Lb. per 1000 Ft.
†20	1/64	.09	6
†20	2/64	.12	10
18	1/64	.11	9
18	2/64	.13	12
†16	1/64	.12	12
16	2/64	.14	16

*Trade-mark.

†Does not carry Underwriters' labels.

General Cable Romex* Non-metallic Sheathed Cable

600 Volts



Inspected and labeled by Underwriters' Laboratories.

Applications. New and old house wiring for all circuits beyond entrance; wiring boats and trailers; for extensions to new outlets; for circuits for radios and refrigerators.

Size A.W.G. No.	No. Conductors	Type of Conductors	Shape of Cable	Over-all Diam. In.	Feet per Coil	NET WT. LB. PER 1000 FEET	
						With Ground Wire	Without Ground Wire
14	2	Solid	Oval	.590 x .330	250	108	104
14	3	Solid	Round	.630	200	175	165
14	4	Solid	Round	.690	200	352	342
12	2	Solid	Oval	.620 x .350	200	135	125
12	3	Solid	Round	.660	200	210	200
12	4	Solid	Round	.730	200	404	394
10	2	Solid	Oval	.670 x .370	200	175	155
10	3	Solid	Round	.720	200	270	250
10	4	Solid	Round	.790	200	497	477
8	2	7 Strand	Oval	.920 x .510	125	260	240
8	3	7 Strand	Round	.990	125	435	400
8	4	7 Strand	Round	1.100	125	922	888
6	2	7 Strand	Oval	1.010 x .560	125	410	368
6	3	7 Strand	Round	1.090	125	630	576
6	4	7 Strand	Round	1.200	125	1136	1082
4	2	7 Strand	Oval	1.110 x .610	125	560	488
4	3	7 Strand	Round	1.190	125	860	776
4	4	7 Strand	Round	1.320	125	1550	1470

Also supplied with thermoplastic insulation under the name **Genlex**.

General Cable Enterite* Service Drop Cable

150-600 Volts

2-Conductor (Parallel)



Designed for aerial installation between pole and building.

Size A.W.G. No.	INSULATED CONDUCTORS		Insulation Thickness In.	UNINSULATED NEUTRAL Size A.W.G.	Over-all Diam. In.	Std. Pkg. Feet per Reel	Ship. Wt. Lb. per 1000 Feet
	Type	Type					
12	2	Solid	3/64	..	.290 x .505	1000	167
12	2	Stranded	3/64	..	.301 x .527	1000	172
10	2	Solid	3/64	..	.311 x .547	1000	200
10	2	Stranded	3/64	..	.325 x .575	1000	210
8	2	Solid	4/64	..	.369 x .663	1000	280
8	2	Stranded	4/64	..	.386 x .697	1000	290
†6	2	Solid	4/64	..	.402 x .729	1000	364
6	2	Stranded	4/64	..	.424 x .773	1000	376
4	2	Stranded	4/64	..	.472 x .869	1000	499
2	2	Stranded	4/64	..	.532 x .989	1000	708

3-Conductor (Twisted)



12	2	Solid	3/64	12	.545	1000	217
12	2	Stranded	3/64	12	.570	1000	224
10	2	Solid	3/64	10	.585	1000	274
10	2	Stranded	3/64	10	.610	1000	284
8	2	Solid	4/64	10	.700	1000	384
8	2	Stranded	4/64	10	.735	1000	399
8	2	Solid	4/64	8	.705	1000	404
8	2	Stranded	4/64	8	.745	1000	419
†6	2	Solid	4/64	8	.770	1000	640
6	2	Stranded	4/64	8	.815	1000	655
†6	2	Solid	4/64	6	.780	1000	670
6	2	Stranded	4/64	6	.825	1000	687
4	2	Stranded	4/64	6	.915	1000	825
4	2	Stranded	4/64	4	.930	1000	870
2	2	Stranded	4/64	2	1.090	1000	1195

*Trade-mark.

†Not listed in National Electrical Code.

General Cable Service Drop Cable

Type SD—150 Volts



For use in continuous overhead connection between pole and meter, switch or service equipment. Designed for circuits not exceeding 150 volts to ground. Where used as service entrance cable, cable must be installed in conduit.

2-Conductor (Concentric)

Size A.W.G. No.	INSULATED CONDUCTORS		Insulation Thickness In.	UNINSULATED NEUTRAL (Cover-age Per Cent)		Over-all Diam. In.	Std. Pkg. Feet per Reel	Ship. Wt. Lb. per 1000 Feet
	Type	Type		Size A.W.G.	No. Strands			
12	1	Solid	3/64	12	85	.310	1000	110
12	1	Stranded	3/64	12	85	.320	1000	110
10	1	Solid	3/64	10	85	.330	1000	170
10	1	Stranded	3/64	10	85	.350	1000	170
8	1	Stranded	4/64	10	85	.390	1000	230
8	1	Solid	4/64	8	85	.400	1000	240
8	1	Stranded	4/64	8	85	.420	1000	240
†6	1	Solid	4/64	8	85	.440	1000	300
6	1	Stranded	4/64	8	85	.460	1000	300
†6	1	Solid	4/64	6	85	.460	1000	310
6	1	Stranded	4/64	6	85	.480	1000	310
4	1	Stranded	4/64	6	85	.530	1000	430
4	1	Stranded	4/64	4	85	.540	1000	440
2	1	Stranded	4/64	4	85	.610	1000	600
2	1	Stranded	4/64	2	85	.630	1000	610

3-Conductor (Concentric)

12	2	Solid	3/64	12	65	.340 x .500	1000	190
12	2	Stranded	3/64	12	65	.350 x .520	1000	190
10	2	Solid	3/64	12	50	.360 x .540	1000	220
10	2	Solid	3/64	10	65	.370 x .540	1000	230
10	2	Stranded	3/64	10	65	.380 x .570	1000	230
8	2	Stranded	4/64	10	50	.460 x .690	1000	320
8	2	Solid	4/64	8	65	.430 x .650	1000	340
8	2	Stranded	4/64	8	65	.450 x .690	1000	340
†6	2	Solid	4/64	8	50	.480 x .740	1000	420
6	2	Stranded	4/64	8	50	.500 x .790	1000	420
†6	2	Solid	4/64	6	65	.490 x .750	1000	460
6	2	Stranded	4/64	6	65	.510 x .800	1000	460
4	2	Stranded	4/64	6	50	.570 x .890	1000	580
4	2	Stranded	4/64	4	65	.580 x .910	1000	640
2	2	Stranded	4/64	4	50	.650 x 1.02	1000	860
2	2	Stranded	4/64	2	65	.660 x 1.04	1000	960

†Not listed in National Electrical Code.

Percentage of the surface of the underlying core which is covered by the concentric uninsulated neutral conductor, subject to a tolerance of plus or minus 5%.

Peerless* Type SD—150 Volts



A cable of concentric uninsulated neutral construction for use in continuous overhead connection between pole and meter, switch or service equipment. Designed for circuits not exceeding 150 volts to ground. Where used as service entrance cable, cable must be installed in conduit.

Has a weather-resisting outer covering of asphalt saturated Peerless felt in which the concentric uninsulated neutral conductor is embedded and gives added mechanical protection to the cable.

2-Conductor (Concentric)

Size A.W.G. No.	INSULATED CONDUCTORS		Insulation Thickness In.	UNINSULATED NEUTRAL (No. Strands)		Over-all Diam. In.	Std. Pkg. Feet per Reel	Ship. Wt. Lb. per 1000 Feet
	Type	Type		Size A.W.G.	No. Strands			
8	1	Solid	4/64	10	12	.40	1000	220
8	1	Solid	4/64	8	12	.41	1000	240
6	1	Stranded	4/64	8	12	.47	1000	290
6	1	Stranded	4/64	6	12	.48	1000	310

3-Conductor (Concentric)

8	2	Solid	4/64	10	12	.44 x .65	1000	330
8	2	Solid	4/64	8	12	.45 x .66	1000	350
6	2	Stranded	4/64	8	12	.51 x .77	1000	450
6	2	Stranded	4/64	6	12	.52 x .78	1000	470

*Trade-mark.

Approved construction requires tape over rubber insulation. Other conductor sizes and multiples upon application.

**General Cable Service Entrance Cable
Type SE (Style U)—150 Volts**



This cable does not require conduit protection where extending along exterior or entering buildings.

Size A.W.G. No.	INSULATED CONDUCTORS		Insulation Thick- ness In.	UNINSULATED —NEUTRAL— II Cover- age Per Cent		Over- all Diam. In.	Std. Pkg. Feet per Coil	Ship. Wt. Lb. per 1000 Feet
	Type			Size A.W.G.	Per Cent			
2-Conductor (Concentric)								
12	1	Solid	3/64	12	85	.36	250	90
12	1	Stranded	3/64	12	85	.37	250	90
10	1	Solid	3/64	10	85	.38	250	110
10	1	Stranded	3/64	10	85	.40	250	110
8	1	Stranded	3/64	10	85	.47	250	180
8	1	Solid	1/4	8	85	.45	250	200
8	1	Stranded	3/64	8	85	.47	250	200
†6	1	Solid	3/64	8	85	.49	250	240
†6	1	Stranded	3/64	8	85	.51	250	240
6	1	Solid	3/64	6	85	.51	250	270
6	1	Stranded	3/64	6	85	.53	250	270
4	1	Stranded	3/64	6	85	.58	200	350
4	1	Stranded	3/64	4	85	.60	200	400
2	1	Stranded	3/64	4	85	.66	150	520
2	1	Stranded	3/64	2	85	.68	150	590
3-Conductor (Concentric)								
12	2	Solid	3/64	12	65	.39x .52	250	150
12	2	Stranded	3/64	12	65	.40x .55	250	150
10	2	Solid	3/64	12	50	.42x .58	250	200
10	2	Solid	3/64	10	65	.43x .58	250	210
10	2	Stranded	3/64	10	65	.44x .61	250	210
8	2	Stranded	3/64	10	50	.49x .71	250	280
8	2	Solid	3/64	8	65	.49x .70	250	300
8	2	Stranded	3/64	8	65	.51x .74	250	300
†6	2	Solid	3/64	8	50	.53x .77	200	380
†6	2	Stranded	3/64	8	50	.55x .82	200	380
6	2	Solid	3/64	6	65	.54x .79	150	420
6	2	Stranded	3/64	6	65	.56x .84	150	420
4	2	Stranded	3/64	6	50	.61x .93	150	550
4	2	Stranded	3/64	4	65	.62x .94	150	610
2	2	Stranded	3/64	4	50	.68x1.06	100	800
2	2	Stranded	3/64	2	65	.70x1.08	100	900

Type SE (Style A)—150 Volts



Has light steel armor over concentric neutral.

Size A.W.G. No.	INSULATED CONDUCTORS		Insulation Thick- ness In.	UNINSULATED —NEUTRAL— II Cover- age Per Cent		Over- all Diam. In.	Std. Pkg. Feet per Coil	Ship. Wt. Lb. per 1000 Feet
	Type			Size A.W.G.	Per Cent			
2-Conductor (Concentric)								
12	1	Solid	3/64	12	85	.39	250	120
12	1	Stranded	3/64	12	85	.40	250	120
10	1	Solid	3/64	10	85	.42	250	130
10	1	Stranded	3/64	10	85	.43	250	130
8	1	Stranded	3/64	10	85	.50	250	220
8	1	Solid	3/64	8	85	.47	250	240
8	1	Stranded	3/64	8	85	.50	250	240
†6	1	Solid	3/64	8	85	.52	250	290
†6	1	Stranded	3/64	8	85	.54	250	290
6	1	Solid	3/64	6	85	.54	250	320
6	1	Stranded	3/64	6	85	.56	250	320
4	1	Stranded	3/64	6	85	.61	200	400
4	1	Stranded	3/64	4	85	.63	200	450
2	1	Stranded	3/64	4	85	.69	150	570
2	1	Stranded	3/64	2	85	.71	150	650
3-Conductor (Concentric)								
12	2	Solid	3/64	12	65	.42x .54	250	200
12	2	Stranded	3/64	12	65	.44x .57	250	200
10	2	Solid	3/64	12	50	.44x .57	250	230
10	2	Solid	3/64	10	65	.46x .60	250	250
10	2	Stranded	3/64	10	65	.47x .62	250	250
8	2	Stranded	3/64	10	50	.53x .74	250	340
8	2	Solid	3/64	8	65	.52x .71	250	360
8	2	Stranded	3/64	8	65	.54x .75	250	360
†6	2	Solid	3/64	8	50	.56x .78	200	450
†6	2	Stranded	3/64	8	50	.58x .84	200	450
6	2	Solid	3/64	6	65	.57x .81	150	490
6	2	Stranded	3/64	6	65	.59x .85	150	490
4	2	Stranded	3/64	6	50	.64x .95	150	630
4	2	Stranded	3/64	4	65	.65x .96	150	690
2	2	Stranded	3/64	4	50	.71x1.08	100	890
2	2	Stranded	3/64	2	65	.73x1.10	100	990

†Not listed in National Electrical Code.
Percentage of the surface of the underlying core which is covered by the concentric uninsulated neutral conductor, subject to a tolerance of plus or minus 5%.

**General Cable Synthetic Rubber Insulated
Tree Wire**

0-8000 Volts

Tree wire constructions consist of a synthetic rubber or rubber-insulated conductor having fibrous coverings or non-metallic sheath to withstand the abrasive action of tree limbs.

The use of tree wire on overhead distribution systems where heavy tree growth is encountered avoids re-routing of lines, or when alternate routes are not available, eliminates expense and other disadvantages of tree trimming.

Tree wire is made in single conductor form only, and, since it is normally installed on insulators, has lighter insulation walls than the usual standards for rubber insulated wire and cable. When tree wire is used for other purposes, and not supported on insulators, standard insulation walls should be used.

A.S.A. Type



Has lead alloy coated, medium hard, solid copper conductors for No. 4 A.W.G. and smaller; stranded for larger sizes.

Insulation, A.S.T.M. Performance grade synthetic rubber or rubber compound.

Tape and hawser cord braid coverings.

Saturant is of special synthetic compound (Barkhide treatment).

Pitch and mica finish.

***Barkhide**



An excellent tree wire, having in addition to the superior electrical properties of General Cable tree wire compound, a high degree of abrasion resistance.

Has lead-alloy coated, medium hard, solid copper conductors for No. 4 A.W.G. and smaller; stranded for larger sizes.

Insulation, General Cable tree wire compound.

Tape, Rohide fiber armor covering not less than .035 inch in thickness, and closely woven hawser cord braid.

Saturant is of special synthetic compound (Barkhide treatment).

Pitch and mica finish.

Special Thicknesses of Insulation

Supported on Insulators—I.P.C.E.A.

Rated Voltage Phase to Phase	Conductor Size A.W.G.	INSULATION THICKNESS —INCHES—		Open Circuit Voltage	Conductor Size A.W.G.	Series Street Lighting Circuits		
		Grounded Neutral Circuits	Unground- ed Neutral Circuits			Conductor Size A.W.G.	INSULATION THICKNESS —INCHES—	
							With- out Pro- tec- tors	With Pro- tec- tors
0-600	10	3/64	3/64	0-600	8-4	3/64	3/64	
	8-2	4/64	5/64		...	...	...
	1-4/0	5/64	5/64		...	...	...
601-1000	8	3/64	3/64	601-1000	8	3/64	3/64	
	7-4/0	5/64	5/64		7-4	5/64	5/64	
1001-5000	8-4/0	5/64	5/64	1001-5000	8-4	5/64	5/64	
5001-6000	8-4/0	6/64	6/64	5001-6000	8-4	6/64	6/64	
6001-7000	8-4/0	7/64	7/64	6001-7000	8-4	7/64	7/64	
7001-8000	8-4/0	8/64	8/64	7001-8000	8-4	8/64	8/64	

*Trade-mark.

When installed without insulators, insulation thicknesses must be in accordance with the standards for series street lighting cables and for power cables. If the voltage exceeds 2000 volts on tree wire installed without insulators, shielding recommendations should be obtained from our nearest office.

Stantree Tree Wire Power Cables



A loom-woven tree wire with an abrasion resistance nearly twice that of A.S.A. type. Insulation is a special tree wire compound with high dielectric strength, low dielectric constant, and excellent aging characteristics.

Conductors are tinned medium hard copper, solid for No. 4 A.W.G. and smaller, and stranded for larger sizes.

Coverings of tape and heavy loom of hard twisted paper twine and cotton cord. Special synthetic compound saturant, Barkhide treatment. Pitch and mica finish.

For Power Circuits—Supported on Insulators

Rated Voltage Phase to Phase	CONDUCTORS, SOLID —OR CONCENTRIC STRANDED—		Diam. Individual Strands In.	Insulation Thick. In.	Overall Diam. In.	Std. Pkg. Ft.	Wt., Lb. per 1000 Ft.
	Size A.W.G.	No. Strands					
0-600 Grounded or Ungrounded	10	Solid	.1019	$\frac{3}{64}$	.37	1000	89
	8	Solid	.1285	$\frac{4}{64}$	.44	1000	123
	6	Solid	.1620	$\frac{5}{64}$	.58	1000	245
	4	Solid	.2013	$\frac{5}{64}$	.62	1000	302
1001-5000 Grounded or Ungrounded	2	7	.0974	$\frac{4}{64}$	.72	1000	418
	1	19	.0661	$\frac{3}{64}$	.79	1000	522
	1/0	19	.0745	$\frac{5}{64}$	.83	1000	603
	2/0	19	.0837	$\frac{5}{64}$	.88	1000	705
	3/0	19	.0940	$\frac{5}{64}$	.93	1000	839
	4/0	19	.1055	$\frac{5}{64}$	.99	1000	983
	8	Solid	.1285	$\frac{5}{64}$	.59	1000	225
	6	Solid	.1620	$\frac{5}{64}$	.62	1000	261
	4	Solid	.2013	$\frac{5}{64}$	.66	1000	323
	2	7	.0974	$\frac{5}{64}$	.75	1000	436

For Series Street Lighting Circuits Supported on Insulators

Open Circuit Voltage	SOLID CONDUCTORS		*Insulation Thick., In.	Overall Diam. In.	Std. Pkg. Ft.	Wt., Lb. per 1000 Feet
	Size A.W.G.	Diam., In.				
1001-5000	8	.1285	$\frac{5}{64}$	.59	1000	225
	6	.1620	$\frac{5}{64}$	.62	1000	261
5001-6000	8	.1285	$\frac{6}{64}$	.62	1000	240
	6	.1620	$\frac{6}{64}$	.65	1000	280
7001-8000	8	.1285	$\frac{8}{64}$	.68	1000	270
	6	.1620	$\frac{8}{64}$	.71	1000	313

*Based on use without protectors.

General Cable Non-Metallic Underground Cable

Style GRS—0-15,000 Volts

Similar in construction to Style PRS except that conductor insulation is Gencorone. Furnished for a variety of special applications in voltage ratings up to 15,000 volts. Principally intended for use at voltages above those permitted for Style PRS, that is, between 3000 and 15,000 volts.

Information on the construction and application of cable may be obtained on application.

Recommended Shielding Practice for Cable

Shielding is recommended where the 3-phase (line to line) operating voltage exceeds the following values:

	Single Conductor Cable Volts	Multi-Conductor Cable Volts
(1) If protected against accidental direct contact by persons:		
(a) Duct or Direct Earth Installation:		
Neutral Grounded.....	†5000	†3000
Neutral Ungrounded.....	†3000	†3000
(b) Direct Connection to Overhead Lines...	†2000	†2000
(2) Not Protected Against Accidental Direct Contact by Persons.....	2000	2000

*Trade-mark.

†All non-metallic cables operated above 2000 volts should be shielded, except those which fulfill the three conditions—(1) not connected to overhead lines which are exposed to lightning; (2) completely buried directly in earth; (3) fully protected against accidental contact.

‡If connected to overhead lines exposed to lightning, shielding is advisable regardless of the operating voltage.

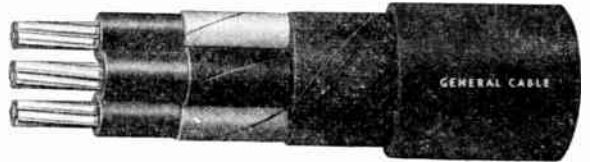
General Cable Non-Metallic Underground Cable

0-15,000 Volts

Synthetic rubber or rubber insulated nonmetallic cable of Neoprene jacketed type. For non-portable uses, such as in underground ducts or direct installation in the ground.

Neoprene jacket has high resistance to deterioration from moisture, earth acids, alkalies, or other earth chemicals, and in cinder fills, railway ballast, and other locations having a distinctly acid character. Also used in mines, for underground distribution for both primary and secondary, for secondary alternating current networks, for underground service entrances, and for many general purposes where light weight and high corrosion resistance is desired.

Style PRS—0-3000 Volts



Includes single and multi-conductor cable.

Single Conductor cable which does not require shielding has insulation and jacket firmly bonded together. May include a separating tape between the insulation and jacket. Shielded single conductor cable has a separating tape and shielding tape between insulation and jacket.

Multiple Conductor cable has a tape over each insulated conductor, copper shielding tapes when required, fillers where necessary to round out the construction and a tough Supersheath jacket overall.

Conductor insulation is a moisture-resisting Performance Grade compound in accordance with A.S.T.M. Specification D755 latest issue, of the thickness specified.

The Neoprene jacket conforms to A.S.T.M. Specification D752, latest issue.

General Cable Series Street Lighting Underground Cable

0-10,000 Volts

For underground installation either in ducts or directly in the earth. Supplied in a variety of types. Usual sizes are 8 and 6 A.W.G.; other sizes furnished if required.

Conductors for all types are lead-alloy coated soft or annealed copper, usually solid, and comply with all requirements of A.S.T.M. Specification B189, latest issue.

Lead Sheathed Parkway Cable



Insulated with Gencorone to standard thickness; enclosed in lead sheath over which protective coverings may be applied.

Dimensions and weights are given for the following:

- (1) Lead sheath with no additional covering, for use in ducts and conduit.
- (2) Lead sheath with one or two servings of jute overall, for direct earth installation. As an alternate to the jute covering, duck tape can be supplied.
- (3) Lead sheath with jute, double flat steel tape armor, and jute overall for direct earth installation. This type should not be used when current exceeds 12 amperes.

Open Circuit Voltage	SOLID CONDUCTORS		Insulation Thick. In.	Lead Sheath Thick. In.	Over- all Diam. In.	Lead Sheath		Lead With Two Jute Servings		Lead With Jute, Double Steel Tape Armor, Jute Overall	
	Size A.W.G.	Diam. In.				Wt. Lb. per 1000 Ft.	Over- all Diam. In.	Wt. Lb. per 1000 Ft.	Over- all Diam. In.	Wt. Lb. per 1000 Ft.	
4001-6000	8	.1285	10/64	4/64	.60	679	.76	764	.95	1118	
	6	.1620	10/64	4/64	.63	754	.79	853	.98	1220	
7001-8000	8	.1285	12/64	4/64	.66	774	.82	875	1.01	1267	
	6	.1620	12/64	4/64	.69	852	.85	962	1.04	1368	

Construction data for cables of other sizes and voltage ratings will be supplied on request.

**General Cable Series Street Lighting
Underground Cable**
0-10,000 Volts
Non-Metallic Sheathed Type Cable



Non-Metallic series street lighting cable is insulated to the standard thickness required for the operating voltage, in accordance with table on preceding page. Shielding tapes are required when the maximum open circuit voltage will exceed 6000 volts. A Neoprene jacket is applied overall. This cable may be used in ducts or installed directly in earth.

Concentric Type Cable

Concentric types for series street lighting cable have an inner insulated conductor and an outer uninsulated conductor, the latter serving as a shield.

These types are designed primarily for power circuits but are well suited to series street lighting use where a non-leaded cable is required. Description of this cable will be found under Concentric Trenchlay.

Gencorone Type Cable

Non-leaded series street lighting cable having Gencorone insulation is supplied either for duct installation or for direct earth installation. Gencorone insulation is suitable for this type of service because of its high dielectric strength and corona resistance. Gencorone can be supplied with Ruralay cable or in the following forms:

FOR DUCT INSTALLATION. Conductors insulated with Gencorone, covered with Gencorone tape, and enclosed in heavy braid. When the maximum open circuit voltage exceeds 6000 volts, shielding is recommended.

FOR DIRECT EARTH INSTALLATION. Conductors insulated with Gencorone, covered with Gencorone tape, jute bedding, double steel tape armor, and jute serving overall.

**General Cable Synthetic Rubber or Rubber
Insulated Ornamental Pole and Bracket
Cable**
0-10,000 Volts

Used for interior wiring of ornamental poles which are fed by underground cable, or for the exterior wiring of pole type bracket fixtures.

Standard pkg., 1000 feet on reel unless otherwise ordered.

Twin Type

Two insulated and braided conductors laid parallel and enclosed in overall tape and braid. Saturated and filled with weatherproof compound and coated with special arc cable finishing compound.

Open Circuit Transformer Voltage	CONDUCTORS			INSULATION THICKNESS INCHES			Major Overall Diam.	Net Wt. per 1000 Ft.
	Size A.W.G.	No. Strands	Diam. In.	On Conductors	Belt	Total		
0-600	10	19	.117	3/64	...	3/64	.57	198
	8	37	.148	4/64	...	4/64	.69	260
	6	37	.186	4/64	...	4/64	.77	293
2001-3000	10	19	.117	6/64	...	6/64	.75	234
	8	37	.148	6/64	...	6/64	.82	291
	6	37	.186	7/64	...	7/64	.97	330
3001-4000	10	19	.117	7/64	...	7/64	.82	243
	8	37	.148	7/64	...	7/64	.88	302
	6	37	.186	8/64	...	8/64	1.03	351

Twin Belted Type



Two insulated and braided conductors laid parallel, enclosed in a close fitting belt of insulating compound and covered with an overall tape and braid. The overall braid is saturated and filled with weatherproof compound and coated with special arc cable finishing compound.

The maximum permissible voltage between conductors is 600 volts.

Open Circuit Transformer Voltage	CONDUCTORS			INSULATION THICKNESS INCHES			Major Overall Diam.	Net Wt. per 1000 Ft.
	Size A.W.G.	No. Strands	Diam. In.	On Conductors	Belt	Total		
4001-6000	10	19	.117	3/64	6/64	9/64	.76	256
	8	37	.148	3/64	6/64	9/64	.82	320
	6	37	.186	4/64	5/64	9/64	.95	377
7001-9000	10	19	.117	3/64	8/64	11/64	.82	280
	8	37	.148	3/64	8/64	11/64	.90	352
	6	37	.186	4/64	7/64	11/64	1.01	427
9001-10000	10	19	.117	3/64	9/64	12/64	.86	292
	8	37	.148	3/64	9/64	12/64	.93	368
	6	37	.186	4/64	8/64	12/64	1.04	451

**General Cable Trenchlay* Non-metallic
Underground Cable**
Power Type—600 Volts



Single Conductor

Size A.W.G.	No. Strands	Insulation Thickness Inches	Overall Diameter Inches	Net Wt. per 1000 Feet
14	Solid	3/64	.523	118
12	Solid	3/64	.540	133
10	Solid	3/64	.561	153
8	Solid	1/64	.618	195
6	7	4/64	.674	253
4	7	4/64	.722	346
2	7	4/64	.782	448
1	19	5/64	.853	545
1/0	19	5/64	.896	635
2/0	19	5/64	.941	741
3/0	19	5/64	.991	878
4/0	19	5/64	1.051	1051
C.M.				
250,000	37	6/64	1.128	1227
300,000	37	6/64	1.184	1408
350,000	37	6/64	1.234	1588
400,000	37	6/64	1.281	1766
450,000	37	6/64	1.388	2025
500,000	37	6/64	1.429	2198
600,000	61	7/64	1.540	2595
750,000	61	7/64	1.645	3120
900,000	61	7/64	1.740	3636
1,000,000	61	7/64	1.799	3975
1,250,000	91	8/64	1.967	4894
1,500,000	91	8/64	2.090	5788
2,000,000	127	8/64	2.309	7487

2-Conductor—Twin Flat Construction

Size A.W.G.	No. Strands	Insulation Thickness Inches	Overall Diam.	Net Wt. per 1000 Ft.
14	Solid	3/64	.721	188
12	Solid	3/64	.755	217
10	Solid	3/64	.797	255
8	Solid	1/64	.912	336
6	7	4/64	1.023	469
4	7	4/64	1.119	607
2	7	4/64	1.239	823
1	19	5/64	1.444	1006
1/0	19	5/64	1.530	1174
2/0	19	5/64	1.620	1393
3/0	19	5/64	1.720	1650
4/0	19	5/64	1.840	2055

3-Conductor

Size A.W.G.	No. Strands	Insulation Thickness Inches	Overall Diam.	Net Wt. per 1000 Ft.
14	Solid	3/64	.752	273
12	Solid	3/64	.788	313
10	Solid	3/64	.834	367
8	Solid	1/64	.957	467
6	7	4/64	1.077	676
4	7	4/64	1.180	879
2	7	4/64	1.310	1179
1	19	5/64	1.526	1538
1/0	19	5/64	1.618	1793
2/0	19	5/64	1.715	2111
3/0	19	5/64	1.823	2513
4/0	19	5/64	1.952	2991

C.M.				
250,000	37	6/64	2.118	3565
300,000	37	6/64	2.239	4112
350,000	37	6/64	2.347	4654
400,000	37	6/64	2.448	5199
450,000	37	6/64	2.543	5738
500,000	37	6/64	2.631	6401
600,000	61	7/64	2.870	7593
750,000	61	7/64	3.096	9168

*Trade-mark

General Cable *Trenchlay Non-metallic Underground Cable

Concentric Type, 2-Conductor—0-12,000 Volts



Rated Voltage Phase to Phase	Maximum Voltage Phase to Ground	INSULATED CONDUCTOR—Size A.W.G. Strands	Insulation Thick. In.	Uninsulated Cond. Construction	Over-all Diam. In.	Wt., Lb. per 1000 Feet		
0-600	†350	8 Solid	3/64	23/#21	.575	259		
		6 Solid	3/64	23/#19	.624	342		
		6	7/64	23/#19	.646	354		
		4 Solid	3/64	23/#17	.684	465		
		4	7/64	23/#17	.712	487		
		2	7/64	23/#15	.796	690		
		1	19/64	23/#14	.881	856		
		2001-3000	1700	8 Solid	3/64	24/#21	.677	327
				6 Solid	3/64	24/#19	.757	436
				6	19/64	24/#19	.779	453
4 Solid	3/64			24/#17	.818	572		
4	19/64			24/#17	.846	592		
2	19/64			24/#15	.929	810		
1	37/64			24/#14	.983	954		
4001-5000	2900			8 Solid	10/64	24/#20	.778	411
				6 Solid	10/64	24/#19	.819	483
				6	19/64	24/#19	.841	500
		4 Solid	10/64	24/#17	.880	625		
		4	19/64	24/#17	.908	647		
		2	19/64	24/#15	.992	863		
		1	37/64	24/#14	1.046	1013		
		7001-8000	4600	8 Solid	12/64	24/#19	.848	480
				6 Solid	12/64	24/#18	.891	564
				6	19/64	24/#18	.913	584
4 Solid	12/64			24/#17	.943	679		
4	19/64			24/#17	.971	703		
2	19/64			24/#15	1.054	922		
1	37/64			24/#14	1.108	1069		
11001-12000	7000			8 Solid	16/64	24/#18	.982	632
				6 Solid	16/64	24/#17	1.026	718
				6	19/64	24/#17	1.048	743
		4 Solid	16/64	24/#16	1.079	839		
		4	19/64	24/#16	1.107	867		
		2	19/64	24/#15	1.179	1055		
		1	37/64	24/#14	1.296	1262		

*Trade-mark.

†If used as a service entrance cable within the jurisdiction of the National Board of Fire Underwriters the maximum voltage to ground is 150 volts.

General Cable *Ruralay Non-metallic Underground Cable

2001-8000 Volts



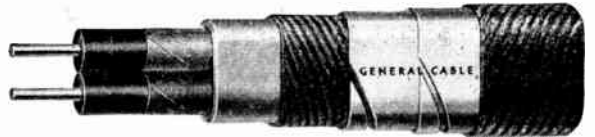
For underground installation in rural areas where the distribution problem is characterized by long cable runs, scattered service connections, and relatively few customers per mile. Especially adaptable for installation by the use of a cable plow. No additional protection of cable is required except at highway crossings and points of unusual mechanical hazard. Under dirt highways creosoted wood planking affords adequate protection.

Rated Voltage Phase to Phase	Phase to Ground Voltage	INSULATED CONDUCTOR—Size A.W.G. Strands	Insulation Thick. In.	Over-all Diam. In.	Wt., Lb. per 1000 Ft.
3001-4000	2300	8 Solid	9/64	.680	285
		6 Solid	9/64	.735	365
		4	191.0469"	9/64	.830	495
5001-6000	3500	8 Solid	10/64	.710	310
		6 Solid	10/64	.765	395
		4	191.0469"	10/64	.860	530
7001-8000	4600	8 Solid	12/64	.775	360
		6 Solid	12/64	.825	440
		4	191.0469"	12/64	.920	580

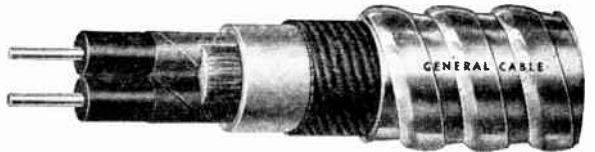
*Trade-mark.

General Cable Parkway Steel Armored Cable

2-Conductor—0-15,000 Volts



Twin Flat Construction, Double Flat Steel Tape Armor



Round Construction, Interlocking Steel Tape Armor

Rated Voltage, 0-600, Phase to Phase (Grounded or Ungrounded)

Size A.W.G.	CONDUCTORS (SOLID OR STRANDED) Type	Insulation Thick. In.	Lead Sheath Thick. In.	TWIN FLAT CONSTRUCTION		ROUND CONSTRUCTION		
				Over-all Diam. In.	Net Wt. Lb. per 1000 Ft.	Over-all Diam. In.	Net Wt. Lb. per 1000 Ft.	
14	Solid	3/64	3/64	.66x	85	569	93	708
12	Solid	3/64	3/64	.67x	88	625	96	770
10	Solid	3/64	3/64	.73x	95	835	1.03	1033
8	Solid	3/64	3/64	.78x	107	1053	1.15	1295
6	Solid	3/64	3/64	.82x	113	1193	1.21	1495
6	Stranded	3/64	3/64	.84x	118	1276	1.26	1580
4	Stranded	3/64	3/64	.92x	131	1718	1.39	2067
2	Stranded	3/64	3/64	1.04x	149	2265	1.51	2588
1	Stranded	3/64	3/64	1.11x	163	2672	1.65	3050
1/0	Stranded	5/64	5/64	1.18x	174	3245	1.83	3865
2/0	Stranded	5/64	5/64	1.23x	183	3605	1.92	4300
3/0	Stranded	5/64	5/64	1.28x	193	4036	2.02	4830
4/0	Stranded	5/64	5/64	1.34x	205	4550	2.14	5455

Rated Voltage, 2001-3000, Phase to Phase (Grounded or Ungrounded)

10	Solid	7/64	5/64	.88x	123	1428	1.31	1765
8	Solid	7/64	5/64	.91x	128	1550	1.36	1915
6	Solid	8/64	5/64	1.03x	148	2035	1.50	2318
6	Stranded	8/64	5/64	1.06x	152	2144	1.54	2422
4	Stranded	8/64	5/64	1.10x	162	2437	1.64	2707
2	Stranded	8/64	5/64	1.19x	177	3131	1.87	3730
1	Stranded	8/64	5/64	1.23x	185	3412	1.94	4070
1/0	Stranded	8/64	5/64	1.28x	193	3726	2.02	4464
2/0	Stranded	8/64	5/64	1.32x	202	4083	2.11	4897
3/0	Stranded	8/64	5/64	1.37x	212	4532	2.21	5433
4/0	Stranded	8/64	5/64	1.46x	227	5456	2.36	6545

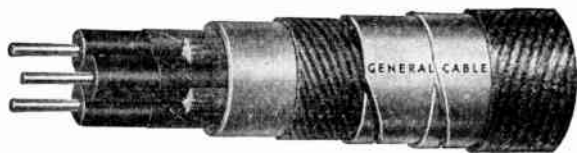
Rated Voltage, 4001-5000, Phase to Phase (Grounded or Ungrounded)

8	Solid	10/64	5/64	1.06x	153	2120	1.55	2405
6	Solid	10/64	5/64	1.10x	160	2330	1.62	2642
6	Stranded	10/64	5/64	1.15x	167	2708	1.76	3223
4	Stranded	10/64	5/64	1.20x	177	3018	1.86	3536
2	Stranded	10/64	5/64	1.26x	188	3445	1.98	4120
1	Stranded	10/64	5/64	1.30x	197	3728	2.06	4460
1/0	Stranded	10/64	5/64	1.34x	205	4047	2.14	4860
2/0	Stranded	10/64	5/64	1.42x	218	4787	2.27	5756
3/0	Stranded	10/64	5/64	1.44x	228	5280	2.37	6318
4/0	Stranded	10/64	5/64	1.53x	240	5830	2.49	7012

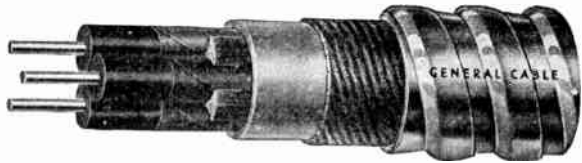
Construction data for cables of other sizes, types, and voltage ratings will be supplied on request.

General Cable Parkway Steel Armored Cable

3-Conductor—0-15,000 Volts



Double Flat Steel Tape Armor



Interlocking Steel Tape Armor

General Cable *Trenchlay Synthetic Rubber or Rubber Insulated Control Cable

600 Volts



Designed for direct earth installation. The non-metallic armoring is of the fibrous type which has been used on Trenchlay cable for many years. This sheath results in a lightweight cable which is easy to splice and to terminate, and which is free from trouble due to electrolysis.

Conductors are insulated with 3/64-inch Trenchlay compound which is highly resistant to water and earth solutions.

A color-coded cotton braid is applied on each conductor.

The taped assembly is provided with a moisture seal of asbestos base caulk, a heavy saturated asbestos braid, a second layer of caulk, pretreated fibrous armor tape, a third layer of caulk, and a heavy presaturated duck tape.

Cable is finished with pitch and mica to provide a non-tacky surface.

A variation in the regular Trenchlay underground finish can be supplied when a control cable is desired for underground, aerial, and duct (universal) service.

Shipped on reels containing 1000 feet.

0-600 Volts (Grounded or Ungrounded)

Size A.W.G.	Type	Insulation Thick- ness In.	Lead Sheath Thick- ness In.	DOUBLE FLAT STEEL TAPE ARMOR		INTERLOCKING STEEL TAPE ARMOR	
				Over- all Diam. In.	Net Wt. Lb. per 1000 Ft.	Over- all Diam. In.	Net Wt. Lb. per 1000 Ft.
14	Solid	3/64	5/64	.93	1015	1.01	973
12	Solid	3/64	5/64	.97	1112	1.05	1063
10	Solid	3/64	5/64	1.01	1226	1.09	1191
8	Solid	3/64	5/64	1.14	1542	1.22	1508
6	Solid	3/64	5/64	1.24	2015	1.32	1977
6	Stranded	3/64	5/64	1.29	2127	1.37	2103
4	Stranded	3/64	5/64	1.46	2800	1.47	2503
2	Stranded	3/64	5/64	1.58	3370	1.60	3050
1	Stranded	3/64	5/64	1.77	4290	1.86	4095
1/0	Stranded	3/64	5/64	1.86	4760	1.95	4546
2/0	Stranded	3/64	5/64	1.95	5300	2.04	5063
3/0	Stranded	3/64	5/64	2.06	5980	2.15	5717
4/0	Stranded	3/64	5/64	2.22	7200	2.31	6942
C.M.							
250,000	Stranded	3/64	7/64	2.39	8150	2.48	7783
350,000	Stranded	3/64	7/64	2.62	9860	2.71	9538
500,000	Stranded	3/64	7/64	2.93	12870	3.02	12515
2001-3000 Volts (Grounded or Ungrounded)							
10	Solid	7/64	5/64	1.32	2082	1.40	2068
8	Solid	7/64	5/64	1.37	2273	1.45	2268
6	Solid	7/64	5/64	1.57	2991	1.59	2708
6	Stranded	7/64	5/64	1.62	3171	1.64	2846
4	Stranded	7/64	5/64	1.75	3950	1.84	3759
2	Stranded	7/64	5/64	1.88	4490	1.97	4382
1	Stranded	7/64	5/64	1.97	4990	2.06	4771
1/0	Stranded	7/64	5/64	2.06	5470	2.15	5255
2/0	Stranded	7/64	5/64	2.18	6470	2.28	6223
3/0	Stranded	7/64	5/64	2.30	7190	2.39	6948
4/0	Stranded	7/64	5/64	2.42	8020	2.51	7749
C.M.							
250,000	Stranded	7/64	7/64	2.59	8990	2.68	8696
350,000	Stranded	7/64	7/64	2.85	11390	2.94	11060
500,000	Stranded	7/64	7/64	3.13	13880	3.22	13515
4001-5000 Volts (Grounded or Ungrounded)							
8	Solid	10/64	5/64	1.63	3132	1.65	2906
6	Solid	10/64	5/64	1.74	3745	1.83	3580
6	Stranded	10/64	5/64	1.78	3935	1.87	3736
4	Stranded	10/64	5/64	1.89	4410	1.98	4201
2	Stranded	10/64	5/64	2.02	5050	2.11	4816
1	Stranded	10/64	5/64	2.10	5470	2.19	5222
1/0	Stranded	10/64	5/64	2.22	6430	2.31	6185
2/0	Stranded	10/64	5/64	2.32	7020	2.41	6756
3/0	Stranded	10/64	5/64	2.43	7740	2.52	7473
4/0	Stranded	10/64	5/64	2.56	8580	2.65	8285
C.M.							
250,000	Stranded	11/64	5/64	2.76	10190	2.85	9891
350,000	Stranded	11/64	5/64	2.98	12050	3.07	11705
500,000	Stranded	11/64	5/64	3.27	14550	3.36	14165

Nominal Size A.W.G.	No.	Construction	Diameter Inches	Overall Diameter Inches	WEIGHT, POUNDS PER 1000 FEET	
					Net	Ship- ping
14	2	19/#27	.0710	.796	239	519
14	3	19/#27	.0710	.827	275	555
14	4	19/#27	.0710	.878	331	611
14	5	19/#27	.0710	.935	373	653
14	6	19/#27	.0710	.994	413	693
14	7	19/#27	.0710	.994	438	718
14	8	19/#27	.0710	1.054	494	865
14	9	19/#27	.0710	1.114	555	926
14	10	19/#27	.0710	1.192	605	976
14	12	19/#27	.0710	1.223	674	1045
12	2	19/#25	.0895	.828	293	573
12	3	19/#25	.0895	.861	339	619
12	4	19/#25	.0895	.917	407	687
12	5	19/#25	.0895	.978	469	748
12	6	19/#25	.0895	1.042	527	898
12	7	19/#25	.0895	1.042	559	930
12	8	19/#25	.0895	1.107	637	1008
12	9	19/#25	.0895	1.173	699	1070
12	10	19/#25	.0895	1.256	766	1137
12	12	19/#25	.0895	1.289	855	1226
9	2	19/#22	.1267	.839	367	647
9	3	19/#22	.1267	.878	451	731
9	4	19/#22	.1267	.943	556	836
9	5	19/#22	.1267	1.015	646	1017
9	6	19/#22	.1267	1.090	733	1104
9	7	19/#22	.1267	1.090	791	1162
9	8	19/#22	.1267	1.167	896	1267
9	9	19/#22	.1267	1.243	988	1357
9	10	19/#22	.1267	1.372	1146	1517
9	12	19/#22	.1267	1.411	1291	1662

Construction data for cables of other sizes, types, and voltage ratings will be supplied on request.

*Trade-mark.

General Cable Synthetic Rubber or Rubber Insulated Traffic Control or Signal Cable

600 Volts



Braid Finished



Lead Sheathed

Suitable for general application in control circuits rated at 600 volts or less.

BRAID FINISHED. Recommended for general application, particularly in aerial circuits, and for inside use in conduit where not subject to immersion.

LEAD SHEATHED. Recommended for service in underground ducts or in locations where cable is subject to either continuous or intermittent immersion in water.

Standard conductors are solid, lead-alloy coated copper, insulated with $\frac{3}{4}$ -inch N.E.C. insulation covered with I.P.C.E.A. color-coded braids.

Standard I.P.C.E.A. Parkway cable finish can be supplied over the lead sheath on cables to be used for direct earth installation.

Shipped on reels containing 1000 feet.

Size A.W.G. No.	Conductors Diam. In.	Braid Finished		Sheath Thick- ness In.	Lead Sheathed Over- all Diam. In.	Wt., Lb. Per 1000 Feet	
		Over- all Diam. In.	Wt., Lb. Per 1000 Feet Net Ship.			Net	Ship.
14 2	.06408	.41x.22	61 83	$\frac{3}{64}$	.48x.29	315	394
14 3	.06408	.50	117 170	$\frac{4}{64}$	.57	592	685
14 4	.06408	.55	148 203	$\frac{5}{64}$	.62	667	783
14 5	.06408	.60	184 233	$\frac{5}{64}$	.67	752	868
14 6	.06408	.66	217 269	$\frac{5}{64}$	.73	839	1144
14 7	.06408	.66	226 277	$\frac{5}{64}$	.73	847	1152
14 8	.06408	.72	256 323	$\frac{5}{64}$	.78	929	1234
14 9	.06408	.78	285 351	$\frac{5}{64}$	.87	1222	1608
14 10	.06408	.87	336 527	$\frac{5}{64}$	.94	1355	1741
14 12	.06408	.90	388 576	$\frac{5}{64}$	.97	1438	1824
12 2	.08081	.44x.24	81 133	$\frac{3}{64}$	.52x.31	352	431
12 3	.08081	.53	153 204	$\frac{4}{64}$	.60	657	750
12 4	.08081	.60	194 247	$\frac{4}{64}$	.66	757	850
12 5	.08081	.65	238 288	$\frac{4}{64}$	.72	846	962
12 6	.08081	.71	283 349	$\frac{4}{64}$	.78	948	1253
12 7	.08081	.71	298 363	$\frac{4}{64}$	.78	962	1267
12 8	.08081	.77	338 529	$\frac{5}{64}$	.87	1268	1573
12 9	.08081	.84	378 567	$\frac{5}{64}$	.93	1380	1685
12 10	.08081	.93	442 627	$\frac{5}{64}$	1.01	1532	1918
12 12	.08081	.97	513 694	$\frac{5}{64}$	1.04	1637	2023
10 2	.1019	.48x.26	115 134	$\frac{4}{64}$	.59x.36	524	603
10 3	.1019	.58	203 251	$\frac{4}{64}$	.65	747	840
10 4	.1019	.64	259 308	$\frac{4}{64}$	.71	856	972
10 5	.1019	.71	319 383	$\frac{4}{64}$	.77	975	1091
10 6	.1019	.77	380 440	$\frac{5}{64}$	.87	1308	1613
10 7	.1019	.77	422 458	$\frac{5}{64}$	.87	1348	1653
10 8	.1019	.84	461 645	$\frac{5}{64}$	.94	1466	1771
10 9	.1019	.93	524 704	$\frac{5}{64}$	1.01	1601	1987
10 10	.1019	1.02	598 774	$\frac{5}{64}$	1.10	1779	2165
10 12	.1019	1.05	700 870	$\frac{5}{64}$	1.13	1915	2301

General Cable Fire Alarm, Police Signal, And Municipal Signal Cable

600 Volts



For general service in fire alarm, police signal, and other municipal signal systems.

Constructed with many combinations of conductors and pairs. Designed with suitable overall coverings for underground, aerial, or inside use.

May be made to conform to various specifications, but the Specifications and Operating Standards of the International Municipal Signal Association, Inc. are most generally accepted and followed unless otherwise specified.

This cable is standard in the following forms:

- (1) Lead sheathed multiple conductor signal cable for general use in underground ducts, aerial use with messenger or in stations and buildings.
- (2) Lead sheathed and armored multiple conductor Parkway signal cable for general use installed directly in the earth without conduit protection.
- (3) Heavy braid or loom covered multiple conductor signal cable for aerial use with messenger or for conduit and duct installations.
- (4) Neoprene jacketed multiple conductor signal cable for use in underground ducts or for aerial use with messenger.

Variable Construction Features

CONDUCTORS. All conductors are lead-alloy coated conductors in accordance with A.S.T.M. Specification B189, latest issue.

INSULATION. The insulation is high grade, long life synthetic rubber or rubber compound. Thicknesses of insulation are standard for operation at 600 volts or less. Natural rubber Superlite insulation can be supplied when a small diameter cable is desired.

BRAIDS. Saturated braids, either color-coded or plain, will be furnished on the individual conductors.

ASSEMBLY. Multiple conductor assemblies are laid up symmetrically in layers in round form, jute fillers being used where necessary. Tracer conductors are included in each layer for identification purposes. A tape is applied over the core.

LEAD SHEATH. The sheath of non-armored cable for installation in ducts, and of armored cable is commercially pure lead. The sheath of non-armored cable for aerial use is copper bearing lead or is a lead-antimony alloy containing $\frac{3}{4}$ per cent antimony.

General Cable Bare Concentric Stranded Cable

Soft or Annealed Copper



Size MCM	Over- all Diam. In.	No. Strands	Break- ing Strength Lb.	Resist. Ohms per 1000 Feet 68°F.	Net Wt. Lb. per 1000 Feet	REELS	
						Feet	Net Wt. Lb.
250	.574	A-19	7,265	.04231	771.9	3500	2702
250	.575	B-37	7,559	.04231	771.9	3500	2702
300	.629	A-19	8,718	.03526	926.3	2640	2445
300	.630	B-37	9,071	.03526	926.3	2640	2445
350	.679	A-19	10,170	.03022	1,081.	2640	2853
350	.681	B-37	10,580	.03022	1,081.	2640	2853
400	.726	A-19	11,620	.02645	1,235.	2000	2470
400	.728	B-37	11,620	.02645	1,235.	2000	2470
450	.772	B-A-37	13,080	.02351	1,389.	2000	2778
500	.814	B-A-37	14,530	.02116	1,544.	2000	3088
600	.891	A-37	17,440	.01763	1,853.	1600	2964
600	.893	B-61	18,140	.01763	1,853.	1600	2964
700	.964	B-A-61	20,340	.01511	2,161.	1400	3026
750	.998	B-A-61	21,790	.01410	2,316.	1250	2895
800	1.031	B-A-61	23,250	.01322	2,470.	1200	2964
900	1.094	B-A-61	26,150	.01175	2,779.	1100	3057
1000	1.152	B-A-61	29,060	.01058	3,088.	1000	3088
1250	1.288	A-61	36,320	.008463	3,859.	750	2895
1250	1.289	B-91	36,320	.008463	3,859.	750	2895
1500	1.411	A-61	43,590	.007052	4,631.	650	3010
1500	1.412	B-91	43,590	.007052	4,631.	650	3010
1750	1.526	A-91	50,850	.006045	5,403.	550	2972
1750	1.526	B-127	50,850	.006045	5,403.	550	2972
2000	1.630	A-91	58,120	.005289	6,175.	500	3088
2000	1.631	B-127	58,120	.005289	6,175.	500	3088
2500	1.823	A-91	72,650	.004273	7,794.	500	3897
2500	1.824	B-127	72,650	.004273	7,794.	500	3897
3000	1.998	A-127	87,180	.003561	9,353.	500	4677
3000	1.998	B-169	87,180	.003561	9,353.	500	4677
3500	2.158	A-127	101,700	.003082	11,020.	500	5510
3500	2.159	B-169	101,700	.003082	11,020.	500	5510
4000	2.307	A-169	116,200	.002696	12,590.	500	6295
4000	2.309	B-217	116,200	.002696	12,590.	500	6295
4500	2.448	A-169	130,800	.002420	14,300.	As Speci- fied	
4500	2.448	B-217	130,800	.002420	14,300.		
5000	2.580	A-169	145,300	.002178	15,890.		
5000	2.581	B-217	145,300	.002178	15,890.		

Letters preceding the number of strands refer to A.S.-T.M. class designation in B 8-11.

Also furnished in alternate strandings.

Breaking strengths are based on nominal wire diameters.

Resistances: Based on nominal wire diameters. Resistivity at 68°F. (20°C.)—875.2 ohms (mile, pound)—100 per cent I.A.C.S. Conductivity. Increments for stranding:

2,000,000 CM and Less.	2 Per Cent
Over 2,000,000 CM Including 3,000,000 CM..	3 Per Cent
Over 3,000,000 CM Including 4,000,000 CM..	4 Per Cent
Over 4,000,000 CM Including 5,000,000 CM..	5 Per Cent

Weights are based on nominal wire diameters with same percentage increment for stranding as used for calculation of resistances.

Tolerances conform to tolerances in wire diameters. Total area of conductor shall be not less than 98 per cent of the nominal listed area.

The above data is approximate and subject to normal manufacturing tolerances.

General Cable Bare Concentric Stranded Cable

Soft or Annealed Copper



Size A.W.G.	Area CM	No. Strands	Over- all Diam. In.	Break- ing Strength Lb.	Resist. Ohms per 1000 Feet 68°F.	Net Wt. Lb. per 1000 Feet	REELS			
							Feet	Net Wt. Lb.	Coils Net Wt. Lb.	
20	1,022	B-7	.0363	32.11	10.36	3,155				
18	1,624	B-7	.0456	51.02	6.513	5,014				
16	2,583	B-7	.0576	81.15	4.096	7,975				
16	2,583	C-19	.0585	81.15	4.096	7,975				
14	4,107	B-7	.0726	124.2	2.576	12,68				
14	4,107	C-19	.0735	129.0	2.576	12,68			As Specified	
12	6,530	B-7	.0915	197.5	1.620	20,16				
12	6,530	C-19	.0925	205.1	1.620	20,16				
10	10,380	B-7	.116	313.9	1.019	32,05				
10	10,380	C-19	.117	313.9	1.019	32,05				
9	13,090	B-7	.130	395.8	.8080	40,42				
9	13,090	C-19	.131	395.8	.8080	40,42				
8	16,510	B-7	.146	499.2	.6407	50,98	15,000	765		250
8	16,510	C-19	.147	499.2	.6407	50,98	15,000	765		250
7	20,820	B-7	.164	629.6	.5081	64,28	12,000	771		250
7	20,820	C-19	.166	629.6	.5081	64,28	12,000	771	250	
6	26,250	B-7	.184	793.8	.4030	81,05	12,000	973	250	
6	26,250	C-19	.186	793.8	.4030	81,05	12,000	973	250	
5	33,100	B-7	.206	1001.	.3196	102,2	10,560	1079	250	
5	33,100	C-19	.209	1001.	.3196	102,2	10,560	1079	250	
4	41,740	B-A-7	.232	1262.	.2534	128,9	10,560	1361	300	
4	41,740	C-19	.234	1262.	.2534	128,9	10,560	1361	300	
3	52,630	B-A-7	.260	1592.	.2010	162,5	19,560	1716	300	
3	52,630	C-19	.263	1592.	.2010	162,5	10,560	1716	300	
2	66,370	B-A-7	.292	2007.	.1594	204,9	10,560	2164	300	
2	66,370	C-19	.296	2007.	.1594	204,9	10,560	2164	300	
1	83,690	A-7	.328	2432.	.1264	258,4	10,560	2729	300	
1	83,690	B-19	.332	2531.	.1264	258,4	10,560	2729	300	
1/0	105,500	A-7	.368	3066.	.1002	325,7	5,280	1720	300	
1/0	105,500	B-19	.373	3190.	.1002	325,7	5,280	1720	300	
2/0	133,100	A-7	.414	3868.	.07949	410,9	5,280	2170	300	
2/0	133,100	B-19	.418	4025.	.07949	410,9	5,280	2170	300	
3/0	167,800	A-7	.464	4876.	.06304	518,1	5,280	2736	300	
3/0	167,800	A-12	.492	4876.	.06304	518,1	5,280	2736	300	
3/0	167,800	B-19	.470	5074.	.06304	518,1	5,280	2736	300	
4/0	211,600	A-7	.522	6149.	.04999	653,3	5,280	3450	300	
4/0	211,600	A-12	.552	6149.	.04999	653,3	5,280	3450	300	
4/0	211,600	B-19	.528	6149.	.04999	653,3	5,280	3450	300	

Letters preceding the number of strands refer to A.S.-T.M. class designation in B 8-11.

Also furnished in alternate strandings.

Breaking strengths are based on nominal wire diameters.

Resistances: Based on nominal wire diameters. Resistivity at 68°F. (20°C.)—875.2 ohms (mile, pound)—100 per cent I.A.C.S. conductivity. Increment for stranding, 2 per cent.

Weights are based on nominal wire diameters. Increment for stranding, 2 per cent.

Tolerances conform to tolerances in wire diameters. Total area of conductor shall be not less than 98 per cent of the nominal listed area.

The above data is approximate and subject to normal manufacturing tolerances.

General Cable Tinned or Lead Alloy Coated Solid Wire

Soft or Annealed Copper



Tinned copper wire and cable can be furnished, either soft annealed or hard drawn, in strandings as well as in solid conductor form. The solid conductor form is normally limited to No. 1 A.W.G. and smaller sizes. Tinned soft or annealed wires are manufactured in accordance with all requirements of A.S.T.M. Spec. B33.

The more commonly used tinned wires and cables are shown in the following table.

Special lead alloy, in place of tin, is used in numerous applications where desirable and can be supplied when required.

Size A.W.G.	Nom. Diam. Mils	DIAMETER RANGE, MILS		Break- ing Strength Lb.	Resist. Ohms per 1000 Feet 68°F.	Net Wt. Lb. per 1000 Feet	STANDARD PACKAGES Feet	Net Wt. Lb.
		Min.	Max.					
40	3.145	3.045	3.445	.311	1126.	.03208	62,300	■2
39	3.531	3.431	3.831	.392	893.0	.04015	49,800	■2
38	3.965	3.865	4.265	.494	708.1	.05025	39,800	■2
37	4.453	4.353	4.753	.623	561.6	.06304	31,700	■2
36	5.000	4.900	5.300	.785	445.4	.07907	63,200	■5
35	5.615	5.515	5.915	.990	353.2	.09929	50,300	■5
34	6.305	6.205	6.605	1.249	280.1	.1247	40,100	■5
33	7.080	6.980	7.380	1.575	222.1	.1567	31,900	■5
32	7.950	7.850	8.250	1.986	176.1	.1968	25,400	■5
31	8.928	8.828	9.228	2.504	139.7	.2476	20,200	■5
30	10.03	9.93	10.33	3.157	110.8	.3113	38,500	■12
29	11.26	11.15	11.60	3.981	87.85	.3917	30,600	■12
28	12.64	12.51	13.02	4.895	68.92	.4929	24,300	■12
27	14.20	14.06	14.63	6.172	54.66	.6204	19,300	■12
26	15.94	15.78	16.42	7.783	43.34	.7810	15,400	■12
25	17.90	17.72	18.44	9.815	34.37	.9833	12,200	■12
24	20.10	19.90	20.70	12.38	27.26	1.238	9,690	■12
23	22.57	22.34	23.25	15.41	21.17	1.559	7,700	■12
22	25.35	25.10	26.11	19.43	16.79	1.965	6,100	■12
21	28.46	28.17	29.31	24.50	13.31	2.474	10,100	■25
20	31.96	31.64	32.92	30.89	10.56	3.117	8,020	■25
19	35.89	35.53	36.97	38.95	8.373	3.927	20,370	●80
18	40.30	39.90	41.51	49.12	6.640	4.949	24,250	●120
17	45.26	44.81	46.62	61.93	5.266	6.237	19,240	●120
16	50.82	50.31	52.34	78.10	4.176	7.860	15,270	●120
15	57.07	56.50	58.78	98.48	3.312	9.906	12,110	●120
14	64.08	63.44	66.00	124.2	2.626	12.84	19,470	●250
13	71.96	71.24	74.12	156.6	2.083	15.74	15,880	●250
12	80.81	80.00	83.23	197.5	1.652	19.84	12,600	●250
11	90.74	89.83	93.46	249.0	1.310	25.00	10,000	●250
10	101.9	100.9	104.9	314.0	1.039	31.52	7,930	●250
9	114.4	113.2	117.8	380.5	.8153	39.73	6,290	●250
8	128.5	127.2	132.3	479.8	.6465	50.09	4,990	●250
7	144.3	142.8	148.6	605.0	.5127	63.15	3,959	●250
6	162.0	160.4	166.9	762.9	.4066	79.61	3,140	●250
5	181.9	180.1	187.3	961.9	.3225	100.4	2,490	●250
4	204.3	202.2	210.4	1213.	.2557	126.6	1,975	●250
3	229.4	227.1	236.3	1530.	.2028	159.5	1,567	●250
2	257.6	255.0	265.3	1929.	.1608	201.1	1,094	●220
1	289.3	286.4	298.0	2432.	.1275	253.6	867	●220

●On reels.

■On spools.

Breaking strengths: Maximum values for nominal diameters based upon tensile strength limits of A.S.T.M. Spec. B33.

Resistances: Maximum values for nominal diameters based upon resistivity limits of A.S.T.M. Spec. B33.

Weights: Nominal values for estimating purposes only and subject to normal variations in manufacture.

General Cable Concentric Stranded Cable Bare and Tinned Copper—Soft or Annealed Medium Hard and Hard Drawn



CLASS AA. Used for bare cable.

CLASS A. For weather-resistant (weatherproof), slow burning and slow-burning weather-resistant cable, and for bare cable where greater flexibility than is afforded by Class AA is required.

CLASS B. For cable insulated with various materials such as rubber, paper, varnished cloth, etc., and for the cable indicated under Class A where greater flexibility is required.

CLASS C and CLASS D. For cable where greater flexibility is required than is provided by Class B cable.

A.W.G.	C.M.	Class AA		Class A		Class B		Class C		Class D	
		No. Strands	Mils Strands	No. Strands	Mils Strands	No. Strands	Mils Strands	No. Strands	Mils Strands	No. Strands	Mils Strands
20	1,022	7	12.1	19	7.3	...	...	...	...	...	...
18	1,624	7	15.2	19	9.2	...	...	...	...	...	...
16	2,583	7	19.2	19	11.7	...	...	...	...	...	...
14	4,107	7	24.2	19	14.7	37	10.5	...	...	...	...
12	6,530	7	30.5	19	18.5	37	13.3	...	...	...	...
10	10,380	7	38.5	19	23.4	37	16.7	...	...	...	...
9	13,090	7	43.2	19	26.2	37	18.8	...	...	...	...
8	16,510	7	48.6	19	29.5	37	21.1	...	...	...	...
7	20,820	7	54.5	19	33.1	37	23.7	...	...	...	...
6	26,250	7	61.2	19	37.2	37	26.6	...	...	...	...
5	33,100	7	68.8	19	41.7	37	29.9	...	...	...	...
4	41,740	3	118.0	7	77.2	7	77.2	19	46.9	37	33.6
3	52,630	3	132.5	7	86.7	7	86.7	19	52.6	37	37.7
2	66,370	3	148.7	7	97.4	7	97.4	19	59.1	37	42.4
1	83,690	3	167.0	7	109.3	19	66.4	37	47.6	61	37.0
1/0	105,500	7	122.8	7	122.8	19	74.5	37	53.4	61	41.6
2/0	133,100	7	137.9	7	137.9	19	83.7	37	60.0	61	46.7
3/0	167,800	7	154.8	7	154.8	19	94.0	37	67.3	61	52.4
4/0	211,600	7	173.9	7	173.9	19	105.3	37	75.6	61	58.9
...	250,000	12	144.3	19	114.7	37	82.2	61	64.0	91	52.4
...	300,000	12	158.1	19	125.7	37	90.0	61	70.1	91	57.4
...	350,000	12	170.7	19	135.7	37	97.3	61	75.7	91	62.0
...	400,000	19	145.1	19	145.1	37	104.0	61	81.0	91	66.3
...	450,000	19	153.9	37	110.3	37	110.3	61	85.9	91	70.3
...	500,000	19	162.2	37	116.2	37	116.2	61	90.5	91	74.1
...	550,000	37	121.9	37	121.9	61	95.0	91	77.7	127	65.8
...	600,000	37	127.3	37	127.3	61	99.2	91	81.2	127	68.7
...	650,000	37	132.5	61	103.2	61	103.2	91	84.5	127	71.2
...	700,000	37	137.5	61	107.1	61	107.1	91	87.7	127	74.8
...	750,000	37	142.4	61	110.9	61	110.9	91	90.8	127	76.5
...	800,000	37	147.0	61	114.5	61	114.5	91	93.8	127	79.4
...	900,000	37	156.0	61	121.5	61	121.5	91	99.4	127	84.2
...	1,000,000	37	164.4	61	128.0	61	128.0	91	104.8	127	88.7
...	1,100,000	...	...	61	134.3	91	109.9	127	93.1	169	80.7
...	1,200,000	...	...	61	140.3	91	114.8	127	97.2	169	84.3
...	1,250,000	...	...	61	143.1	91	117.2	127	99.2	169	86.0
...	1,300,000	...	...	61	146.0	91	119.5	127	101.2	169	87.7
...	1,400,000	...	...	61	151.5	91	124.0	127	105.0	169	91.0
...	1,500,000	...	...	61	156.8	91	128.4	127	108.7	169	94.2
...	1,600,000	...	...	91	132.6	127	112.2	169	97.3	217	85.9
...	1,700,000	...	...	91	136.7	127	115.7	169	100.3	217	88.5
...	1,750,000	...	...	91	138.7	127	117.4	169	101.8	217	89.8
...	1,800,000	...	...	91	140.6	127	119.1	169	103.2	217	91.1
...	1,900,000	...	...	91	144.5	127	122.3	169	106.0	217	93.6
...	2,000,000	...	...	91	148.2	127	125.5	169	108.8	217	96.0
...	2,500,000	...	...	91	165.7	127	140.3	169	121.6	217	107.3
...	3,000,000	...	...	127	153.7	169	133.2	217	117.6	271	105.2
...	3,500,000	...	...	127	166.0	169	143.8	217	127.0	271	113.6
...	4,000,000	...	...	169	153.8	217	135.8	271	121.5	271	121.5
...	4,500,000	...	...	169	163.2	217	144.0	271	128.9	271	128.9
...	5,000,000	...	...	169	172.0	217	151.8	271	135.8	271	135.8

†Optional construction for No. 4/0 A.W.G. size in Class AA and Class A is 12 wires of 132.8 mils diameter.

‡Optional construction for No. 3/0 A.W.G. size in Class AA and Class A is 12 wires of 118.3 mils diameter.

§Optional construction for 600,000 c.m. size in Class B is 37 wires of 127.3 mils diameter.

¶Optional construction for 550,000 c.m. size in Class B is 37 wires of 121.9 mils diameter.

General Cable Copper Trolley Wire

In the manufacture of this wire special care is taken in rolling and drawing to obtain a surface free from imperfections and wire continually true in shape. This produces a contact wire giving maximum life and freedom from operating trouble.

Round and Grooved



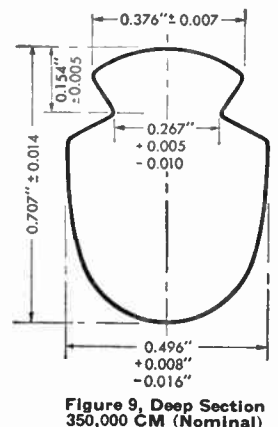
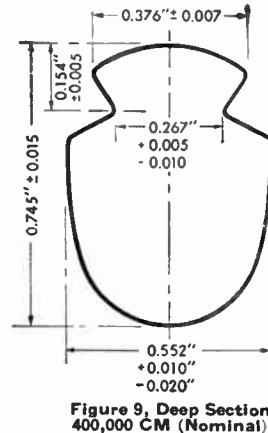
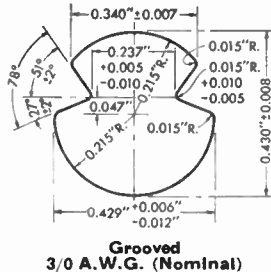
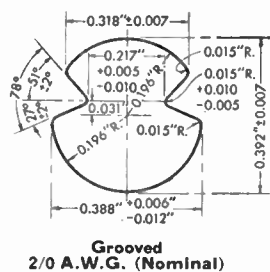
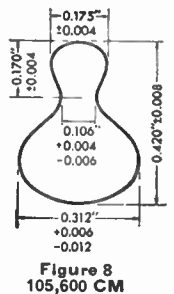
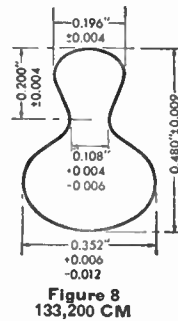
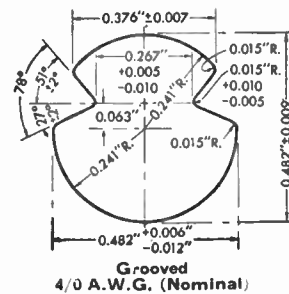
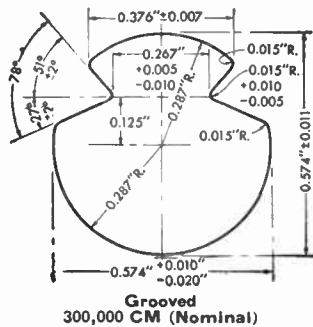
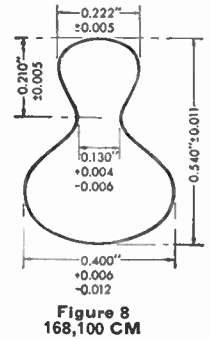
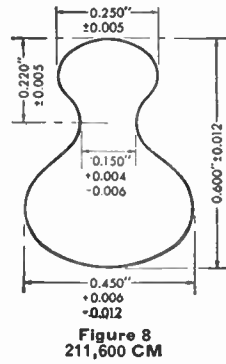
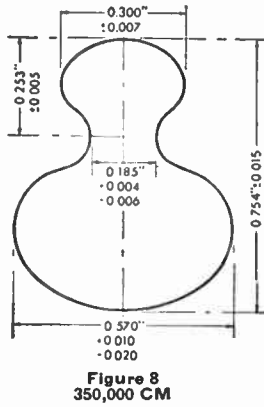
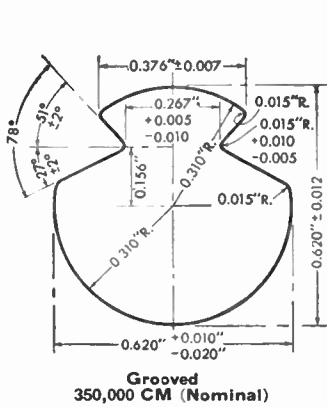
Manufactured in accordance with American Society for Testing Materials, Specification B47 and American Transit Engineering Association Specification D2. Specifications were prepared jointly by the two associations in collaboration with Association of American Railroads and are identical.

Figure 8 and Figure 9 (Deep Section)



Manufactured in accordance with American Society for Testing Materials Specification R116.

Figure 9 furnished primarily for industrial use.



General Cable Overhead Line Conductors

Bare Copper—Hard Drawn and Medium Hard Drawn

General Cable supplies a complete series of bare overhead line conductors to cover the entire range of electrical and physical requirements necessary for all forms of transmission or distribution system design for power, communication, and signal circuits.

Copper conductors provide a useful combination of electrical and physical properties not possessed by any other commercial metal.

Important advantages are: **High Electrical Conductivity.** Copper has the highest electrical conductivity of all commercial metals which results in the smallest conductor diameter and therefore the lowest transverse stressing of supporting structures in most applications.

Low Cost. The low cost of copper makes it a particularly economical conductor.

Strength. Hard drawn copper possesses the strength of mild steel. Other tempers provide a wide range of tensile strengths, as required for different applications. A correct adjustment between required strength and necessary flexibility, of particular importance in larger conductor sizes, is therefore always possible with standard copper conductor constructions.

Hardness. The hardness and abrasion resistance of copper insure freedom from conductor injury during construction and operation.

Fatigue Resistance. Considering vibration troubles of certain types of overhead line conductors, copper has maintained an enviable record of practical freedom from injury due to vibration.

Copper conductors can be assembled by any method available to other conductor types. Special assemblies, such as 3-wire strand, are therefore available to reduce the possibility of vibration under particularly severe operating conditions.

Permanence. The exceedingly high resistance of copper to corrosion results in a greater freedom from deterioration, both electrically and mechanically.

Reliability and Ease of Splicing. The physical characteristics and corrosion-resisting properties of copper conductors make possible easy and efficient splicing in the field and eliminate the use of special clamps and tools.

Resistance to Flashover. The relatively higher melting point and electrical conductivity of copper conductors safeguard them to a remarkable degree from the injurious effects of arcs or flashovers.

Re-use. The characteristics which make copper the outstanding metal for line conductors also make practical its re-use when desirable.

Salvage Value. Based upon sound economic principles, copper possesses an extra-

ordinarily high salvage value.

Dependability. The uniformly satisfactory experience from a tremendous aggregate line mileage over a period of many years is eloquent evidence of the dependability of copper line conductors.

For those applications requiring tensile strengths beyond the limits of copper conductors, constructions using either copper bearing alloys or copper clad steel conductors are available.

Solid Conductors

Size A.W.G.	Area C.M.	No. Strands	Over-All Diam. In.	Net Wt. per 1000 Feet	Net Wt. per Mile	Hard Drawn		Medium Hard		Resist. Ohms per 1000 Feet 68°F.	Reels—Net Wt. Lb.	Coils Net Wt. Lb.
						Min. Break-ing Strength Lb.	Resist. Ohms per 1000 Feet 68°F.	BREAKING STRENGTH POUNDS				
								Min.	Max.			
14	4,107	..	.06408	12.43	65.64	213.5	2.626	166.6	189.2	2.613	....	125
13	5,178	..	.07196	15.68	82.77	268.0	2.083	208.8	237.2	2.072	....	125
12	6,530	..	.08081	19.77	104.4	337.0	1.652	261.6	297.5	1.643	....	125
11	8,234	..	.09074	24.92	131.6	422.9	1.310	327.6	372.9	1.303	....	250
10	10,380	..	.1019	31.43	165.9	529.2	1.039	410.4	467.5	1.033	....	250
9	13,090	..	.1144	39.63	209.3	661.2	.8238	514.2	586.1	.8195	....	250
8	16,510	..	.1285	49.97	263.9	826.0	.6533	643.9	734.7	.6499	....	250
7	20,820	..	.1443	63.02	332.7	1,030.	.5181	806.6	921.0	.5154	....	250
6	26,250	..	.1620	79.46	419.6	1,280.	.4108	1,010.	1,155.	.4087	11340	900 250
5	33,100	..	.1819	100.2	529.1	1,591.	.3258	1,264.	1,446.	.3241	9000	900 250
4	41,740	..	.2043	126.4	667.1	1,970.	.2584	1,584.	1,814.	.2570	7140	900 250
3	52,630	..	.2294	159.3	841.2	2,439.	.2049	1,984.	2,274.	.2038	5660	900 250
2	66,370	..	.2576	200.9	1,061.	3,003.	.1625	2,450.	2,815.	.1617	6965	1400 250
1	83,690	..	.2893	253.3	1,338.	3,688.	.1287	3,024.	3,484.	.1282	5280	1338 250
1/0	105,500	..	.3249	319.5	1,687.	4,517.	.1011	3,730.	4,310.	.1006	5280	1687 250
2/0	133,100	..	.3648	402.8	2,127.	5,519.	.08021	4,599.	5,330.	.07980	5280	2127 250
3/0	167,800	..	.4096	507.9	2,682.	6,722.	.06361	5,667.	6,590.	.06329	2640	1341 250
4/0	211,600	..	.4600	640.5	3,382.	8,143.	.05045	6,980.	8,143.	.05019	1000	641 250

Stranded Conductors

Size	Area	No. Strands	Over-All Diam. In.	Net Wt. per 1000 Feet	Net Wt. per Mile	Min. Break-ing Strength Lb.	Resist. Ohms per 1000 Feet 68°F.	Min.	Max.	Resist. Ohms per 1000 Feet 68°F.	Reels—Net Wt. Lb.	Coils Net Wt. Lb.
6	26,250	3	.201	80.26	423.8	1,205.	.4149	933.9	1,064.	.4128	7000	565 250
5	33,100	3	.226	101.2	534.3	1,505.	.3291	1,170.	1,334.	.3274	5280	534 250
4	41,740	3	.254	127.6	673.8	1,879.	.2610	1,465.	1,672.	.2596	8000	1020 300
3	52,630	3	.285	160.9	849.6	2,359.	.2070	1,835.	2,096.	.2059	6000	970 300
2	66,370	3	.320	202.9	1,071.	2,913.	.1641	2,299.	2,627.	.1633	5280	1071 300
2	66,370	7	.292	204.9	1,082.	3,045.	.1658	2,361.	2,689.	.1649	5280	1082 300
1	83,690	7	.328	258.4	1,364.	3,804.	.1315	2,958.	3,372.	.1308	8000	2050 300
1/0	105,500	7	.368	325.7	1,720.	4,752.	.1043	3,703	4,227.	.1037	8000	2600 300
2/0	133,100	7	.414	410.9	2,170.	5,926.	.08265	4,641.	5,299.	.08223	5280	2170 300
3/0	167,800	7	.464	518.1	2,736.	7,366.	.06556	5,812.	6,642.	.06522	5280	2736 300
3/0	167,800	12	.492	518.1	2,736.	7,556.	.06556	5,890.	6,721.	.06522	5280	2736 300
4/0	211,600	7	.522	653.3	3,450.	9,154.	.05199	7,269.	8,325.	.05172	5280	3450 300
4/0	211,600	12	.552	653.3	3,450.	9,483.	.05199	7,378.	8,425.	.05172	5280	3450 300
4/0	211,600	19	.528	653.3	3,450.	9,617.	.05199	7,479.	8,526.	.05172	5280	3450 ...
...	250,000	12	.600	771.9	4,076.	11,130.	.04400	8,717.	9,957.	.04378	5280	4076 ...
...	250,000	19	.574	771.9	4,076.	11,360.	.04400	8,836.	10,080.	.04378	5280	4076 ...
...	300,000	12	.657	926.3	4,891.	13,170.	.03667	10,390.	11,870.	.03648	5280	4891 ...
...	300,000	19	.629	926.3	4,891.	13,510.	.03667	10,530.	12,010.	.03648	5280	4891 ...
...	350,000	12	.710	1081.	5,706.	15,140.	.03143	12,020.	13,770.	.03127	5280	5706 ...
...	350,000	19	.679	1081.	5,706.	15,590.	.03143	12,200.	13,940.	.03127	5280	5706 ...
...	400,000	19	.726	1235.	6,521.	17,560.	.02750	13,850.	15,840.	.02736	5280	6521 ...
...	450,000	19	.770	1389.	7,336.	19,750.	.02445	15,590.	17,810.	.02432	4650	6500 ...
...	500,000	19	.811	1544.	8,151.	21,950.	.02200	17,320.	19,790.	.02189	4200	6500 ...
...	500,000	37	.814	1544.	8,151.	22,510.	.02200	17,550.	20,030.	.02189	4200	6500 ...
...	600,000	37	.891	1853.	9,781.	27,020.	.01834	21,060.	24,030.	.01824	3500	6500 ...
...	700,000	37	.963	2161.	11,410.	31,170.	.01572	24,410.	27,870.	.01563	3000	6500 ...
...	750,000	37	.997	2316.	12,230.	33,400.	.01467	26,150.	29,860.	.01459	2800	6500 ...
...	800,000	37	1.029	2470.	13,040.	35,120.	.01375	27,710.	31,670.	.01368	2640	6500 ...
...	900,000	37	1.092	2779.	14,670.	39,510.	.01222	31,170.	35,630.	.01216	2300	6400 ...
...	1,000,000	37	1.151	3088.	16,300.	43,830.	.01100	34,350.	39,340.	.01094	2100	6500 ...

Bas is for strength, weight, and resistance data:

Hard drawn conductors—A.S.T.M. Specifications B 1 and B 8.

Medium hard drawn conductors—A.S.T.M. Specifications B 2 and B 8.

Increments for stranded conductors (weight and resistance data): 3-wire strand—1%. 7-wire to 37-wire strand inclusive—2%.

The average resistivity of copper ordinarily furnished is somewhat lower than A.S.T.M. maximums.

When lengths are not specified, random lengths will be included. When lengths are specifically agreed upon for any item, 90 per cent of the reels shall have the specified length subject to a variation of 10% plus or minus; the remainder of the item may be shipped in random lengths of not less than 50% of the specified length.

General Cable Hard Drawn Bare Copper Conductors Solid Conductors

A.W.G.	SIZE CM	No. Strands	Overall Diameter Inches	RESISTANCE OHMS PER MILE—68°F.				RESISTANCE OHMS PER MILE—122°F.				PHASE TO NEUTRAL REACTANCE AT 1 FOOT SEPARATION OHMS PER MILE		
				D.C.	25 Cycles			D.C.	25 Cycles			25 Cycles	50 Cycles	60 Cycles
					50 Cycles	60 Cycles	60 Cycles		50 Cycles	60 Cycles	60 Cycles			
2	66,370	Solid	.2576	.8580	.8580	.8582	.8583	.9553	.9553	.9555	.9556	.2419	.4838	.5806
3	52,630	Solid	.2294	1.082	1.082	1.082	1.082	1.205	1.205	1.205	1.205	.2478	.4955	.5946
4	41,740	Solid	.2043	1.364	1.364	1.364	1.364	1.519	1.519	1.519	1.519	.2536	.5072	.6087
5	33,100	Solid	.1819	1.720	1.720	1.720	1.720	1.915	1.915	1.915	1.915	.2595	.5190	.6228
6	26,250	Solid	.1620	2.169	2.169	2.169	2.169	2.415	2.415	2.415	2.415	.2653	.5307	.6368
7	20,820	Solid	.1443	2.735	2.735	2.735	2.735	3.045	3.045	3.045	3.045	.2712	.5424	.6509
8	16,510	Solid	.1285	3.449	3.449	3.449	3.449	3.840	3.840	3.840	3.840	.2771	.5541	.6649

Stranded Conductors

...	750,000	37	.997	.07745	.07811	.08010	.08127	.08623	.08682	.08862	.08967	.1742	.3484	.4180
...	700,000	37	.963	.08298	.08360	.08547	.08656	.09239	.09295	.09463	.09562	.1759	.3519	.4223
...	600,000	37	.891	.09681	.09734	.09895	.09990	.1078	.1083	.1097	.1106	.1799	.3597	.4317
...	500,000	37	.814	.1162	.1166	.1180	.1188	.1293	.1297	.1310	.1317	.1845	.3690	.4428
...	500,000	19	.811	.1162	.1166	.1180	.1188	.1293	.1297	.1310	.1317	.1853	.3706	.4447
...	450,000	19	.770	.1291	.1295	.1307	.1314	.1437	.1441	.1452	.1458	.1879	.3759	.4510
...	400,000	19	.726	.1452	.1456	.1467	.1473	.1617	.1620	.1630	.1636	.1909	.3818	.4582
...	350,000	19	.679	.1660	.1663	.1672	.1678	.1848	.1851	.1859	.1864	.1943	.3886	.4663
...	350,000	12	.710	.1630	.1663	.1672	.1678	.1848	.1851	.1859	.1864	.1918	.3836	.4604
...	300,000	19	.629	.1936	.1939	.1947	.1952	.2156	.2158	.2165	.2170	.1982	.3963	.4756
...	300,000	12	.657	.1936	.1939	.1947	.1952	.2156	.2158	.2165	.2170	.1957	.3915	.4698
...	250,000	19	.574	.2323	.2326	.2332	.2336	.2587	.2589	.2595	.2599	.2028	.4056	.4867
...	250,000	12	.600	.2323	.2326	.2332	.2336	.2587	.2589	.2595	.2599	.2003	.4006	.4868
4/0	211,600	19	.528	.2745	.2747	.2753	.2756	.3056	.3058	.3063	.3066	.2070	.4140	.4968
4/0	211,600	12	.552	.2745	.2747	.2753	.2756	.3056	.3058	.3063	.3066	.2045	.4091	.4909
4/0	211,600	7	.522	.2745	.2747	.2753	.2756	.3056	.3058	.3063	.3066	.2098	.4195	.5034
3/0	167,800	12	.492	.3461	.3463	.3468	.3470	.3854	.3855	.3859	.3862	.2104	.4207	.5049
3/0	167,800	7	.464	.3461	.3463	.3468	.3470	.3854	.3855	.3859	.3862	.2157	.4314	.5177
2/0	133,100	7	.414	.4365	.4366	.4370	.4372	.4860	.4861	.4864	.4866	.2215	.4429	.5315
1/0	105,500	7	.368	.5504	.5505	.5508	.5509	.6128	.6129	.6131	.6133	.2274	.4549	.5458
1	83,690	7	.328	.6940	.6941	.6943	.6945	.7727	.7728	.7730	.7731	.2332	.4665	.5598
2	66,370	7	.292	.8751	.8752	.8754	.8755	.9744	.9744	.9746	.9747	.2391	.4783	.5739
2	66,370	3	.320	.8666	.8666	.8668	.8669	.9648	.9649	.9650	.9651	.2380	.4759	.5711
3	52,630	3	.285	1.093	1.093	1.093	1.093	1.217	1.217	1.217	1.217	.2438	.4877	.5852
4	41,740	3	.254	1.378	1.378	1.378	1.378	1.534	1.534	1.534	1.534	.2496	.4993	.5991
5	33,100	3	.226	1.737	1.738	1.738	1.738	1.934	1.934	1.934	1.934	.2555	.5111	.6133
6	26,250	3	.201	2.191	2.191	2.191	2.191	2.439	2.439	2.439	2.439	.2615	.5229	.6275

Resistances based on conductivities in accordance with A.S.T.M. Specification B1. Increments for stranded conductors: 3-wire strand, 1%; 7 to 37-wire strand inclusive, 2%.

General Cable Hard Drawn Copper Trolley Wires

(97.16% I.A.C.S. Conductivity) Round Conductors—A.S.T.M. B 47-39

Nominal Conductor Size MCM or A.W.G.	Overall Diameter Inches	AREA		Net WEIGHT, POUNDS		Tensile Strength Lb. per Sq. In.	Breaking Strength Pounds	Resistance Ohms per 1000 Ft. 68°F.	REELS	
		C.M.	Square Inches	Per 1000 Ft.	Per Mile				Feet	Net Weight Pounds
300	.518	300,000	.2356	908 1	4795	46,400	10,930	.03558	2640	2400
4/0	.460	211,600	.1662	640 5	3382	49,000	8,143	.05044	5280	3382
3/0	.410	168,100	.1320	508 8	2687	51,000	6,732	.06350	5280	2687
2/0	.365	133,200	.1046	403 2	2129	52,800	5,523	.08014	5280	2129
1/0	.325	105,600	.08294	319 7	1688	54,500	4,520	.1011	5280	1688

Grooved Conductors—A.S.T.M. B 47-39

350	.620	351,200	.2758	1063	5612	42,800	11,800	.03039	1250	1330
300	.574	299,800	.2355	907 5	4792	41,200	10,410	.03560	2640	2400
4/0	.482	212,000	.1665	641 8	3389	46,600	7,759	.05035	5280	3389
3/0	.430	167,300	.1314	506 4	2674	48,500	6,373	.06380	5280	2674
2/0	.392	137,900	.1083	417 4	2205	50,200	5,437	.07740	5280	2205
*1/0	.360	105,600	.08294	319 7	1688	51,800	4,296	.1011	5280	1688

†Figure 8 Conductors—A.S.T.M. B 116-40

350	.754x .570	350,100	.2750	1060	5597	42,800	11,770	.03050	2640	2798
4/0	.600x .450	211,600	.1662	640 5	3382	46,600	7,745	.05044	5280	3382
3/0	.540x .400	167,800	.1318	507 9	2682	48,500	6,390	.06350	5280	2682
2/0	.480x .352	133,100	.1045	402 9	2127	50,200	5,245	.08014	5280	2127
1/0	.420x .312	105,600	.08294	319 7	1688	51,800	4,300	.1011	5280	1688

†Figure 9, Deep, Section A.S.T.M. B 116-40

400	.745x .552	397,200	.3120	1202	6347	41,300	12,880	.02687	1000	1202
350	.707x .496	348,900	.2740	1056	5576	42,800	11,720	.03059	1000	1056

*This size groove wire not included in A.S.T.M. B-47.
 †For Figure 8 and Figure 9 wire dimensions given are nominal height of entire section and width of lower lobe.
 Size 6/0 A.W.G. (336,200 CM) grooved or Figure 8 will regularly be furnished in 350,000 CM.
 Tolerances: Round Wire—Diameter = 1 per cent.
 Grooved Wire—Dimensions—Area ±4 per cent.
 Figure 8 Wire—Dimensions.
 Figure 9 Wire—Area ±5 per cent.
 Breaking strengths are based on nominal wire diameters and dimensions.
 Resistances are based on nominal wire diameters and dimensions and on the following resistivity: 900.77 ohms (mile, pound) at 68°F. (20°C.)—97.16 per cent I.A.C.S. conductivity.
 Weights are based on nominal wire diameters and dimensions.
 The above data is approximate and subject to normal manufacturing tolerances.

General Cable Bare Copper Wire

Coarse and Intermediate Sizes

A.S.T.M. Standards: Hard Drawn B 1-40; Medium Hard Drawn B 2-40; Soft or Annealed B 3-41

Size A. W. Diam. G. Mils	Area CM	Wt. Lb. per 1000 Ft.	SOFT OR ANNEALED					MEDIUM HARD				HARD DRAWN			
			STDS. PKG. *REELS Coils	Break- ing Stren- gth	Tensile Strength Max.	Max. Resist. Ohms per 1000 Ft. 68°F.	BREAKING STRENGTH POUNDS	TENSILE STRENGTH POUNDS PER SQUARE INCH	Max. Resist. Ohms per 1000 Ft. 68°F.	Break- ing Stren- gth	Tensile Strength Min.	Max. Resist. Ohms per 1000 Ft. 68°F.			
													Wt. Lb.	Wt. Lb.	Max. Lb.	Max. Min.	Max. Min.	Min. Lb. per Sq. In.	Max. Lb. per 1000 Ft. 68°F.
4/0	460.0	211,600.	1000	641 250	5983.	36,000	.04901	8143.	6980.	49,000	42,000	.05019	8143.	49,000	.05045
3/0	409.6	167,800.	507.9	2640 1341	250 4745.	36,000	.06180	6590.	5667.	50,000	43,000	.06329	6722.	51,000	.06361
2/0	364.8	133,100.	402.9	5280 2127	250 3763.	36,000	.07793	5331.	4599.	51,000	44,000	.07980	5519.	52,800	.08021
1/0	324.9	105,500.	319.3	5280 1686	250 2984.	36,000	.09827	4309.	3729.	52,000	45,000	.1006	4517.	54,500	.1011
1	289.3	83,690.	253.3	5280 1337	250 2432.	37,000	.1239	3484.	3024.	53,000	46,000	.1282	3688.	56,100	.1287
2	257.6	66,370.	200.9	5280 1061	250 1929.	37,000	.1563	2815.	2450.	54,000	47,000	.1617	3003.	57,600	.1625
3	229.4	52,630.	159.3	5280 841	250 1530.	37,000	.1970	2273.	1984.	55,000	48,000	.2038	2439.	59,000	.2045
4	204.3	41,740.	126.4	5280 667	250 1213.	37,000	.2485	1814.	1584.	55,330	48,330	.2570	1970.	60,100	.2584
5	181.9	33,100.	100.2	.....	250 961.9	37,000	.3133	1447.	1265.	55,660	48,660	.3241	1591.	61,200	.3258
6	162.0	26,250.	79.46	.....	250 762.9	37,000	.3951	1155.	1010.	56,000	49,000	.4087	1280.	62,100	.4108
7	144.3	20,820.	63.02	.....	250 605.0	37,000	.4982	921.0	806.6	56,330	49,330	.5154	1030.	63,000	.5181
8	128.5	16,510.	49.97	.....	250 479.8	37,000	.6282	734.7	643.9	56,660	49,660	.6499	826.0	63,700	.6533
9	114.4	13,090.	39.63	.....	250 380.5	37,000	.7921	586.0	514.0	57,000	50,000	.8195	661.2	64,300	.8238
10	101.9	10,380.	31.43	.....	250 314.0	38,500	.9989	467.4	410.4	57,330	50,330	1.033	529.2	64,900	1.039
11	90.74	8,234.	24.92	.....	250 249.0	38,500	1.260	372.9	327.6	57,660	50,660	1.303	422.9	65,400	1.310
12	80.81	6,530.	19.77	.....	125 197.5	38,500	1.588	297.5	261.6	58,000	51,000	1.643	337.0	65,700	1.652
13	71.96	5,178.	15.68	.....	125 156.6	38,500	2.003	237.2	208.8	58,330	51,330	2.072	268.0	65,900	2.083
14	64.08	4,107.	12.43	.....	125 124.2	38,500	2.525	189.2	166.6	58,660	51,660	2.613	213.5	66,200	2.626
15	57.07	3,257.	9.858	.....	125 98.48	38,500	3.184	150.9	133.0	59,000	52,000	3.295	169.8	66,400	3.312
16	50.82	2,583.	7.818	.....	125 78.10	38,500	4.016	120.3	106.2	59,330	52,330	4.154	135.1	66,600	4.176
17	45.26	2,048.	6.200	.....	125 61.93	38,500	5.064	95.97	84.71	59,660	52,660	5.239	107.5	66,800	5.266
18	40.30	1,624.	4.917	.....	50 100 49.12	38,500	6.385	76.54	67.61	60,000	53,000	6.606	85.47	67,000	6.640
19	35.89	1,288.	3.899	.....	25 50 38.95	38,500	8.051	61.03	53.95	60,300	53,300	8.330	67.99	67,200	8.373
20	31.96	1,022.	3.092	.....	25 50 30.89	38,500	10.15	48.66	43.05	60,700	53,700	10.50	54.08	67,400	10.56
21	28.46	810.1	2.452	.....	25 50 24.50	38,500	12.80	38.81	34.36	61,000	54,000	13.24	43.07	67,700	13.31
22	25.35	642.4	1.945	.....	25 50 19.43	38,500	16.14	30.94	27.41	61,300	54,300	16.70	34.26	67,900	16.79
23	22.57	509.5	1.542	.....	25 25 15.41	38,500	20.36	24.67	21.87	61,600	54,600	21.06	27.25	68,100	21.17
24	20.10	404.0	1.223	.....	25 25 12.69	40,000	25.67	19.67	17.45	62,000	55,000	26.56	21.67	68,300	26.69
25	17.90	320.4	.9699	.....	25 25 10.07	40,000	32.37	15.68	13.92	62,300	55,300	33.49	17.26	68,600	33.66
26	15.94	254.1	.7692	.....	25 25 7.983	40,000	40.81	12.51	11.11	62,700	55,700	42.23	13.73	68,800	42.44
27	14.20	201.5	.6100	.....	10 15 6.331	40,000	51.47	9.970	8.863	63,000	56,000	53.25	10.92	69,000	53.52
28	12.64	159.8	.4837	.....	10 15 5.021	40,000	64.90	7.949	7.070	63,300	56,300	67.14	8.698	69,300	67.49
29	11.26	126.7	.3836	.....	10 15 3.981	40,000	81.83	6.336	5.640	63,700	56,700	84.66	6.908	69,400	85.10
30	10.03	100.5	.3042	.....	10 15 3.157	40,000	103.2	5.051	4.499	64,000	57,000	106.8	5.502	69,700	107.3
31	8.928	79.70	.2413	.....	5 10 2.504	40,000	130.1	4.027	3.589	64,300	57,300	134.6	4.376	69,900	135.3
32	7.950	63.21	.1913	.....	5 10 1.986	40,000	164.1	3.210	2.862	64,600	57,600	169.8	3.485	70,200	170.6
33	7.080	50.13	.1517	.....	5 10 1.575	40,000	206.9	2.558	2.283	65,000	58,000	214.1	2.772	70,400	215.2
34	6.305	39.75	.1203	.....	4 10 1.249	40,000	260.9	2.040	1.821	65,300	58,300	269.9	2.204	70,600	271.3
35	5.615	31.52	.09542	.....	4 6 .9904	40,000	329.0	1.625	1.452	65,600	58,600	340.4	1.755	70,900	342.1
36	5.000	25.00	.07568	.....	2 6 .7854	40,000	414.8	1.295	1.158	66,000	59,000	429.2	1.396	71,100	431.4
37	4.453	19.83	.06002	.....	2 6 .6228	40,000	523.1	1.033	.9238	66,300	59,300	541.2	1.110	71,300	544.0
38	3.965	15.72	.04759	.....	2 6 .4939	40,000	659.6	.8231	.7367	66,700	59,700	682.4	.8829	71,500	686.0
39	3.531	12.47	.03774	.....	2	3917	831.8	.6561	.5876	67,000	60,000	860.5	.7031	71,800	865.0
40	3.145	9.888	.02993	.....	2	3106	1049.0	.5227	.4685	67,300	60,300	1085.0	.5592	72,000	1091.0
41	2.800	7.842	.02374	.....	1	2464	1323.0	.4145	.3716	67,300	60,300	1368.0	.4434	72,000	1375.0
42	2.494	6.219	.01882	.....	1	1954	1668.0	.3287	.2947	67,300	60,300	1725.0	.3517	72,000	1734.0
43	2.221	4.932	.01493	.....	1/2	1549	2103.0	.2607	.2337	67,300	60,300	2176.0	.2789	72,000	2187.0
44	1.978	3.911	.01184	.....	1/2	1229	2652.0	.2067	.1853	67,300	60,300	2743.0	.2212	72,000	2758.0
45	1.761	3.102	.009388	.....	1/2 ....	.09744	3344.0	.1639	.1469	67,300	60,300	3459.0	.1754	72,000	3477.0

*Size 18 A.W.G. and smaller on spools.

Weights are based on nominal wire diameters. Breaking strengths are based on nominal wire diameters.

Tolerances

Diameter: Hard drawn A.S.T.M. B 1.

Medium hard drawn A.S.T.M. B 2.

Wires .100-inch diameter and larger. ±1 per cent.

Wires under .100-inch diameter. ±.001-inch.

No A.S.T.M. requirements for hard or medium hard wire for wires smaller than size 18 A.W.G. (.0403-inch).

Soft or annealed A.S.T.M. B 3.

Wires .010-inch diameter and larger. ±1 per cent.

Wires under .010-inch diameter. ±.001-inch.

Weight: Tolerances in weight conform to tolerances in diameter (area).

The Above data is approximate and subject to normal manufacturing tolerances.

General Cable Square and Rectangular Copper Wire
Soft or Annealed, Bare (A.S.T.M. Specification B48)



Used in the construction of transformers and other electrical machinery. Made by processing, round wire. Finished with round corners. Physical characteristics are controlled to provide sections suitable for edgewise bending. Fabricated wire is subjected to special final polishing and cleaning.

Tensile Properties

Specified Thickness Inches	Tensile Strength Max. per Sq. In.	Elongation in 10 In. Minimum Per Cent
0.290 and Over.....	36,000	35
0.289 to 0.051.....	37,000	32
0.050 to 0.021.....	38,000	30
0.020 to 0.011.....	40,000	25
0.010 and Under.....	.....	20

Dimensions and Permissible Variations

Specified Thickness Inches	Thickness		
	1.001 In. and Over in Width	1.000 to 0.501 In. in Width	0.500 In. and Under in Width
0.501 and Over.....	1 Per Cent	1 Per Cent	.....
0.500 to 0.301.....	1 Per Cent	1 Per Cent	0.003 In.
0.300 to 0.201.....	0.003 In.	1 Per Cent	1 Per Cent
0.200 to 0.101.....	0.0025 In.	1 Per Cent	1 Per Cent
0.100 to 0.051.....	0.002 In.	0.001 In.	0.001 In.
0.050 and Under....	0.0015 In.	0.001 In.	0.001 In.

Specified Width Inches	Width		
	Maximum Width, Plus or Minus		
0.501 and Over....	1 Per Cent But Not to Exceed 0.016 In.		
0.500 to 0.301....	0.003 In.		
0.300 to 0.101....	1 Per Cent		
0.100 and Under..	0.001 In.		

Radii of Corners

Specified Thickness Inches	Specified Width, INCHES		
	0.751 and Over	0.189 to 0.750 Incl.	Up to 0.188 Incl.
0.689 and Over	3/16	3/16	..
0.688 to 0.439 Incl.	1/8	3/32	..
0.438 to 0.266 Incl.	3/32	1/16	..
0.225 to 0.166 Incl.	1/16	3/64	3/64
0.165 to 0.126 Incl.	1/16	1/32	1/32
0.125 to 0.073 Incl.	†Rounded Edge	1/32	1/64
*0.072 to 0.051 Incl.	†Rounded Edge	†Rounded Edge	1/64
0.050 and Under	†Rounded Edge	†Rounded Edge	†Rounded Edge

*Square wire, 0.072 inches and under, shall have a corner radius of 0.012 inches ±25 per cent.

†A rounded edge is an edge produced by rolling round wire to the size specified either with or without edging rolls.

Density

For the purpose of calculating weights, cross-sections, etc., the density of the copper shall be taken as 8.89g. per cubic cm. (0.32117 pounds per cubic inch) at 20°C. (68°F.).

Resistivity (Percentage Conductivity)

Resistivity is used in place of percentage conductivity. The value of 0.15328-ohm (meter, gram) at 20°C. (68°F.) is the international standard for the resistivity of annealed copper equal to 100 per cent conductivity. This term means that a wire 1 mile in length and weighing 1 gram would have a resistance of 0.15328-ohm. This is equivalent to a resistivity value of 875.20 Ohms (mile, pound), which signifies the resistance of a wire 1 mile in length weighing 1 pound. It is also equivalent, for example, to 1.7241 microhms per centimeter of length of a bar 1 square centimeter in cross-section.

Conductivity at 20°C. (68°F.), Per Cent.....	100.00
Ohms (Mile, Pound).....	875.20
Ohm (Meter, Gram).....	0.15328
Ohms (Mil, Foot).....	10.371
Ohm (Meter, Square Millimeter).....	0.017241
Microhm—Inch.....	0.67879
Microhm—Centimeter.....	1.7241

General Cable Bare Cable Composite Copper-Bronze



Composite cables unite the electrical conductance of copper with the mechanical strength of bronze. For rural lines and special constructions such as river crossings, etc, and long span construction or other service conditions.

Other sizes and constructions are available.

Conductor No.	HARD DRAWN COPPER EQUIV. Size		CONSTRUCTION		Conductor Diam. In.	Breaking Strength Pounds
	A.W.G.	CM	Hard Drawn Copper	Hard Drawn Bronze		
2DS3	2	66,370	1/.2196	2/.1717	0.408	6605
4DS3	4	41,740	1/.1742	2/.1362	0.324	4281
6DS3	6	26,250	1/.1381	2/.1080	0.257	2810
8DS3	8	16,510	1/.0980	2/.1059	0.223	2306
8BS3	8	16,510	.....	3/.1337	0.288	4192
9DS3	9	13,090	1/.0873	2/.0943	0.198	1845
10BS3	10	10,380	.....	3/.1061	0.229	2770

Conductor No.	AREA		Final Modulus of Elasticity	Coefficient of Linear Expansion per °F.	Wt., Lb.—	
	CM	Sq. In.			Per 1000 Feet	Per Mile
2DS3	107,200	0.08418	15,500,000	0.0000096	325.20	1717.0
4DS3	67,410	0.05294	15,500,000	0.0000096	204.50	1080.0
6DS3	42,390	0.03329	15,500,000	0.0000096	128.60	679.2
8DS3	32,030	0.02516	15,250,000	0.0000097	97.04	512.4
8BS3	53,660	0.04214	15,250,000	0.0000097	162.10	855.7
9DS3	25,400	0.01995	15,000,000	0.0000098	76.96	406.3
10BS3	33,750	0.02650	15,000,000	0.0000098	101.90	538.1

General Cable Alectral Weatherproof Service Wire

Hard-Drawn Aluminum Conductors Gencaprene Type

A homogeneous, seamless covering made of Neoprene. Provides a Thermosetting, completely vulcanized covering that will not drip or become brittle under extreme weather conditions.

Aluminum Wire

Size A.W.G.	Copper Equivalent	Diameter Mils	AREA		Resistance Ohms per 1000 Feet at 68° F.
			CM	Sq. In.	
2	4	257.6	66,370	.05213	.2563
4	6	204.3	41,740	.03278	.4075
6	8	162.0	26,210	.02062	.6480
8	10	128.5	16,510	.01297	1.0300

Covered Wire

Size A.W.G.	Copper Equivalent	Diameter Mils	Breaking Strength Pounds	Wt. Lb. per 1000 Feet
4	6	747	63	
6	8	470	45	
8	10	308	33	

U.R.C. Type

OK Braided Type conforms to A.S.A. and U.R.C. specifications.

Peerless Type is a weatherproof wire having the same weight covering as triple braided wire and characteristics providing exceptional length of life. Covering conforms to A.S.A. and U.R.C. specifications.

Braided Type

Size A.W.G.	Copper Equivalent	Diameter Mils	Breaking Strength Pounds	Wt. Lb. per 1000 Feet
4	6	708	76.0	
6	8	446	56.7	
8	10	292	40.2	

Peerless Type—OK Braided Type

Size A.W.G.	Copper Equivalent	Diameter Mils	AREA		Resistance Ohms per 1000 Feet at 68° F.
			CM	Sq. In.	
2	4	257.6	66,370	.05213	.2563
4	6	204.3	41,740	.03278	.4075
6	8	162.0	26,210	.02062	.6480
8	10	128.5	16,510	.01297	1.0300

Peerless Type—Triple Braid Weight

Size A.W.G.	Copper Equivalent	Diameter Mils	Breaking Strength Pounds	Wt. Lb. per 1000 Feet
4	6	708	76.0	
6	8	446	56.7	
8	10	292	40.2	

Power Transmission and Distribution Conductors

Copperweld-Copper 3-Wire Standard



Used for all types of overhead distribution lines, and particularly for long span construction. Three wire triangular shape makes conductor practically free from line vibration, and large individual wires provide a very substantial and rugged conductor. Easily installed.

Combines the high conductance of copper with the high strength of Copperweld. The Type A conductors are composed of one extra high strength Copperweld wire and two hard-drawn copper wires. Other types include Type C composed of one 40 per cent conductivity Copperweld wire with two hard-drawn copper wires and Type D composed of two Copperweld wires and one copper wire.

The following table includes the more generally used sizes of Copperweld-copper 3-wire strands. Data for other sizes, and Copperweld-copper 7-wire strands used principally for the high conductance requirements, are available upon request.

No.	EQUIVALENT STRANDED H.D. COPPER		Resistance 68°F. Ohms per 1000 Ft.	Diameter Cable Inches	Diameter Wires Inches
	Conductance A.W.G.	CM			
2A	2	66,370	.1641	.366	.1699
3A	3	52,630	.2070	.326	.1513
4A	4	41,740	.2610	.290	.1347
5A	5	33,100	.3291	.258	.1200
5D	5	33,100	.3291	.310	.1438
6A	6	26,250	.4150	.230	.1068
6D	6	26,250	.4150	.276	.1281
7A	7	20,820	.5232	.223	*.1266
7D	7	20,820	.5232	.246	*.1141
8A	8	16,510	.6598	.199	*.1127
8C	8	16,510	.6598	.179	*.08081
8D	8	16,510	.6598	.219	.1016
9 1/2 D	9 1/2	11,750	.9170	.174	.08081

No.	Breaking Load Pounds	Cross- Section Sq. In.	WEIGHT, POUNDS	
			per 1000 Ft.	per Mile
2A	5,876	.06799	256.80	1356.0
3A	4,810	.05392	203.60	1075.0
4A	3,938	.04276	161.50	852.8
5A	3,193	.03391	128.10	676.3
5D	6,035	.04874	178.90	944.4
6A	2,585	.02689	101.60	536.3
6D	4,942	.03866	141.80	748.9
7A	2,754	.02516	93.66	494.6
7D	4,022	.03066	112.50	594.0
8A	2,233	.01995	74.27	392.2
8C	1,362	.01604	60.67	320.3
8D	3,256	.02431	89.21	471.0
9 1/2 D	1,743	.01539	56.46	298.1

2A to 6A Incl. 7A and 8A	Modulus of Elasticity	Coefficient of Expansion per Degree F.	*Copper Wires Diameter	
			A	B
2A to 6A Incl.	19,000,000	2A to 6A Incl.	.000,008,57	.08949"
7A and 8A	21,000,000	7A and 8A	.000,008,18	.07969"
C	19,000,000	C	.000,008,58	.08336"
D	22,000,000	D	.000,007,8	

Copperweld Telephone Line Wire 40 Per Cent Conductivity Grade

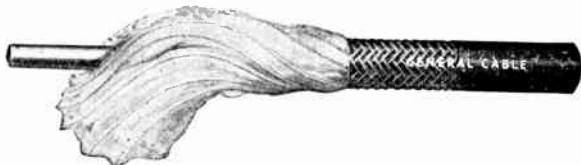


Made by molten-welding a thick, protective copper covering to an alloy steel core. Combines high strength of steel and high conductance, excellent voice and high frequency characteristics of non-rusting copper. Put up in mill length coils; approximate weight, 200 pounds. Prices on request.

*Type	Diam. In.	Break- ing Load Lb.	RESISTANCE —OHMS—		Wt. Lb. per Mile
			Per 1000 Ft.	Per Mile	
10 AWG H.S.	.1019	1130	2.547	13.45	152.1
.104" Diam. H.S.	.1040	1177	2.445	12.91	158.5
12 AWG H.S.	.08081	785	4.051	21.39	95.68
.080" Diam. H.S.	.080	770	4.133	21.82	93.77
.104" Diam. E.H.S.	.104	1325	2.445	12.91	158.5

*H.S. indicates high strength; E.H.S. extra high strength.

General Cable Weatherproof Wire and Cable



Peerless*-URC Triple or Double Braid Weight



"O.K.*-URC" Triple Braid



"O.K.*-URC" Double Braid

With Stranded Copper Conductors

Size A.W.G.	No. Feet on Reel	Triple-Braided and Peerless Triple Braid Weight NET WEIGHT, POUNDS			Double-Braided and Peerless Double Braid Weight NET WEIGHT, POUNDS		
		Per 1000 Feet	Per Mile	Per Reel	Per 1000 Feet	Per Mile	Per Reel
8	4000	78	410	312	68	359	272
6	3000	115	610	345	103	544	309
5	2000	140	740	280	126	668	252
4	2000	170	900	340	155	820	310
3	1500	206	1090	309	190	1004	285
2	1250	270	1425	338	246	1301	308
1	1000	328	1735	328	303	1599	303
1/0	4000	424	2240	1700	388	2051	1552
2/0	3500	522	2760	1830	482	2544	1687
3/0	3000	653	3450	1960	604	3190	1812
4/0	2500	800	4220	2000	745	3935	1863
MCM							
250	2500	985	5200	2460	907	4788	2268
300	2000	1174	6200	2350	1083	5721	2166
350	2000	1345	7100	2690	1248	6589	2496
400	2000	1553	8200	3106	1436	7584	2872
450	2000	1724	9100	3448	1601	8452	3202
500	2000	1894	10000	3788	1765	9318	3530
600	1500	2235	11800	3340	2093	11052	3140
700	1200	2650	14000	3180	2471	13045	2965
750	1100	2822	14900	3104	2635	13913	2899
800	1000	2992	15800	2992	2799	14779	2799
900	1000	3332	17600	3332	3127	16513	3127
1000	900	3674	19400	3300	3456	18246	3110
1250	800	4508	23800	3606	4264	22516	3411
1500	700	5380	28400	3766	5098	26915	3569
1750	600	6193	32700	3716	5894	31119	3536
2000	500	7008	37000	3504	6690	35323	3345

With Solid Copper Conductors

Size A.W.G.	No. Ft. on Reel	No. Ft. in Coil	Triple-Braided and Peerless Triple Braid Weight NET WEIGHT, POUNDS				Double-Braided and Peerless Double Braid Weight NET WEIGHT, POUNDS			
			Per 1000 Feet	Per Mile	Per Reel	Per Coil	Per 1000 Feet	Per Mile	Per Reel	Per Coil
14	....	....	25	130	†	...	20	107	....	†
12	....	....	35	185	†	...	30	158	....	†
10	6400	3970	53	280	340	210	46	241	295	180
9	6300	3150	62	325	390	195	54	283	340	170
8	5000	2500	75	395	370	185	66	349	330	165
6	3150	1575	112	590	350	175	100	529	315	160
5	2000	1260	135	710	270	170	122	646	244	154
4	1980	990	164	865	320	160	151	795	295	150
3	1600	753	199	1050	320	160	185	977	295	150
2	1240	620	260	1370	320	160	239	1264	295	150
1	990	495	316	1670	310	155	294	1553	290	145
1/0	4000	....	407	2150	1630	...	377	1989	1508	...
2/0	3500	....	502	2650	1760	...	467	2467	1635	...
3/0	3000	....	629	3320	1890	...	587	3098	1761	...
4/0	2500	....	767	4050	1920	...	723	3817	1808	...

†Trade-mark.
†Sizes 12 and 14 A.W.G. are supplied in 100-pound bundles of four coils each, weighing approximately 25 pounds. Sizes 8, 9 and 10 A.W.G. may also be supplied in bundles.

General Cable *Super Service S Cable

Single Conductor—600 Volts



Designed for general portable power supply service whenever a heavy duty flexible cable is required. Specific uses, especially in the smaller conductor sizes, are for gathering reel locomotives in mines. For motor lead use, this cable can be supplied with a paper separator over the conductor.

Size A.W.G.	CONDUCTORS WIRE		Diam. In.	Current Carrying Capacity Amperes	Insulation Thickness Inches	Overall Diameter Inches
	No.	Diam. In.				
8	49	.0184	.166	45	$\frac{1}{64}$	.11
6	49	.0231	.208	60	$\frac{1}{64}$	.51
6	133	.0140	.210	60	$\frac{1}{64}$	.51
4	49	.0292	.263	85	$\frac{1}{64}$	.57
4	133	.0177	.266	85	$\frac{1}{64}$	.57
3	49	.0328	.295	95	$\frac{1}{64}$	.63
3	133	.0199	.299	95	$\frac{1}{64}$	.63
2	133	.0223	.335	110	$\frac{1}{64}$	.66
2	259	.0160	.336	110	$\frac{1}{64}$	.66
1	133	.0251	.377	130	$\frac{5}{64}$	.74
1	259	.0180	.378	130	$\frac{5}{64}$	.74
1/0	133	.0282	.423	150	$\frac{5}{64}$	.77
1/0	259	.0202	.424	150	$\frac{5}{64}$	.77
2/0	133	.0316	.474	175	$\frac{5}{64}$	.82
2/0	259	.0227	.477	175	$\frac{5}{64}$	.82
3/0	259	.0255	.536	205	$\frac{5}{64}$	.87
3/0	427	.0198	.535	205	$\frac{5}{64}$	.87
4/0	259	.0286	.601	235	$\frac{5}{64}$	.93
4/0	427	.0222	.600	235	$\frac{5}{64}$	.93
MCM						
250	259	.0311	.653	275	$\frac{6}{64}$	1.03
250	427	.0212	.653	275	$\frac{6}{64}$	1.03
300	259	.0340	.711	305	$\frac{6}{64}$	1.09
300	427	.0265	.716	305	$\frac{6}{64}$	1.09
350	259	.0368	.773	345	$\frac{6}{64}$	1.15
350	427	.0286	.772	345	$\frac{6}{64}$	1.15
400	259	.0393	.825	375	$\frac{6}{64}$	1.20
400	427	.0306	.826	375	$\frac{6}{64}$	1.20
450	259	.0417	.876	400	$\frac{6}{64}$	1.26
450	427	.0325	.878	400	$\frac{6}{64}$	1.26
500	259	.0439	.922	425	$\frac{6}{64}$	1.31
500	427	.0342	.923	425	$\frac{6}{64}$	1.31
550	427	.0359	.969	450	$\frac{7}{64}$	1.41
550	703	.0280	.980	450	$\frac{7}{64}$	1.42
600	427	.0375	1.013	475	$\frac{7}{64}$	1.45
600	703	.0292	1.022	475	$\frac{7}{64}$	1.46
650	427	.0390	1.053	495	$\frac{7}{64}$	1.49
650	703	.0304	1.064	495	$\frac{7}{64}$	1.50
700	427	.0405	1.094	520	$\frac{7}{64}$	1.53
700	703	.0316	1.106	520	$\frac{7}{64}$	1.54
750	427	.0419	1.131	540	$\frac{7}{64}$	1.57
750	703	.0327	1.145	540	$\frac{7}{64}$	1.58

*Trade-mark.

Sizes 4, 3, and 2 A.W.G. single-conductor cable are made with a spider web braid of heavy single end cotton between inner insulating rubber and outer jacket to serve the special requirements of cables used on gathering reel locomotives in coal mines. All other sizes have helical winds.

General Cable *Super Service S Welding Cable



This cable possesses an overall protective jacket of tough resilient Neoprene compound especially designed to withstand severe service and yet remain flexible.

Exceptional flexibility is obtained by the use of a large number of extremely fine bare copper wires, rope stranded.

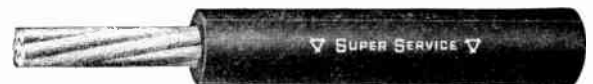
Coils easily, lies flat, does not kink or tangle. May be dragged through puddles and subjected to all kinds of hard usage in damp places.

Size A.W.G.	CONDUCTOR Construction	Diam. In.	Overall Diam. In.	I.P.C.E.A. CABLE RATINGS	
				Current Carrying Capacity Amperes	60°C. Copper Temperature per 100 Ft. Volts
4	7x7x 22/#34	.300	.495	100	3.18
3	7x7x 27/#34	.335	.500	150	3.70
2	7x7x 34/#34	.375	.560	200	3.92
1	7x7x 43/#34	.415	.625	250	3.88
1/0	7x7x 54/#34	.460	.675	300	3.72
2/0	7x7x 68/#34	.520	.750	375	3.68
3/0	7x7x 87/#34	.575	.815	450	3.51
4/0	7x7x109/#34	.630	.900	550	3.41

*Trade-mark.

The above values for carrying capacity are based on a copper temperature of 60°C. and an ambient temperature of 40°C. and yield load factors of from approximately 32% for 2 A.W.G. cable to approximately 23% for 3 A.W.G. cable, and higher for the smaller sizes. The sizes of cable used range from 2 to 3/0 A.W.G. In actual service the load factor may be much higher without overheating the cable as the ambient temperature will generally be substantially lower than 40°C.

General Cable *Super Service S Grounding Cable



Extensively used for temporary grounding of transmission lines of all voltages to 132,000 volts.

Ground clamp with cable attached is hooked on the line by means of a grounding stick, the other end having previously been connected to ground by clamping to transmission tower or when working on a pole, to any temporary ground connection available. This cable is also used in generating stations and substations for grounding apparatus during repairs.

Size A.W.G.	CONDUCTOR Construction	Diam. In.	Current Carrying Capacity Amperes	Overall Diam. In.
4	133x .0177"	.265	85	.675
3	133x .0199"	.298	95	.750
2	133x .0223"	.334	110	.750
1	133x .0251"	.376	130	.800
1/0	259x .0202"	.424	150	.850
2/0	259x .0227"	.477	175	.900
3/0	259x .0255"	.535	205	1.000
4/0	259x .0286"	.600	235	1.050

*Trade-mark.

General Cable *Super Service S Mining Machine Cable

2-Conductor Concentric Type—600 Volts



Used almost exclusively in mines on cutting machines and locomotives and are designed to have maximum flexibility for this type of cable. Manufactured in sizes 6 to 4/0 A.W.G. inclusive.

The central conductor is insulated with Performance Grade synthetic rubber or rubber compound over which is applied a compound filled tape. Concentric wires, having a conductivity equal to the central conductor, are laid helically, to provide full coverage over the insulated and taped inner conductor. The core thus formed is then covered with a layer of Performance Grade synthetic rubber or rubber compound which adheres strongly to the concentric strands. There is then applied a spider web braid of heavy single end cotton, and finally a heavy Neoprene jacket overall.

Size A.W.G.	CONDUCTORS		Current Carrying Capacity Amperes	Insulation Thickness Inches	Overall Diameter Inches
	Construction	Diam. In.			
6	6x7 / .0250"	.214	50	5/64	.77
6	6x19 / .0152"	.216	50	5/64	.77
4	6x7 / .0315"	.284	65	5/64	.84
4	6x19 / .0191"	.287	65	5/64	.84
3	6x7 / .0354"	.319	75	5/64	.89
3	6x19 / .0215"	.322	75	5/64	.89
2	6x19 / .0241"	.362	90	5/64	.94
2	6x37 / .0173"	.363	90	5/64	.94
1	6x19 / .0271"	.406	100	5/64	1.05
1	6x37 / .0194"	.408	100	5/64	1.05

The concentric conductor construction has a resistance no greater than that of the inner conductor.

Cables of larger sizes, up to and including 4/0 A.W.G. can also be furnished.

2-Conductor Parallel Duplex Type—600 Volts



Used in mines on cutting machines as a battery charging cable, and for other general uses requiring a 2 conductor all-rubber cable. Insulated with Performance Grade synthetic rubber or rubber compound. Identified by black insulation on one conductor and white insulation on the other. Conductors are laid parallel with rubber-like fillers in lateral interstices, and covered with a Neoprene sheath. A strong reinforcing cord directly under the sheath strengthens the cable and opposes kinking.

Size A.W.G.	CONDUCTORS		Current Carrying Capacity Amperes	Insulation Thickness Inches	Overall Diameter Inches
	No.	Diam. In.			
8	49	.0184	40	3/64	.57x .88
6	49	.0231	50	3/64	.62x .98
6	133	.0140	50	3/64	.62x .98
4	49	.0292	70	3/64	.71x1.13
4	133	.0177	70	3/64	.71x1.13
3	49	.0328	80	3/64	.74x1.20
3	133	.0199	80	3/64	.74x1.20
2	133	.0223	95	3/64	.77x1.27
2	259	.0160	95	3/64	.77x1.27
1	133	.0251	110	5/64	.88x1.44
1	259	.0180	110	5/64	.88x1.44

Cables of larger sizes, up to and including 4/0 A.W.G. can also be furnished.

*Trade-mark.

General Cable *Super Service S Cable

2-Conductor Round Type—600 Volts

3-Conductor—600 Volts

Used for general power supply purposes for motors and various types of portable equipment.

Type G cable is furnished with ground wires.

Type W cable is furnished without ground wires.



2-Conductor



3-Conductor

Size A.W.G.	CONDUCTORS		Current Carrying Capacity Amperes	Insulation Thickness In.	Overall Diameter In.	Ground Wire Construction
	No.	Diam. In.				
8	49	.0184	40	3/64	.91	7x7/#31
6	49	.0231	50	3/64	1.01	7x7/#29
6	133	.0140	50	3/64	1.01	7x7/#29
4	49	.0292	70	3/64	1.17	19x7/#31
4	133	.0177	70	3/64	1.17	19x7/#31
3	49	.0328	80	3/64	1.24	19x7/#30
3	133	.0199	80	3/64	1.24	19x7/#30
2	133	.0223	95	3/64	1.34	19x7/#29
2	259	.0160	95	3/64	1.34	19x7/#29
1	133	.0251	110	3/64	1.51	19x7/#28
1	259	.0180	110	3/64	1.51	19x7/#28
1/0	133	.0282	130	3/64	1.65	19x7/#27
1/0	259	.0202	130	3/64	1.65	19x7/#27
2/0	133	.0316	150	3/64	1.75	19x7/#26
2/0	259	.0227	150	3/64	1.75	19x7/#26
3/0	259	.0255	175	3/64	1.89	19x7/#25
3/0	427	.0198	175	3/64	1.89	19x7/#25
4/0	259	.0286	200	3/64	2.04	19x7/#24
4/0	427	.0222	200	3/64	2.04	19x7/#24

4-Conductor—600 Volts



Size A.W.G.	CONDUCTORS		Current Carrying Capacity Amperes	Insulation Thickness In.	Overall Diameter In.	Ground Wire Construction
	No.	Diam. In.				
8	49	.0184	30	3/64	.99	7x7/#32
6	49	.0231	40	3/64	1.10	7x7/#30
6	133	.0140	40	3/64	1.10	7x7/#30
4	49	.0292	55	3/64	1.27	7x7/#28
4	133	.0177	55	3/64	1.27	7x7/#28
3	49	.0328	65	3/64	1.34	19x7/#31
3	133	.0199	65	3/64	1.34	19x7/#31
2	133	.0223	75	3/64	1.48	19x7/#30
2	259	.0160	75	3/64	1.48	19x7/#30
1	133	.0251	85	3/64	1.68	19x7/#29
1	259	.0180	85	3/64	1.68	19x7/#29

Size A.W.G.	CONDUCTORS		Current Carrying Capacity Amperes	Insulation Thickness In.	Overall Diameter In.	Ground Wire Construction
	No.	Diam. In.				
1/0	133	.0282	100	5/64	1.79	19x7/#28
1/0	259	.0202	100	5/64	1.79	19x7/#28
2/0	133	.0316	115	5/64	1.93	19x7/#27
2/0	259	.0227	115	5/64	1.93	19x7/#27
3/0	259	.0255	130	5/64	2.07	19x7/#26
3/0	427	.0198	130	5/64	2.07	19x7/#26
4/0	259	.0286	150	5/64	2.26	19x7/#25
4/0	427	.0222	150	5/64	2.26	19x7/#25

*Trade-mark.

General Cable *Super Service S High-voltage Cable

SUPER SERVICE S high-voltage portable power cables are designed for a wide variety of purposes. In general their use covers both transmission of power from the supply to the portable equipment and distribution of that power to the electrical machines or control devices which are installed in or on the equipment.

The principal use of SUPER SERVICE S portable power cables is to convey energy for electrically operated shovels, dredges, cranes, etc., where arduous service and safety must combine for uninterrupted production and long cable life.

Further use of SUPER SERVICE S high-voltage cables of this type is found wherever both high voltage and portability are required, such as in construction work and for temporary or emergency power transfer in central stations and substations during equipment repairs and alterations. SUPER SERVICE S cables are available for operating voltages up to and including 15,000 volts, in single and multi-conductor form, and in a wide range of conductor sizes.

When unusual service conditions are encountered it is highly desirable that all requirements be known before attempting to select the proper type of SUPER SERVICE S cable to use. General Cable engineers are prepared to submit recommendations and to furnish full information on modifications.

There are three general types of SUPER SERVICE S high-voltage cables. These are:

TYPE W, without ground wires.

TYPE G, with ground wires.

TYPE SH (shielded) with or without ground wires.

Type W—(Without Ground Wires)

This cable is not recommended for service exceeding 2500 volts, although it can be furnished for higher voltages. Even at 2500 volts, special precautions should be used in the handling of the cable to minimize hazard of shock to workmen.

Has heavy walls of insulation and jacket.

Type G—(With Ground Wires)

The same construction as Type W except that it has a flexible ground wire in each filler space. While cables operating above 2500 volts should preferably be shielded, the ground wires in Type G cables in effect provide some shielding and afford a certain degree of protection to operators when the wires are grounded at both ends of the cable length. In some instances Type G cables have proved satisfactory at 4500 volts. The ground wires are normally of tinned copper strands covered with a cushioning cotton braid. If desired, ground wires composed of tinned steel strands can be supplied in place of copper.

Type SH—(Shielded—With or Without Ground Wires)

Similar to Types W and G, as previously described, except for the addition of shielding braids, and are recommended for all operating voltages above 2500 volts. These cables are classified in four groups as follows:

Type	Ground Wires	Shielding
SH-A	Without	On Each Conductor
SH-B	Without	Over Cabled Conductors
SH-C	With	Over Cabled Conductors
SH-D	With	On Each Conductor

Shielding braids over the assembled conductors confine the voltage stress within the core of the cable. When applied over the separate conductors, shielding confines the stress to the individual conductor insulations, eliminating corona and the attendant formation of ozone which is deleterious to synthetic rubber or rubber. Shielding braids, properly grounded, afford protection to the cable and to the operator.

The preferred shield consists of a combination copper-cotton braid with the tinned copper wires running in a direction opposite to the lay of the cable, and the cotton threads running in the same direction as the lay of the cable. An all-copper shielding braid can be furnished if desired but the combination shield has been found to give better service in cables subjected to repeated flexing.

It is considered good practice to employ ground wires in all shielded high-voltage portable cables. These ground wires are normally uninsulated to permit electrical contact with the shielding braids.

Where maximum safety is desired, Type SH-D cable with grounding conductors are recommended for circuit voltages over 2000.

*Trade-mark.

General Cable *Super Service S High-voltage Cable

Type G—2001-3000 Volts—With Ground Wires
Type W—2001-300 Volts—Without Ground Wires



3-Conductor

Size A.W.G.	CONDUCTORS			Current Carrying Capacity Amperes	Insulation Thick-ness Inches	Overall Diameter Inches	Ground Wire Construction
	No.	Diam. In.	Diam. In.				
8	49	.0184	.166	35	7/64	1.21	7x7/#31
6	49	.0231	.208	50	5/64	1.37	7x7/#29
6	133	.0140	.210	50	5/64	1.39	7x7/#29
4	49	.0292	.263	65	5/64	1.51	19x7/#31
4	133	.0177	.266	65	5/64	1.54	19x7/#31
3	49	.0328	.295	75	5/64	1.58	19x7/#30
3	133	.0199	.299	75	5/64	1.61	19x7/#30
2	133	.0223	.335	90	5/64	1.72	19x7/#29
2	259	.0160	.336	90	5/64	1.71	19x7/#29
1	133	.0251	.377	100	5/64	1.81	19x7/#28
1	259	.0180	.378	100	5/64	1.80	19x7/#28
1/0	133	.0282	.423	120	5/64	1.91	19x7/#27
1/0	259	.0202	.424	120	5/64	1.90	19x7/#27
2/0	133	.0316	.474	135	5/64	2.05	19x7/#26
2/0	259	.0227	.477	135	5/64	2.04	19x7/#26
3/0	259	.0255	.536	155	5/64	2.17	19x7/#25
3/0	427	.0198	.535	155	5/64	2.18	19x7/#25
4/0	259	.0286	.601	180	5/64	2.34	19x7/#24
4/0	427	.0222	.600	180	5/64	2.37	19x7/#24

4-Conductor

Size A.W.G.	CONDUCTORS			Current Carrying Capacity Amperes	Insulation Thick-ness Inches	Overall Diameter Inches	Ground Wire Construction
	No.	Diam. In.	Diam. In.				
8	49	.0184	.166	30	7/64	1.31	7x7/#32
6	49	.0231	.208	40	5/64	1.52	7x7/#30
6	133	.0140	.210	40	5/64	1.55	7x7/#30
4	49	.0292	.263	55	5/64	1.65	7x7/#28
4	133	.0177	.266	55	5/64	1.68	7x7/#28
3	49	.0328	.295	65	5/64	1.76	19x7/#31
3	133	.0199	.299	65	5/64	1.79	19x7/#31
2	133	.0223	.335	75	5/64	1.88	19x7/#30
2	259	.0160	.336	75	5/64	1.87	19x7/#30
1	133	.0251	.377	85	5/64	2.01	19x7/#29
1	259	.0180	.378	85	5/64	2.00	19x7/#29
1/0	133	.0282	.423	100	5/64	2.12	19x7/#28
1/0	259	.0202	.424	100	5/64	2.11	19x7/#28
2/0	133	.0316	.474	115	5/64	2.28	19x7/#27
2/0	259	.0227	.477	115	5/64	2.27	19x7/#27
3/0	259	.0255	.536	130	5/64	2.41	19x7/#26
3/0	427	.0198	.535	130	5/64	2.44	19x7/#26
4/0	259	.0286	.601	150	5/64	2.60	19x7/#25
4/0	427	.0222	.600	150	5/64	2.63	19x7/#25

3-Conductor Type G—3001-4000V.—With Ground Wires

3-Conductor Type G—4001-5000V.—With Ground Wires

Size A.W.G.	CONDUCTORS			Current Carrying Capacity Amperes	3001-4000 VOLTS		4001-5000 VOLTS		Ground Wire Construction
	No.	Diam. In.	Diam. In.		Insulation Thick-ness In.	Overall Diameter In.	Insulation Thick-ness In.	Overall Diameter In.	
6	49	.0231	.208	50	5/64	1.46	10/64	1.53	7x7/#29
6	133	.0140	.210	50	5/64	1.48	10/64	1.55	7x7/#29
4	49	.0292	.263	65	5/64	1.58	10/64	1.65	19x7/#31
4	133	.0177	.266	65	5/64	1.59	10/64	1.67	19x7/#31
3	49	.0328	.295	75	5/64	1.68	10/64	1.75	19x7/#30
3	133	.0199	.299	75	5/64	1.71	10/64	1.78	19x7/#30
2	133	.0223	.335	90	5/64	1.79	10/64	1.86	19x7/#29
2	259	.0160	.336	90	5/64	1.77	10/64	1.85	19x7/#29
1	133	.0251	.377	100	5/64	1.87	10/64	1.97	19x7/#28
1	259	.0180	.378	100	5/64	1.87	10/64	1.97	19x7/#28
1/0	133	.0282	.423	120	5/64	2.01	10/64	2.08	19x7/#27
1/0	259	.0202	.424	120	5/64	2.00	10/64	2.07	19x7/#27
2/0	133	.0316	.474	135	5/64	2.12	10/64	2.19	19x7/#26
2/0	259	.0227	.477	135	5/64	2.11	10/64	2.18	19x7/#26
3/0	259	.0255	.536	155	5/64	2.27	10/64	2.34	19x7/#25
3/0	427	.0198	.535	155	5/64	2.29	10/64	2.36	19x7/#25
4/0	259	.0286	.601	180	5/64	2.41	10/64	2.48	19x7/#24
4/0	427	.0222	.600	180	5/64	2.43	10/64	2.50	19x7/#24

*Trade-mark.

General Cable *Super Service S High-Voltage Cable

3-Conductor

Types SH-B and SH-C—Shielded Over Assembled Conductors

Types SH-A and SH-D—Shielded Over Individual Conductors



CONDUCTORS			2001-3000 VOLTS			3001-4000 VOLTS			Ground Wire Construction
Size A.W.G. No.	WIRE Diam. In.	Diam. In.	Current Carrying Capacity Amperes	Insulation Thick. In.	Over-all Diam. In.	Insulation Thick. In.	Over-all Diam. In.		
8	49	.0184	.166	35	1.39	8/64	1.57	6x7/#30	
6	49	.0231	.208	50	1.57	9/64	1.64	6x11/#30	
6	133	.0140	.210	50	1.59	9/64	1.66	6x11/#30	
4	49	.0292	.263	65	1.72	10/64	1.78	6x17/#30	
4	133	.0177	.266	65	1.74	10/64	1.80	6x17/#30	
3	49	.0328	.295	75	1.80	10/64	1.85	6x21/#30	
3	133	.0199	.299	75	1.82	10/64	1.88	6x21/#30	
2	133	.0223	.335	90	1.89	10/64	1.99	6x27/#30	
2	259	.0160	.336	90	1.88	10/64	1.98	6x27/#30	
1	133	.0251	.377	100	2.01	10/64	2.08	6x33/#30	
1	259	.0180	.378	100	2.01	10/64	2.07	6x33/#30	
1/0	133	.0282	.423	120	2.11	10/64	2.18	6x33/#29	
1/0	259	.0202	.424	120	2.10	10/64	2.17	6x33/#29	
2/0	133	.0316	.474	135	2.23	10/64	2.33	6x36/#28	
2/0	259	.0227	.477	135	2.22	10/64	2.32	6x36/#28	
3/0	259	.0255	.536	155	2.37	10/64	2.44	6x36/#27	
3/0	427	.0198	.535	155	2.40	10/64	2.46	6x36/#27	
4/0	259	.0286	.601	180	2.55	10/64	2.62	6x36/#26	
4/0	427	.0222	.600	180	2.57	10/64	2.64	6x36/#26	

CONDUCTORS			4001-5000 VOLTS			5001-6000 VOLTS			Ground Wire Construction
Size A.W.G. No.	WIRE Diam. In.	Diam. In.	Current Carrying Capacity Amperes	Insulation Thick. In.	Over-all Diam. In.	Insulation Thick. In.	Over-all Diam. In.		
6	49	.0231	.208	50	1.81	13/64	1.87	6x11/#30	
6	133	.0140	.210	50	1.82	13/64	1.91	6x11/#30	
4	49	.0292	.263	65	2.00	13/64	2.02	6x17/#30	
4	133	.0177	.266	65	1.97	13/64	2.04	6x17/#30	
3	49	.0328	.295	75	2.02	13/64	2.08	6x21/#30	
3	133	.0199	.299	75	2.05	13/64	2.11	6x21/#30	
2	133	.0223	.335	90	2.13	13/64	2.19	6x27/#30	
2	259	.0160	.336	90	2.12	13/64	2.19	6x27/#30	
1	133	.0251	.377	100	2.22	13/64	2.31	6x33/#30	
1	259	.0180	.378	100	2.21	13/64	2.31	6x33/#30	
1/0	133	.0282	.423	120	2.35	13/64	2.42	6x33/#29	
1/0	259	.0202	.424	120	2.34	13/64	2.41	6x33/#29	
2/0	133	.0316	.474	135	2.46	13/64	2.56	6x36/#28	
2/0	259	.0227	.477	135	2.46	13/64	2.55	6x36/#28	
3/0	259	.0255	.536	155	2.61	13/64	2.67	6x36/#27	
3/0	427	.0198	.535	155	2.63	13/64	2.70	6x36/#27	
4/0	259	.0286	.601	180	2.76	13/64	2.85	6x36/#26	
4/0	427	.0222	.600	180	2.78	13/64	2.87	6x36/#26	

CONDUCTORS			6001-7000 VOLTS			7001-8000 VOLTS			Ground Wire Construction
Size A.W.G. No.	WIRE Diam. In.	Diam. In.	Current Carrying Capacity Amperes	Insulation Thick. In.	Over-all Diam. In.	Insulation Thick. In.	Over-all Diam. In.		
4	49	.0292	.263	65	2.15	16/64	2.22	6x17/#30	
4	133	.0177	.266	65	2.17	16/64	2.24	6x17/#30	
3	49	.0328	.295	75	2.25	16/64	2.32	6x21/#30	
3	133	.0199	.299	75	2.28	16/64	2.35	6x21/#30	
2	133	.0223	.335	90	2.36	16/64	2.43	6x27/#30	
2	259	.0160	.336	90	2.35	16/64	2.42	6x27/#30	
1	133	.0251	.377	100	2.45	16/64	2.55	6x33/#30	
1	259	.0180	.378	100	2.44	16/64	2.54	6x33/#30	
1/0	133	.0282	.423	120	2.58	16/64	2.65	6x33/#29	
1/0	259	.0202	.424	120	2.57	16/64	2.64	6x33/#29	
2/0	133	.0316	.474	135	2.69	16/64	2.76	6x36/#28	
2/0	259	.0227	.477	135	2.68	16/64	2.75	6x36/#28	
3/0	259	.0255	.536	155	2.84	16/64	2.91	6x36/#27	
3/0	427	.0198	.535	155	2.86	16/64	2.93	6x36/#27	
4/0	259	.0286	.601	180	2.98	16/64	3.05	6x36/#26	
4/0	427	.0222	.600	180	3.01	16/64	3.07	6x36/#26	

General Cable Wire Armored Cable 3-Conductor

For semi-portable use, such as power supply to dredges. Galvanized steel armor wire provides longitudinal strength, allowing long lengths to be pulled into position or moved about without imposing undue strain on conductors or insulation. Protection is also afforded against fouling by ship anchors, abrasion, and impact of heavy bodies.

Conductors are of lead-alloy coated, soft annealed copper, and are flexible stranded (A.S.T.M. Class C).

Insulation on conductors is either a synthetic-rubber or rubber compound enclosed in a compound filled and varnished cambric tapes. Compound filled tape is color coded for circuit identification. Insulated and taped conductors are cabled with a short lay with presaturated jute fillers, and bound together with a heavy compound filled tape. A bedding of presaturated jute yarn is next applied, over which the galvanized steel armor wires are served. Armor wires are applied tightly with a short lay to provide maximum flexibility in finished cable.

Rated Voltage, 2001-3000 Phase to Phase

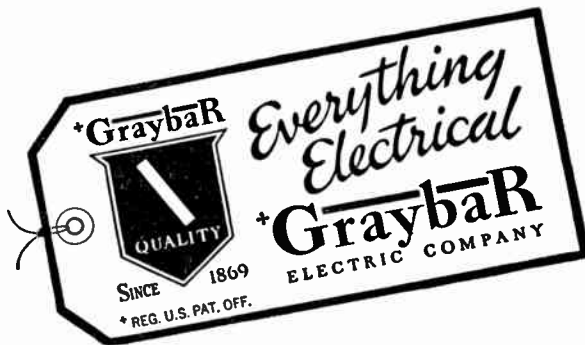
Size A.W.G.	CONDUCTORS No. of Strands	Diam. In.	Size of Armor Wires B.W.G.	Over-all Diam. In.	Insulation Thick. In.
6	19	.186	12	1.79	10/64
4	19	.231	12	1.89	10/64
2	19	.296	12	2.03	10/64
1	37	.333	12	2.11	10/64
1/0	37	.374	10	2.25	10/64
2/0	37	.420	10	2.35	10/64
3/0	37	.471	10	2.46	10/64
4/0	37	.529	10	2.59	10/64
MCM					
250	61	.576	10	2.75	11/64
500	61	.815	8	2.36	11/64
1000	91	1.153	8	4.09	11/64

Rated Voltage, 4001-5000 Phase to Phase

Size A.W.G.	CONDUCTORS No. of Strands	Diam. In.	Size of Armor Wires B.W.G.	Over-all Diam. In.	Insulation Thick. In.
6	19	.186	12	1.92	12/64
4	19	.231	12	2.03	12/64
2	19	.296	10	2.21	12/64
1	37	.333	10	2.30	12/64
1/0	37	.374	10	2.39	12/64
2/0	37	.420	10	2.49	12/64
3/0	37	.471	10	2.60	12/64
4/0	37	.529	10	2.72	12/64
MCM					
250	61	.576	10	2.89	13/64
500	61	.815	8	3.50	13/64
1000	91	1.153	8	4.23	13/64

Rated Voltage, 6001-7000 Phase to Phase

Size A.W.G.	CONDUCTORS No. of Strands	Diam. In.	Size of Armor Wires B.W.G.	Over-all Diam. In.	Insulation Thick. In.
6	19	.186	10	2.24	16/64
4	19	.231	10	2.35	16/64
2	19	.296	10	2.48	16/64
1	37	.333	10	2.57	16/64
1/0	37	.374	10	2.66	16/64
2/0	37	.420	10	2.76	16/64
3/0	37	.471	10	2.87	16/64
4/0	37	.529	8	3.08	16/64
MCM					
250	61	.576	8	3.18	16/64
500	61	.815	8	3.70	16/64
1000	91	1.153	8	4.43	16/64



*Trade-mark. Four conductor type SH cables also supplied

Type S General Cable Cords

600 Volts

Approved by Underwriters' Laboratories, Inc.



Used as portable supply lines to small electric tools or machinery. Prescribed by the N.E.C. for use in damp places and where subject to extra hard usage.

Made of flexible or extra flexible stranded conductors of soft, annealed copper, fibrous separator, synthetic-rubber insulation (color coded), cabled with cushioning soft jute or cotton fillers, a fibrous separator and enclosed in a synthetic rubber jacket. Put up in 250-foot lengths.

2-Conductor

Size A.W.G.	Construction	Current Carrying Capacity Amperes	Insulation Thick. In.	Over-all Diam. In.	Wt. Lb. per 1000 Feet	Wt. Lb. per 250 Ft. Coil
18	16/#30	7	3/64	.390	80	20
16	26/#30	10	3/64	.405	90	23
14	41/#30	15	3/64	.530	155	39
12	65/#30	20	3/64	.600	190	48
10	105/#30	25	3/64	.640	240	60

3-Conductor

18	16/#30	7	3/64	.405	90	23
16	26/#30	10	3/64	.430	110	28
14	41/#30	15	3/64	.560	185	47
12	65/#30	20	3/64	.635	225	56
10	105/#30	25	3/64	.690	300	75

4-Conductor

18	16/#30	7	3/64	.435	105	27
16	26/#30	10	3/64	.485	140	35
14	41/#30	15	3/64	.605	220	55
12	65/#30	20	3/64	.665	280	70
10	105/#30	25	3/64	.745	370	93

For current carrying capacities—N.E.C. 1947—see index.

Color-coding of conductors, insulation colors: black and white; black, white and green; black, white, green and red; for 2, 3 or 4-conductor cords, respectively.

Type SJ General Cable Cords

300 Volts

Approved by Underwriters' Laboratories, Inc.



Used with office, household, and similar appliances. Prescribed by the N.E.C. for use in damp places and where subject to hard usage.

Made of flexible or extra flexible stranded conductors of soft, annealed copper, fibrous separator, synthetic-rubber insulation (color coded), cabled with cushioning soft jute or cotton fillers, a fibrous separator and enclosed in a synthetic rubber jacket.

Put up in 250-foot lengths.

2-Conductor

Size A.W.G.	Construction	Current Carrying Capacity Amperes	Insulation Thick. In.	Over-all Diam. In.	Wt. Lb. per 1000 Feet	Wt. Lb. per 250 Ft. Coil
18	16/#30	7	3/64	.305	50	13
16	26/#30	10	3/64	.330	65	16

3-Conductor

18	16/#30	7	3/64	.335	60	15
16	26/#30	10	3/64	.360	80	20

4-Conductor

18	16/#30	7	3/64	.360	82	21
16	26/#30	10	3/64	.390	105	27

For Current Carrying Capacities, N.E.C. 1947 see index.

General Cable Gencaseal*



Gencaseal is an electrical insulation made from a synthetic thermoplastic material. The physical properties of Gencaseal are comparable to those of rubber compounds; dielectric strength is higher. Gencaseal is highly resistant to the deteriorating effects of heat, oxidation, sunlight, oil, acids and alkalies, water, and other chemical solutions; will not support combustion. Overall protection such as a tape, braid or lead sheath is not required.

Principal characteristics are:

1. Dielectric strength substantially above that of rubber compounds.
2. Resistance to oils and chemical solutions beyond comparison with rubber or most rubber-like insulations.
3. Ages more slowly than rubber because of its greater resistance to oxidation and light.
4. Flame-resistant to the extent that it will not support combustion even in open flame.
5. Tough, flexible, and durable; needs no protective coverings except where subjected to severe mechanical abuse.
6. Attractive finish; a clean, glossy, enamel-like appearance. Available in a number of bright, permanent colors.
7. Small diameter and reduced weight compared to other types of insulation which require protective coverings.
8. Strips easily from the conductor leaving the tin clean and bright.

Gencaseal insulated wire is recommended for station and industrial switchboard, meter and control wiring; for machine shop and printing press motor leads and control circuits; for distributing frame and other small wiring in the telephone plant; for appliance wiring or other small applications at 600 volts or less and where the operating temperature does not exceed 80°C.

The Underwriters' Laboratories have no fixed standards covering this type of wire for any particular application. However, their "Appliance Wiring Material" procedure provides for the listing and labeling of the wire after a sample appliance, motor or machine with suitable wiring as a component part has been submitted by the appliance maker to the Underwriters' Laboratories and approval given.

For low voltage wiring problems where severe conditions are encountered, Gencaseal may be the solution. However, it should be employed only on the recommendation of engineers who are familiar with its characteristics performance.

In solid, flexible, or extra flexible stranding. Sizes smaller than 14 A.W.G. rated at 300 volts. Insulation thickness is the same as the standard rubber wall for the size involved. Other sizes and wall thicknesses on request.

Standard colors: black, white, red, yellow, green, and blue. Unless otherwise specified, black will be supplied. Ridged insulation can be supplied for further identification where required.

All conductors soft tinned copper. Protective tapes or braids are not required.

Other strandings for flexible and extra flexible conductors can be supplied when quantity justifies.

Size A.W.G.	Strands	Wall Thick. In.	Approx. O. D. In.	Net Wt. Lb. per 1000 Feet	Size A.W.G.	Strands	Wall Thick. In.	Approx. O. D. In.	Net Wt. Lb. per 1000 Feet
†18	Solid	3/64	.102	9	12	Solid	3/64	.175	32
	7	3/64	.108	10		7	3/64	.186	33
	16	3/64	.110	10		19	3/64	.187	33
†16	Solid	3/64	.115	13	10	Solid	3/64	.198	34
	7	3/64	.120	14		7	3/64	.196	47
	19	3/64	.121	14		19	3/64	.210	50
14	Solid	3/64	.122	15	8	Solid	3/64	.211	55
	26	3/64	.122	15		49	3/64	.215	57
	7	3/64	.167	24		7	3/64	.255	76
†	Solid	3/64	.158	23	8	Solid	3/64	.271	81
	19	3/64	.168	25		19	3/64	.272	85
	41	3/64	.170	25		49	3/64	.286	87

†For 300-volt service.

*Trade-mark.

General Cable Varnished Cambric Insulated Building Wire and Cable Single Conductor—600 Volts



CONDUCTORS				Solid Conductors										
Size A.W.G.	No. Strands	Diameter of Individual Strands Inches	Diameter Inches	Varnished Cambric Thickness Inches	SINGLE BRAIDED				DOUBLE BRAIDED		TAPED AND BRAIDED		Lead Sheathed Cables	
					Overall Diameter Inches	Weight Pounds per 1000 Ft.	Overall Diameter Inches	Weight Pounds per 1000 Ft.	Overall Diameter Inches	Weight Pounds per 1000 Ft.	Sheath Thickness Inches	Overall Diameter Inches	Weight Pounds per 1000 Ft.	
14	..	.....	.06408	3/64	.188	25	.253	36	.....	.....	3/64	.252	179
12	..	.....	.08081	3/64	.235	39	.300	53	.....	.....	3/64	.269	209
10	..	.....	.1019	3/64	.256	54	.321	69	.....	.....	3/64	.290	230
8	..	.....	.1285	3/64	.282	71	.347	91	.....	.....	3/64	.316	269
6	..	.....	.1620	3/64	.352	120	.417	139	.....	.....	3/64	.381	358
Stranded Conductors														
6	7	.0612	.184	4/64	.373	130	.438	151	.....	.....	3/64	.405	377
4	7	.0772	.232	4/64	.422	180	.487	203	.....	.....	3/64	.453	468
2	7	.0974	.292	4/64	.482	265	.547	294	.....	.....	3/64	.515	720
1	19	.0664	.332	5/64	.553	340	.618	373	.....	.....	3/64	.613	876
1/0	19	.0745	.373	5/64	.594	415	.659	451	.....	.....	4/64	.654	973
2/0	19	.0837	.418	5/64	.640	510	.705	548	.....	.....	4/64	.700	1,116
3/0	19	.0940	.470	5/64	.691	620	.756	661	.....	.....	4/64	.751	1,290
4/0	19	.1055	.528	5/64	.749	765	.814	810	.....	.....	4/64	.809	1,690
MCM														
250	37	.0822	.575	6/64	.828	908	.913	966	.....	.....	5/64	.919	1,926
300	37	.0900	.630	6/64	.903	1090	.988	1153	.....	.....	5/64	.974	2,170
350	37	.0973	.681	6/64	.955	1260	1.040	1327	.....	.....	5/64	1.026	2,386
400	37	.1040	.728	6/64	1.001	1420	1.086	1490	.....	.....	5/64	1.072	2,609
450	37	.1103	.772	6/64	1.050	1598	1.135	1672	.....	.....	5/64	1.121	2,825
500	37	.1162	.814	6/64	.....	.....	1.172	1866	1.117	1776	5/64	1.158	3,040
550	61	.0950	.855	7/64	.....	.....	1.213	2023	1.158	1930	5/64	1.261	3,548
600	61	.0992	.893	7/64	.....	.....	1.282	2238	1.227	2140	6/64	1.300	3,850
700	61	.1071	.964	7/64	.....	.....	1.366	2591	1.311	2486	6/64	1.384	4,298
750	61	.1109	.998	7/64	.....	.....	1.388	2762	1.333	2655	6/64	1.406	4,400
1000	61	.1280	1.152	7/64	.....	.....	1.541	3577	1.486	3458	6/64	1.559	5,518
1500	91	.1284	1.412	8/64	.....	.....	1.861	5310	1.806	5165	7/64	1.894	8,101
1750	127	.1174	1.526	8/64	.....	.....	1.973	6107	1.918	5954	7/64	2.006	9,076
2000	127	.1255	1.631	8/64	.....	.....	2.067	6975	2.012	6814	7/64	2.100	10,091

3-Conductor—600 Volts

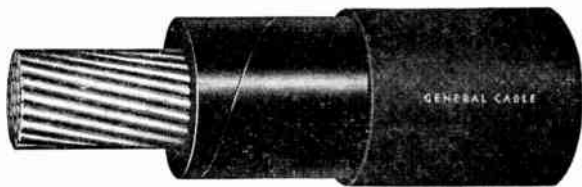
CONDUCTORS				Solid Conductors			Taped and Braided Cables		Lead Sheathed Cables			
Size A.W.G.	No. Strands	Diameter of Individual Strands Inches	Diameter Inches	Varnished Cambric Thickness Inches	Overall Diameter Inches	Weight Pounds per 1000 Ft.	Overall Diameter Inches	Weight Pounds per 1000 Ft.	Sheath Thickness Inches	Overall Diameter Inches	Weight Pounds per 1000 Ft.	
												14
12	..	.....	.08081	3/64	.456	131	.....	.....	3/64	.485	445
10	..	.....	.1019	3/64	.501	187	.....	.....	3/64	.562	663
8	..	.....	.1285	3/64	.557	257	.....	.....	3/64	.618	788
6	..	.....	.1620	4/64	.697	395	.....	.....	4/64	.757	1,066
Stranded Conductors												
6	7	.0612	.184	4/64	742	412	.....	.....	4/64	.803	1,128
4	7	.0772	.232	4/64	848	598	.....	.....	5/64	.939	1,641
2	7	.0974	.292	3/64	997	899	.....	.....	5/64	1.068	2,076
1	19	.0664	.332	5/64	1.164	1,172	.....	.....	6/64	1.252	2,825
1/0	19	.0745	.373	5/64	1.252	1,441	.....	.....	6/64	1.340	3,202
2/0	19	.0837	.418	5/64	1.351	1,756	.....	.....	6/64	1.439	3,661
3/0	19	.0940	.470	5/64	1.461	2,146	.....	.....	6/64	1.549	4,204
4/0	19	.1055	.528	5/64	1.586	2,630	.....	.....	6/64	1.674	4,868
MCM												
250	37	.0822	.575	6/64	1.755	3,149	.....	.....	7/64	1.873	6,087
300	37	.0900	.630	6/64	1.874	3,708	.....	.....	7/64	1.992	6,847
350	37	.0973	.681	6/64	1.986	4,258	.....	.....	7/64	2.104	7,584
400	37	.1040	.728	6/64	2.081	4,796	.....	.....	7/64	2.202	8,289
450	37	.1103	.772	6/64	2.205	5,356	.....	.....	8/64	2.340	9,566
500	37	.1162	.814	6/64	2.284	5,916	.....	.....	8/64	2.419	10,292
550	61	.0950	.855	*6/64	2.436	6,617	.....	.....	8/64	2.571	11,260
600	61	.0992	.893	*6/64	2.517	7,169	.....	.....	8/64	2.652	11,979
700	61	.1071	.964	*6/64	2.698	8,289	.....	.....	8/64	2.833	13,444
750	61	.1109	.998	*6/64	2.745	8,817	.....	.....	8/64	2.880	14,061
1000	61	.1280	1.152	*6/64	3.074	11,478	.....	.....	8/64	3.209	17,349

*Belt dimensions: 3/64-inch on individual conductors; 3/64-inch overall belt.

Dimensions and weights are approximate and subject to normal manufacturing tolerances.

For allowable current carrying capacities, see N.E.C., Var-Cam Type V index.

General Cable Varnished Cambric Insulated Power Cable



Rated Voltage, 2001-3000 Phase to Phase (Grounded or Ungrounded)

Rated Voltage, 4001-5000 Phase to Phase (Grounded or Ungrounded)

CONDUCTORS SOLID OR CONCENTRIC STRANDED		Varnished Cambric Thick-ness In.	BRAIDED Cables		LEAD SHEATHED Cables		
Size A.W.G.	No. Strands		Overall Diam. In.	Wt. Lb. per 1000 Ft.	Sheath Thick-ness In.	Overall Diam. In.	Wt. Lb. per 1000 Ft.
10	(Solid)	.0612	.355	78	$\frac{3}{64}$	.384	322
8	(Solid)	.0772	.381	101	$\frac{3}{64}$	.410	362
6	(Solid)	.0974	.415	140	$\frac{3}{64}$	.444	422
6	7	.0612	.436	151	$\frac{3}{64}$	.468	450
4	7	.0772	.485	205	$\frac{3}{64}$	.515	602
2	7	.0974	.545	296	$\frac{3}{64}$	.609	814
1	19	.0664	.585	354	$\frac{3}{64}$	.646	926
1/0	19	.0745	.626	432	$\frac{3}{64}$	.687	1029
2/0	19	.0837	.672	528	$\frac{3}{64}$	.733	1168
3/0	19	.0940	.723	635	$\frac{3}{64}$	.784	1338
4/0	19	.1055	.781	781	$\frac{3}{64}$	.872	1750
MCM							
250	37	.0822	.858	942	$\frac{5}{64}$	.950	1987
500	37	.1162	*1.147	*1803	$\frac{5}{64}$	1.190	3247
750	61	.1109	*1.333	*2655	$\frac{5}{64}$	1.406	4400
1000	61	.1280	*1.486	*3458	$\frac{5}{64}$	1.559	5518
1500	91	.1284	*1.806	*5165	$\frac{7}{64}$	1.894	8101
2000	127	.1255	*2.012	*6814	$\frac{7}{64}$	2.100	10091

CONDUCTORS SOLID OR CONCENTRIC STRANDED		Varnished Cambric Thick-ness In.	BRAIDED Cables		LEAD SHEATHED Cables		
Size A.W.G.	No. Strands		Overall Diam. In.	Wt. Lb. per 1000 Feet	Sheath Thick-ness In.	Overall Diam. In.	Wt. Lb. per 1000 Feet
8	(Solid)	$\frac{3}{64}$	.474	136	$\frac{3}{64}$	.503	456
6	(Solid)	$\frac{3}{64}$	.508	175	$\frac{3}{64}$	.568	660
6	(7)	$\frac{3}{64}$	.530	191	$\frac{3}{64}$	.592	696
4	(7)	$\frac{3}{64}$	.579	253	$\frac{3}{64}$	.640	803
2	(7)	$\frac{3}{64}$	.639	336	$\frac{3}{64}$	.702	951
1	(19)	$\frac{3}{64}$	.679	398	$\frac{3}{64}$	.738	1054
1/0	(19)	$\frac{3}{64}$	.720	483	$\frac{3}{64}$	.779	1238
2/0	(19)	$\frac{3}{64}$	.766	575	$\frac{3}{64}$	.857	1392
3/0	(19)	$\frac{3}{64}$	.817	697	$\frac{3}{64}$	.908	1701
4/0	(19)	$\frac{3}{64}$	.895	850	$\frac{3}{64}$	.966	1918
MCM							
250	(37)	$\frac{10}{64}$	.972	1019	$\frac{5}{64}$	1.045	2170
500	(37)	$\frac{10}{64}$	*1.241	*1904	$\frac{5}{64}$	1.315	3628
750	(61)	$\frac{10}{64}$	*1.426	*2754	$\frac{5}{64}$	1.500	4742
1000	(61)	$\frac{10}{64}$	*1.579	*3577	$\frac{5}{64}$	1.653	5770
1500	(91)	$\frac{10}{64}$	*1.868	*5260	$\frac{7}{64}$	1.958	8300
2000	(127)	$\frac{10}{64}$	*2.074	*6922	$\frac{7}{64}$	2.164	10310

Rated Voltage, 2001-3000 Phase to Phase (Grounded or Ungrounded)

CONDUCTOR		VARNISHED CAMBRIC THICKNESS INCHES	BRAID COVERED		LEAD SHEATHED		BRAID COVERED		LEAD SHEATHED				
Size A.W.G.	Type		Con-ductor	Belt	Overall Diam. In.	Wt. Lb. per 1000 Ft.	Sheath Thick-ness In.	Overall Diam. In.	Wt. Lb. per 1000 Ft.	Overall Diam. In.	Wt. Lb. per 1000 Ft.		
10	Solid	$\frac{3}{64}$	$\frac{2}{64}$	.644	215	$\frac{3}{64}$	.704	786	.683	269	.743	925
8	Solid	$\frac{3}{64}$	$\frac{2}{64}$	.696	275	$\frac{3}{64}$	.756	900	.739	344	.800	1058
6	Solid	$\frac{3}{64}$	$\frac{2}{64}$	.764	373	$\frac{3}{64}$	.825	1054	.812	466	.903	1466
6	Stranded	$\frac{3}{64}$	$\frac{2}{64}$	.806	389	$\frac{3}{64}$	.897	1311	.857	486	.948	1542
4	Stranded	$\frac{3}{64}$	$\frac{2}{64}$	.924	565	$\frac{3}{64}$	.995	1585	.982	706	1.053	1865
2	Stranded	$\frac{3}{64}$	$\frac{2}{64}$	1.044	822	$\frac{3}{64}$	1.115	1966	*1.141	*1027	1.182	2313	
1	Stranded	$\frac{3}{64}$	$\frac{2}{64}$	*1.218	*1058	$\frac{3}{64}$	1.291	2645	*1.296	*1322	1.369	3112	
1/0	Stranded	$\frac{3}{64}$	$\frac{2}{64}$	*1.300	*1262	$\frac{3}{64}$	1.373	2970	*1.384	*1578	1.457	3494	
2/0	Stranded	$\frac{3}{64}$	$\frac{2}{64}$	*1.392	*1526	$\frac{3}{64}$	1.465	3369	*1.483	*1908	1.556	3963	
3/0	Stranded	$\frac{3}{64}$	$\frac{2}{64}$	*1.494	*1849	$\frac{3}{64}$	1.567	3840	*1.593	*2311	1.666	4518	
4/0	Stranded	$\frac{3}{64}$	$\frac{2}{64}$	*1.610	*2256	$\frac{3}{64}$	1.683	4413	*1.717	*2820	1.820	5647	
MCM													
250	Stranded	$\frac{6}{64}$	$\frac{2}{64}$	*1.704	*2598	$\frac{7}{64}$	1.807	5311	*1.818	*3248	$\frac{7}{64}$	1.922	6248
500	Stranded	$\frac{6}{64}$	$\frac{2}{64}$	*2.197	*4852	$\frac{8}{64}$	2.332	8959	*2.347	*6065	$\frac{8}{64}$	2.482	10540
750	Stranded	$\frac{6}{64}$	$\frac{3}{64}$	*2.598	*7106	$\frac{8}{64}$	2.733	12058	*2.776	*8883	$\frac{8}{64}$	2.911	14186
1000	Stranded	$\frac{6}{64}$	$\frac{3}{64}$	*2.904	*9244	$\frac{8}{64}$	3.039	14860	*3.105	*11555	$\frac{8}{64}$	3.240	17483

Rated Voltage, 4001-5000 Phase to Phase (Grounded or Ungrounded)

8	Solid	$\frac{3}{64}$	$\frac{1}{64}$	.822	354	$\frac{5}{64}$	.913	1275	.889	442	$\frac{5}{64}$	.960	1500
6	Solid	$\frac{3}{64}$	$\frac{1}{64}$	.910	460	$\frac{5}{64}$	.981	1452	.962	575	$\frac{5}{64}$	1.034	1708
6	Stranded	$\frac{3}{64}$	$\frac{1}{64}$	.952	482	$\frac{5}{64}$	1.023	1530	1.008	603	$\frac{5}{64}$	1.080	1801
4	Stranded	$\frac{3}{64}$	$\frac{1}{64}$	1.050	661	$\frac{5}{64}$	1.121	1808	*1.143	*826	$\frac{5}{64}$	1.185	2127
2	Stranded	$\frac{3}{64}$	$\frac{1}{64}$	*1.200	*937	$\frac{5}{64}$	1.273	2482	*1.272	*1171	$\frac{5}{64}$	1.346	2920
1	Stranded	$\frac{3}{64}$	$\frac{1}{64}$	*1.280	*1108	$\frac{5}{64}$	1.353	2778	*1.358	*1385	$\frac{5}{64}$	1.432	3268
1/0	Stranded	$\frac{3}{64}$	$\frac{1}{64}$	*1.362	*1318	$\frac{5}{64}$	1.435	3111	*1.446	*1648	$\frac{5}{64}$	1.520	3660
2/0	Stranded	$\frac{3}{64}$	$\frac{1}{64}$	*1.454	*1586	$\frac{5}{64}$	1.527	3506	*1.545	*1983	$\frac{5}{64}$	1.619	4125
3/0	Stranded	$\frac{3}{64}$	$\frac{1}{64}$	*1.556	*1914	$\frac{5}{64}$	1.629	3982	*1.655	*2393	$\frac{5}{64}$	1.759	5125
4/0	Stranded	$\frac{3}{64}$	$\frac{1}{64}$	*1.672	*2320	$\frac{5}{64}$	1.775	4964	*1.779	*2900	$\frac{5}{64}$	1.883	5840
MCM													
250	Stranded	$\frac{7}{64}$	$\frac{1}{64}$	*1.828	*2744	$\frac{7}{64}$	1.931	5655	*1.947	*3430	$\frac{7}{64}$	2.049	6653
500	Stranded	$\frac{7}{64}$	$\frac{1}{64}$	*2.321	*5024	$\frac{8}{64}$	2.456	9381	*2.476	*6280	$\frac{8}{64}$	2.611	11037
750	Stranded	$\frac{7}{64}$	$\frac{1}{64}$	*2.691	*7275	$\frac{8}{64}$	2.826	12397	*2.874	*9094	$\frac{8}{64}$	3.009	14585
1000	Stranded	$\frac{7}{64}$	$\frac{1}{64}$	*2.997	*9446	$\frac{8}{64}$	3.132	15220	*3.203	*11808	$\frac{8}{64}$	3.369	18747

*Weights and diameters are for cables with tape and braid; other braided cables have single braid only.

Dimensions and weights are approximate and subject to normal manufacturing tolerances.

All conductors untinned, soft annealed copper (also supplied with tin or alternate lead alloy coated strands). Construction data for cables of other sizes, types, and voltage ratings will be supplied on request.

General Cable Bus Drop Cable



Designed for transmitting power in factories where a flexible and extensible connecting circuit is desired between an overhead open or enclosed fixed bus and the electrical motors running machinery such as lathes or punch presses. Where equipment is likely to be shifted from one position to a nearby location on the floor, this method of installation is particularly advantageous.

Stranded conductors for flexibility. Gencaseal or Underwriters' Type R insulation. Conductors color-coded for easy identification. Uninsulated conductor for grounding frame of machine. Impervious Gencaseal sheath or a tough heavy loom-woven covering with flame and moisture-resisting finish overall for mechanical protection.

Types of Bus Drop Cable

Type TG has three Gencaseal insulated conductors and one uninsulated conductor of the same size used to ground the frame of the machine. The popular sizes range from 14 to 1/0 A.W.G. and are stranded in accordance with A.S.T.M. B-8 for Class B stranding. The insulated conductors meet the requirements of Underwriters' Laboratories Standard for Type T wire and are color-coded black, white and red unless otherwise specified. The three insulated conductors are cabled with the uninsulated grounding conductor. Fillers are used to round out and make a firm core and the assembled conductors are enclosed in a tape and an impervious Gencaseal sheath.

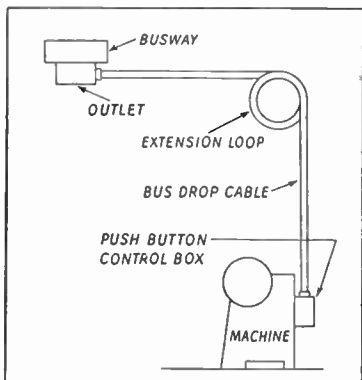
Type TM is identical to Type TG as far as individual conductors are concerned but the overall covering, in place of the Gencaseal sheath, is a heavy cotton loom covering having a flame and moisture-resisting finish.

Type RM is furnished with rubber or synthetic rubber insulated conductors in accordance with Underwriters' Standard for Type R wire. The individual conductors are covered with color-coded Guardian braids and the assembled conductors with the grounding conductor are enclosed in a heavy cotton loom covering having a flame and moisture-resisting finish.

Table of Diameters and Weights
For Circuits Not Exceeding 600 Volts

Size A.W.G.	No. of Strands	INSULATION THICKNESS, 64THS INCH		APPROX. O. D. INCHES			APPROX. NET WEIGHT POUNDS PER 1000'		
		Type TG	Type RM	Type TG	Type TM	Type RM	Type TG	Type TM	Type RM
14	7	2	3	.40	.43	.57	109	120	180
12	7	2	3	.45	.47	.61	149	159	232
10	7	2	3	.51	.53	.67	214	226	310
8	7	3	4	.66	.67	.80	353	351	446
6	7	4	4	.81	.82	.96	556	549	635
4	7	4	4	.94	.95	1.09	830	798	906
2	7	4	4	1.11	1.16	1.26	1203	1190	1304
1/0	19	5	5	1.38	1.40	1.52	1906	1844	2012

Installation

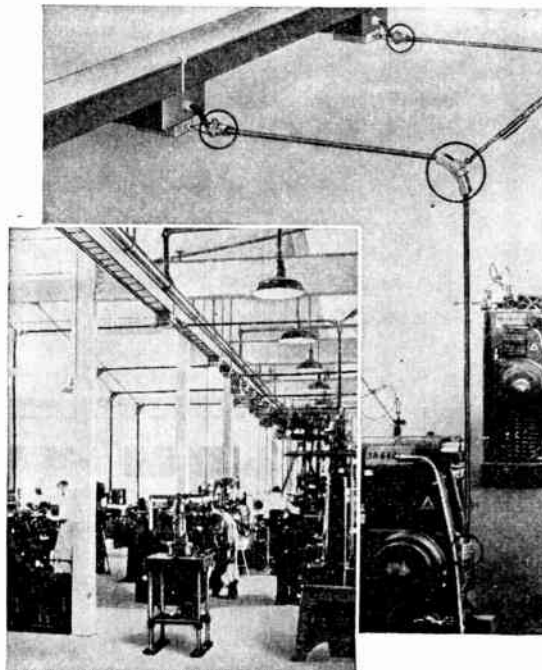


in place near the bus end of the circuit. The cable is connected to the overhead bus through standard fittings in an outlet box and may be suspended by a cable grip.

Appleton Cable Clamps

Schedule CFS

For Exposed Industrial Wiring



Quarter-Bend Cable Clamp



Connector



Mooring Cable Clamp

Used in making branch feeder installations from the main distribution system without the use of rigid conduit (heavy-wall).

The flexibility of arrangement and mounting is especially desirable for mass machinery installations.

The quarter-bend cable clamp provides the proper bending radius without injury to the cable.

The mooring clamp is used to anchor cable at supply and output ends without due strain on cable line.

Made from unbreakable malleable iron.

Quarter-Bend Cable Clamp		Mooring Cable Clamp		For Cable Diam. Inches
No.	Wt. Lb. per 100	No.	Wt. Lb. per 100	
18890	166	18895	50	Up to 5/8
18891	183	18896	75	5/8 to 1/8
18892	250	18897	100	1/8 to 1
18893	275	18898	125	1 to 1 1/8

Connectors for Clamps

No.	For Cable Diam. Inches	Fits K.O. Inches	Wt. Lb. per 100
15233	1/2 to 3/4	3/4	20
15234	3/4 to 1 1/8	1	24
15235	1 1/8 to 1 3/8	1 1/4	27

USS Firefite Rubber-Insulated Braid-Covered Building Wire and Cable

600 Volts
N.E.C. Standard

Single Conductor

Americore Type R—Code Grade
Amerite Type RP—Performance Grade (30%)
Amperox Type RH—Heat-Resistant Grade
Amarine Type RW—Moisture-Resistant Grade



Size A.W.G. or CM.	No. Strands	Rubber Wall In.	Solid		Double Braid		No. Ft. on Coils	Std. Pkg.	No. Ft. on Reels
			Approx. O.D. In.	Net Wt. Lb. per 1000 Ft.	Approx. O.D. In.	Net Wt. Lb. per 1000 Ft.			
14	Solid	3/64	19	29	22	33	500		
12	Solid	3/64	21	38	24	43	500		
10	Solid	3/64	23	53	26	58	500		
8	Solid	3/64	29	87	32	94	500		
6	Solid	1/4			36	131	500		
Stranded									
14	7	3/64	20	30	23	35	500		
12	7	3/64	22	41	25	45	500		
10	7	3/64	25	56	27	61	500		
8	7	1/4	31	93	35	101	500		
6	7	1/4			39	139	500		
4	7	1/4			44	200		1000	
3	7	1/4			47	240		1000	
2	7	1/4			50	290		1000	
1	19	5/64			56	368		1000	
1/0	19	5/64			60	447		1000	
2/0	19	5/64			64	545		1000	
3/0	19	5/64			70	671		1000	
4/0	19	5/64			76	822		1000	
250,000	37	6/64			84	981		1000	
300,000	37	6/64			91	1158		1000	
350,000	37	6/64			96	1329		1000	
400,000	37	6/64			1.01	1502		1000	
450,000	37	6/64			1.05	1675		1000	
500,000	37	6/64			1.09	1845		1000	
600,000	61	7/64			1.20	2215		1000	
700,000	61	7/64			1.28	2550		1000	
750,000	61	7/64			1.31	2720		1000	
800,000	61	7/64			1.34	2886		1000	
900,000	61	7/64			1.40	3230		1000	
1,000,000	61	7/64			1.46	3552		1000	
1,250,000	91	8/64			1.65	4449		500	
1,500,000	91	8/64			1.78	5279		500	
1,750,000	91	8/64			1.90	6095		500	
2,000,000	91	8/64			2.01	6910		500	

Twin Conductor

Americore Type RD—Code Grade
Amerite Type RPD—Performance Grade (30%)
Amperox Type RHD—Heat-Resistant Grade



Size A.W.G. Inches	Rubber Wall	Solid		Stranded		No. Ft. on Coils	Std. Pkg.	No. Ft. on Reels
		Approx. O.D. In.	Net Wt. Lb. per 1000 Ft.	Approx. O.D. In.	Net Wt. Lb. per 1000 Ft.			
14	3/64	24x	42	25x	44	71	500	
12	3/64	26x	46	27x	49	93	500	
10	3/64	28x	51	29x	54	124	500	
8	1/4	34x	63	35x	66	202		1000
6	1/4			40x	72	280		1000
4	1/4			45x	82	398		1000
3	1/4			48x	88	478		1000
2	1/4			51x	95	580		1000
1	3/4			58x1	08	740		1000

Other American Steel & Wire Company Products

- Firefite Thin-Wall Building Wire
Types RPT, RHT, and SN Single Conductor
 - Rubber-Insulated Lead-Sheathed Building Wire
Type RL, RPL, and RHL Single Conductor
Type ROL, RPOL, and RHOL Two Conductor
Type RML, RPML, and RHML Three Conductor
 - Amerite Service Drop Cable
Type SD Two and Three Conductor
Type SO-F Two and Three Conductor
 - Amerite Service Entrance Cable
Type SE Two and Three Conductor
Type ASE Two and Three Conductor
 - Heavy Duty Braided Mining Cable
 - Steel Taped Parkway Cable
Type RLJFJ
 - Non-Metallic Sheathed Parkway Cable
Type RJ
 - Varnished Cambric Insulated Wire and Cable
 - Reliance U.R.C. Type Weatherproof Wire and Cable
 - Reliance Slow-Burning Wire and Cable
 - Amerfelt Weatherproof Wire
 - Magnet Wire
 - Bare Copper Wire
 - Amerclad Rubber-Sheathed Portable Cord and Cable
 - Amerbestos Asbestos-Insulated Wire and Cable
 - Asbestos-Insulated Rheostat and Switchboard Wire
 - Stove Wire
 - Boiler-Room Wire
 - Apparatus Cable
 - Control Cable
 - Fixture Wire
 - Heat-Resistant Cord
- Complete Information Upon Request

Triangle Triex Non-Metallic Sheathed Cable



Without Ground Wire



With Ground Wire

Designed for residence and small buildings. Made of tinned copper conductors, solid or stranded, with 1946 Code Grade Insulation and fibrous covering. Triex is also made with thermo-plastic insulated conductors over which is wound a multi-folded Kraft paper tape. The conductors are then laid together with jute fillers, enclosed in a folded paper wrap over which is applied an extra heavy cotton braid jacket, thoroughly impregnated in moisture-resisting and flame-retarding compounds, and is given a slick finish. Available with or without ground wire. Also available in rubber insulations to meet federal specification JC-106a. Conforms to REA specifications.

Cable Size	Without Ground Wire		With Ground Wire		Approx. Feet per Coil
	Per 1000 Feet	Wt., Lb. per 1000 Feet	Per 1000 Feet	Wt., Lb. per 1000 Feet	
14		77		89	250
12		97		124	200
10		127		175	200
8		195		260	125
6		340		410	125
4		445		560	125
14		109		133	200
12		156		180	200
10		205		270	200
8		330		435	125
6		535		630	125
4		710		860	125

National Canvas-Back Loom Wire Non-Metallic Sheathed Cable



With Type T Conductors

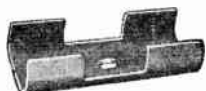
Size Cable	Per 1000 Feet	Without Ground Wire		With Ground Wire	
		Approx. Feet per Coil	Approx. Wt., Lb. per 1000 Ft.	Per 1000 Feet	Approx. Wt., Lb. per 1000 Ft.
14/2	250	*74	.....	.....
12/2	250	*93	.....	.....

With Type R Conductors

14/2	\$48.80	250	85	14/2	\$53.80	250	89
12/2	76.00	250	102	12/2	82.30	250	112
10/2	105.60	200	145	10/2	115.40	200	165
8/2	191.00	125	240	8/2	201.20	125	260
6/2	271.60	125	320	6/2	301.40	125	362
4/2	400.80	125	488	4/2	439.60	125	560
14/3	93.00	200	120	14/3	99.60	200	130
12/3	121.80	200	148	12/3	129.20	200	158
10/3	146.20	200	245	10/3	155.00	200	265
8/3	233.00	125	265	8/3	247.60	125	300
6/3	346.20	125	512	7/3	362.20	125	566
4/3	569.40	125	712	4/3	604.00	125	796

National Canvas-Back Loom Wire Fittings

No. 9000 Clips



For open wiring 14/2 and 12/2.

Packed 50 in a unit package, 500 in a standard package.

Weight per standard package, 8½ pounds.

No. 9000..... per 100 \$2.26

Straps



No. 9011



No. 9012

For concealed wiring.

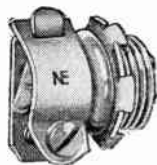
Packed 50 in a unit package, 1000 in a standard package.

No. 9011..... \$1.50

No. 9012..... .50

For Size Wire..... 14/2, 12/2 14/3, 12/3

Weight per Standard Package, lb. 7 7¾



No. 9050-EZ



No. 708-N

No.	Per 100	Description	Unit Pkg.	Std. Pkg.	Wt., Lb. per 1000
9050-EZ	\$5.00	For 14/2, 12/2, 14/3 and 12/3 Wire.....	..	1000	87½
708-N	17.90	For 14/4, 14/3, 12/4, 12/3, 10/4, 10/3 and 8/2 Cable; Fits ¾-Inch K.O.....	25	50	*11
709-N	28.90	For 8/4, 8/3, 6/3, 6/2 and 4/2 Cable; Fits 1-In. K.O.....	10	20	*5

*Per coil.

†Weight per 100

Triangle Double Bushed Armored Cable With Hot-Dip Galvanized Armor

Licensors

PATENTED U.S. PAT. NO. 1,940,225

Approved by Underwriters' Laboratories, Inc.



Conductors are individually insulated, twisted, provided with a fibrous covering impregnated with flame-retarding and moisture-resisting compound, and are enclosed in a continuous sheath of cross-crinkled heavy, waterproofed Kraft paper of high dielectric strength.

Single Conductor

Size	Type	Feet per Coil	Approx. Outside Diameter Inches	Bushings to Bag per Coil	Approx. Wt. Lb. per 1000 Feet	Per Foot
14	Solid	250	.380	35	168	.....
12	Solid	250	.410	35	200	.....
10	Solid	250	.435	35	212	.....
8	Solid	250	.465	35	268	.....
6	Solid	250	.510	35	320	.....
10	Strand	250	.440	35	224	.....
8	Strand	250	.485	35	280	.....
6	Strand	250	.520	35	336	.....
4	Strand	250	.565	35	420	.....
2	Strand	250	.628	35	520	.....
1	Strand	100	.742	16	790	.....

Two-Conductor

14	Solid	250	.545	35	207	.....
14	Solid	100	.545	16	207	.....
14	Solid	50	.545	8	207	.....
14	Solid	25	.545	4	207	.....
14	Solid	15	.545	4	207	.....
12	Solid	250	.580	35	236	.....
12	Solid	100	.580	16	236	.....
12	Solid	50	.580	8	236	.....
12	Solid	25	.580	4	236	.....
12	Solid	15	.580	4	236	.....
10	Solid	250	.640	35	340	.....
8	Solid	150	.780	20	607	.....
8	Strand	150	.815	20	607	.....
6	Strand	100	.885	16	700	.....
4	Strand	100	.990	16	850	.....
2	Strand	100	1.220	16	1120	.....

Three-Conductor

14	Solid	250	.595	35	237	.....
14	Solid	100	.595	16	237	.....
14	Solid	50	.595	8	237	.....
14	Solid	25	.595	4	237	.....
14	Solid	25	.595	4	237	.....
12	Solid	250	.620	35	276	.....
10	Solid	250	.620	35	416	.....
8	Solid	150	.820	20	720	.....
8	Strand	150	.860	20	732	.....
6	Strand	100	.975	16	850	.....
4	Strand	100	1.045	16	1150	.....
2	Strand	100	1.260	16	1450	.....

Four-Conductor

14	Solid	250	.625	35	275	.....
12	Solid	250	.655	35	325	.....
10	Solid	150	.760	20	600	.....
8	Strand	100	.895	16	950	.....
6	Strand	100	1.015	16	1050	.....
4	Strand	100	1.070	16	1430	.....

Triangle Bare Armored Ground Wire

Consists of a single solid, tinned uninsulated copper conductor covered with a flexible interlocking steel armor.

Single Conductor

Size	Type	Feet per Coil	Approx. Outside Diameter Inches	Approx. Wt. Lb. per 1000 Feet	Per Foot
8	Solid	250	.225	136	.....
6	Solid	250	.260	168	.....
4	Solid	250	.378	241	.....

Triangle Lead Armored Cable



Two-Conductor

Size	Per Foot	Type	Feet per Coil	Approx. Outside Diameter Inches	Approx. Wt., Lb. per 1000 Feet
14	Solid	150	.580	447
12	Solid	150	.625	480
10	Solid	100	.650	670
8	Strand	100	.840	1020
6	Strand	100	.910	1240

Three-Conductor

14	....	Solid	150	.620	507
12	....	Solid	150	.655	746
10	....	Solid	100	.750	810
8	....	Strand	100	.935	1360
6	....	Strand	100	1.020	1480
4	....	Strand	100	1.150	2740

Triangle Double Bushed Flat Armored Cable

Hot-Dip Galvanized

Same as round type. Designed for extension wiring in existing buildings. May be laid in a channel cut in a plaster wall and replastered so as to be invisible. Also used in ship-building.

Two-Conductor

Size	Per Foot	Type	Feet per Coil	Approx. Outside Diameter Inches	Bushings to Bag per Coil	Approx. Wt., Lb. per 1000 Feet
14	Solid	250	.625x.455	35	250
12	Solid	250	.640x.470	35	285
10	Solid	250	.685x.485	35	352

Three-Conductor

14	....	Solid	125	.755x.500	20	340
12	....	Solid	125	.850x.480	20	375

National Ovalflex A.B.C. Flat Armored Bushed Cable

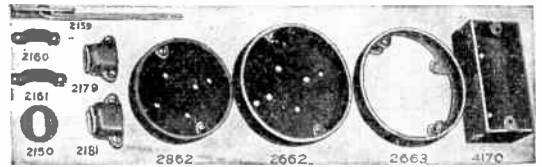


A safely bushed and insulated flat armored cable for underplaster installations and alterations. Its neat appearance recommends it for exposed surface wiring. Easy bending, edgewise or flatwise, makes it suitable for fitting snugly into corners and around machinery.

Anti-short dependable bushes cut end of steel armor, preventing damage to wires. Regularly made with solid conductors and N.E.C. insulation, but can be furnished with stranded conductors or special insulation.

Size B. & S. Gage	14/2	12/2	10/2	14/3	12/3
Per 1000 Feet	\$80.00	115.63	158.80	120.38	156.29
Feet per Coil	250	250	125	125	125
No. of Bushings to Bag per Std. Coil	35	35	20	20	20
Wt. per 1000 Feet...lb.	272	296	345	344	376

Ovalflex Fittings



No.	Description	Per 100
24CQ	Extension Box Cover for 4-In. Sq. Outlet Boxes; 3 3/8-In. Diam. Plaster Ring; 3.4-In. Deep Overall, with 6 K.O.'s; Flat Closing Disc Fitting Flush with Rim; and two 3/8x3/8-In. Flat Head Screws.....	\$35.00
26CQ	Extension Box Cover for 4-In. Octagon Outlet Box; 4-In. Diam. Plaster Ring; 3/4-In. Deep Overall with 6 K.O.'s; Flat Closing Disc Fitting Flush with Rim. For Connecting Ovalduet in Boxes Buried in Walls and Ceiling. With two 3/8x3/8-In. Flat Head Screws.....	35.00
412	Connector for 14/2, 12/2, and 10/2 Ovalflex to Metal Molding Devices.....	23.04
413	Connector for 14/3 and 12/3 Ovalflex to Metal Molding Devices.....	27.60
2143	Pitcher Lip Box Connector for 14/3 Ovalflex or Ovalduet to Oval K.O.'s.....	6.30
2150	Adapter Bushing for Use with Connectors Nos. 2179 and 2181 in 1/2-In. Conduit K.O.'s	1.16
2154	Set Screw Connector for 14/2, 12/2, and 10/2 Ovalflex to Boxes Equipped with Cable Clamps.....	11.52
2155	90° Box Connector with Removable Back; Takes 14/2 and 12/2 Ovalflex into 1/2-In. Conduit K.O.'s.....	24.00
2156	90° Box Connector will Take 14/3, 10/3, and 10/2 Ovalflex or Ovalduet into Conduit or 1/2-In. K.O.'s.....	24.00
2157	Special Folding Strap for 14/2, 12/2, 10/2 Ovalflex; One Screw Type.....	.93
2159	Wire Toggle Fastener with Wire Loop for Use in Hollow Tile, Plaster Board, Wire Lath etc.; for Supporting Ovalflex.....	2.00
2160	Strap Fastener for 14/2 and 12/2 Ovalflex	.80
2161	Strap Fastener for 14/3 and 12/3 Ovalflex and Ovalduet.....	.80
2163EZ	Connector for 14/2 and 12/2 Ovalflex...	4.60
2176A	Box Connector for 14/2 and 12/2 Ovalflex into 1/2-In. Threaded Fittings or Boxes with 1/2-In. K.O.'s.....	11.52
2179	Special Box Connector for 14/2, 12/2, and 10/2 Ovalflex into Oval K.O.'s.....	6.72
2181	Special Box Connector 14/3 and 12/3 Ovalflex and Ovalduet.....	6.30
2180	Box Connector with 1/2-In. Bondnut; will Take 14/3 and 12/3 Ovalflex and Ovalduet into Conduit or 1/2-In. K.O.'s.....	16.00
2662	Outlet Box 4x3/4-In. Outside; 6 Oval K.O.'s in Side; 5 1/2-In. Conduit K.O.'s in Bottom	14.00
2663	Extension or Plaster Ring 4x34 In. Outside; 6 Oval K.O.'s in Side; Fits Nos. 2662 and 2665 or any 4-In. Round or Octagon Box..	\$15.00
2665	Outlet Box Same as No. 2662 with Addition of 3/8-In. Fixture Stud.....	19.20
2862	Outlet Box 3 1/4x3/4 In. Outside; 4 Oval K.O.'s in Side; One 1/2-In. Conduit K.O. in Bottom.....	13.00
2865	Outlet Box Same as No. 2862 with addition of 3/8-In. Fixture Stud.....	18.20
4170S1	Sectional Switch Box 4x2x1 1/2 In. Deep; One Oval K.O. Each End; Two Oval K.O.'s One Side; One 1 1/2-In. and 1 3/8-In. K.O. on Opposite Side (Sherardized).....	30.60
4172S1	Spacer for No. 4170S1; Box Less Sides (Sherardized).....	27.00

National A.B.C. Armored Bushed Cable



National A.B.C. Cable with Anti-Short bushing has a moisture-proofed wrapping of Kraft over conductors. Stripping conductors for terminals, Kraft unwinds quickly without use of sharp tools next to conductors, can be broken off by hand, and allows space inside steel for Anti-Short bushing.

Solid Wires					Stranded Wires				
Duplex Conductors					Duplex Conductors				
Size B.&S. Gage	Per 1000 Feet	Feet per Coil	No. of Bushings to Bag per Coil	Approx. Wt. Lb. per 1000 Feet	Size B.&S. Gage	Per 1000 Feet	Feet per Coil	No. of Bushings to Bag per Coil	Approx. Wt. Lb. per 1000 Feet
*14	\$57.10	250	35	240	8	\$180.20	150	20	607
*12	71.60	250	35	268	6	240.40	100	16	700
10	104.20	250	35	340	4	375.00	100	16	850
8	174.40	150	20	607	2	411.80	100	16	1120
Triplex Conductors					Triplex Conductors				
*14	\$72.40	250	35	296	8	\$241.60	150	20	732
12	92.80	250	35	348	6	299.60	100	16	850
10	131.20	250	35	416	4	297.40	100	16	1100
8	224.40	150	20	732	2	346.60	100	16	1450
Four Conductors					Four Conductors				
14	\$124.00	250	35	348	8	\$292.80	100	16	950
12	151.80	250	35	420	6	381.40	100	16	1050
10	191.80	150	20	600	4	556.60	100	16	1430
Single Conductors					Single Conductors				
14	\$51.00	250	35	168	10	\$83.00	250	35	214
12	71.20	250	35	200	8	91.20	250	35	280
10	77.60	250	35	210	6	116.00	250	35	320
8	74.40	250	35	268	4	197.80	250	35	420
6	97.60	250	35	320	2	230.80	250	35	530
...	...	...	...	...	1	279.20	100	16	790

*Can be furnished in coil lengths 100, 50, 25, and 15 feet.

National Armored Leaded Cable

Solid Wires					Stranded Wires				
Duplex Conductors					Duplex Conductors				
Size B.&S. Gage	Per 1000 Feet	Feet per Coil	No. of Bushings to Bag per Coil	Approx. Wt. Lb. per 1000 Feet	Size B.&S. Gage	Per 1000 Feet	Feet per Coil	No. of Bushings to Bag per Coil	Approx. Wt. Lb. per 1000 Feet
14	\$110.00	150	..	407	8	\$267.20	100	..	1020
12	132.20	150	..	480	6	334.00	100	..	1240
10	165.40	100	..	670	..	..	..	..	..
Triplex Conductors					Triplex Conductors				
14	\$152.80	150	..	500	8	\$370.80	100	..	1360
12	187.20	150	..	746	6	463.00	100	..	1480
10	224.60	100	..	810	4	604.40	100	..	2200
Four Conductors					Four Conductors				
14	\$279.00	150	..	810	14	\$279.00	150	..	740

National A.B.C. Armored Lampcord Plain

Twisted Conductors					Solid				
Size B.&S. Gage	Per 1000 Feet	Feet per Coil	No. of Bushings to Bag per Coil	Approx. Wt. Lb. per 1000 Feet	Size	Per 1000 Feet	Feet per Coil	Approx. Weight per 1000 Ft., Lb.	Approx. Weight per 1000 Ft., Lb.
18	\$69.40	250	16	200	8/1	\$119.76	250	136	136
16	79.40	250	16	212	6/1	162.48	250	168	168
14	103.80	250	16	272	4/1	230.88	250	241	241

Anti-Short Bushings

No. Per Bag	FOR USE WITH				No. Bags to Carton
	A.B.C. Armored Cable	A.B.C. Armored Leaded Cable	A.B.C. Armored Lampcord	No. in Bag	
1	14/2,14/3,12/2 6/1,4/1	14/2,6/1	16/4,14/2	35	30
2	14/4,12/3,12/4 10/2,10/3,2/1	14/3,12/2,12/3 4/1,2/1,1/1		35	30

Type SE Triangle Service Entrance Cable

For use on circuits not exceeding 208 volts to ground. Recommended for use from the pole to building and down the side of the building, in places not subject to mechanical injury, without conduit.

Type SE-ABN Armored Flat Type

Galvanized Steel
Approved by Underwriters' Laboratories, Inc.



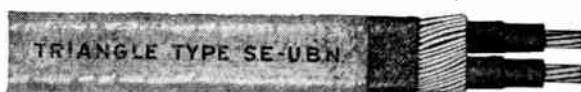
The flat steel tape gives an added protection, permits easy removal of outer jacket without nicking of concentrically wound conductor, and helps to prevent contact of bare neutral with outer coverings.

Construction detail: (1) Solid or stranded tinned copper conductors. (2) Triangle standard code grade and thickness of insulation. (3) Each conductor braided and weather-proofed—color coded. (4) Bare neutral, concentrically laid, consists of small tinned copper wires. (5) Galvanized flat steel armor wrapped around and over bare neutral. (6) Double wrap of rubber tape. (7) Substantial weatherproof and flameproof braid overall, having a grey paint finish; is clean and takes any color house paint.

Insulated Conductors Size	Uninsulated Neutral Conductors Size	2-Conductor				3-Conductor			
		Approx. O.D. Inches	Std. Coil Lgth. Ft.	Approx. Ship. Wt. per 1000 Ft.	Per Foot	Approx. O.D. Inches	Std. Coil Lgth. Ft.	Approx. Ship. Wt. per 1000 Ft.	Per Foot
12	12	.36	250	142	...	36x	.57	250	215
10	*12	...	...	...	...	38x	.61	250	260
10	10	.39	250	177	...	39x	.62	250	275
8	*10	.45	250	222	...	45x	.73	250	360
8	8	.46	250	246	...	46x	.74	250	390
6	8	.52	250	305	...	52x	.85	200	490
6	6	.53	250	310	...	53x	.87	150	530
4	6	.58	200	410	...	58x	.96	150	660
4	4	.59	200	465	...	59x	.98	150	725
2	4	.65	200	580	...	65x1	1.10	100	920
2	2	.68	200	655	...	68x1	1.12	100	1035

Type SE-UBN Unarmored Concentric Bare Neutral Type

Approved by Underwriters' Laboratories, Inc.



Consists of either one or two insulated inner conductors over which is laid a concentric bar conductor protected by heavy, moisture-proof coverings.

Construction detail: (1) Inner conductors No. 8 A.W.G. and larger to be stranded, smaller to be solid, tinned copper wire; (2) Insulated with standard N.E.C. grade and thickness of insulation; (3) Each conductor braided and weather-proofed and color coded in three conductor cables; (4) Outer conductor is formed of tinned copper wires, concentrically stranded around the inner conductor or conductors; (5) Overall are two heavy, rubberized tapes and a weatherproof cotton braid, having a grey paint finish.

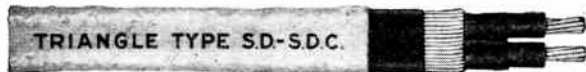
Insulated Conductors Size	Uninsulated Neutral Conductors Size	2-Conductor				3-Conductor			
		Approx. O.D. Inches	Std. Coil Lgth. Ft.	Approx. Ship. Wt. per 1000 Ft.	Per Foot	Approx. O.D. Inches	Std. Coil Lgth. Ft.	Approx. Ship. Wt. per 1000 Ft.	Per Foot
12	12	.34	250	98	...	34x	.55	250	152
10	12	...	...	...	...	36x	.59	250	185
10	10	.37	250	130	...	37x	.60	250	200
8	*10	.43	250	164	...	43x	.71	250	270
8	8	.44	250	182	...	44x	.72	250	290
6	8	.50	250	230	...	50x	.83	200	380
6	6	.51	250	265	...	51x	.85	150	420
4	6	.56	200	330	...	56x	.94	150	540
4	4	.57	200	385	...	57x	.96	150	595
2	4	.63	200	495	...	63x1	1.08	100	790
2	2	.66	200	570	...	66x1	1.10	100	895

*Not approved for use under N.E.C.
†Where specified, a paper wrap under the concentric tinned copper wires will be furnished.

Type SD-SDC Triangle Concentric Service Drop Cable

With Concentrically Wound Bare Neutral Wire

Approved by Underwriters' Laboratories, Inc.



For use on circuits not exceeding 208 volts to ground. Recommended for use from the pole to the building and down the side of the building either on insulators or in rigid conduit. The cable must be in conduit at least 8 feet above the ground.

Also used as range feeder cable.

Construction Detail

Two conductor: inner conductor insulated with N.E.C. grade compound and covered with single fibrous covering, outer conductor concentrically stranded thereover, paper tape and weather-resisting and flame-resisting cotton braid overall.

Three conductor: two conductors insulated with N.E.C. grade compound and covered with single fibrous covering and laid parallel with the third conductor stranded concentrically thereover, paper tape and weather-resisting and flame-resisting cotton braid overall.

Available in all-conductor-insulated-type.

Insulated Neutral Conductors Size	Uninsulated Concentric Conductor Size	2-Conductor				3-Conductor			
		Approx. O.D. Inches	Std. Coil Lgth. Ft.	Approx. Wt. per 1000 Ft.	Per Foot	Approx. O.D. Inches	Std. Coil Lgth. Ft.	Approx. Wt. per 1000 Ft.	Per Foot
12	12	.33	250	92	...	.33x .53	250	150	...
10	*12	...	...	...	...	.35x .57	250	183	...
10	10	.36	250	120	...	.36x .58	250	198	...
8	*10	.42	250	152	...	.42x .70	250	265	...
8	8	.43	250	170	...	.43x .71	250	285	...
6	8	.48	250	223	...	.48x .82	200	375	...
6	6	.50	250	255	...	.50x .83	150	415	...
4	6	.54	200	320	...	.54x .93	150	535	...
4	4	.56	200	370	...	.56x .94	150	590	...
2	4	.62	200	475	...	.62x1.06	100	780	...
2	2	.64	200	550	...	.64x1.09	100	885	...

*Not approved for use under N.E.C.

Paper tape will be furnished under the concentric conductor, when specified, at no extra cost.

Rubberized cloth tape over the concentric conductor will be furnished, when specified, at extra cost.

Crescent Impervex Trenchwire

Underwriters' Laboratories Type USE

Single Conductor—600 Volts



Designed for direct earth burial. A narrow trench is dug preferably two feet or more in depth and two or more Trenchwires laid together to form a cable.

Particularly suitable for underground services from power line to meter and/or service equipment; for connecting several buildings from the same service as on farms, estates and institutions; and for street, airport, and other outdoor lighting.

Consists of soft annealed tinned copper conductor, solid in sizes No. 12 to No. 8 A.W.G. and standard concentric stranded in larger sizes. The conductor is insulated for 600 volts with Impervex special moisture-resisting rubber compound and a tough Neoprene jacket is applied overall.

The Neoprene jacket is flameproof; acid, alkali, moisture and oil resisting, and practically unaffected by sunlight, air, and exposure to weather.

Size A.W.G.	Insulation Thick. 64ths Inch	Jacket Thick. 64ths Inch	Overall Diam. In.	Maximum Allowable Current Amperes	*FACTOR SINGLE PHASE, A.C. 60 CY. PER SEC.		Weight Pounds per 1000 Feet
					LOAD PER CENT PER CENT LAGGING	FACTOR 100 PER CENT LAGGING	
12	3	3	.275	20	318	260	55
10	3	3	.295	30	502	415	75
8	4	3	.355	45	792	667	105
6	4	3	.410	65	1203	1034	155
4	4	3	.490	85	1846	1637	230
2	4	3	.550	115	2781	2581	325
1	5	4	.655	130	3362	3255	425
1/0	5	4	.695	150	4058	4075	510
2/0	5	4	.740	175	4849	5066	615
3/0	5	4	.790	200	5780	6345	740
4/0	5	4	.850	230	5887	8000	900

Dimensions and weights listed above are approximate.

*To determine the proper size to use multiply the one-way length of the circuit by the current in amperes and divide by the desired voltage drop. This gives a factor. Select the size with the next larger factor for the proper load power factor, but not exceeding the maximum allowable current.

For 3 phase A.C. circuits, multiply calculated factor by 0.87 and proceed as above.

OTHER TRIANGLE PRODUCTS

Building Wires, Rubber Insulated, 600 Volts, N.E.C.S.

1946 Code Type R, RH, RW, RL, and RHL

Therm-O-Plastic Insulated, 600 Volts, N.E.C.S. Building Wire

Type: (Triplastic) T and (Trioseal) TW

Varnished Cambric Insulated Cable, All Voltages

Type: Braid Covered and Lead Covered

Rubber Insulated Parkway Cable, All Voltages

Type RLJF and RLJ

Rubber Insulated Power Cable, All Voltages

Type: Braid Covered and Lead Covered

FURTHER INFORMATION ON REQUEST

Crescent Motor Lead Wire
Rubber Insulated—Single Braid—600 Volts



Consists of flexible, soft annealed copper conductor with a paper or cotton separator in sizes No. 18 to No. 10 A.W.G. and tinned copper conductor, without a separator, in larger sizes.

The conductor is insulated with Code Grade rubber compound and covered with a single cotton braid thoroughly saturated with a high melting point asphalt and finished with a moisture-resistant, flame-retarding compound.

Available with a lacquer finish also.

Size A.W.G.	No. of Wires	Insulation Thick. 64ths Inch	Overall Diam. In.	Standard Lgth. Pkg. Ft.	Std. Pkg.	Standard Shipping Package	Shipping Weight Pounds
16	26	2	.160	1000	Spool	Ctn-2 Spools	38
14	41	3	.220	500	Coil	Bdle-2 Coils	31
12	65	3	.215	500	Coil	Bdle-2 Coils	39
10	105	3	.270	500	Coil	Bdle-2 Coils	58
8	133	4	.330	500	Coil	Coil	45
6	133	4	.380	500	Coil	Coil	60
4	133	4	.440	500	Coil	Coil	90

*Sizes No. 18 and No. 16 rated at 300 volts.

Dimensions and weights listed above are approximate.

Crescent Flexible and Extra Flexible Wire Rubber Insulated—Braided—600 Volts



Consists of flexible or extra flexible soft annealed tinned copper conductor insulated for 600 volts with Code Grade rubber compound (a higher grade can be furnished if required).

Over the insulation is applied a single or double braid. Braids are thoroughly saturated with a high melting point asphalt and outer braids are finished with a moisture-resistant, flame-retarding compound.

Flexible

Size A.W.G.	No. of Wires	Insulation Thick. Inch	Type of Covering	Overall Diam. In.	Stand-ard Lgth. Pkg. Ft.	Stand-ard Pkg. Wt., Lb.	Std. Ship. Pkg. Lb.
14	19	3	Single Braid	.200	500	Coil	15
12	19	3	Single Braid	.225	500	Coil	19
10	19	3	Single Braid	.265	500	Coil	29
8	49	4	Single Braid	.335	500	Coil	45
14	19	3	Double Braid	.235	500	Coil	17
12	19	3	Double Braid	.250	500	Coil	22
10	19	3	Double Braid	.300	500	Coil	32
8	49	4	Double Braid	.370	500	Coil	50
6	49	4	Double Braid	.415	500	Coil	65
4	49	4	Double Braid	.475	500	Coil	95
2	49	4	Double Braid	.550	500	Coil	135
1	133	5	Double Braid	.615	1000	Reel	435
1/0	133	5	Double Braid	.660	1000	Reel	510
2/0	133	5	Double Braid	.710	1000	Reel	605
3/0	133	5	Double Braid	.770	1000	Reel	765
4/0	133	5	Double Braid	.835	1000	Reel	915

Extra Flexible

14	41	3	Single Braid	.215	500	Coil	15
12	65	3	Single Braid	.235	500	Coil	19
10	105	3	Single Braid	.265	500	Coil	29
8	133	4	Single Braid	.335	500	Coil	45
14	41	3	Double Braid	.250	500	Coil	17
12	65	3	Double Braid	.270	500	Coil	22
10	105	3	Double Braid	.300	500	Coil	32
8	133	4	Double Braid	.370	500	Coil	50
6	133	4	Double Braid	.420	500	Coil	65
4	133	4	Double Braid	.480	500	Coil	95
2	133	4	Double Braid	.555	500	Coil	135
1	259	5	Double Braid	.615	1000	Reel	435

Dimensions and weights listed above are approximate.

Crescent Annunciator Wire Single Conductor—Twisted Pair



Consists of solid, soft annealed bare copper conductor insulated with two wraps of cotton applied in reverse directions, saturated in paraffin, and polished.

Single conductor is furnished in assorted standard colors. Twisted pair is made up of two different colored conductors for polarity identification.

Available with a black, weatherproof finish for use in damp places.

Standard carton, 10 spools. Single conductor is also put up in 1/4, 1/2, and 1-pound coils packed individually.

Size A.W.G.	*SINGLE CONDUCTOR—SHIPPING CARTON—WEIGHT, LB.					—TWISTED PAIR—Ship. Wt. Lb.			
	Approx. Ft. per Spool	Std. Spool	10 Spools	Quarter-Pound Coils	Half-Pound Coils	One-Pound Coils	Approx. Ft. per Spool	Std. Spool	10 Spools
22	310	5	58	30	55	55	155	5	58
20	230	6	68	30	55	55	115	5	58
18	160	7 1/2	83	30	55	55	80	5	58
16	106	8 1/2	93	30	55	55	53	5	58

Connecting wire: single conductor wire is also used as connecting wire for blasting purposes and is furnished on 1-pound spools packed 50 spools in a carton weighing 58 pounds.

Crescent Gas Tube Sign and Oil Burner Ignition Cable

Underwriters' Laboratories Type GTO



Consists of flexible stranded, soft annealed tinned copper conductor insulated with a special high-voltage rubber compound.

The weatherproof type has a rubber-faced tape and a cotton braid thoroughly saturated with a high melting point asphalt and finished with a moisture-resistant, flame-retarding compound.

The lacquer type has a close cotton braid which is impregnated with a lacquer saturant and finished with a number of coats of black, flame-retarding lacquer.

A glass braid can be furnished in place of cotton at slightly higher cost and will give increased life under severe operating conditions.

Weatherproof Finish

Type	Max. Voltage	Size A.W.G.	No. of Wires	Overall Diam. In.	Stand-ard Lgth. Pkg. Ft.	Std. Ship. Pkg. Weight Pounds
GTO-5	5000	14	19	.270	500	Coil 25
GTO-10	10000	14	19	.320	500	Coil 30
GTO-15	15000	14	19	.405	250	Coil 23

Lacquer Finish

GTO-5	5000	14	19	.240	500	Coil 23
GTO-10	10000	14	19	.290	500	Coil 28
GTO-15	15000	14	19	.375	250	Coil 22

Dimensions and weights listed above are approximate.

Crescent Damp-Proof Office Wire

Single Conductor—Duplex



Consists of solid, soft annealed bare copper conductor insulated with two wraps of cotton applied in reverse directions and saturated in a weatherproof compound. Over a single conductor or two conductors laid parallel is a cotton braid, saturated in paraffin and polished.

Standard colors are red, blue, red-white, and blue-white for single conductor, and red-white for duplex.

Standard carton, 5 coils. Standard coil weight, 10 pounds.

Size A.W.G.	SINGLE CONDUCTOR				DUPLEX			
	Approx. Ft. per Spool	Std. Coil Pounds	No. Coils in Std. Ship. Ctn.	Ship. Wt. Lb.	Approx. Ft. per Spool	Std. Coil Pounds	No. Coils in Std. Ship. Ctn.	Ship. Wt. Lb.
18	106	10	5	53	53	10	5	53
16	74	10	5	53	37	10	5	53
14	54	10	5	53	27	10	5	53

Leading wire: duplex office wire is also used as leading wire for setting off explosive charges in coal mines and for this purpose is put up in 100-foot and 125-foot coils packed in individual cartons.

Leading Wire Standard Shipping Cartons and Weights

No.	No. of Coils	Weight, Pounds per 100-Foot Coils	Weight, Pounds per 125-Foot Coils
18	30	66	80
16	20	62	76
14	20	84	103

Crescent Thermostat Cable

Braided



Consists of solid soft annealed bare copper conductors each insulated with two wraps of cotton applied in reverse directions, saturated in paraffin, and polished.

Two or more insulated conductors, color coated for polarity identification, are cabled and covered with a white cotton braid, saturated in paraffin and polished.

Standard length of coil in package, 500 feet.

No. of Con-ductors	Size A.W.G.	Overall Diam. Inches	Standard Ship. Pkg.	No. of Coils Standard Ship. Pkg.	Pkg. Shipping Weight Pounds
2	18	.190	Carton	5	45
3	18	.200	Carton	5	60
4	18	.225	Bundle	4	67
5	18	.245	Bundle	2	40
2	16	.215	Carton	5	58
3	16	.230	Carton	5	78
4	16	.250	Bundle	4	82
5	16	.275	Bundle	2	50

Armored



Consists of solid soft annealed bare copper conductors insulated with two wraps of cotton applied in reverse directions, saturated in paraffin and polished.

Two or more insulated conductors, color coated for polarity identification, are cabled and covered with a white cotton braid saturated in paraffin.

Has half-oval galvanized steel armor overall.

Standard length of coil in package, 500 feet.

No. of Con-ductors	Size A.W.G.	Overall Diam. Inches	Standard Ship. Pkg.	No. of Coils Std. Ship. Pkg.	Pkg. Shipping Wt. Lb.
2	18	.230	Carton	4	71
3	18	.240	Carton	4	83
4	18	.260	Bundle	2	52
5	18	.280	Bundle	2	63
2	16	.250	Carton	4	103
3	16	.265	Carton	4	123
4	16	.285	Bundle	2	73
5	16	.310	Bundle	2	92

Dimensions and weights listed above are approximate.

Armored—Rubber Insulated

Armored thermostat cables with rubber insulated conductors in the following constructions can be supplied on orders of sufficient quantity of a size:

Two to ten conductors of No. 18 or No. 16 solid, soft annealed tinned copper, insulated with 3/64-inch Code Grade rubber compound and covered with a paraffin saturated cotton braid. Two or more color coded conductors are cabled and covered with a wrap of tough, impregnated paper. An interlocking, galvanized steel armor is applied overall.

Two to ten conductors of No. 18 or No. 16 solid, soft annealed tinned copper, insulated with 3/64-inch Code Grade rubber compound and covered with a paraffin saturated cotton braid. Two or more color coded conductors are cabled and covered with a paraffin saturated cotton braid. Half-oval, galvanized steel armor is applied overall.

Type S Simplex-Tirex Portable Cord

Selenium Neoprene Armored



A non-kinking cord with flexible copper conductors, rubber insulation and a Selenium neoprene rubber sheath which is highly resistant to abrasion. Waterproof, and acids, greases and alkalies have little, if any, effect upon it. Single conductor is approved by Underwriters' for car wiring only. The 2, 3, and 4 conductor is N.E.C. standard for 600 volts. It fits standard bushings and is satisfactory for portable lamps, tools and other appliances.

Supplied in standard lengths of approximately 250 feet in cartons or spools or coils. Louger lengths on reels.

Cured in lead.

1-Conductor					
Size A.W.G.	18	16	14	12	10
Approx. O.D. inches	.18	.19	.25	.26	.29
Gross Wt. per 1000 Ft. lb.	23	27	40	50	70
2-Conductor					
Size A.W.G.	18	16	14	12	10
Approx. O.D. inches	.39	.41	.53	.61	.64
Gross Wt. per 1000 Ft. lb.	80	90	160	320	360
3-Conductor					
Size A.W.G.	18	16	14	12	10
Approx. O.D. inches	.41	.43	.56	.64	.69
Gross Wt. per 1000 Ft. lb.	90	110	330	360	420
4-Conductor					
Size A.W.G.	18	16	14	12	10
Approx. O.D. inches	.44	.49	.61	.67	.75
Gross Wt. per 1000 Ft. lb.	110	140	340	400	490

Prices upon application.

Type SJ Simplex-Tirex Portable Cord

Selenium Neoprene Armored

Made practically the same as the Type S except that it is smaller in diameter and lighter in weight. Suitable for service in offices, dwellings and similar places. Intended for service on such equipment as vacuum cleaners, refrigerators, fans, washing machines, lamps, office equipment and small electric tools. No N.E.C. standards for size 18, 16, 14; 2, 3, and 4 conductor approved by Underwriters' for 300 volts.

Packed in cartons or on spools, each package containing approximately 250 feet of 2-conductor cord.

Cured in lead.

2-Conductor			
Size A.W.G.	18	16	14
Approx. O.D. inches	.31	.33	.43
Approx. Gross Wt. 1000 Ft. pounds	60	70	120
3-Conductor			
Size A.W.G.	18	16	14
Approx. O.D. inches	.34	.36	.47
Approx. Gross Wt. per 1000 Ft. pounds	80	100	150
4-Conductor			
Size A.W.G.	18	16	
Approx. O.D. inches	.36	.39	
Approx. Gross Wt. per 1000 Ft. pounds	90	110	

Prices upon application.

Tirex Shot Fire Cable

2-Conductor

Selenium Neoprene Armored



Suitable for rough work in damp or wet places. Not affected by acid, gas or oil.

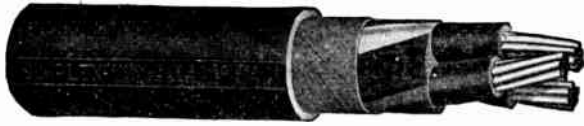
The particular features which will appeal to the shot firer, are the small diameter of about 1/4 inch and the light weight of 4 1/2 pounds to 100 feet.

Cable is flexible and has adequate tensile strength for the work for which it was designed. Does not kink or snarl.

Cured in lead.

Size A.W.G.	18
Approximate Outside Diameter. inches	27
Approximate Weight per 1000 Feet. pounds	45

Simplex-Anhydrex 600 Volt Non-Leaded Underground Cable



A modern cable particularly applicable to networks, series lighting circuits, municipal street lighting, park, playground and airport illuminating systems, etc.

Has low water absorption insulation on the conductor and a tough, neoprene jacket for burial directly in the ground without a lead sheath or without the use of ducts.

Furnished in either single or multi-conductors. Prices upon request.

Single Conductor—Solid

Size A.W.G.	Strands	Approx. O.D. Inches	Cond. Rubber Wall Inches	Jacket Rubber Wall Inches	Approx. Ship. Wt., Lb. per 1000 Feet
14	Solid	.27	.047	.047	60
12	Solid	.29	.047	.047	70
10	Solid	.31	.047	.047	90
8	Solid	.37	.063	.063	140
6	Solid	.40	.063	.063	180

Single Conductor—Stranded

6	7	.43	.063	.063	200
4	7	.47	.063	.063	260
2	7	.53	.063	.063	380
1	19	.64	.078	.078	510
1/0	19	.68	.078	.078	600
2/0	19	.73	.078	.078	720
3/0	19	.78	.078	.078	880
4/0	19	.83	.078	.078	1070
M CM					
250	37	.95	.094	.094	1290
300	37	1.00	.094	.094	1500
350	37	1.05	.094	.094	1710
400	37	1.10	.094	.094	1940
500	37	1.18	.094	.094	2300
600	61	1.33	.109	.094	2820
750	61	1.43	.109	.094	3330
1000	61	1.59	.109	.094	4460

Two Conductor—Twin Flat

16	Solid	.27x .45	.047	.063	90
14	Solid	.29x .48	.047	.078	100
12	Solid	.30x .51	.047	.078	120
10	Solid	.32x .55	.047	.078	150
8	Solid	.41x .70	.063	.078	260
6	Solid	.43x .74	.063	.078	350
4	7	.46x .79	.063	.078	300
6	7	.51x .88	.063	.078	500
2	7	.60x1.04	.063	.094	740
1	19	.67x1.18	.078	.094	900
1/0	19	.71x1.26	.078	.094	1100
2/0	19	.76x1.35	.078	.094	1330
3/0	19	.84x1.49	.078	.109	1660
4/0	19	.90x1.60	.078	.109	2010

Mine Telephone—300-Volt Maximum

16	Solid, Twin	.24x .39	.031	.063	80
16	Solid, 2-Cond.	.39	.031	.063	90

Two Conductor—Twisted

16	Solid	.45	.047	.078	110
14	Solid	.48	.047	.078	120
12	Solid	.51	.047	.078	130
10	Solid	.58	.047	.078	210
8	Solid	.70	.063	.078	300
6	Solid	.74	.063	.078	390
6	7	.79	.063	.078	400
4	7	.91	.063	.094	580
2	7	1.04	.063	.094	800
1	19	1.18	.078	.094	1030
1/0	19	1.29	.078	.109	1280
2/0	19	1.49	.078	.109	1550
3/0	19	1.60	.078	.109	1860
4/0	19		.078	.109	2240

Three Conductor

14	Solid	.51	.047	.078	160
12	Solid	.57	.047	.078	240
10	Solid	.62	.047	.078	290
8	Solid	.71	.063	.078	430
6	Solid	.79	.063	.094	550
6	7	.87	.063	.094	610
4	7	.97	.063	.094	860
2	7	1.10	.063	.094	1220
1	19	1.29	.078	.109	1530
1/0	19	1.38	.078	.109	1860
2/0	19	1.48	.078	.109	2190
3/0	19	1.59	.078	.109	2640
4/0	19	1.74	.078	.109	3320
M CM					
250	37	1.92	.094	.125	3940
300	37	2.03	.094	.125	4850
350	37	2.14	.094	.125	5180
400	37	2.27	.094	.125	5910
500	37	2.46	.094	.125	7190

Simplex-Telex Twin Underground Telephone Cable

A rubber insulated, non-water absorptive telephone cable made with a rodent resistant tough rubber jacket, or with an armor over the jacket, but without lead, for laying directly in the ground for rural telephone lines, private estates and similar applications.

Standard packages of 2500 feet of rubber jacketed and 1500 feet of armored cable are carried in stock on 22-inch non-returnable reels. No charge for this stock type reel; and no credit will be allowed.

If other lengths are required, there will be an extra charge for packaging or for the use of returnable reels.

Rubber Jacket Telex Cable



No. 17 solid tinned copper twin cable, insulated with tough rubber jacket.

Outside diameter, .35 x.20-inch.

Standard package is 2500-foot length on 22-inch non-returnable reel.

Shipping weight per 1000 feet, 50 pounds.

Per 1000 Feet.....

Armored Telex Cable



No. 17 solid tinned copper twin cable, insulated with a tough rubber jacket; armored with 2 bright steel tapes. Impregnated paper tape overall.

Does not require a ground wire, but the following precautions should be taken.

At each splice a jumper wire should be soldered from steel to steel to assure continuous electrical circuits in the steel.

At the pole line end a jumper wire should be soldered onto the steel of the cable and connected to the grounding system which is always a part of the installation at the last pole of the overhead run.

The jumper wire should be about No. 14 A.W.G. either tinned or lead coated and without insulation. A special solder should be used to resist corrosion.

Outside diameter, .42x.32-inch.

Standard package is 1500-foot length on 22-inch non-returnable reel.

Shipping weight per 1000 feet, 140 pounds.

Per 1000 Feet.....

Telex Ground Wire

No. 14 (.066) lead dipped bare copper wire for grounding.

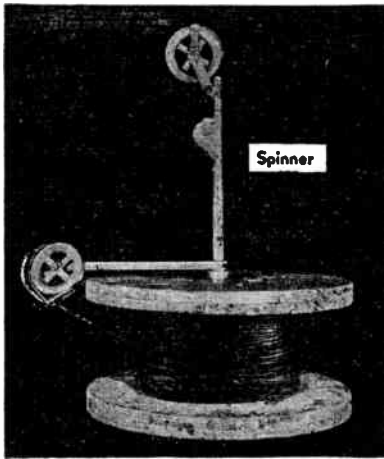
Furnished on 11-inch non-returnable reels containing 3000 feet.

Shipping weight per 1000 feet, 14 pounds.

Per 1000 Feet.....

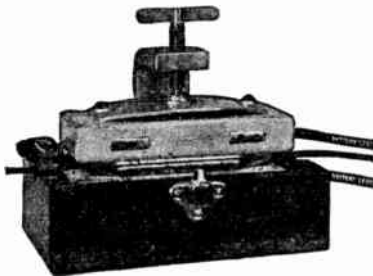
Accessories for Simplex-Telex Twin Underground Telephone Cable

Spinners



A means of transposing conductor every 3 to 5 feet, and at the same time protecting the cable as it comes off over the head of the reel.
Each.....

Vulcanizers



Including mold, indicating light, buzzer, battery leads and clips, self-contained in cover box for use with 6-volt automobile battery.
Each.....

No. 102-A U-Type Terminal Boxes

For rubber jacket or armored cable.
Each.....

No. 153-A Loading Coil Cases Equipped with No. 638 Coil



Each.....

Crimping Tools



For crimping brass sleeves to copper conductors.
Each..... \$4.00

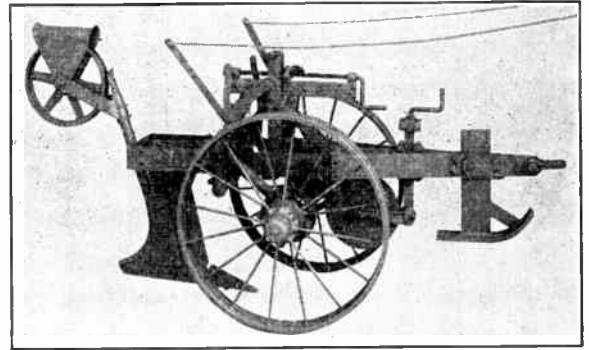
Splicing Kits

Rubber slab and four brass conductor splicing sleeves, two extra.

Packed in individual packages.

For One Splice each

Killefer Cable Layers



Designed for burying small cable, flat counterpoise and heavily insulated wire without ditching or backfilling.

Strongly constructed frame of structural steel; welded and hot riveted. Wearing parts are protected and reinforced. Each part is removable and replaceable.

Wheels are constructed of highest-grade steel for lasting strength. Heavy-duty spokes are riveted into wide rims which are flanged and grooved for extra sturdiness and to protect the spoke heads. Each wheel turns on a low-cost replaceable sleeve which takes the wear and protects the axle.

No.	201-C	251-C
Maximum Penetration.....	inches 20	24
Point Size.....	inches 1x2½	1x3
Standard.....	inches 1x6	1x8
Shin Blade.....	inches 1x2	1x2
Planting Tube, Inside Diameter.....	inches 1¼	1¼
Wheel Diameter.....	inches 42	48
Wheel Tread.....	inches 38	40
Wheel Tire.....	inches 5	6
Power Required.....	horsepower 25to35	25 to 40
Weight.....	pounds 1150	1730

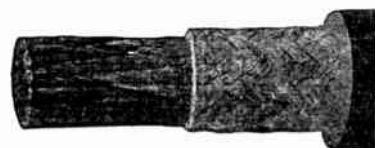
**Tirex Motor Lead Cable
Single Conductor—Paper Taped
Selenium Neoprene Armored**



Recommended for the interior wiring of motors, mine locomotives and wherever a flexible cable is needed. Cured in lead.

Size A.W.G.	No. of Strands	O.D. In.	Gross Wt. lb. per 1000 Ft.	Size A.W.G.	No. of Strands	O.D. In.	Gross Wt. lb. per 1000 Ft.
8	49	.44	180	2	259	.66	470
6	49	.51	250	1	133	.74	570
6	133	.51	250	1/0	133	.77	630
5	133	.52	280	1/0	259	.77	630
4	49	.57	330	2/0	133	.82	750
4	133	.57	330	2/0	259	.82	750
3	133	.63	390	3/0	427	.87	950
2	133	.66	470	4/0	427	.93	1110

**Tirex Welding Cable
Super Flexible—Single Conductor
Selenium Neoprene Armored**



Safe for both operator and the public when used on streets and public ways.

Conductor consists of fine copper wires stranded to give maximum flexibility.

The insulation is compounded and cured in lead to meet the unusual service conditions. It strips clean because of the separator between the insulation and the conductor.

Size A.W.G.	2	1	1/0	2/0	3/0	4/0
Strands No. 34 N.T.	1715	2156	2695	3381	4263	5311
Minimum O.D. inches	.56	.63	.68	.75	.82	.90
Approx. Gross Wt. per 1000 Ft. pounds	350	450	530	640	770	950

Tirex Selenium Rubber Armored Cable

600 Volts

Single Conductor—Portable



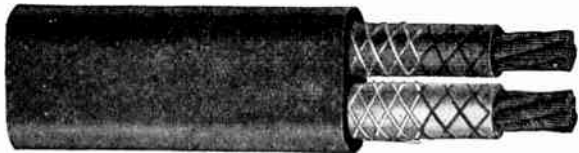
Specially suitable for electric mine locomotives of the gathering reel type where it is necessary to leave the trolley wire in the main entry and enter rooms to pick up or place cars. Cured in lead.

Size A.W.G. Strands	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.	Size A.W.G.	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.
8	49	.44	180	*1	133	.74	580
*6	49	.51	250	1/0	133	.77	630
*5	49	.52	280	1/0	259	.77	630
*4	49	.57	330	2/0	133	.82	750
*4	133	.57	330	2/0	259	.82	750
*3	49	.63	410	3/0	259	.87	950
3	133	.63	410	3/0	427	.87	950
2	133	.66	470	4/0	259	.93	1110
2	259	.66	470	4/0	427	.93	1110

*With steel reinforcing strands—to be used as mine locomotive cable.

With or without steel reinforcing strands.

Twin—Parallel



For use where 2-conductor cable of this construction is preferred. Easy to reel as it lies flat. May also be used for battery charging. Cured in lead.

Size A.W.G. Strands	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.	Size A.W.G.	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.
6	49	.62x1.00	620	1	133	.88x1.46	1310
4	133	.71x1.15	780	1	259	.88x1.46	1310
3	133	.74x1.22	880	1/0	259	.93x1.57	1490
2	133	.78x1.29	1000	2/0	259	.99x1.68	1870

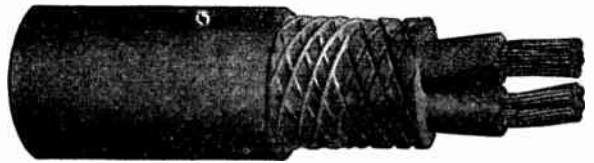
2-Conductor—Concentric



This type of cable is recommended for mining machines where the greater weight and diameter of the 2-conductor twisted type is a disadvantage. Cured in lead.

Size A.W.G. Strands	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.	Size A.W.G.	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.
8	49	.65	360	1/0	133	1.10	1440
6	49	.77	510	1/0	259	1.10	1440
5	49	.80	570	2/0	133	1.17	1660
4	49	.84	750	2/0	259	1.17	1660
4	133	.84	750	3/0	259	1.25	2020
3	49	.89	870	3/0	427	1.25	2020
3	133	.89	870	4/0	259	1.33	2340
2	133	.94	970	4/0	427	1.33	2340
1	133	1.05	1250	...	...	...	...

2-Conductor—Round



This twisted cable is recommended for use on mining machines, cranes and portable equipment. An excellent utility cable for d.c. motors and single-phase portable machinery and for battery charging. Cured in lead.

Size A.W.G. Strands	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.	Size A.W.G.	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.
8	49	.81	510	1/0	133	1.52	2130
6	49	.93	770	1/0	259	1.52	2130
5	49	1.01	880	2/0	133	1.65	2780
4	49	1.08	1000	2/0	259	1.65	2780
4	133	1.08	1000	3/0	259	1.78	2940
3	49	1.17	1160	3/0	427	1.78	2940
3	133	1.17	1160	4/0	259	1.92	3870
2	133	1.27	1450	4/0	427	1.92	3870
1	133	1.44	1880	...	...	...	...

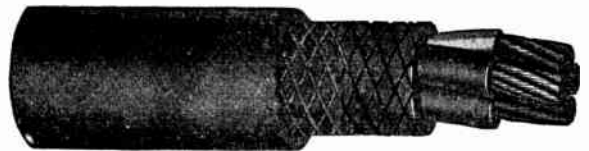
Type W—3-Conductor Without Ground Wires



For 3-phase portable machinery. Frequently used for dredges and shovels. The tough outer armor is suited for rough work out of doors. Atmospheric conditions, oils, acids, and greases do not affect this cable to any appreciable extent. Cured in lead.

Size A.W.G. Strands	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.	Size A.W.G.	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.
8	49	.91	750	1	259	1.51	2210
6	49	1.01	910	1/0	133	1.65	2910
5	49	1.10	1060	1/0	259	1.65	3250
4	49	1.17	1230	2/0	133	1.75	3250
4	133	1.17	1230	2/0	259	1.75	3250
3	133	1.24	1490	3/0	259	1.89	4060
2	133	1.34	1690	3/0	427	1.89	4120
2	259	1.34	1690	4/0	259	2.04	4650
1	133	1.51	2210	4/0	427	2.04	4730

Type W—4-Conductor Without Ground Wires



For 3-phase portable machinery where an extra conductor is needed for grounding purposes, also for use on 2-phase circuits. Cured in lead.

Size A.W.G. Strands	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.	Size A.W.G.	No. of Strands	O.D. In.	Gross Wt. Lb. per 1000 Ft.
8	49	.99	850	1	259	1.68	3020
6	49	1.10	1070	1/0	133	1.79	3310
6	133	1.10	1070	1/0	259	1.79	3250
5	49	1.19	1360	2/0	133	1.93	4300
4	49	1.27	1580	2/0	259	1.93	4240
4	133	1.27	1590	3/0	259	2.07	4820
3	133	1.34	1800	3/0	427	2.07	4890
2	133	1.48	2270	4/0	259	2.26	5640
2	259	1.48	2230	4/0	427	2.26	5760

Whitney Blake No. 17 A.W.G. Teleprene Drop Wire

Bronze, Parallel, Specification 17 TBP
Bronze, Reinforced Parallel, Specification 17 TBP-R



Used to extend telephone circuit from open wire or distributing cable terminals on pole to subscribers' station.

Teleprene drop wire is furnished with No. 17 A.W.G. Teleplate coated bronze conductors insulated with a rubber compound designed for long life and excellent electrical characteristics, and jacketed with a tire tread type of Neoprene compound.

The Teleplate coating consists of a lead coating applied directly to the bronze wire to resist corrosion and an electroplated brass coating over the lead to give enduring adhesion of the insulation to the conductor.

The protective lead coating meets the Ammonium Persulfate Test for continuity of coating of A.S.T.M. Specification B-189-44T.

The reinforced types have a tough reinforcing textile braid between the conductor insulation and the outer jacket.

A double ridge raised tracer on the side of the jacket gives positive polarity identification.

Reinforced Teleprene has, substantially, twice the compression resistance, half again higher insulation resistance, three times the dielectric strength, and, by test, is fifteen times as rugged as corresponding weather-proof drop wires.

The tire tread type Neoprene jacket has extremely good resistance to sunlight, weather, and natural aging. The Neoprene jacket has excellent resistance to oil, most acids, alkalis, and other corrosive chemicals which destroy braids. It is practically unaffected by changes in temperature, does not melt or soften in summer, or become hard and brittle in winter. It withstands the effects of smoke, various fumes, and air conditions found in manufacturing areas, mines, and railroad centers.

Specification No.	17TBP	17TBP-R
Conductor Resistance,		
Ohms per 1000 Ft. Max.	16	16
Conductor Breaking Strength, Min.lb.	170	170
Overall Dimensions, Nominal. in. ....	.175x.286	.195x.306
Coil Eye, Approx. in.	16	16
Approx. Weight per 1000 Feet. lb.	41	42

Whitney Blake No. 17 A.W.G. Teleprene Drop Wire

Bronze, Twisted Pair, Specification 17TB2
Bronze, Reinforced Twisted Pair, Specification 17TB2-R



Has double ridged tracer on jacket of one wire for polarity identification.

Has same Teleplate coated conductors, rubber conductor insulation, and tough Neoprene outer jacket as Specification 17TBP.

Reinforced twisted pair has strong textile inner braid similar to Specification 17TBP-R.

Specification No.	17TB2	17TB2-R
Coil Eye, Approximate. in.	16	16
Approx. Weight per 1000 Feet. lb.	40	40

Whitney Blake No. 17 A.W.G. Weatherproof Drop Wire

Bronze, Parallel, Specification 17BP



The standard bronze conductor is signal bronze but Hitenso bronze, having properties listed below, can be supplied when specified.

All conductors are Teleplate coated for corrosion resistance and to promote good adhesion between conductor and insulation.

Conductor insulation is long life, highly compression resistant rubber compound with excellent electrical properties. A raised ridge in the rubber insulation on one conductor provides polarity identification.

A heavy braid of strong, unbleached, two-ply cotton yarn is closely woven over the two parallel insulated conductors to give added service life to the wire.

The braid is completely saturated with an asphalt base compound, containing straight asphalt of crude oil origin, that is both moisture and weather resistant. A tough, flexible, high melting point, finishing coat of Stearine pitch and mica is applied over the saturated braid. The life of the rubber and braid are increased by this effective seal against light, moisture and oxygen.

Specification No.	17BP	*17
Max. Conductor Resistance,		
Ohms per 1000 Feet.	16	6
Conductor Breaking Strength,		
Minimum. lb.	170	145
Diameter over Rubber, Nominal. in. ....	.110	.110
Coil Eye, Approximate. in.	16	16
Approx. Weight per 1000 Feet. lb.	32	32

Whitney Blake No. 17 A.W.G. Weatherproof Drop Wire

Bronze, Twisted Pair, Specification 17B2
Copperweld, Twisted Pair, Specification 17CW2



Has raised tracer in rubber insulation on one wire, permitting more even application of weatherproof finish and providing more uniform wear of the braid.

Conductors are Teleplate coated.

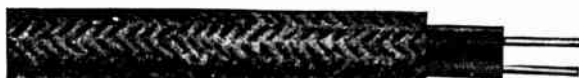
Has same high grade rubber insulation, braid, and weather-proofing conductor resistance, breaking strength and diameter over rubber as Specification 17BP.

Specification 17B2 can be furnished also with Hitenso Bronze conductor.

Specification No.	17B2	17CW2
Coil Eye, Approximate. in.	16	16
Approx. Weight per 1000 Feet. lb.	33	33

Whitney Blake No. 17 A.W.G. Weatherproof Drop Wire

Bronze, Parallel, Specification 17BT
Hawser Twine Braid, Abrasion Resistant Tree Wire



Made for service where swaying of tree limbs rub and fray the standard braids quickly.

Constructed similar to Specification 17BP except that the braid is heavy hawser twine.

Standard conductor is signal bronze Teleplate coated. Conductor resistance, breaking strength, diameter over rubber, rubber insulation, and weatherproofing are the same as Specification 17BP.

Specification No.	17BT
Coil Eye, Approx. in.	16
Approx. Weight per 1000 feet. lb.	47

Whitney Blake No. 14 A.W.G. Outside Wire

Hard Copper, Twisted Pair, Specification 14HC2



Used in drops extending telephone circuits from open wire or distributing cable terminals where transmission loss of the drop must be lower than that of No. 17 Bronze or Copper-weld.

Used also in bridling toll line circuits.

Has raised ridge in rubber insulation on one conductor for polarity identification.

All conductors are Teleplate coated for corrosion resistance and to promote good adhesion between conductor and insulation.

Conductor insulation is long life, highly compression resistant rubber compound with excellent electrical properties.

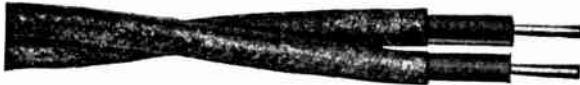
A heavy braid of strong, unbleached, two-ply cotton yarn is closely woven over each of the two parallel insulated conductors to give added service life to the wire.

The braid is completely saturated with an asphalt base compound, containing straight asphalt of crude oil origin, that is both moisture and weather resistant. A tough, flexible, high melting point, finishing coat of Stearine pitch and mica is applied over the saturated braid. The life of the rubber and braid are increased by this effective seal against light, moisture, and oxygen.

Specification No.	14HC2
Max. Conductor Resistance, Ohms per 1000 Feet .	3
Conductor Breaking Strength, Minimum.....lb.	190
Diameter over Rubber, Nominal.....in.	.156
Coil Eye, Approximate.....in.	16
Approximate Weight per 1000 Feet.....lb.	60

Whitney Blake No. 16 A.W.G. Outside Wire

Hard Copper, Twisted Pair, Specification 16HC2



For same application as Specification 14HC2.

Rubber insulation, braid, Teleplate coated conductors and weatherproofing are the same grade as Specification 14HC2.

Specification No.	16HC2
Max. Conductor Resistance, Ohms per 1000 Feet .	4.55
Conductor Breaking Strength, Minimum.....lb.	125
Diameter over Rubber, Nominal.....in.	.125
Coil Eye, Approximate.....in.	16
Approximate Weight per 1000 Feet.....lb.	42

Whitney Blake Bridle Wire

No. 18 Soft Copper, Twisted Pair, Specification 18B2
No. 20 Soft Copper, Twisted Pair, Specification 20B2



Used in ring wiring and in bridling open wire lines.

Conductor Teleplate coated for corrosion resistance and good adhesion of insulation to conductor.

Weatherproof braid has raised tracer threads or threads to identify conductors in pair, triple, or quadruple wires.

Rubber insulation similar to Specification 14HC2.

Saturated and finished the same as Specification 14HC2.

Specification No.	18B2	20B2
Max. Conductor Resistance, Ohms per 1000 Feet .	7.5	11
Diameter over Rubber, Nominal.....in.	.090	.080
Coil Eye, Approximate.....in.	16	9
Approximate Weight per 1000 Ft.....lb.	31	20

Whitney Blake Teleprene Outside Wire

No. 14 A.W.G. Hard Copper, Twisted Pair, Specification 14THC-2

No. 16 A.W.G. Hard Copper, Twisted Pair, Specification 16THC-2



Used in drops extending telephone circuits from open wire or distributing cable terminals where transmission loss of the drop must be lower than that of No. 17 bronze or copper-weld. Used also in bridling toll line circuits.

Has double ridged tracer in jacket on one conductor for polarity identification.

Teleplate conductors, rubber insulation, and tough Neoprene jacket same as that for Specification 17TB-2.

Size A.W.G.	14	16
Conductor Resist., Ohms per 1000 Ft. Max.	3	4.55
Conductor Breaking Strength.....pounds	190	125
Nominal Diameter Over Jacket.....inches	0.226	0.185
Approximate Coil Eye Size.....inches	16	16
Approximate Weight per 1000 Feet.....pounds	80	55

Whitney Blake No. 18 A.W.G. Teleprene Bridle Wire

Soft Copper, Twisted Pair, Specification 18TBC-2
Soft Copper, Triple, Specification 18TBC-3



Used in ring wiring and in bridling open wire lines.

Conductor Teleplate-coated for corrosion resistance and good adhesion of insulation to conductor.

Rubber insulation and tough Neoprene outer jacket similar to that of Specification 17TB-2.

Double and triple ridge tracers on jacket identify conductors in twisted pair and triple types.

Specification No.	18TBC-2	18TBC-3
Conductor Resistance, Ohms per 1000 Ft. Max.	7.5	7.5
Nominal Diameter Over Jacket.....inches	0.140	0.140
Approximate Coil Eye Size.....inches	16	16
Approximate Weight per 1000 Feet.....pounds	32	48

Whitney Blake Teleseal Signal and Communication Wire

Twisted Pair, Hard Copper



For low voltage signal and communication purposes in wet locations. Has double-ridged tracer on jacket of one wire for polarity identification.

Furnished in two sizes, Nos. 14 and 16, with Teleplate coated hard copper conductors. Characterized by low moisture absorption, low transmission losses at telephone frequencies, and stability of operation under water.

Over the insulation, and adherent to it, is a tough, tire tread type of Neoprene jacket identical in composition to that used on Teleprene.

Size A.W.G.	14	16
Conductor Resistance, Ohms per 100 Ft. Max.	3	4.55
Conductor Breaking Strength, Minimum.....lb.	190	125
Nominal Diameter Over Jacket.....inches	0.238	0.203
Approximate Coil Eye Size.....inches	16	16
Approximate Weight per 1000 Feet.....pounds	85	60

Whitney Blake No. 22 A.W.G. Distributing Frame or Duct Wire



Twisted Pair Plastite Insulation, Specification 22S2

Triple, Plastite Insulation, Specification 22S3

Quadruple, Plastite Insulation, Specification 22S4

Used on distributing frames, cross connecting racks, and in conduit or duct.

Bare soft copper conductor insulated with tough, high dielectric strength Plastite insulation.

Twisted pair has one black and one red conductor; in triple, third leg is cream; and in the quadruple, fourth leg is green.

Specification No.	22S2	22S3	22S4
Number of Conductors	2	3	4
Conductor Resistance, Ohms per 1000 Feet	Max. 20	20	20
Diameter over Insulation, Nominal	.074	.074	.074
Coil Eye, Approximate	7	7	7
Approx. Weight per 1000 Ft.	9	13	17

Whitney Blake Inside Telephone Wire

No. 22 A.W.G. Soft Copper, Twisted Pair, Plastite Insulation, Specification 22PN2

No. 19 A.W.G. Soft Copper, Twisted Pair, Plastite Insulation, Specification 19PN2

No. 19 A.W.G. Soft Copper, Twisted Pair, 1/64-Inch Rubber Insulation, Specification 19N2



Used inside buildings for extending circuits from arrestors or other terminating fixtures of outside lines to station sets.

Furnished in single pair, triple, and quadruple.

Plastite insulated types have soft copper conductors with smooth Plastite, synthetic resin insulation that has high dielectric strength and is tough, flame proof, and highly resistant to abrasion, water, oil, alkali, and most solvents.

Plain, single and double ridged tracers make identification easy. Standard colors are ivory and brown.

Rubber insulated type has braid of brown hard glazed yarn over each insulated conductor.

Specification No.	22PN2	19PN2	19N2
Conductor Resistance, Ohms per 1000 Feet	Max. 20	20	10
Diameter over Insulation, Nominal	.074	.086	.096
Coil Eye, Approximate	7	9	9
Approx. Weight per 1000 Ft.	9	14	21

Whitney Blake Single Conductor Concentric Microphone Cable



For ribbon and single button carbon microphones, loud speaker circuits, permanent or tie-in wiring, low impedance transmission lines up to about 600 ohms, and communication system circuits where shield is used for grounded side of the circuit.

No. N-26J-1. Low capacity flexible cable for crystal microphones and for permanent or tie-in wiring on medium or high impedance transmission lines. No. 26 A.W.G. stranded tinned bronze conductor, high grade, low capacity rubber insulation, braided tinned copper shield, cotton covering, and tough oil-resistant neoprene jacket.

No. N-22J-1. No. 22 A.W.G. tinned solid copper conductor, high quality rubber insulation, braided tinned copper shield, cotton covering, and oil-resistant neoprene covering.

No. N-18J-1. Same as No. N-22J-1 except has No. 18 A.W.G. tinned stranded Copper conductor.

No.	N-26J-1	N-22J-1	N-18J-1
Conductor Size A.W.G.	26	22	18
Capacity Conductor-Shield			
.....mmf/foot	30	85	150
Outside Diameter.....inches	0.245	0.150	0.171
Approximate Weight per 1000 Feet.....pounds	46	17	21

No. N-22J-1 and No. N-18J-1 furnished with Plastite synthetic resin insulation and jacket on special order.

Whitney Blake Two-Conductor Shielded Cable



For double button carbon microphones, dynamic microphones, and photo-electric cell circuits using shield as grounding connection and for low impedance transmission lines up to 600 ohms.

No. N-22J-2. No. 22 A.W.G. tinned solid copper conductors, high grade rubber insulation, braided tinned copper shield, cotton covering, and neoprene jacket.

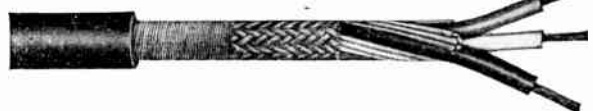
No. N-20J-2. Same as No. N-22J-2 except conductors are No. 20 A.W.G. tinned stranded copper.

No. N-18J-2. Same as No. N-22J-2 except conductors are No. 18 A.W.G. tinned stranded copper.

No.	N-22J-2	N-20J-2	N-18J-2
Conductor Size A.W.G.	22	20	18
Capacity:			
Conductor to Shield	mmf/ft. 85	115	125
Conductor to Conductor	.....mmf/ft. 45	60	70
Outside Diameter.....inches	0.225	0.280	0.280
Approximate Weight per 1000 Feet.....pounds	30	50	60

Furnished with Plastite synthetic resin insulation on special order.

Whitney Blake Three-Conductor Shielded Cable



For double button carbon microphones operating into circuits where diaphragm of microphone must be above ground potential, dynamic loud speaker extensions, and low impedance circuits up to 600 ohms.

No. N-20J-3. No. 20 A.W.G. tinned stranded copper conductors, high grade rubber insulation, braided tinned copper shield, cotton covering, and neoprene jacket.

No.	N-20J-3
Conductor Size A.W.G.	20
Capacity: Conductor to Shield	.....mmf/ft. 115
Conductor to Conductor	.....mmf/ft. 60
Outside Diameter.....inches	0.285
Approximate Weight per 1000 Feet.....pounds	60

Corresponding type with Plastite synthetic resin insulation can be furnished on special order.

Whitney Blake Speech Input and Sound System Cable Inter-Panel and Communication Equipment Wiring Cable



Nos. C-22SB-2 and C-20SB-2



Nos. C-22SBC-2 and C-20SBC-2

For inside use for internal equipment and panel wiring. Types with overall cotton braid may be used for speech and audio circuits on inside communication systems, equipment and panel cross-connection, etc.

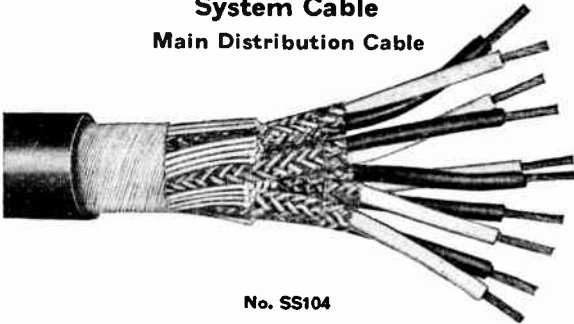
Has two tinned enameled solid copper conductors, silk or rayon wind, polarized cotton wind or braid, lacquer or wax finish and a braided bare copper shield.

No.	Conductors	Conductor Size A.W.G.	Shield to Conductor	Conductor to Conductor	Outside Diameter Inches	Overall Cotton Braid	Approximate Weight Pounds per 1000 Feet
C-22SB-2	2	22	100	60	0.125	No	12
C-22SBC-2	2	22	100	60	0.140	Yes	13
C-20SB-2	2	20	90	55	0.187	No	27
C-20SBC-2	2	20	90	55	0.205	Yes	28

Furnished with braided tinned copper shield and with Plastite synthetic resin insulated copper conductors on special order.

Whitney Blake Multi-Channel Sound System Cable

Main Distribution Cable



No. SS104

Used in hotels, hospitals, schools, auditoriums, etc., to transmit several sound programs simultaneously from main control and operating panel to local distribution points. Made to order only.

No. SS100, 6 Pair Unshielded Cable

Each twisted pair consists of two No. 22 A.W.G. tinned solid copper conductors insulated with Plastite synthetic resin insulation. Six twisted pairs are cabled together and covered with a Plastite resin jacket. Overall diameter, 0.370 inches.

No. SS103, 6 Pair Overall Shielded Cable

Same construction as No. SS100 except that after cabling the six twisted pairs together, a cotton covering and a braided tinned copper overall shield is applied and a lacquered cotton braid is then applied over the shield. Overall diameter, 0.325 inches.

No. SS104, 5 Shielded Pair Cable

Each twisted pair consists of two No. 18 A.W.G. tinned solid copper conductors insulated with Plastite synthetic insulation and having a braided tinned copper shield applied directly over each twisted pair. Five of these individually shielded twisted pairs are cabled together, covered with a cotton wind and an overall jacket. Overall diameter, 0.560 inches.

No. SS105, 7 Shielded Pair Cable

Same construction as No. SS105 except that it has seven separately shielded pairs. Overall diameter, 0.620 inches.

Special Applications

Multi-channel cable similar to the above with shielded or unshielded twisted pairs or concentric cable for separate channels, with or without overall shield, and with lacquered braid or Plastite synthetic resin outer jacket can be furnished on special order.

Hospital Silent Call Cord

Has five No. 18 A.W.G. stranded conductors covered with Plastite synthetic resin insulation. One insulated conductor is red and one white for circuit identification. Has a Plastite overall jacket. Overall diameter, 0.320 inches.

Whitney Blake Co-Axial Radio Frequency Cables

No. RG-29/U—Solid Copper Conductor



Small size polyethylene insulated low loss semi-flexible cable with polyethylene jacket.

No. RG-37/U—Solid Copper Conductor



General purpose small size semi-flexible I.F. cable, synthetic rubber insulated with polyethylene jacket.

No. RG-38/U—Solid Copper Conductor



Same as No. RG-37/U but with double shield.

No. RG-39/U—Solid Copperweld Conductor



Small size semi-flexible I.F. cable synthetic rubber insulated with double shield and polyethylene jacket.

No. RG-41/U—No. 30 Stranded Copper Conductor



Medium size synthetic rubber insulated semi-flexible cable with neoprene jacket for twisting applications.

No. RG-62/U—Solid Copperweld Conductor



Small size, low capacity, air space cable. Center conductor is spirally wrapped with a polyethylene thread. Synthetic resin jacket.

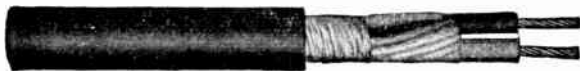
No.	Tinned Copper Shield	Nominal Cable O.D. Inches	Nominal Impedance Ohms	Nominal Atten. Decibel Per 100 Ft.	Nominal Cap. UUF Foot	Maximum Operating Voltage RMS.
RG-29/U	Single	0.184	53.5	11.7 at 400 mc.	29	1900
RG-37/U	Single	0.210	55	0.6 at 1 mc.	38	750
RG-38/U	Double	0.312	55	0.6 at 1 mc.	38	1000
RG-39/U	Double	0.312	72.5	0.6 at 1 mc.	28	1000
RG-41/U	Single	0.425	67.5	0.5 at 1 mc.	27	3000
RG-62/U	*Single	0.242	93	8.0 at 400 mc.	13.5	750

*Plain copper.

Type SJ Whitney Blake Rubber Sheathed Cord

Maximum Voltage Rating, 300 Volts

Approved by Underwriters' Laboratories



Recommended for light duty tools, refrigerators, vacuum cleaners, washing machines, sewing machines, multigraph machines, cash registers, billing machines, drop lights, extension cords, etc.

Made with flexible and extra flexible stranded copper conductors, separator, 30 per cent rubber insulation, twisted with fillers and covered with cotton binder, 40 per cent tough rubber jacket overall. Also made with oil resistant Neoprene jacket, Type SJO.

Flexible stranding is for stationary service and extra flexible stranding for movable devices.

The rubber compounds of this moisture-proof cord are age-resisting and provide high resistance to abrasion, shock, and twisting.

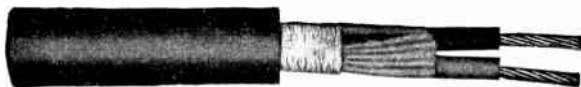
Put up in 250-foot coils or, where quantity warrants, in factory lengths on reels.

Size A.W.G.	Flexible Stranding		Extra Flexible Stranding	
	18	16	18	16
No. of Strands	16	26	41	65
Size Wire	30	30	34	34
Current Carrying Cap. amps.	7	10	7	10
2 Conductor:				
Approx. O.D. in.	.305	.330	.305	.330
Approx. Wt. per 1000 Ft. . . . lb.	50	62	50	62
3 Conductor:				
Approx. O.D. in.	.330	.360	.330	.360
Approx. Wt. per 1000 Ft. . . . lb.	63	87	63	87

Type S Whitney Blake Rubber Sheathed Cord

Maximum Voltage Rating 600 Volts

Approved by Underwriters' Laboratories



For heavy portable tools, pendant lighting, car heaters, conveyors, garage heaters, ticket vendors, floor polishers, sanders, etc.

Made with flexible stranded copper conductors, separator, 30 per cent rubber insulation, conductors twisted with fillers and covered with cotton binder, 40 per cent heavy duty rubber jacket overall. Also made with oil resistant Neoprene jacket, Type SO.

The rubber compounds of this moisture-proof cord are age-resisting and provide high resistance to abrasion, shock, and twisting.

Put up in 250-foot coils or, where quantity warrants, in factory lengths on reels.

Size A.W.G.	No. of Strands	Size Wire	Current Carrying Capacity Amperes	2 Conductor		3 Conductor	
				Approx. O.D. Inches	Approx. Wt. Lb. per 1000 Feet	Approx. O.D. Inches	Approx. Wt. Lb. per 1000 Feet
18	41	34	7	.390	74	.405	99
16	65	34	10	.405	87	.430	126
14	41	30	15	.530	142	.560	170
12	65	30	20	.605	172	.635	215
10	104	30	25	.640	210		

Type C Whitney Blake Twisted Pair Lamp Cord

Approved by Underwriters' Laboratories



Recommended for portable lamps, clocks, fans, toys, etc. Made with stranded copper conductors, paper separator, code rubber insulation, and glazed cotton green and yellow braid over each conductor. Put up in 250-foot coils or, where quantity warrants, in factory lengths on reels.

Size A.W.G.	18	16	14	12
No. of Strands	16	26	41	65
Size Wire	30	30	30	30
Insulation Thickness in.	1/32	1/32	3/64	3/64
Approx. O.D. in.	.305	.330	.430	.470
Current Carrying Cap. amps.	5	7	15	20
Max. Voltage Rating volts	300	300	600	600
Approx. Wt. per 1000 Ft. lb.	32	40	66	82

Type POSJ Whitney Blake Tru-Rip Rubber Sheathed Parallel Cord

Maximum Voltage Rating, 300 Volts

Approved by Underwriters' Laboratories



Used for lamps, clocks, radios, fans, toys, scales, signs, cash registers, etc. Made with flexible stranded copper conductors, separator, and a 40 per cent rubber insulation.

Waterproof, and slits, strips, and handles easily.

Available in black, brown, and ivory, and other Nema colors on request.

Put up—Type POSJ-64, 500-foot spools; Type POSJ-32, 250-foot spools; or where quantity warrants, in factory lengths on reels.

Type	POSJ-64	POSJ-32	POSJ-32
Size A.W.G.	18	18	16
No. of Strands	41	41	65
Size Wire	34	34	34
Approx. O.D. in.	.230x.125	.295x.155	.315x.170
Current Carrying Capacity amps.	7	7	10
Approx. Wt. per 1000 Ft. lb.	26	38	48

Type SV Whitney Blake Rubber Sheathed Cord

Maximum Voltage Rating, 300 Volts

Approved by Underwriters' Laboratories



For light duty appliances such as vacuum cleaners, food mixers, fans, etc.

Made with flexible stranded copper conductors, separator, 30 per cent rubber insulation, conductors twisted with fillers and covered with cotton binder, 40 per cent tough rubber jacket overall. Also made with oil-resistant Neoprene jacket, Type SVO.

The rubber compounds of this moisture-proof cord are age-resisting and provide high resistance to abrasion, shock, and twisting.

Put up in 250-foot coils or, where quantity warrants, in factory lengths on reels.

Size A.W.G.	18
No. of Strands	41
Size Wire	31
Approximate O.D. inches	.250
Current Carrying Capacity amperes	7
Approximate Weight per 1000 Feet pounds	39

Type POT Whitney Blake Tru-Rip Plastite Cord

Maximum Voltage Rating, 300 Volts
Approved by Underwriters' Laboratories



Used for lamps, clocks, radios, and light appliances.

Made of soft annealed No. 34 bare copper stranded conductors, with Plastite jacket applied over parallel conductors. Polarity is established by use of ridges on the insulation. This construction permits easy separation into two separately insulated conductors.

Colors: other than black, brown or ivory require minimum order of 25,000 feet.

Put up in 250-foot spools or factory lengths on non-returnable reels.

Type	Pot-64	Pot-32	Pot-32
Size A.W.G.	18	18	16
No. of Strands	41	41	65
Size Wire	34	34	34
Approx. O.D. in.	.230x .125	.295x .155	.315x .170
Current Carrying Cap. amps.	7	7	10
Approx. Wt. per 1000 Ft. lb.	24	34	42
Insulation Thickness in.	3/64	3/64	3/64

Type SVT Whitney Blake Light Duty Plastite Cord

Maximum Voltage Rating, 300 Volts
Approved by Underwriters' Laboratories



For vacuum cleaners, fans, and food mixers.

Made of soft annealed No. 34 bare copper stranded conductors, Plastite insulation, twisted with fillers, cotton wind, and Plastite jacket.

Color: black.

Put up in 250-foot coils or factory lengths on non-returnable reels.

Size A.W.G.	18
No. of Strands	41
Size Wire	34
Approx. O.D. in.	.250
Current Carrying Capacity	7
Insulation Thickness in.	1/64
Approx. Weight per 1000 Ft. lb.	30

Type SJT Whitney Blake Medium Duty Plastite Cord

Maximum Voltage Rating, 300 Volts
Approved by Underwriters' Laboratories



Used for drills, grinders, portable tools, washing machines, refrigerators.

Made of soft annealed No. 31 bare copper stranded conductors, plastite insulation, twisted with fillers, cotton braid or wrap, plastite jacket.

Color: black.

Put up in 250-foot coils or factory lengths in non-returnable reels.

Size A.W.G.	No. of Conductors	No. and Size of Strands	Approx. O.D. Inches	Current Carrying Capacity Amperes	Insulation Thickness Inches	Approx. Wt. per 1000 Feet
18	2	41-34	.305	7	2/64	42
16	2	65-34	.330	10	2/64	56
18	3	41-34	.330	7	2/64	60
16	3	65-34	.360	10	2/64	79
18	4	41-34	.360	7	2/64	77
16	4	65-34	.390	10	2/64	102

Type ST Whitney Blake Heavy Duty Plastite Cord

Maximum Voltage Rating, 600 Volts
Approved by Underwriters' Laboratories



Used for portable tools, conveyors, bus heaters, floor sanders, etc.

Made of soft annealed bare copper stranded conductors, Plastite insulation, twisted with fillers, cotton braid or wrap, Plastite jacket. Color: black.

Put up in 250-foot coils or factory lengths on non-returnable reels.

Size A.W.G.	No. of Conductors	No. and Size of Strands	Approx. O.D. Inches	Current Carrying Capacity Amperes	Insulation Thickness Inches	Approx. Wt. per 1000 Feet
18	2	41-31	.390	7	2/64	73
16	2	65-34	.405	10	2/64	83
14	2	41-30	.530	15	3/64	112
12	2	65-30	.600	20	3/64	182
10	2	104-30	.640	25	3/64	222
18	3	41-31	.405	7	2/64	85
16	3	65-31	.430	10	2/64	95
14	3	41-30	.560	15	3/64	160
12	3	65-30	.635	20	3/64	218
10	3	104-30	.690	25	3/64	303

Whitney Blake

CUSTOM BUILT CORD SETS

The Cord Set Department
of the

Whitney Blake Company
is equipped for the fabrication of
a varied line of
Cord Sets

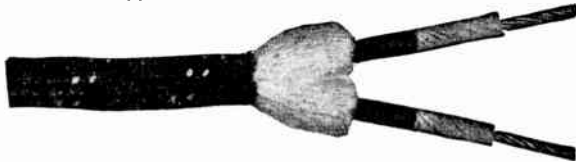
built to customers specifications



Type HPD Whitney Blake Heater Cord

3000 Cycle

Approved by Underwriters' Laboratories



Maximum Voltage Rating, 300 Volts

For flat irons, toasters, coffee brewers, heating pads, waffle irons, roasters, soldering irons, heaters, griddles, grills, etc.

Made with flexible stranded copper conductors, special cotton separator, 1/4-inch unvulcanized rubber insulation, long fiber fireproof asbestos covering on each conductor, and a braid of rayon, or glazed cotton, or long wear twine applied over the twisted conductors.

Put up in 250-foot coils or, where quantity warrants, in factory lengths on reels.

No.	18	17	16	14
No. of Strands.....	41	52	65	104
Size Wire.....	34	31	31	34
Approx. O.D.				
Glazed Cotton.....in.	.275	.285	.300	.345
Twine.....in.	.315	.325	.340	.375
Current Carrying Capacity.....amps.	10	12 1/2	15	20
Approx. Wt. per 1000 Ft.				
Glazed Cotton.....lb.	31	36	40	56
Twine.....lb.	35	40	46	60

10,000 Cycle

Approved by Underwriters' Laboratories
Maximum Voltage Rating, 300 Volts

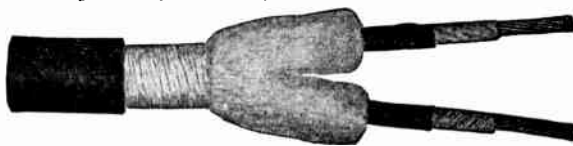
Similar to 3000 cycle type but has more flexibility and longer flex life.

Put up in 250-foot coils or, where quantity warrants, in factory lengths on reels.

Size A.W.G.	18	17	16
No. of Strands.....	65	82	104
Size Wire.....	36	36	36
Approx. O.D.			
Glazed Cotton.....in.	.275	.285	.300
Twine.....in.	.315	.325	.340
Current Carrying Capacity.....amps.	10	12	15
Approx. Wt. per 1000 Ft.			
Glazed Cotton.....lb.	31	36	40
Twine.....lb.	35	40	46

Type HSJ Whitney Blake Rubber Sheathed Heater Cord

3000 Cycle—Approved by Underwriters' Laboratories



For applications requiring a moisture-proof heater cord, such as soldering irons, glue pots, permanent wave machines, tire vulcanizers, etc. Maximum voltage rating, 300 volts.

Made with flexible stranded copper conductors, special cotton separator, 1/4-inch vulcanized rubber insulation, long fiber asbestos covering on each conductor, soft cotton braid over the twisted conductors, and 40 per cent rubber jacket overall.

Put up in 250-foot coils or, where quantity warrants, in factory lengths on reels.

Size A.W.G.	18	16	14
No. of Strands.....	41	65	104
Size Wire.....	34	34	34
Approx. O.D. ....in.	.295	.310	.385
Current Carrying Capacity.....amps.	10	15	20
Approx. Weight per 1000 Ft. ....lb.	46	55	75

Whitney Blake Thermoprene Locomotive Headlight Wire



Available in two types. The first type has a 3/4-inch wall of heat resistant rubber insulation; in this respect it resembles the old style locomotive headlight wire. The second type has a 1/2-inch wall of heat resistant rubber insulation. Both types have a substantial Neoprene jacket overall.

The I.C.C. insulation resistance requirements for cab signal equipment installations are stringent and one railroad's specifications for the wire requires an insulation resistance of 5630 megohms per 1000 feet. Whitney Blake Neoprene jacketed type with the 3/4-inch wall of heat resistant rubber has an insulation resistance of over twice this while the type with a 1/2-inch wall exceeded the specification requirements by 60 per cent.

Cab signal equipment wiring is exposed, at times, to rather high temperatures; at the same time, it may come in contact with oil, and frequently becomes wet from rain, melted snow, fog, or condensed steam. Due to the products of combustion, this moisture on the wire is quite likely to become acidified. Laboratory tests, under simulated service conditions, showed that the Neoprene jacketed locomotive headlight wire withstood the harmful effects of these conditions after samples of the old style wire had failed.

Available in the following sizes:

No. 14 A.W.G. single conductor, 19 strands tinned copper, 3/4-inch wall, 0.025-inch Neoprene jacket; 0.226-inch outside diameter. Cat. No. 14LH-3/4

No. 14 A.W.G. single conductor, 19 strands tinned copper, 1/2-inch wall, 0.025-inch Neoprene jacket; 0.195-inch outside diameter. Cat. No. 14LH-1/2

No. 12 A.W.G. single conductor, 19 strands tinned copper, 3/4-inch wall, 0.025-inch Neoprene jacket; 0.245-inch outside diameter. Cat. No. 12LH-3/4

Deltabeston Flexible Cord

Type AFS

(Table YK-8290)



Made with flexible conductors and a tough 40 per cent overall rubber jacket which enables it to withstand severe mechanical abuse. Recommended for use as a portable cord where the individual conductors are in direct contact with the heating element of heating devices.

Due to its construction, this flexible cord is moisture-proof and heat-resisting.

Size A.W.G.	Stranding	2-Conductor Felted Asbestos Inches	Rubber Jacket Inches	*Overall Diameter Inches
18	16/.010	.032	.0625	.390
16	26/.010	.032	.0625	.405
14	41/.010	.032	.0781	.460
12	65/.010	.047	.0781	.620
3-Conductor				
18	16/.010	.032	.0625	.405
16	26/.010	.032	.0625	.430
14	41/.010	.032	.0781	.480
12	65/.010	.047	.0781	.635

Type AFSJ

(Table YK-8289)

Similar in construction to Type AFS cord above, except that it has a lighter overall rubber jacket. Especially suitable for use as a flexible cord for home appliances and small portable tools.

Moisture-proof and heat-resisting.

Size A.W.G.	Stranding	2-Conductor Felted Asbestos Inches	Rubber Jacket Inches	*Overall Diameter Inches
18	16/.010	.032	.032	.300
16	26/.010	.032	.032	.325
3-Conductor				
18	16/.010	.032	.032	.330
16	26/.010	.032	.032	.355

*Maximum and minimum not over ± 5% from normal.

Type AVA Deltabeston Switchboard Wire

Approved by Underwriters' Laboratories, Inc.
600 Volts



Table YK-3160 (Solid)
Construction of Sizes 18-8



Table YK-3260 (Stranded)
Construction of Sizes 6 and Larger

Recommended for switchboard and general conduit wiring where flame-proof and moisture-resisting qualities are desired.

Resists flame, heat, moisture, oil, grease, and corrosive vapors. Maximum copper temperature, 110 C. (230 F.).

Insulated with felt asbestos and varnished cambric insert, asbestos braid. Black or white finish.

Available with solid copper or stranded copper conductor.

Solid Conductor—(Table YK-3160)

Size A.W.G.	Stranding	*Nom. O.D. In.	Dielectric Test Voltage Kv.	STD. SHIP. (Lgth. Ft.) Coils	Reels	Wt. Lb. per 1000 Feet
0000705	3 0	500	500	800
000655	3 0	500	500	657
00610	3 0	500	500	543
0570	3 0	500	500	422
1535	3 0	500	500	348
2480	3 0	500	500	279
3455	3 0	500	500	231
4430	3 0	500	500	193
6385	3 0	500	500	138
8310	2 5	500	1000	85
10285	2 5	500	1000	59
12265	2 5	500	1000	45
14250	2 5	500	1000	36
16235	2 5	500	1000	29
18225	2 5	500	1000	25

Stranded Conductor—(Table YK-3260)

Size	Stranding	*Nom. Diam. In.	Dielectric Test Voltage Kv.	STD. SHIP. (Lgth. Ft.) Coils	Reels	Wt. Lb. per 1000 Feet
8	7/.0486	.330	2 5	500	1000	85
10	7/.0385	.300	2 5	500	1000	59
12	7/.0305	.275	2 5	500	1000	45
14	7/.0242	.255	2 5	500	1000	36

NOTE. For Type AVA boiler room wire in sizes 6 A.W.G. stranded and larger, use Table YK-2250 power cable.

Type AVB Deltabeston Switchboard Wire

Approved by Underwriters' Laboratories, Inc.
600 Volts



Solid Conductor

Recommended for wiring switchboards and all other types of control apparatus. Approved for 90°C. (194°F.) service. Will resist heat, flame, oil, and corrosive vapors.

Insulated with varnished cambric and felted asbestos. Overall cotton braid. Dark gray flame-proof finish. Other colors can be furnished upon request.

Available with solid tinned copper conductor or stranded tinned copper conductor.

Solid Conductor—(Table YK-4161)

Size A.W.G.	Concentric Stranding	*Nom. Diam. Inches	Dielectric Test Voltage Kv.	STD. SHIP. (Lgth. Ft.) Coils	Reels	Wt. Lb. per 1000 Feet
0000665	4 0	500	500	800
000615	4 0	500	500	650
00570	4 0	500	500	530
0530	4 0	500	500	435
1495	4 0	500	500	365
2465	4 0	500	500	300
4410	4 0	500	500	210
6370	4 0	500	500	155
8270	3 0	500	1000	84
10245	3 0	500	1000	61
12225	3 0	500	1000	44
14205	3 0	500	1000	34
16195	3 0	500	1000	25
18180	3 0	500	1000	20

Stranded Conductor—(Table YK-4261)

Size	Stranding	*Nom. Diam. Inches	Dielectric Test Voltage Kv.	STD. SHIP. (Lgth. Ft.) Coils	Reels	Wt. Lb. per 1000 Feet
0000	19/.1055	.735	4 0	500	500	835
000	19/.0940	.675	4 0	500	500	675
00	19/.0837	.625	4 0	500	500	555
0	19/.0745	.580	4 0	500	500	460
1	19/.0664	.510	4 0	500	500	380
2	7/.0974	.500	4 0	500	500	315
4	7/.0772	.410	4 0	500	500	225
6	7/.0612	.390	4 0	500	500	165
8	7/.0486	.290	3 0	500	1000	88
10	7/.0385	.260	3 0	500	1000	63
12	7/.0305	.235	3 0	500	1000	49
14	7/.0242	.215	3 0	500	1000	36
16	7/.0193	.200	3 0	500	1000	26
18	7/.0151	.185	3 0	500	1000	21

Deltabeston Flamenol and Asbestos Switchboard Wire

Approved by Underwriters' Laboratories, Inc.

600 Volts



Solid Conductor

Recommended for wiring switchboards and all other types of control apparatus. Approved for 90°C. (194°F.) service. Resists heat, flame, oil and corrosive vapors.

Insulated with flamenol and felted asbestos. Cotton braid. Dark gray flame-proof finish. Available with solid tinned copper conductor or stranded tinned copper conductor.

Solid Conductor—(Table YK-4180)

Size A.W.G.	Concentric Stranding	*Nom. Diam. Inches	Dielectric Test Voltage Kv.	STD. SHIP. (Lgth. Ft.) Coils	Reels	Wt. Lb. per 1000 Feet
18160	3 0	500	1000	16 2
16170	3 0	500	1000	20 1
14185	3 0	500	1000	25 8
12200	3 0	500	1000	35 4
10220	3 0	500	1000	49 4
8250	3 0	500	1000	71 1
6315	4 0	500	500	119 0
4360	4 0	500	500	173 0

Stranded Conductor—(Table YK-4280)

Size A.W.G.	Concentric Stranding	*Nom. Diam. Inches	Dielectric Test Voltage Kv.	STD. SHIP. (Lgth. Ft.) Coils	Reels	Wt. Lb. per 1000 Feet
18	7/.0151	.165	3 0	500	1000	17 1
16	7/.0193	.175	3 0	500	1000	21 5
14	7/.0212	.190	3 0	500	1000	27 6
12	7/.0305	.210	3 0	500	1000	36 5
10	7/.0385	.240	3 0	500	1000	51 7
8	7/.0486	.270	3 0	500	1000	74 8
6	7/.0612	.340	4 0	500	500	122 0
4	7/.0772	.390	4 0	500	500	178 0

*Subject to ±5% tolerance.

Deltabeston Range Wire

(Table YK-6199 Solid)
(Table YK-6299 Stranded)
300 Volts



Meets the requirements of modern range manufacturers.
Consists of copper conductor, cellulose acetate wrap, 0.030-inch felted, impregnated asbestos insulation saturated with a moisture and heat-resistant compound.
Available colors; black, white, blue, yellow, gray, green, and red.

Solid Conductor—Table YK-6199

Size A.W.G.	Stranding	*Nom. O.D. In.	Diam. Bare Wire In.	—STD. PKG., FEET—			Wt. Lb. per 1000 Feet
				Coils	Metal Spools	Reels	
8194	.128	1000	.....	2500	64
10168	.102	1000	.....	2500	44
12147	.081	1000	.....	2500	30
14130	.064	1000	2000	5000	21
16117	.051	1000	2500	5000	16
18106	.040	1000	2500	5000	12
20098	.032	1000	2500	5000	8

Flexible Stranded Conductor—Table YK-6299

8	165/.010	.217	.151	1000	.....	2500	70
10	105/.010	.186	.120	1000	.....	2500	46
12	65/.010	.161	.095	1000	.....	2500	32
14	41/.010	.141	.075	1000	2000	5000	23
16	26/.010	.125	.059	1000	2500	5000	16
18	16/.010	.111	.045	1000	2500	5000	12
20	10/.010	.106	.040	1000	2500	5000	8

Deltabeston Appliance Lead Wire

300 Volts
(Table YK-6293)



For use in wiring ranges between the connection block and the switches.
Solid copper conductor. Varnished cambric plain asbestos insulation.
Maximum operating temperature is 100°C. (212°F.).
Available colors; black, white, red, gray, blue, yellow, and green.

Size A.W.G.	*Nom. O.D. In.	Bare Wire Diam. In.	—STD. PKG., FT.—		Wt. Lb. per 1000 Feet
			Coils	Reels	
4	.328	.204	.....	1000	158
6	.286	.162	.....	1000	106
8	.236	.128	1000	1000	68
10	.210	.102	1000	2500	50
12	.189	.081	1000	2500	34
14	.172	.064	1000	2500	25
16	.159	.051	1000	2500	19
18	.148	.040	1000	2500	15

Deltabeston Appliance Hinge Wire

300 Volts
(Table YK-6289)



For use in flexible hinges such as are common in conventional waffle irons.
Conductor, extra flexible nickel bunched strands; felted asbestos insulation.
Maximum conductor temperature, 200°C. (392°F.).

Size A.W.G.	18
Stranding	41/34
Bare Wire Diameter	.045 inches
*Diameter	.109 inches
Standard Packages:	
Coils	feet 1000
Metal Spools	feet 2500
Reels	feet 5000

*Subject to 5 per cent tolerance.

Deltabeston Appliance Lead Wire

300 Volts



Solid Conductor

MOISTURE-RESISTING INSULATION.—Recommended for wiring of electric ranges, stoves, and other electrical appliances where both heat and moisture resistance is desirable.

Consists of a highly compressed covering of felted asbestos which contains a moisture and heat resistant wax. The insulation is moisture-resisting but will smoke at approximately 300°F. Available with copper or nickel conductors. Nickel conductors are recommended when the conductor temperatures exceed 150°C. (302°F.).

Standard colors; black, white, red, gray, or blue.

Can be furnished in a 3-conductor assembly, if desired. A 3-conductor range cable may be found advantageous for wiring heating devices such as electric ranges, ovens, or furnaces where a 3-heat switch controls the heating units.

SMOKELESS INSULATION.—For wiring of electrical appliances where high temperature with a minimum of moisture must be met, and a non-smoking insulation is essential.

Consists of a highly compressed covering of felted purified asbestos which contains less organic material than any other type of electrical insulation. This type is smokeless but will not resist moisture. Available with copper or nickel conductors. Nickel conductors are recommended when the conductor temperatures exceed 150°C. (302°F.).

Available in sizes A.W.G. 8 to 20.

Standard colors; black, white, red, gray, or blue.

Solid Conductor

With .032-Inch Insulation

Table YK-6187 Copper, Smokeless
Table YK-6177 Copper, Moisture Resistant
Table YK-6176 Nickel, Smokeless
Table YK-6184 Nickel, Moisture Resistant

Size A.W.G.	Stranding	Nom. O.D. In.	Diam. Bare Wire In.	—STD. PKG., FEET—			Wt. Lb. per 1000 Feet
				Coils	Metal Spools	Reels	
8192	.128	1000	.....	2500	60
10166	.102	1000	.....	2500	40
12145	.081	1000	.....	2500	27
14128	.064	1000	2000	5000	19
16115	.051	1000	2500	5000	13
18104	.040	1000	2500	5000	10
20096	.032	1000	2500	5000	7

With .040-Inch Insulation

Table YK-6175 Copper, Smokeless
Table YK-6179 Copper, Moisture Resistant
Table YK-6178 Nickel, Smokeless
Table YK-6185 Nickel, Moisture Resistant

8	.....	.208	.128	1000	.....	2500	63
10	.....	.182	.102	1000	.....	2500	43
12	.....	.161	.081	1000	.....	2500	30
14	.....	.144	.064	1000	2000	5000	21
16	.....	.131	.051	1000	2000	5000	15
18	.....	.120	.040	1000	2500	5000	12
20	.....	.112	.032	1000	2500	5000	9

Flexible Stranded Conductor

With .032-Inch Insulation

Table YK-6287 Copper, Smokeless
Table YK-6277 Copper, Moisture Resistant
Table YK-6276 Nickel, Smokeless
Table YK-6284 Nickel, Moisture Resistant

8	165/.010	.215	.151	1000	.....	2500	65
10	105/.010	.184	.120	1000	.....	2500	43
12	65/.010	.159	.095	1000	.....	2500	29
14	41/.010	.139	.075	1000	2000	5000	20
16	26/.010	.123	.059	1000	2500	5000	14
18	16/.010	.109	.045	1000	2500	5000	10
20	10/.010	.104	.040	1000	2500	5000	8

Table YK-6275 Copper, Smokeless

Table YK-6279 Copper, Moisture Resistant
Table YK-6278 Nickel, Smokeless
Table YK-6285 Nickel, Moisture Resistant

With .040-Inch Insulation

8	165/.010	.231	.151	.....	.....	2500	68
10	105/.010	.200	.120	1000	.....	2500	46
12	65/.010	.175	.095	1000	.....	2500	31
14	41/.010	.155	.075	1000	2000	5000	22
16	26/.010	.139	.059	1000	2000	5000	16
18	16/.010	.125	.045	1000	2500	5000	12
20	10/.010	.120	.040	1000	2500	5000	10

Subject to ±5 per cent tolerance.

1940 General Electric Deltabeston Aircraft Wire

Measures approximately 10" X 12", excellent condi



**YOU CAN DEPEND ON G-E
DELTABESTON AIRCRAFT WIRE**

Deltabeston Aircraft Wire embodies that extra "margin of safety" which is so essential to the airplane industry. This wire is carefully designed to carry power to any part of the plane where it is needed—and to accomplish that job with the greatest possible safety.

Storage battery leads	Wiring for instruments
Circuit wiring of lamps	Communications

LOOK AT THESE ALL-IMPORTANT ADVANTAGES OFFERED BY DELTABESTON AIRCRAFT WIRE:

1. Light in weight
2. Small in diameter to save space
3. Flameproof to prevent fire
4. Highly resistant to heat
5. Resistant to oil and moisture

The soft, flexible ribbed copper conductor is covered by a separator. Over this is a flameproof synthetic insulation possessing a very high dielectric strength. Taped asbestos covers the synthetic insulation and is impregnated to make it highly resistant to moisture and flame. An over-all impregnated, flameproof braid completes the insulation.

General Electric Deltabeston Aircraft Wire is available in sizes 22 to 2-0. It is sold by General Electric Merchandise Distributors and the Graebler Electric Company.

We would be pleased to give you more information. Just write to Section Y-0987, Appliances and Merchandise Department, General Electric Company, Bridgeport, Connecticut.

GENERAL  ELECTRIC

104 AERO DIGESTS Feature Expose

Buyer to pay \$3.25 shipping to the United States, \$5.00 to Canada, \$8.50 to a combine shipping to save you money).

Payment Methods : Paypal, Money Order, and Cashiers/Person

Deltabeston Appliance Grounding Wire

(Table YK-6292)



For grounding any metallic part of electric range or stove to ground wire as required by N.E.C.

Stranded copper conductor; plain asbestos, moisture-resisting finish.

Available color; green. Other colors upon request.

Size A.W.G.	14
Stranding	7/.0242
*Nominal O.D.	.107
Bare Wire Diameter	.073
Standard Package:	
Coils	1000 feet
Metal Spools	2500 feet
Reels	5000 feet
Weight per 1000 Feet	16 pounds

Deltabeston Rheostat Wire

Approved by Underwriters' Laboratories, Inc.
600 Volts



Solid Conductor

Recommended for wiring rheostats, furnaces, oven connections, and similar installations where subjected to heat, flame, oil, grease, and corrosive vapors. Maximum copper temperature is 200°C. (392°F.).

Insulated with an impregnated wall of purified felted asbestos. Overall asbestos braid, white finish. Black finish can be furnished if required.

Available with solid or stranded copper conductors. The copper conductor is normally plain, however, tinned copper will be furnished if specified.

Solid Conductor—(Table YK-4158)

Size A.W.G.	Concentric Stranding	*Nom. O.D. Inches	Dielectric Test Voltage Kv.	Std. Shp. (Coils)	Reels	Wt. Lb. per 1000 Feet
0000670	1.5	...	500	765
000620	1.5	...	500	624
00575	1.5	...	500	481
0535	1.5	...	500	392
1500	1.5	...	500	322
2430	1.5	...	500	250
3400	1.5	...	500	205
4375	1.5	...	500	170
6335	1.5	...	500	118
8280	1.5	500	1000	85
10255	1.5	500	1000	60
12235	1.5	500	1000	46
14220	1.5	500	1000	36
16205	1.5	500	1000	30
18195	1.5	500	1000	26

Deltabeston Glass-Insulated Lead Wire

300 Volts

(Tables YK-9101 and YK-9102 Solid)

(Tables YK-9201 and YK-9202 Stranded)



For small motor leads, electrical appliances or control units. Resistant to abrasion and moisture.

Consists of solid or stranded copper or nickel conductors, saturated felt asbestos, varnished glass yarn braid overall.

Maximum conductor temperature, 200°C. (392°F.). Nickel conductors are recommended where conductor temperature exceeds 150°C. (302°F.).

Black or white finish.

Solid Conductor—Tables YK-9101 and YK-9102

Size A.W.G.	Stranding	*Over-all Diam. In.	Bare Wire Diam. In.	Std. Pkg., Feet			Wt. Lb. per 1000 Feet
				Coils	Metal Spools	Reels	
8190	.128	500	.....	2500	59
10164	.102	500	.....	2500	38
12143	.081	1000	.....	2500	26
14126	.064	1000	2000	5000	17
16113	.051	1000	2500	5000	12
18102	.040	1000	2500	5000	9

Stranded Conductor—(Table YK-4258)

0000	19/.1055	.740	1.5	...	500	765
000	19/.0910	.680	1.5	...	500	624
00	19/.0837	.630	1.5	...	500	481
0	19/.0745	.585	1.5	...	500	392
1	19/.0664	.545	1.5	...	500	322
2	7/.0974	.465	1.5	...	500	250
4	7/.0772	.405	1.5	...	500	170
6	7/.0612	.355	1.5	...	500	118
8	7/.0486	.300	1.5	500	1000	85
10	7/.0385	.270	1.5	500	1000	60
12	7/.0305	.245	1.5	500	1000	46
14	7/.0242	.225	1.5	500	1000	36

*Subject to ±5% tolerance.

Type AF Deltabeston Fixture Wire

Plain Type — N.E.C. Standard

300 Volts



This wire is approved for wiring all types of lighting fixtures designed for interior illumination, sun lamps, therapeutic devices, showcase wiring and all types of high-wattage units, especially where socket temperature exceeds 90°C. (194°F.). Flame, heat, and moisture-resisting felted asbestos insulation.

Standard colors: black or white. Other colors available on request at no extra charge in quantities of 1000 feet or more. All based on N.E.M.A. color specifications.

Solid Copper Conductor—(Table YK-7172)

Size A.W.G.	Stranding	*Nom. O.D. In.	STANDARD PACKAGES, FEET		Wt. Lb. per 1000 Feet
			Spool	Reel	
10196	500	2500	41
12175	500	2500	27
14128	500	2500	19
16115	500	2500	13
18104	500	2500	10

Stranded Copper Conductor—(Table YK-7272)

10	105/30	.217	500	2500	44
12	65/30	.191	500	2500	30
14	41/30	.141	500	2500	20
16	26/30	.123	500	2500	14
18	16/30	.111	500	2500	10

*A tolerance of 5% over or under o.d. shown above is necessary due to process of manufacture.

Deltaglass Appliance Hinge Wire

300 Volts

(Table YK-9200)



Recommended for flexible hinges as commonly found in conventional waffle irons.

Consists of stranded nickel conductor, impregnated glass fiber insulation, and varnished glass braid overall.

Maximum conductor temperature, 200°C.

Size A.W.G.	18
Stranding	41/.0063
*Nominal Diameter	.093
Bare Wire Diameter	.045
Standard Package:	
Coils	1000 feet
Metal Spools	2500 feet
Reels	5000 feet

*Subject to ±5 per cent tolerance.

Deltabeston Resistor Cable
600 Volts



Table YK-4257 (Stranded)

Recommended for connecting banks of resistors where moisture and heat are the outstanding conditions to be met. Tinned copper, Flamenol tape, felted impregnated asbestos, asbestos braid, and heat and moisture-resisting finish.

Solid Conductor—(Table YK-4157)

Size A.W.G.	Stranding	*Overall Diam. In.	Diam. on Copper In.	Dielectric Test Voltage Kv.	Std. Pkg.
0000630	.460	5.0	1000
000580	.410	5.0	1000
00535	.365	5.0	1000
0495	.325	5.0	1000
1460	.289	5.0	1000
2420	.258	5.0	1000
4365	.204	5.0	1000
6325	.162	5.0	1000
8275	.128	5.0	1000
10250	.102	5.0	1000
12230	.081	5.0	1000
14210	.064	5.0	1000

Stranded Conductor—(Table YK-4257)

Size A.W.G.	Stranding	Overall Diam. In.	Bare Wire Diam. In.	Insulation Thick. In.	Std. Ship. Lgth. in Ft. (Spool)	Wt. Lb. per 1000 Feet
0000	19/.1055	.700	.528	5.0	1000	1000
000	19/.0940	.640	.470	5.0	1000	1000
00	19/.0837	.550	.418	5.0	1000	1000
0	19/.0745	.545	.373	5.0	1000	1000
1	19/.0664	.500	.332	5.0	1000	1000
2	7/.0974	.450	.292	5.0	1000	1000
4	7/.0772	.390	.222	5.0	1000	1000
6	7/.0612	.345	.184	5.0	1000	1000
8	7/.0486	.290	.146	5.0	1000	1000
10	7/.0385	.260	.116	5.0	1000	1000
12	7/.0305	.240	.092	5.0	1000	1000
14	7/.0242	.220	.073	5.0	1000	1000
MCM						
250	37/.0822	.785	.575	5.0	500	500
500	37/.1162	1.025	.814	5.0	500	500
1000	61/.1280	1.360	1.152	5.0	500	500

*Subject to ±5 per cent tolerance.

Deltabeston Thermoplastic Fixture Wire
Thermoplastic-Insulated—600 Volts



For the wiring of fluorescent lamp ballasts. Resistant to heat, oil, acids, and alkalis.

Standard colors: black, white, red, and green.

Approved by Underwriters' Laboratories for use in fixtures at a maximum operating temperature of 80°C. (176°F.).

Solid Conductor—(Table YK-7176)

Size A.W.G.	Stranding	Overall Diam. In.	Bare Wire Diam. In.	Insulation Thick. In.	Std. Ship. Lgth. in Ft. (Spool)	Wt. Lb. per 1000 Feet
16117	.051	2/64	500, 2500	14
18106	.040	2/64	500, 2500	10

Stranded Conductor—(Table YK-7276)

Size A.W.G.	Stranding	Overall Diam. In.	Bare Wire Diam. In.	Insulation Thick. In.	Std. Ship. Lgth. in Ft. (Spool)	Wt. Lb. per 1000 Feet
16	26/.010	.125	.059	2/64	500, 2500	15
18	16/.010	.111	.047	2/64	500, 2500	11

Ballast Lead—1000 Volts
(Table YK-7277)



For wiring ballast leads for Slimline lamps and other fluorescent lighting fixtures that operate at 750 volts a.c.

Thermoplastic compound insulation is resistant to oil, heat, acids, and alkalis. Has additional protection in overall lacquered cotton braid.

Size A.W.G.	Stranding	Insulation Thick. In.	Cotton Braid Mills	Srs. Pks., Fr. Coils	Reels	Wt. Lb. per 1000 Feet
10	105/.0100	47	15	1000	2000	55
12	65/.0100	47	15	1000	2500	40
14	41/.0100	47	15	1000	3000	30
16	65/.0063	47	15	1000	3500	24
16	26/.0100	47	15	1000	3500	24
18	65/.0050	47	15	1000	4000	19
18	16/.0100	47	15	1000	4000	19
20	10/.0100	47	15	1000	4000	16

Type AVA Deltabeston Mine Locomotive Cable
600 Volts

(Table YK-2290)



For rewiring of mining and industrial locomotives, trolley motor, and resistor leads, where extreme heat is present.

Resists the action of oil, gasoline, acids, and alkalis.

Flexible tinned copper conductor, impregnated felted asbestos varnished cambric, impregnated felted asbestos flame and moisture-resistant asbestos braid.

Size A.W.G.	Stranding	O.D. Min.	D.I.A.M., In. Max.	Bare Wire Diam. In.	Wt. Lb. per 1000 Feet
0000	37/7/.0286	.785	.815	.600	875
000	37/7/.0255	.720	.775	.536	721
00	37/7/.0227	.663	.715	.477	592
0	37/7/.0202	.619	.665	.424	492
1	37/7/.0180	.574	.620	.378	415
2	19/7/.0224	.505	.545	.326	300
3	19/7/.0199	.468	.505	.299	248
4	19/7/.0177	.440	.475	.266	210
5	19/7/.0158	.396	.425	.237	173
6	19/7/.0141	.375	.405	.212	147
8	19/7/.0112	.332	.355	.108	104
10	105/.010	.289	.310	.120	76
12	65/.010	.272	.290	.095	59
14	41/.010	.252	.270	.075	45

MCM

Size A.W.G.	Stranding	O.D. Min.	D.I.A.M., In. Max.	Bare Wire Diam. In.	Wt. Lb. per 1000 Feet
250	61/7/.0242	.914	.985	.653	1055
300	61/7/.0265	.976	1.055	.716	1233
350	61/7/.0286	1.031	1.115	.772	1404
400	61/7/.0306	1.085	1.175	.826	1586
450	61/7/.0325	1.135	1.225	.878	1764
500	61/7/.0342	1.179	1.270	.923	1935

*Subject to 5 ± per cent tolerance.

Type AVB Deltabeston Locomotive Headlight Wire
(Table YK-8280)



Recommended for lighting service in locomotives where vibrations and excessive heat are major factors. Resists moisture, oil, and heat.

Insulated with felted asbestos and varnished cambric insert. Cotton braid. Black finish.

Size A.W.G.	Stranding	*Nominal O.D. inches	Bare Wire Diam. inches	Std. Shipping Lgth. feet	Coils	Reels	Wt. Lb. per 1000 Feet
12	.....	12	14	16	500	500	500
12	19/25	.230	.210	1000	1000	1000	1000
14	19/27	.230	.210	500	500	500	500
16	19/29	.230	.210	500	500	500	500
Weight per 1000 Feet		.090	.071	45	33	27	

Type AVPD Deltabeston Locomotive Cab Cord
(Table YK-8269)



Recommended for wiring locomotive cabs where heat is a factor. Circular cross section is obtained with jute fillers.

Insulated with varnished cambric and felted asbestos.

Has black asbestos braid overall.

Listed under the Re-examination Service of Underwriters' Laboratories (Underwriters' Type L).

Size A.W.G.	Stranding	*Nom. O.D. In.	Bare Wire Diam. In.	Std. Ship. Lgth., Ft. Coils	Reels	Wt. Lb. per 1000 Feet
10	65/.0126	.490	.120	250	1000	130
12	65/.010	.445	.097	250	1000	95
14	41/.010	.365	.077	500	1000	65
16	26/.010	.330	.059	500	1000	51
18	16/.010	.305	.047	500	1000	42

Deltabeston Power Cable

Approved by Underwriters' Laboratories, Inc.
(Table YK-2250)
600 Volts



For general power wiring as used in boiler rooms, power plants and steel mills. The cable can be installed exposed or in conduit. Maximum copper temperature, 110°C. (230°F.). Insulation consists of a layer of felted asbestos, wrapped with varnished cambric, a layer of felted asbestos, and then an asbestos braid. Flame, heat and moisture-resisting saturant and finish. Standard color of finish, black.

Size	Concentric Stranding	*Nom. O.D. Inches	Dielectric Test Voltage Kv.	Std. Shp. (Lgth. Feet)		Wt. Lb. per 1000 Feet
				Coils	Reels	
1000000CM	61/.1280	1.465	4.0	...	500	3510
900000	61/.1215	1.405	4.0	...	500	3182
800000	61/.1145	1.345	4.0	...	500	2854
750000	61/.1109	1.310	4.0	...	500	2689
700000	61/.1071	1.275	4.0	...	500	2524
650000	61/.1032	1.240	4.0	...	500	2359
600000	61/.0992	1.205	4.0	...	500	2193
550000	61/.0950	1.165	4.0	...	500	2027
500000	37/.1162	1.125	4.0	...	500	1860
450000	37/.1103	1.085	4.0	...	500	1692
400000	37/.1040	1.040	4.0	...	500	1525
350000	37/.0973	0.995	4.0	...	500	1357
300000	37/.0900	0.940	4.0	...	500	1188
250000	37/.0822	0.885	4.0	...	500	1017
0000A.W.G.	19/.1055	0.780	3.0	...	1000	839
000	19/.0940	0.720	3.0	...	1000	690
00	19/.0837	0.670	3.0	...	1000	571
0	19/.0745	0.625	3.0	...	1000	476
1	19/.0664	0.585	3.0	...	1000	371
2	7/.0974	0.505	3.0	...	1000	287
3	7/.0867	0.470	3.0	...	1000	238
4	7/.0772	0.445	3.0	...	1000	198
6	7/.0612	0.395	3.0	...	1000	141
8	7/.0486	0.360	2.5	500	1000	100
10	7/.0385	0.330	2.5	500	1000	76
12	7/.0305	0.305	2.5	500	1000	59
14	7/.0242	0.285	2.5	500	1000	46
16	7/.0193	0.270	2.5	500	1000	39
18	7/.0151	0.255	2.5	500	1000	33

Deltabeston Power Cable

Approved by Underwriters' Laboratories, Inc.
(Table YK-2252)
600 Volts



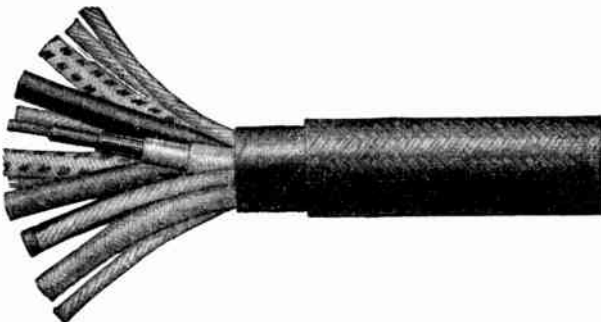
Recommended for exposed installations with high operating temperature. Will give permanent, uninterrupted service under constant high temperature. Maximum copper temperature 125°C. (257°F.).

Felted asbestos insulation, asbestos braid. Flame, heat and moisture-resisting saturant and finish. Standard color of finish, black.

Size	Concentric Stranding	*Nom. O.D. Inches	Dielectric Test Voltage Kv.	Std. Shp. (Lgth. Feet)		Wt. Lb. per 1000 Feet
				Coils	Reels	
1000000CM	61/.1280	1.485	1.5	...	500	3456
900000	61/.1215	1.425	1.5	...	500	3126
800000	61/.1145	1.365	1.5	...	500	2796
750000	61/.1109	1.330	1.5	...	500	2631
700000	61/.1071	1.295	1.5	...	500	2470
650000	61/.1032	1.260	1.5	...	500	2307
600000	61/.0992	1.225	1.5	...	500	2142
550000	61/.0950	1.185	1.5	...	500	1977
500000	37/.1162	1.145	1.5	...	500	1812
450000	37/.1103	1.105	1.5	...	500	1647
400000	37/.1040	1.060	1.5	...	500	1482
350000	37/.0973	1.015	1.5	...	500	1317
300000	37/.0900	0.960	1.5	...	500	1219
250000	37/.0822	0.905	1.5	...	500	982
0000A.W.G.	19/.1055	0.800	1.5	...	1000	819
000	19/.0940	0.740	1.5	...	1000	672
00	19/.0837	0.690	1.5	...	1000	555
0	19/.0745	0.645	1.5	...	1000	462
1	19/.0664	0.605	1.5	...	1000	388
2	7/.0974	0.505	1.5	...	1000	274
3	7/.0867	0.470	1.5	...	1000	227
4	7/.0772	0.445	1.5	...	1000	188
6	7/.0612	0.395	1.5	500	1000	132
8	7/.0486	0.320	1.5	500	1000	87
10	7/.0385	0.290	1.5	500	1000	63
12	7/.0305	0.265	1.5	500	1000	48
14	7/.0242	0.245	1.5	500	1000	38
16	7/.0193	0.230	1.5	500	1000	31
18	7/.0151	0.215	1.5	500	1000	26

Deltabeston Station Control Cable

Approved by Underwriters' Laboratories, Inc.
600 Volts



Recommended for connection of control on signal circuits, either exposed or in conduit, where the operating temperature is too severe for other insulations. Maximum copper temperature 110°C. (230°F.).

Each tinned copper conductor insulated with felted asbestos and varnished cambric insert. Overall asbestos braid. Flame, heat and moisture-resisting saturant and finish. Standard color of finish, black.

Standard shipping lengths as specified.

*Subject to ±5% tolerance.

Nominal Size A.W.G. 9-19/32 (Table YK-2267)			Size A.W.G. 12-19-25 (Table YK-2268)		
No. of Conductors	*Nom. O.D. Inches	Wt. Lb. per 1000 Feet	No. of Conductors	*Nom. O.D. Inches	Wt. Lb. per 1000 Feet
1	.320	81	1	.285	56
2	.640	195	2	.565	115
3	.680	260	3	.600	190
4	.745	325	4	.655	225
5	.820	390	5	.720	265
6	.900	495	6	.790	330
7	.900	505	7	.790	335
8	.980	580	8	.855	385
9	1.070	660	9	.925	435
10	1.160	700	10	1.010	455
11	1.200	805	11	1.045	520
12	1.200	815	12	1.045	525
13	1.265	930	13	1.100	590
14	1.265	940	14	1.100	595
15	1.340	1040	15	1.165	660
16	1.340	1050	16	1.165	665
17	1.420	1200	17	1.235	755
18	1.420	1215	18	1.235	765
19	1.420	1225	19	1.235	770

Deltabeston Apparatus or Motor Lead Cable

Approved by Underwriters' Laboratories, Inc.
(Table YK-2251)
600 Volts



Recommended where flexibility is desired. Used for wiring all low-voltage apparatus in power plants, mine locomotives and any other installation, either exposed or in conduit, where the operating temperature is too severe for other insulations. Maximum copper temperature rating is 110°C. (230°F.). Insulation consists of a layer of felted asbestos, wrapped with varnished cambric felted asbestos, and then an asbestos braid. Standard color of finish, black.

Size	Rope Stranding Tinned	*Nom. O.D. Inches	Dielectric Test Voltage Kv.	STD. SHIP.		Wt., Lb. per 1000 Feet
				Coils	Reels	
1000000CM	427 / 0480	1 585	4 0	...	500	3628
900000	427 / 0453	1 515	4 0	...	500	3294
800000	427 / 0427	1 445	4 0	...	500	2961
750000	427 / 0420	1 425	4 0	...	500	2794
700000	427 / 0403	1 380	4 0	...	500	2622
600000	427 / 0380	1 320	4 0	...	500	2289
500000	427 / 0342	1 215	4 0	...	500	1935
450000	427 / 0325	1 170	4 0	...	500	1764
400000	427 / 0306	1 120	4 0	...	500	1586
350000	427 / 0286	1 065	4 0	...	500	1404
300000	427 / 0265	1 010	4 0	...	500	1233
250000	427 / 0242	945	4 0	...	500	1055
0000A.W.G.	259 / 0286	840	3 0	...	1000	875
000	259 / 0255	775	3 0	...	1000	721
00	259 / 0227	720	3 0	...	1000	592
0	259 / 0202	665	3 0	...	1000	492
1	259 / 0180	620	3 0	...	1000	415
2	133 / 0224	540	3 0	...	1000	300
3	133 / 0199	500	3 0	...	1000	248
4	133 / 0177	470	3 0	...	1000	210
5	133 / 0158	440	3 0	...	1000	173
6	133 / 0141	415	3 0	...	500 1000	147
8	133 / 0112	370	2 5	...	500 1000	104
†10	105 / 010	320	2 5	...	500 1000	76
†12	65 / 010	295	2 5	...	500 1000	59
†14	41 / 010	275	2 5	...	500 1000	45
†16	26 / 010	260	2 5	...	500 1000	38
†18	16 / 010	245	2 5	...	500 1000	32

*Subject to ±5% tolerance. †Bunched strands.

Deltabeston Boiler Room Wire

Approved by Underwriters' Laboratories, Inc.
600 Volts



Construction of Sizes 8-18 A.W.G.

Recommended for general conduit and boiler room wiring where heat and moisture-resisting qualities are essential. Typical applications are for lighting and control circuits. Maximum copper temperature, 110°C. (230°F.).

Standard color of finish, black. White also available.

Available in solid or stranded copper conductor.

Standard Shipping Length: size A.W.G. 0000 to 6, in 500-ft. reels; size A.W.G. 8 to 18, in 500-ft. coils and 1000-ft. reels.

Solid Copper Conductor (Table YK-3160)

Size A.W.G.	Concentric Stranding	*Nom. O.D. In.	Dielectric Test Voltage Kv.	STD. SHIP.		Wt. Lb. per 1000 Feet
				Coils	Reels	
0000	0 700	3 0	...	500	800
000	0 650	3 0	...	500	657
00	0 605	3 0	...	500	543
0	0 565	3 0	...	500	422
1	0 530	3 0	...	500	348
2	0 480	3 0	...	500	279
4	0 425	3 0	...	500	193
6	0 385	3 0	...	500	138
8	0 350	2 5	500	1000	85
10	0 315	2 5	500	1000	59
12	0 285	2 5	500	1000	45
14	0 265	2 5	500	1000	36
16	0 245	2 5	500	1000	29
18	0 225	2 5	500	1000	25

Stranded Copper Conductor (Table YK-3260)

8	.....	0 330	2 5	500	1000	85
10	.....	0 300	2 5	500	1000	59
12	.....	0 275	2 5	500	1000	45
14	.....	0 255	2 5	500	1000	36

*Subject to ±5 per cent tolerance.

Deltabeston All-Asbestos Apparatus Cable

Approved by Underwriters' Laboratories, Inc.
300 Volts



Recommended for the wiring of motion picture projectors, stage lights, searchlights, floodlights, spotlights, all types of electric cranes and controllers, and all other apparatus where the wires are subjected to high temperatures. Maximum copper temperature is 200°C. (392°F.).

Insulated with a wall of felted asbestos, finished with an overall asbestos braid. Flame and heat-resisting saturant and finish. Standard color of finish, white.

Available in two grades: flexible, and extra flexible.

Extra Flexible Strand—(Table YK-2258)

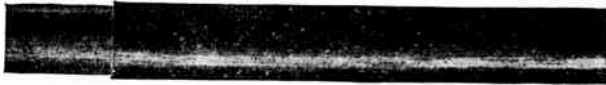
Size A.W.G.	Rope Stranding	*Nom. O.D. Inches	Dielectric Test Voltage Kv.	STD. SHIP.		Wt. Lb. per 1000 Feet
				Coils	Reels	
0000	8512 / 0050	856	1 0	...	500	815
000	6783 / 0050	787	1 0	...	500	660
00	5292 / 0050	719	1 0	...	500	535
0	4214 / 0050	664	1 0	...	500	430
1	3330 / 0050	585	1 0	...	500	340
2	2664 / 0050	508	1 0	...	500	260
4	1672 / 0050	435	1 0	...	500	175
6	1064 / 0050	382	1 0	...	500	125
8	665 / 0050	318	1 0	...	500	80
10	413 / 0050	282	1 0	...	500	55
12	259 / 0050	255	1 0	...	500	39
†14	105 / 0063	227	1 0	500	1000	30
†16	65 / 0063	211	1 0	500	1000	24
†18	41 / 0063	198	1 0	500	1000	20

*Subject to ±5% tolerance. †Bunched strands.

Flexible Strand—(Table YK-2257)

Size A.W.G.	Rope Stranding	*Nom. O.D. Inches	Dielectric Test Voltage Kv.	STD. SHIP.		Wt. Lb. per 1000 Feet
				Coils	Reels	
250000CM	427 / 0242	863	1 0	...	500	1017
0000	259 / 0286	810	1 0	...	500	745
000	259 / 0255	746	1 0	...	500	596
00	259 / 0227	687	1 0	...	500	483
0	259 / 0202	634	1 0	...	500	388
1	259 / 0180	588	1 0	...	500	318
2	133 / 0224	506	1 0	...	500	259
4	133 / 0177	436	1 0	...	500	175
6	133 / 0141	382	1 0	...	500	109
8	133 / 0112	318	1 0	...	1000	74
†10	105 / 0100	270	1 0	...	1000	53
†12	65 / 0100	245	1 0	500	1000	39
†14	41 / 0100	225	1 0	500	1000	28
†16	26 / 0100	209	1 0	500	1000	22
†18	16 / 0100	195	1 0	500	1000	18

Deltabeston Magnet Wire Asbestos Insulated—Round Wire



All Deltabeston Magnet Wire is interchangeable for replacement of double cotton covered magnet wire, having the same uniform thickness or insulation.

Standard Finishes

STANDARD BROWN W-E. Flame and heat resisting varnish with a smooth waxy finish.

STANDARD WHITE. Bonded white asbestos designed for impregnation after coil is formed when it will absorb any insulating varnish.

BLACK "A". Asbestos fibre treated with compound having smooth, waxy finish.

Bare Conductor

Size A.W.G.	DIAMETER OVER ASBESTOS INSULATION, INCHES		LB ON STANDARD SHIPPING REEL		Wt., Lb. per 1000 Feet
	Maximum	Minimum	Min.	Max.	
0000	.4823	.4737	150	270	646 85
000	.4317	.4236	150	270	514 78
00	.3836	.3766	150	270	410 16
0	.3425	.3356	150	270	324 32
1	.3068	.3007	150	270	256 87
2	.2739	.2683	150	270	205 24
3	.2456	.2403	150	270	161 89
4	.2193	.2145	150	270	128 40
5	.1968	.1922	150	270	102 16
6	.1758	.1716	150	270	81 18
7	.1580	.1540	75	135	64 40
8	.1409	.1373	75	135	51 03
9	.1270	.1235	75	135	40 48
10	.1131	.1102	75	135	32 46
11	.1022	.0991	75	135	25 97
12	.0912	.0884	75	135	20 61
13	.0824	.0797	75	135	16 32
14	.0739	.0713	75	135	12 97
15	.0664	.0638	40	70	10 28
16	.0596	.0570	40	70	8 22
17	.0540	.0516	40	70	6 48
18	.0485	.0461	40	70	5 16
19	.0441	.0417	40	70	4 15
20	.0402	.0378	40	70	3 32
21	.0366	.0344	5	10	2 69
22	.0334	.0312	5	10	2 15
23	.0307	.0285	5	10	1 75
24	.0282	.0260	5	10	1 39
25	.0260	.0238	5	10	1 12

Enamelled Conductor

Standard Enamel Magnet Wire finish with filled asbestos insulation over the enamel. Thickness equal to that of double cotton enamel insulated magnet wire.

Size A.W.G.	Nominal Diameter Over Enamel, Inches	DIAMETER OVER ENAMEL AND ASBESTOS, INCHES		WEIGHT POUNDS STANDARD SHIPPING REEL		Wt., Lb. per 1000 Feet
		Min.	Max.	Min.	Max.	
4	.207	.2168	.2222	150	270	128 40
5	.185	.1944	.1996	150	270	102 16
6	.165	.1738	.1786	150	270	81 18
7	.147	.1561	.1607	75	135	64 40
8	.131	.1392	.1434	75	135	51 03
9	.117	.1254	.1295	75	135	40 48
10	.104	.1121	.1159	75	135	32 46
11	.093	.1009	.1046	75	135	25 97
12	.083	.0901	.0935	75	135	20 61
13	.074	.0814	.0846	75	135	16 32
14	.066	.0730	.0761	75	135	12 97
15	.059	.0654	.0685	40	70	10 28
16	.053	.0585	.0616	40	70	8 22
17	.047	.0530	.0559	40	70	6 48
18	.042	.0474	.0503	40	70	5 16
19	.038	.0430	.0459	40	70	4 15
20	.034	.0390	.0419	40	70	3 32
21	.030	.0356	.0383	5	10	2 69
22	.027	.0324	.0350	5	10	2 15
23	.024	.0296	.0322	5	10	1 75
24	.021	.0271	.0296	5	10	1 39
25	.019	.0248	.0273	5	10	1 12

Deltaglass Magnet Wire

Single Glass Insulated—Round Wire



Specifications for Single Glass Insulated Conductor

Size A.W.G.	DIAMETER OVER GLASS INSULATION, INCHES		WEIGHT POUNDS STANDARD SHIPPING REEL		Wt., Lb. per 1000 Feet
	Min.	Max.	Min.	Max.	
0000	.4627	.4693	150	270	642 41
000	.4125	.4186	150	270	511 15
00	.3680	.3736	150	270	406 91
0	.3278	.3335	150	270	321 76
1	.2928	.2977	150	270	254 57
2	.2613	.2659	150	270	203 40
3	.2332	.2375	150	270	160 24
4	.2085	.2124	150	270	127 04
5	.1860	.1897	150	270	100 92
6	.1662	.1698	150	270	80 22
7	.1486	.1520	75	135	63 53
8	.1327	.1359	75	135	50 41
9	.1188	.1219	75	135	39 93
10	.1061	.1094	75	135	32 04
11	.0952	.0981	75	135	25 42
12	.0856	.0882	75	135	20 27
13	.0766	.0794	75	135	16 12
14	.0678	.0704	75	135	12 74
15	.0608	.0634	40	70	10 17
16	.0545	.0571	40	70	8 08
17	.0491	.0515	40	70	6 46
18	.0441	.0465	40	70	5 13
19	.0397	.0421	40	70	4 09
20	.0358	.0382	40	70	3 27
21	.0324	.0346	5	10	2 62
22	.0292	.0314	5	10	2 08
23	.0265	.0287	5	10	1 68
24	.0240	.0262	5	10	1 34
25	.0218	.0240	5	10	1 07

Specifications for Single Enamelled-Single Glass Insulated Conductor

Size A.W.G.	DIAMETER OVER ENAMEL (AND GLASS, INCHES)		WEIGHT POUNDS STANDARD SHIPPING REEL		Wt. Lb. per 1000 Feet
	Min.	Max.	Min.	Max.	
4	.2106	.2152	150	270	127 73
5	.1882	.1926	150	270	101 53
6	.1684	.1726	150	270	80 77
7	.1507	.1547	75	135	64 01
8	.1346	.1384	75	135	50 84
9	.1208	.1245	75	135	40 32
10	.1073	.1109	75	135	32 39
11	.0961	.0996	75	135	25 74
12	.0861	.0895	75	135	20 48
13	.0774	.0806	75	135	16 33
14	.0695	.0726	75	135	12 95
15	.0624	.0655	40	70	10 31
16	.0560	.0591	40	70	8 21
17	.0505	.0539	40	70	6 56
18	.0454	.0483	40	70	5 22
19	.0410	.0439	40	70	4 17
20	.0370	.0399	40	70	3 34
21	.0336	.0363	5	10	2 68
22	.0304	.0330	5	10	2 13
23	.0276	.0302	5	10	1 71
24	.0251	.0276	5	10	1 37
25	.0228	.0253	5	10	1 09

Deltabeston Magnet Wire

Square and Rectangular

Square or rectangular magnet wire can be furnished in practically any combination of width and thickness that is usually required in either asbestos or glass insulated, single or double wrapped.

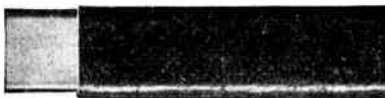
Square



Enameled conductor furnished in sizes 14 to 4 inclusive only.

Maximum and minimum averages may vary from nominal by not more than 10 per cent.

Rectangular



The average of any 10 measurements over a 20-foot length must not exceed the maximum or be less than the minimum value.

Standard shipping reels, 150 pounds minimum; 275 pounds maximum net weight.

*Subject to ±5 per cent tolerance.

Roebing Square Magnet Wire
Double Cotton Covered

Can be furnished in all sizes from No. 14 to No. 4/0 A.W.G. In computing the gage, diameter of round wire is comparable to thickness, bare wire side, of square wire. Circular mil area and weight of square wire is approximately 1.23 times that of round wire of the same diameter as thickness of square wire. Sizes smaller than No. 14 A.W.G. cannot be regularly procured owing to difficulty of winding. Prices upon application.

Size A.W.G.	Area in Side C.M.	Bare Wire Side in Mils	Overall Side in Mils	Resistance 1000 Feet 68 F.	*TURNS		WEIGHT, POUNDS	
					Per Lineal Inch	Per Square Inch	Cubic Inch	Per 1000 Feet
0000	260000	460.	481.	.039 8	2. 08	4. 32	286	794.
000	206000	410.	431.	.050 3	2. 32	5. 38	283	631.
00	164000	365.	386.	.063 3	2. 59	6. 71	280	501.
0	130000	325.	346.	.079 8	2. 89	8. 35	277	398.
1	103000	289.	310.	.101	3. 23	10. 4	274	316.
2	81600	258.	279.	.127	3. 58	12. 9	270	251.
3	64700	229.	250.	.160	4. 00	16. 0	265	199.
4	51400	204.	225.	.202	4. 44	19. 8	260	158.
5	40700	182.	203.	.255	4. 93	24. 3	255	126.
6	32300	162.	183.	.321	5. 46	29. 9	249	100.
7	25600	144.	165.	.405	6. 06	36. 7	244	79. 7
8	20300	129.	143.	.511	6. 99	48. 9	256	62. 7
9	16100	114.	128.	.644	7. 81	61. 0	252	49. 8
10	12800	102.	116.	.812	8. 62	74. 3	246	39. 6
11	10100	90. 7	105.	1. 02	9. 52	90. 7	239	31. 5
12	8030	80. 8	94. 8	1. 29	10. 6	111.	232	25. 1
13	6370	72. 0	84. 0	1. 63	11. 9	142.	235	19. 9
14	5050	64. 1	76. 1	2. 05	13. 1	173.	228	15. 8

*No allowance has been made for winding losses.

Roebing Rectangular Magnet Wire

Rectangular sizes have not, as yet, been standardized but can be supplied in sizes from .500 to .020 inches in thickness and from .500 to .044 inches in width. The regular insulation is double cotton wound.

Rectangular wire is not carried in stock, but made specially on order. Orders should not be for less than 200 pounds of any size. Prices will be quoted upon application.

Roebing Round Enameled Magnet Wire

Cotton Covered

Size A.W.G.	Overall Diameter Inches	Ohms Per Pound	TURNS		WEIGHT, POUNDS	
			Per Lineal Inch	Per Square Inch	Per Cubic Inch	Per 1000 Feet
8	.136	.0124	7. 37	54. 2	.229	50. 7
9	.122	.0197	8. 22	67. 5	.227	40. 3
10	.109	.0312	9. 17	84. 0	.224	32. 0
11	.0980	.0496	10. 2	104.	.221	25. 4
12	.0880	.0786	11. 4	129.	.218	20. 2
13	.0790	.125	12. 7	160.	.215	16. 1
14	.0711	.198	14. 1	198.	.211	12. 8
15	.0640	.313	15. 6	244.	.207	10. 2
16	.0576	.496	17. 4	301.	.203	8. 09
17	.0520	.786	19. 3	373.	.199	6. 43
18	.0470	1. 25	21. 3	455.	.194	5. 13
19	.0425	1. 97	23. 5	554.	.189	4. 09
20	.0380	3. 13	26. 3	694.	.188	3. 25
21	.0345	4. 94	29. 0	842.	.182	2. 59
22	.0313	7. 81	32. 0	1020.	.176	2. 07
23	.0281	12. 3	35. 3	1240.	.171	1. 65
24	.0258	19. 5	38. 8	1500.	.165	1. 32
25	.0236	30. 7	42. 4	1800.	.158	1. 06
26	.0215	48. 3	46. 4	2160.	.152	.845
27	.0193	76. 6	51. 8	2680.	.150	.672
28	.0176	121.	56. 7	3210.	.144	.539
29	.0162	189.	61. 9	3830.	.138	.432
30	.0148	297.	67. 4	4550.	.132	.347
31	.0137	464.	72. 9	5310.	.124	.280
32	.0128	723.	78. 4	6150.	.116	.227
33	.0118	1130.	85. 0	7180.	.110	.184
34	.0110	1750.	91. 0	8260.	.103	.149
35	.0102	2710.	99. 0	9580.	.0969	.121
36	.0096	4160.	104.	10900.	.0902	.100

Roebing Round Magnet Wire

Single Cotton Covered

Size A.W.G.	DIAMETER, IN.		Ohms Per Pound	TURNS		WEIGHT, POUNDS	
	Bare Wire	Overall		Per Lineal Inch	Per Square Inch	Per Cubic Inch	Per 1000 Feet
0000	.460	.468	.0000762	2. 14	4. 57	.245	643.
0000	.4096	.418	.000121	2. 40	5. 74	.244	510.
00	.3648	.373	.000192	2. 68	7. 19	.243	405.
0	.3249	.333	.000306	3. 00	9. 02	.242	321.
1	.2893	.297	.000486	3. 36	11. 3	.240	255.
2	.2576	.266	.000772	3. 77	14. 2	.239	202.
3	.2294	.237	.00123	4. 21	17. 7	.237	161.
4	.2043	.212	.00195	4. 71	22. 2	.235	128.
5	.1819	.190	.00310	5. 27	27. 7	.234	101.
6	.1620	.170	.00490	5. 88	34. 6	.232	80. 4
7	.1443	.152	.00780	6. 57	43. 1	.229	63. 9
8	.1285	.134	.0125	7. 49	56. 1	.236	50. 4
9	.1144	.119	.0198	8. 38	70. 1	.234	40. 0
10	.1019	.107	.0314	9. 36	87. 5	.232	31. 8
11	.09074	.0957	.0499	10. 5	109.	.230	25. 3
12	.08081	.0858	.0792	11. 7	136.	.227	20. 1
13	.07196	.0770	.126	13. 0	169.	.224	15. 9
14	.06408	.0691	.199	14. 5	210.	.221	12. 7
15	.05707	.0621	.316	16. 1	260.	.218	10. 1
16	.05082	.0558	.500	17. 9	321.	.214	8. 01
17	.04526	.0503	.796	19. 9	396.	.210	6. 37
18	.04030	.0453	1. 26	22. 1	487.	.206	5. 07
19	.03589	.0409	2. 00	24. 5	598.	.201	4. 03
20	.03196	.0370	3. 16	27. 1	732.	.196	3. 21
21	.02846	.0325	5. 05	30. 8	949.	.201	2. 54
22	.02535	.0294	7. 98	34. 1	1160.	.196	2. 02
23	.02257	.0266	12. 6	37. 6	1420.	.190	1. 61
24	.02010	.0241	20. 0	41. 5	1720.	.184	1. 29
25	.01790	.0219	31. 6	45. 7	2090.	.178	1. 03
26	.01594	.0199	49. 8	50. 2	2520.	.172	.819
27	.01420	.0182	78. 5	54. 9	3020.	.165	.655
28	.01264	.0166	124.	60. 1	3610.	.158	.525
29	.01126	.0153	195.	65. 5	4290.	.150	.421
30	.01003	.0140	305.	71. 3	5080.	.143	.338
31	.008928	.0129	479.	77. 3	5980.	.136	.272
32	.007950	.0120	749.	83. 7	7000.	.128	.219
33	.007080	.0111	1170.	90. 3	8150.	.120	.177
34	.006305	.0103	1820.	97. 1	9430.	.113	.144
35	.005615	.00961	2820.	104.	10800.	.105	.117
36	.005000	.00900	4350.	111.	12300.	.0980	.095

Roebing Single Enameled Covered Magnet Wire

Size A.W.G.	Area in C.M.	Outside Diameter Mils	Ohms Per Pound	*TURNS		WEIGHT, POUNDS	
				Per Lineal Inch	Per Square Inch	*Per Cubic Inch	Per 1000 Feet
14	4106.7	66.1	.201	15.1	229	.239	12.5
15	3256.8	59.0	.320	17.0	288	.238	9.95
16	2582.7	52.6	.508	19.0	361	.238	7.90
17	2048.2	47.0	.808	21.3	453	.237	6.27
18	1624.3	42.0	1.28	23.9	570	.236	4.97
19	1288.1	37.5	2.04	26.7	711	.234	3.95
20	1021.5	33.5	3.24	30.0	893	.233	3.13
21	810.1	30.0	5.14	33.4	1110	.231	2.49
22	642.5	26.8	8.17	37.4	1400	.230	1.98
23	509.5	23.9	13.0	41.9	1760	.229	1.57
24	404.0	21.3	20.6	47.0	2200	.229	1.14
25	320.4	19.1	32.8	52.4	2740	.226	.989
26	254.1	17.0	52.0	58.7	3440	.225	.784
27	201.5	15.3	82.6	65.4	4270	.222	.621
28	159.8	13.6	131.	73.8	5370	.222	.495
29	126.7	12.2	209.	82.2	6760	.221	.393
30	100.5	10.8	332.	92.3	8530	.221	.311
31	79.7	9.7	525.	103.	10600	.218	.248
32	63.2	8.8	833.	114.	13100	.214	.197
33	50.1	7.8	1330.	129.	16500	.215	.156
34	39.8	7.0	2100.	143.	20400	.211	.121
35	31.5	6.2	3340.	161.	25900	.212	.098
36	25.0	5.6	5290.	179.	31900	.208	.078
37	19.8	5.0	8440.	202.	40800	.211	.062
38	15.7	4.5	13400.	224.	50200	.206	.049
39	12.5	3.9	21300.	254.	64700	.210	.039
40	9.89	3.6	33800.	282.	79600	.206	.031

*No allowances have been made for winding losses.

Roebing Single Roovar Covered Magnet Wire

Size A.W.G.	Area in C.M.	Outside Diameter Mils	Ohms Per Pound	TURNS		WEIGHT, POUNDS	
				Per Lineal Inch	Per Square Inch	Per Cubic Inch	Per 1000 Feet
14	4106.7	66.1	.201	15.1	229	.239	12.5
15	3256.8	59.0	.320	17.0	288	.238	9.95
16	2582.7	52.6	.508	19.0	361	.238	7.90
17	2048.2	47.0	.808	21.3	453	.237	6.27
18	1624.3	42.0	1.28	23.9	570	.236	4.97
19	1288.1	37.5	2.04	26.7	711	.234	3.95
20	1021.5	33.5	3.24	30.0	893	.233	3.13
21	810.1	30.0	5.14	33.4	1110	.231	2.49
22	642.5	26.8	8.17	37.4	1400	.230	1.98
23	509.5	23.9	13.0	41.9	1760	.229	1.57
24	404.0	21.3	20.6	47.0	2200	.229	1.14
25	320.4	19.1	32.8	52.4	2740	.226	.989
26	254.1	17.0	52.0	58.7	3440	.225	.784
27	201.5	15.3	82.6	65.4	4270	.222	.621
28	159.8	13.6	131.	73.8	5370	.222	.495
29	126.7	12.2	209.	82.2	6760	.221	.393
30	100.5	10.8	332.	92.3	8530	.221	.311
31	79.7	9.7	525.	103.	10600	.218	.248
32	63.2	8.8	833.	114.	13100	.214	.197
33	50.1	7.8	1330.	129.	16500	.215	.156
34	39.8	7.0	2100.	143.	20400	.211	.121
35	31.5	6.2	3340.	161.	25900	.212	.098
36	25.0	5.6	5290.	179.	31900	.208	.078
37	19.8	5.0	8440.	202.	40800	.211	.062
38	15.7	4.5	13400.	224.	50200	.206	.049
39	12.5	3.9	21300.	254.	64700	.210	.039
40	9.89	3.6	33800.	282.	79600	.206	.031

Roebing Heavy Roovar Covered Magnet Wire

Size A.W.G.	Area in C.M.	Outside Diameter Mils	Ohms Per Pound	TURNS		WEIGHT, POUNDS	
				Per Lineal Inch	Per Square Inch	Per Cubic Inch	Per 1000 Feet
14	4106.7	67.3	.200	14.9	222	.233	12.6
15	3256.8	60.2	.318	16.6	276	.230	10.0
16	2582.7	53.8	.505	18.6	346	.229	7.95
17	2048.2	48.2	.802	20.8	431	.227	6.31
18	1642.3	43.1	1.27	23.2	539	.225	5.02
19	1288.1	38.6	2.02	25.9	672	.223	4.00
20	1021.5	34.6	3.21	29.0	838	.221	3.16
21	810.1	31.0	5.09	32.3	1043	.219	2.51
22	642.5	27.7	8.08	36.0	1298	.216	2.00
23	509.5	24.9	12.8	40.0	1617	.214	1.59
24	404.0	22.3	20.3	44.9	2012	.212	1.26
25	320.4	20.0	32.3	50.0	2500	.209	1.00
26	254.1	17.9	51.2	55.8	3108	.207	.798
27	201.5	16.1	81.2	62.1	3859	.204	.631
28	159.8	14.4	129.	69.3	4803	.202	.501
29	126.7	13.0	204.	77.2	5955	.199	.401
30	100.5	11.6	324.	86.0	7391	.196	.319
31	79.7	10.4	513.	95.9	9193	.194	.254
32	63.2	9.4	814.	107.	11428	.192	.202
33	50.1	8.4	1292.	119.	14256	.190	.160
34	39.8	7.5	2051.	133.	17756	.188	.127
35	31.5	6.7	3251.	149.	22171	.187	.101
36	25.0	6.0	5166.	167.	27789	.186	.0803
37	19.8	5.4	8212.	187.	34894	.185	.0650
38	15.7	4.8	13062.	210.	44058	.185	.0510
39	12.5	4.2	20795.	236.	55884	.186	.0400
40	9.89	3.8	32885.	260.	67652	.180	.0320

*No allowance has been made for winding losses.

Roebing Round Magnet Wire

Double Cotton Covered

Size A.W.G.	DIAMETER, IN.		Ohms Per Pound	TURNS		WEIGHT, POUNDS	
	Bare Wire	Overall		Per Lineal Inch	Per Square Inch	Per Cubic Inch	Per 1000 Feet
0000	.460	.476	.0000759	2.10	4.41	.238	646.
000	.4096	.426	.000121	2.35	5.52	.236	513.
00	.3648	.381	.000191	2.63	6.90	.234	407.
0	.3249	.341	.000304	2.93	8.60	.232	323.
1	.2893	.305	.000483	3.28	10.7	.229	257.
2	.2576	.274	.000767	3.66	13.4	.227	204.
3	.2294	.245	.00122	4.08	16.6	.224	162.
4	.2043	.220	.00193	4.54	20.6	.221	129.
5	.1819	.198	.00306	5.05	25.5	.218	102.
6	.1620	.176	.00487	5.68	32.3	.218	81.1
7	.1443	.158	.00772	6.32	39.9	.215	64.5
8	.1285	.139	.0123	7.22	52.1	.221	50.9
9	.1144	.124	.0196	8.04	64.6	.218	40.5
10	.1019	.112	.0311	8.94	79.9	.214	32.2
11	.09074	.100	.0494	10.0	101.	.214	25.5
12	.08081	.0900	.0782	11.1	124.	.210	20.3
13	.07196	.0810	.124	12.4	153.	.205	16.2
14	.06408	.0731	.196	13.7	187.	.201	12.9
15	.05707	.0661	.311	15.1	229.	.196	10.3
16	.05082	.0599	.492	16.7	280.	.190	8.17
17	.04526	.0543	.777	18.4	340.	.184	6.51
18	.04030	.0493	1.23	20.3	411.	.178	5.20
19	.03589	.0449	1.94	22.3	496.	.172	4.15
20	.03196	.0410	3.06	24.4	596.	.165	3.32
21	.02846	.0365	4.86	27.4	752.	.165	2.63
22	.02535	.0334	7.65	30.0	899.	.158	2.11
23	.02257	.0306	12.0	32.7	1070.	.151	1.69
24	.02010	.0281	18.9	35.6	1270.	.143	1.36
25	.01790	.0259	29.6	38.6	1490.	.136	1.09
26	.01594	.0239	46.3	41.8	1750.	.128	.881
27	.01420	.0222	72.3	45.1	2030.	.120	.712
28	.01264	.0206	112.	48.5	2350.	.113	.577
29	.01126	.0193	174.	51.9	2700.	.105	.469
30	.01003	.0180	270.	55.5	3080.	.0981	.383
31	.008928	.0169	415.	59.1	3490.	.0912	.314
32	.007950	.0160	636.	62.7	3930.	.0846	.258
33	.007080	.0151	968.	66.3	4400.	.0783	.214
34	.006305	.0143	1470.	69.8	4890.	.0725	.178
35	.005615	.0136	2200.	73.5	5400.	.0671	.149
36	.005000	.0130	3290.	76.9	5920.	.0622	.126

Roebing Roeglas Magnet Wire

Roeglas magnet wire, fiberglass yarn insulated, can be furnished in sizes No. 4/0 to 32 inclusive, either single wrap or double wrap. The increase in diameter for the fiberglass insulation on Roeglas magnet wire is slightly less than that given for cotton insulation for the same size conductor and number of serving. Additions in mils for round wire are as follows:

Size A.W.G.	4/0-14	15-20	21-32
Single.....	6	5	4
Double Glass.....	10	8	6

The weights per 1000 feet are approximately the same as for cotton insulated magnet wire.

Standard packages are the same as for cotton insulated magnet wire.

Crapo Galvanized Telephone and Telegraph Wire



Drawn from iron or steel, of specific properties, processed under laboratory supervision, galvanized by the Crapo process, and rigidly inspected. Meets all standard specifications for electrical conductivity, tensile strength, elongation, galvanizing, and ductility which users of line wire require.

Size B.W.G.	Diam. In.	Wt. Lb. per Mile	Coil Length Mile	MINIMUM BREAKING STRENGTH, POUNDS			MAXIMUM RESISTANCE PER MILE AT 68°F., INTERNATIONAL OHMS		
				E.B.B.	B.B.	Steel	E.B.B.	B.B.	Steel
4	.238	811	1/4	2028	2271	2433	5.98	7.15	8.32
6	.203	590	1/3	1475	1652	1770	8.22	9.83	11.41
8	.165	390	1/2	975	1092	1170	12.43	14.87	17.31
9	.148	314	1/2	785	879	942	15.44	18.47	21.50
10	.134	258	1/2	645	722	774	18.79	22.48	26.16
11	.120	206	1/2	515	577	618	23.54	28.16	32.77
12	.109	170	1/2	425	476	510	28.52	34.12	39.71
14	.083	99	1/2	247	277	297	48.98	58.59	68.18

Crapo Galvanized Tie Wires

Manufactured specially to facilitate tying in telephone line wire. Galvanized by Crapo process.

Furnished in coils or straightened and cut to length.

Standard bundle for horseshoe tie, 25 pounds.

Standard bundle for armor tie, 50 pounds.

Size B.W.G.	STANDARD COILS		STRAIGHTENED AND CUT TO LENGTH			
	Approx. Length Feet	Approx. Weight Pounds	For Horseshoe Tie		For Armor Tie	
			Length Inches	No. Pieces	Length Inches	No. Pieces
10	2040	100	18	350	48	260
10	2040	100	16	390	46	270
12	3100	100	14	675	44	430
14	2650	50	14	1150	40	810

Crapo Galvanized Ground Wire

For pole grounds. Regularly furnished in coils of approximately 150 pounds.

Size B.W.G.	Diameter Inches	Approx. Wt. Lb. per Coil	Approx. Length Feet
6	.203	150	1320
8	.165	150	2030
9	.148	150	2520

Crapo Galvanized Steel Cable Lashing Wire



Used with modern cable spinning machines to lash cable to messenger strand.

Coils are neatly and compactly wound, tied with easily removed cotton tape, and contain 325 feet of wire, plus or minus 10 feet.

Wire diameter, .091 inch.

Coil dimensions: arbor hole, straight hub, 1 7/8 inches; outside diameter (nominal), 6 inches; width (nominal), 1 1/2 inches.

Packed 6 coils in a carton.

Per Coil, Approximate Weight, 7.2 Pounds

Crapo High-Tensile Line Wire



For Long Spans



For Extra Long Spans

These high-tensile, low-resistance telephone line wires make possible longer-span, lower-cost construction on new lines; provide stronger spans, with lower maintenance expense, on present lines. Development of Indiana Steel and Wire Company.

Galvanized by the Crapo process, which produces a heavy, dense, uniform coating of zinc that adheres tenaciously to the wire and provides dependable protection against corrosion.

Crapo HTL-85

Used extensively for both new construction and for replacement. When used on existing pole structures it tends to increase strength of line, lessens hazard of ice and wind, minimizes service interruptions, and reduces maintenance costs.

Affords improved transmission at voice frequency with currents of voice frequency magnitude.

Has a tensile strength more than 60 per cent greater than standard B.B. wire of the same diameter. No. 12 B.W.G. size makes possible spans of 225 feet in heavy loading, 325 feet in medium loading, and 375 feet in light loading districts.

Furnished in continuous lengths without splices or joints. Galvanized steel compression-type sleeves are recommended for splicing this wire.

Size B.W.G.	9	10	12	14
Diameter	.148	.134	.109	.083
Approx. Wt. per Mile	314	258	170	99
Coil Length	1/2 mile	1/2 mile	1/2 mile	1/2 mile
Min. Breaking Load	1462	1199	793	460
Max. Resistance per Mile ohms	18.47	22.48	34.12	58.59

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Crapo HTL-135

Possesses two and one-half times the strength of standard B.B. wire, which makes possible spans of 350 feet in heavy loading districts, 450 feet in medium loading districts, and 500 feet in light loading districts.

The average number of pole structures per mile can usually be reduced to approximately one-half the number required for B.B. wire.

The effective resistance at voice frequencies with currents of voice frequency magnitude is superior to that of the older grade.

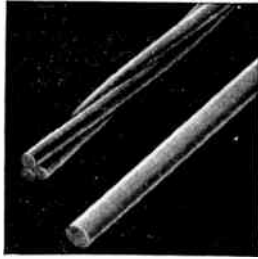
Regularly furnished in No. 12 B.W.G. and in continuous lengths without splices of joints.

Galvanized steel compression-type sleeves are recommended for splicing.

Size	No. 12 B.W.G.
Nominal Diameter	.109 inches
Minimum Breaking Strength	1213 pounds
Resistance per Mile	38.23 ohms
Approximate Weight per Mile	170 pounds
Weight per Coil, Approximate	150 pounds
Length per Coil, Approximate	4659 feet

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Crapo Galvanized Steel Conductors



A high tensile, low-resistance steel conductor which makes possible long spans, reduces the number of pole structures required, saves man-hours and material, and reduces over-all construction expense.

Used for rural taplines and single-phase extensions, high-tension transmission lines and branches, primary distribution lines, primary circuits; for mixed commercial, residential and farm service, primary neutrals of three-phase rural feeders and series street lighting circuits.

Made by special process from steel of special composition and galvanized.

Available in two grades: Crapo HTC-130 and Crapo HTC-80. Each grade is available in two constructions: stranded (3-wire) and solid. Each construction is available in three sizes: Nos. 4, 6, and 8 B.W.G.

The effective resistance and reactance of Crapo HTC-130 and HTC-80 are shown below. The resistance and reactance values for solid conductors are slightly higher than those for stranded (3-wire) conductors.

Resistance and Reactance in Ohms per Mile of Single Conductor at 60 Cycles for Various Currents and Conductor Spacings When the Ambient Temperature is 20°C. (68°F.)

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Conductor Size B.W.G.	Current Amperes	Crapo HTC-130		TOTAL REACTANCE PER MILE			
		Maximum Resistance per Mile	Internal Reactance per Mile	24			
				24	36	48	60
			Inch	Inch	Inch	Inch	
4	1.0	8.07	0.72	1.35	1.10	1.13	1.46
	5.0	8.39	0.77	1.40	1.15	1.48	1.51
	10.0	8.83	0.85	1.48	1.53	1.56	1.59
	15.0	9.53	0.90	1.53	1.58	1.61	1.64
6	1.0	11.29	0.72	1.37	1.42	1.45	1.48
	5.0	11.36	0.77	1.42	1.47	1.50	1.53
	10.0	11.53	0.85	1.50	1.55	1.58	1.61
	15.0	11.81	0.96	1.61	1.66	1.69	1.72
4	1.0	7.17	1.05	1.67	1.73	1.76	1.79
	5.0	7.25	1.07	1.69	1.75	1.78	1.81
	10.0	7.40	1.10	1.72	1.78	1.81	1.84
	15.0	7.62	1.15	1.77	1.83	1.86	1.89
6	1.0	9.97	1.06	1.70	1.76	1.79	1.82
	5.0	10.09	1.09	1.73	1.79	1.82	1.85
	10.0	10.28	1.15	1.79	1.85	1.88	1.91
	15.0	10.56	1.23	1.87	1.93	1.96	1.99

Physical Properties

COPYRIGHT 1938, 1943 AND 1945 BY INDIANA STEEL & WIRE CO.

Conductor Size B.W.G.	Type of Construction	WIRES		WEIGHT POUNDS		MINIMUM BREAKING STRENGTH, POUNDS	
		No.	Size In.	Per 1000 Ft.	Per Mile	HTC-130	HTC-80
4	3-Wire	3	.138	156	823	5610	3624
6	3-Wire	3	.117	112	590	4295	2604
8	3-Wire	3	.096	75	396	2915	1753
4	Solid	1	.238	154	811	5784	3559
6	Solid	1	.203	112	590	4208	2589
8	Solid	1	.165	73.5	390	2780	1711

Standard Shipping Lengths

Conductor Size B.W.G.	Type of Construction	FEET PER COIL		REELS	
		150 Pound Coils	300 Pound Coils	Feet per Reel	Weight per Reel
4	3-Wire	960	1920	†5760	900
6	3-Wire	1335	2670	†8020	900
8	3-Wire	2000	4000	†12000	900
4	Solid	....	1960	5880	900
6	Solid	....	2680	8040	900
8	Solid	....	4110	12330	900

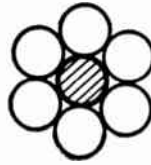
*Of each conductor of a single, 2, or 3-phase circuit, at stated distances between centers of conductors.

†When specified, stranded conductors can be shipped in coils approximately 1/3 or 1/6 of the reel lengths shown above. Stranded conductors can also be furnished on reels in lengths approximately 1/2 the length shown above.

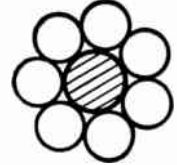
Values for weights and lengths are approximate.

Crapo Aluminum Cable

Steel Reinforced (ACSR)



Six Aluminum Wires Over One of Steel



Seven Aluminum Wires Over One of Steel

Crapo ACSR combines the conductivity of aluminum with the tensile strength of steel to provide an efficient, economical conductor suited to the transmission and distribution of power.

The aluminum wires, with their high current-carrying capacity, are stranded around a core of special high tensile steel wire to form a cable light in weight yet high in physical strength.

Crapo ACSR is manufactured to highest industry standards and in accord with established physical and electrical specifications. Each step in the manufacturing process is performed under laboratory control and guidance to insure high uniform quality in the finished product.

Physical and Electrical Characteristics

ACSR Size A.W.G.	Copper Size Equivalent B.W.G.	STRANDING NUMBER & DIAM. OF WIRES, IN.		Over-all Diam. In.	Resistance		Wt. Lb.	
		Aluminum	Steel		per Mile (61% at 25°C.)	Ultimate Strength Pounds	Per 1000 Feet	Per Mile
6	8	6x0.0661	1x0.0661	0.198	3.56	1170	36.2	191
4	6	6x0.0834	1x0.0834	0.250	2.21	1830	57.6	304
4	6	7x0.0772	1x0.1029	0.257	2.21	2288	67.4	356
2	4	6x0.1052	1x0.1052	0.316	1.41	2790	91.6	481
2	4	7x0.0974	1x0.1290	0.325	1.41	3525	107.2	566
1/0	2	6x0.1327	1x0.1327	0.398	0.885	4280	145.6	769
2/0	1	6x0.1490	1x0.1490	0.447	0.702	5315	183.7	970
3/0	1/0	6x0.1672	1x0.1672	0.502	0.556	6675	231.6	1223
4/0	2/0	6x0.1878	1x0.1878	0.563	0.441	8420	292.1	1542

Crapo ACSR in sizes 1/0 to 4/0 is regularly furnished on 40-inch reels, each reel containing one length. Sizes 6, 4, and 2 are regularly furnished on 40-inch reels, each containing two lengths. Sizes 6, 4, 2, and 1/0 also can be furnished on 30-inch reels, each reel containing one length, or in coils when specified.

Approximate net weights: A.C.S.R. on 40-inch reel, 1000 pounds; on 30-inch reel, 500 pounds; in coil, 250 pounds.

Crapo Galvanized Tie Wire

For Steel Conductors

A soft, pliable steel wire developed specially for applying armor ties to steel conductor.

Available in two sizes: Nos. 8 and 10 B.W.G.

Packed in bundles of 50 pounds each.

Conductor Size B.W.G.	LENGTH OF ARMOR TIES, INCHES		
	Top Tie for Phase Conductor	Side Tie for Phase Conductor	Tie for Neutral Conductor (Bracket Type)
4	95	99	85
6	95	95	85
8	85	95	85

Approximate Number of Ties Per 50-Pound Bundle

Ties.....inches	99	95	85
No. 8 B.W.G.....	81	85	95
No. 10 B.W.G.....	125	130	145

Can also be furnished in coils of approximately 150 pounds each.

Crapo Galvanized Ground Wire

For Pole Grounds

Provides economical and effective pole grounds; selected for low electrical resistance.

Galvanized by Crapo process.

Conductor Size.....	B.W.G.	4	6
Diameter.....	inches	.238	.203
Approximate Weight per Coil.....	pounds	150	150
Approximate Length per Coil.....	feet	976	1320

Preformed Armor Rods and Two-Piece Tie Wires

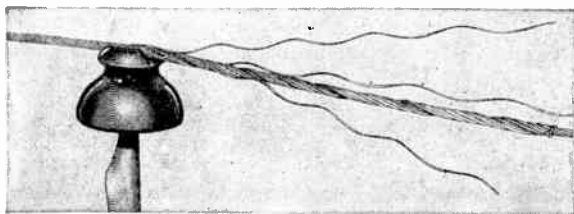


Illustration above shows the rods in process of being applied to the conductor at the support.

Illustration at left shows the armored conductor tied to the insulator with two-piece tie wires.

Armor Rods

Designed to reinforce and protect overhead conductors and static wires at the point of and in the region of the support.

Minimizes wear and chafing at supports. Reduces possibility of corrosion. Tends to absorb and dissipate vibration.

Acts as an armor over the conductor, protecting it against flash-overs and arcing. Provides excellent holding power against slippage. Installed easily and quickly. Hot-line installations can be made with standard hot-line tools.

Each individual rod is preformed into open helices designed to fit snugly around the conductor. No clips are required to hold the rod in place.

Reinforced conductor can be fastened to the support by conventional methods.

Rods should be ordered with the same pitch as the conductor or strand on which they are to be used.

Made by Indiana Steel & Wire Company from Crapo galvanized spring steel wire manufactured especially for the purpose.

Can be furnished in aluminum, copper, or bronze and in conductor sizes other than listed.

Two-Piece Tie Wires

Recommended for tying-in the conductor.

The two-piece tie wires are straightened and cut to required lengths from special steel wire galvanized by the Crapo process.

For hot-line tie, use same gage wire as listed. Total length of two tie wires required is 56 inches.

Packed in 50-pound bundles.

***Specifications**

Steel Conductor

Preformed Armor Rods (.094-Inch Diameter)

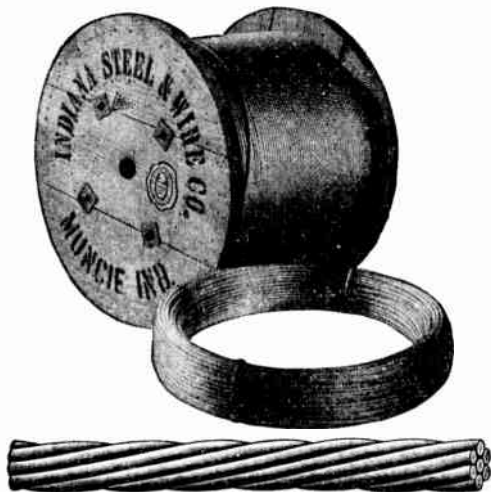
Conductor Size In.	RIGHT-HAND PITCH										Wt. Lb.		
	SINGLE INSULATOR					DOUBLE INSULATOR						2-PIECE TIE WIRES	
	Conductor Diam. In.	Lgth. Rod In.	Wt. per 1000 Rod Lb.	Lgth. Rod In.	Wt. per 1000 Rod Lb.	Rods per Conductor	Tie Size B.W.G.	LGTH., IN. First Piece	Second Piece	2-Piece Set			
8	.207	40	86	52	110	9	12	18	22	.07			
6	.252	40	86	52	110	10	11	20	22	.07			
4	.297	40	86	52	110	11	10	20	24	.09			
Amerductor													
12	.174	40	86	52	110	8	12	18	22	.06			
10	.220	40	86	52	110	9	12	18	22	.06			
8X	.216	40	86	52	110	9	12	18	22	.06			
8	.196	40	86	52	110	8	12	18	22	.06			
6	.248	40	86	52	110	10	11	18	22	.07			
ACSR													
4 (6/1)	.250	40	86	52	110	10	12	18	22	.06			
4 (7/1)	.257	40	86	52	110	10	12	18	22	.06			
2 (6/1)	.316	40	86	52	110	12	11	20	24	.09			
2 (7/1)	.325	40	86	52	110	12	11	20	24	.09			
1/0 (6/1)	.398	40	86	52	110	14	10	24	27	.12			
2/0 (6/1)	.447	40	86	52	110	16	10	24	27	.12			

Preformed Armor Rods for 7-Wire Steel Strand

Size	STRAND, IN.		Length Inches	Rod		Rods per Conductor
	Diameter	Length Inches		Wt. Lb. per 1000	Rods per Conductor	
5/16	.3125	40	86	12	12	
3/8	.375	40	86	14	14	
7/16	.4375	40	86	16	16	

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Crapo Galvanized Steel Strand



All wire used in forming a particular size and grade is produced from steel of selected properties, scientifically processed under laboratory supervision and galvanized by the Crapo process. Both wire and strand are subjected to laboratory tests for tensile strength, elongation, galvanizing, ductility, and gage to insure high uniform quality in the finished product.

Furnished in the following standard lengths: 3/8-inch diameter and smaller in 250, 500 and 1000-foot coils and 2500 and 5000-foot reels; 1/2-inch diameter and larger in 250 and 500-foot coils and 1000, 2500 and 5000-foot reels. When ordering specify size and grade, method of packing (coils or reels) and number of feet per coil or reel.

Guy and Messenger Strand

7 Wires Twisted into 1 Strand

Nom. Diam. Strand In.	Wire Diam. In.	Wt. Per 1000 Ft. Lb.	—MINIMUM BREAKING STRENGTH, POUNDS—			
			Common Grade (Single & Extra Galv.)	Siemens-Martin Grade (Extra Galv.)	High Strength Grade (Extra Galv.)	Extra High Strength Grade (Extra Galv.)
5/8	.207	813	11600	19100	29600	42400
1/2	.165	517	7400	12100	18800	26900
7/16	.145	399	5700	9350	14500	20800
3/8	.120	273	4250	6950	10800	15400
5/16	.104	205	3200	5350	8000	11200
9/32	.093	164	...	4250	6400	8950
1/4	.080	121	1900	3150	4750	6650
3/16	.062	72.9	1150	1900	2850	3990

Specification Grade 7-Wire Strand

Utilities—Western Union—A.T.&T.

Nominal Diameter Inches	Trade Designation	Wire Diameter Inches	Weight Pounds per 1000 Feet	Minimum Breaking Strength Pounds
1/2	25000 Lb.	.165	517	25000
7/16	16000 Lb.	.145	399	18000
3/8	10000 Lb.	.120	273	11500
5/16	6000 Lb.	.109	225	6000
9/32	4000 Lb.	.093	164	4600
3/16	2200 Lb.	.065	80.3	2400

Utilities Grade 3-Wire Strand

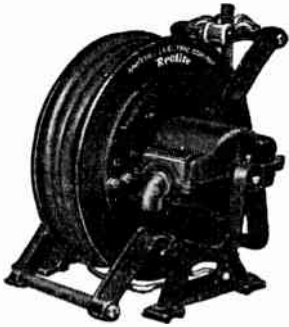
Size B.W.G.	Diam. Inches	Approx. Weight Per Coil Pounds	Approx. Length Per Coil Feet	Breaking Strength Pounds
1/4120	116.7	3150
1/4120	116.7	4500
5/16145	170.6	6500
3/8165	220.3	8500

Crapo Galvanized Construction Wire

For miscellaneous construction purposes, such as light guys, wrapping stubbed poles, lashing brackets to poles, etc.

Size B.W.G.	Diam. Inches	Approx. Weight Per Coil Pounds	Approx. Length Per Coil Feet	Breaking Strength Pounds
6	.203	150	1320	1618
8	.165	100	1320	1069
10	.134	100	2050	705
12	.109	100	3150	467
14	.083	50	2700	271

Appleton Constant Duty Reelites Spring-Driven Cable Lift Reel Type A Reelite



Made of cast aluminum and steel. Black enameled finish. **Ratchet.** For installations where constant tension is not desired, a gravity-type ratchet may be furnished at extra charge. Orders must specify mounting position of Reelite base.

When ordering, specify number of reelite, length, gage and number of conductors of cable, type of cable outlet.

Type A-3-Spring-35 Amperes, 440 Volts A.C. 250 Volts, D.C.

No.	Each	No. of Conductors	MAX. CAPACITY, FEET, OF VARIOUS SIZES AND CONDUCTORS OF RUBBER-COVERED CABLE					Weight Pounds Reelite Only
			No. 18	No. 16	No. 14	No. 12	No. 10	
A-23	2	55	55	50	35	..	36
A-33	3	55	55	45	35	..	37
A-43	4	55	55	35	30	..	38
A-53	5	50	50	30	20	..	43
A-63	6	45	40	20	20	..	44

Type A-5-Spring-35-Amperes, 440 Volts A.C. 250 Volts D.C.

A-25	.....	2	100	90	55	..	..	40
A-35	.....	3	90	75	50	..	..	41
A-45	.....	4	75	60	..	..	..	42
A-55	.....	5	60	..	..	..	..	47
A-65	.....	6	50	..	..	..	..	48

Reelites for Type S Cord

Made of cast aluminum and steel. Black enameled finish. When ordering, specify number of reelite, length, gage and number of conductors of cable, type of cable outlet desired.

Type BS-35 Amperes, 600 Volts

BS-22	.....	2	..	..	60	60	55	124
BS-32	.....	3	..	..	60	60	55	126
BS-42	.....	4	..	65	60	50	50	128
BS-52	.....	5	65	65	55	50	45	154
BS-62	.....	6	65	65	55	50	40	156
BS-72	.....	7	65	65	55	50	40	158
BS-82	.....	8	60	55	40	35	30	160

Type CS-35 Amperes, 600 Volts

CS-24	.....	2	110	110	105	90	85	154
CS-34	.....	3	110	110	100	85	70	156
CS-44	.....	4	110	110	90	75	60	158
CS-54	.....	5	110	100	75	65	55	184
CS-64	.....	6	100	100	65	55	45	186
CS-74	.....	7	100	100	65	55	45	188
CS-84	.....	8	85	80	45	40	35	190

Type DS-35 Amperes, 600 Volts

DS-32	.....	3	..	..	..	..	80	214
DS-42	.....	4	..	..	..	80	75	216
DS-52	.....	5	..	..	80	75	70	240
DS-62	.....	6	..	..	80	75	65	242
DS-72	.....	7	..	..	75	70	65	244
DS-82	.....	8	..	..	65	65	50	248

Type ES-35 Amperes, 600 Volts

ES-24	.....	2	150	150	140	135	130	272
ES-34	.....	3	150	150	140	135	125	274
ES-44	.....	4	150	150	130	130	105	276
ES-54	.....	5	150	150	130	110	90	300
ES-64	.....	6	150	140	110	95	80	302
ES-74	.....	7	150	140	110	90	70	304
ES-84	.....	8	130	130	85	70	55	306

Appleton Constant Duty Reelites Spring-Driven Cable Lift Reel Reelite for Type W Cable

Made of cast aluminum and steel. Black enamel finish.

Type BW-100 Amperes, 600 Volts

No.	Each	No. of Conductors	MAX. CAPACITY, FEET, OF VARIOUS SIZES AND CONDUCTORS OF RUBBER-COVERED CABLE					Weight Pounds Reelite Only
			No. 8	No. 6	No. 4	No. 3	No. 2	
BW-12	1	60	60	55	..	..	122
BW-22	2	45	35	20	..	..	124
BW-32	3	40	30	20	..	..	126
BW-42	4	30	25	15	..	..	128

Type CW-100 Amperes, 600 Volts

CW-14	.....	1	100	100	85	..	..	152
CW-24	.....	2	55	40	25	..	..	154

Type DW-100 Amperes, 600 Volts

DW-12	.....	1	..	..	75	65	60	210
DW-22	.....	2	75	65	45	35	30	212
DW-32	.....	3	65	50	35	30	25	214
DW-42	.....	4	50	40	25	20	20	216

Type EW-100 Amperes, 600 Volts

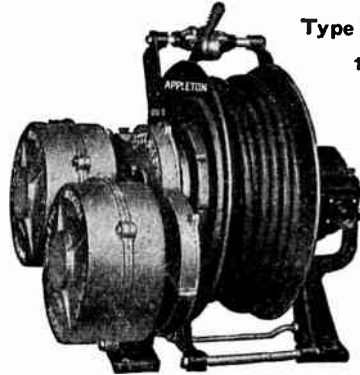
EW-14	.....	1	140	135	120	110	100	75	270
EW-24	.....	2	90	70	..	..	..	..	272
EW-34	.....	3	70	55	..	..	..	..	274
EW-44	.....	4	55	45	..	..	..	..	276

Type EWM-Special Mill Type-100 Amperes, 600 Volts

EWM-15	.....	1	140	135	120	110	100	75	285
EWM-25	.....	2	90	70	..	..	..	..	287
EWM-35	.....	3	70	55	..	..	..	..	289
EWM-45	.....	4	55	45	..	..	..	..	291

Type EG-For Type W Cable

100 Amperes, 600 Volts



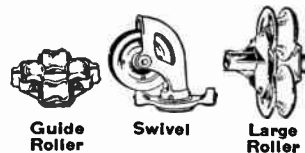
Spring-driven through cut gears. Cable outlet is the four-roller type. Cast aluminum and steel construction; black enameled finish.

When ordering, specify number of reelite, length, gage and number of conductors of cable.

EG-22	.....	2	..	75	60	55	50	45	358
EG-32	.....	3	75	65	55	50	45	40	360
EG-42	.....	4	70	60	50	45	40	35	362
EG-14	.....	1	..	..	130	130	120	110	370
EG-24	.....	2	110	105	90	70	65	50	372
EG-34	.....	3	105	100	75	65	60	45	374
EG-44	.....	4	100	85	60	55	45	..	376

Roller Cable Outlets

For Constant Duty Reelites



In order to obtain maximum efficiency from the constant duty reelite, it is necessary to choose the correct outlet and to set it in correct position.

Any one of the three types of outlets shown may be furnished with Types A, BS, BW, CS, CW, DS, DW, ES, and EW Reelites. Specify type or catalog number of outlet. Guide roller type will be furnished, without extra charge, unless otherwise specified. Other cable outlets are extra.

No.	Type Reelite	Type Cable *Dim. Outlet In.	No.	Type Reelite	Type Cable *Dim. Outlet In.
CO-1R	SR	Guide Roller .625	CO-11	BS-CS	Guide Roller 1.750
CO-1R	R	Guide Roller .625	CO-22		Swivel Type 1.125
CO-2R		Swivel Type .625	CO-33	Large Roller 1.125	
CO-1SN	SN	Guide Roller .812	CO-11	BW-CW	Guide Roller 1.750
CO-2SN		Swivel Type .625	CO-22	DW-EW	Swivel Type 1.125
CO-1	A	Guide Roller .812	CO-22A	EWM	Swivel Type 2.000
CO-2		Swivel Type .625	CO-33		Large Roller 1.125
CO-3		Large Roller .625	CO-111		EG	Guide Roller 1.750
			CO-333		Large Roller 1.625
			CO-2	AF-AFB	Swivel Type .625

*Largest cable diameter recommended.

Appleton Portable Reelites



Portable Type
660 Watts, 250 Volts

An automatic reeling device for extension light cords. The light is always available within arm's reach and no time is lost in untangling cords or plugging in for new extensions. Each reel has a ratchet stop which works exactly like a window shade. Furnished standard with cover plate which fits over all 3 1/4 or 4-inch octagonal outlet boxes. Furnished with No. 16 gage, 2 conductor cord.

Light grey enamel finish.

No.	Each	Description	Wt., Lb. per Doz.
With 12 Feet of Cord—5 1/2-Inch Reelite			
1532	\$9.50	Without Wiring Device	50
1533	10.00	Brass Shell Key Socket	61
1534	10.00	Composition Key Socket	62
With 25 Feet of Cord—7 1/4-Inch Reelite			
1524	\$12.00	Without Wiring Device	94
1525	12.50	Brass Shell Key Socket (Less Guard)	94
1526	12.50	Composition Key Socket (Less Guard)	97
1530	13.00	*Grounding Type without Wiring Devices	95
With 40 Feet of Cord—10-Inch Reelite			
1519	\$23.00	Without Wiring Device	150
With 50 Feet of Cord—10 Inch Reelite			
1520	\$25.00	Without Wiring Device	160



With Type SJ Cord
20 Amperes, 300 Volts

Especially developed for Type SJ, 2 and 3 conductor cords.

The roller outlet permits either ceiling, wall, or base mounting.

Furnished with 25 feet of cord.

No.	Each	15218	15318	15216	15316
Each		\$44.50	50.00	45.00	50.00
Size Cord		18	18	16	16
No. of Conductors		2	3	2	3
Weight	lb.	14	14	14	14

No. 1509 Vaporproof (Keyless) Type
660 Watts, 250 Volts

Furnished with vaporproof globe and heavy duty wire guard. Will accommodate standard lamps up to and including 60-watt.

Light grey enameled reel-unit, 7 1/4 inches in diameter, with ceiling mounting for attaching to standard 3 1/4 to 4-inch octagonal outlet boxes. Furnished with 20 feet of No. 16, 2 conductor cord; plastic handle; heavy duty wire guard.

Weight per dozen, 144 pounds.

No. 1509... each

Heavy Guard Type
With Half Reflector
660 Watts, 250 Volts

Reelite is supplied with or without switch in handle. Wire guard accommodates up to and including 100-watt lamps. Supplied with 25 ft., No. 16, 2 conductor cord. Reel-unit, 7 1/4 in. diameter, light grey enameled finish. Has base for attaching to standard 3 1/4 or 4-in. octagonal outlet boxes; wood handle and heavy duty wire guard.



Vaporproof Type



Heavy Guard Type

No.	Each	Type Socket	Wt., Lb. per Doz.
1522	\$15.00	Keyless	133
1528	15.00	Levolier	121

*Furnished with No. 18-3 conductor cord, two of which are connected to brushes and third grounded to frame.

Appleton Portable Reelites

Rubber Handle Type

With Half Reflector
660 Watts, 250 Volts



Rubber Handle Type

Furnished with or without switch in handle. Also has heavy duty wire guard accommodating lamps up to 100 watts.

Light grey enameled reel-unit 7 1/4 inches diameter, with base for attaching to 3 1/4 to 4-inch outlet boxes; 25 feet No. 16-gage, 2 conductor cord, rubber handle.

No.	Each	Type Socket	Wt. Lb. per Doz.
1516	\$15.00	Keyless	133
1517	15.00	Levolier	133

No. 1518 Battery Lamp Type
660 Watts, 250 Volts

Equipped for 21 or 32cp. 6-8-volt battery lamp to operate off a storage battery. Bulbs not included.

Light grey enameled reel-unit 7 1/4 inches diameter, with base for attaching to ceiling, or wall of truck; 25 feet No. 16 gage, 2 conductor cord.

Weight per dozen, 96 pounds.

No. 1518.....each \$13.00



Battery Lamp Type

No. 1523 Machine Tool Type
660 Watts, 250 Volts

Has a connector body so any portable electrical tool or device can be attached.

Light grey enameled reel-unit 7 1/4 inches diameter, with base for attaching to 3 1/4 or 4-inch outlet boxes; 25 feet No. 16 gage, 2 conductor cord.

Weight per dozen, 97 pounds.

No. 1523.....each \$12.50



Machine Tool Type

Cloth Cutting Machine Type
660 Watts, 250 Volts

Has swivel cover, light spring tension without ratchet stop. No wiring devices furnished.

Light grey enameled reel-unit with base for attaching to 3 1/4 or 4-inch outlet boxes.

Supplied with special cambric covered lightweight No. 18 gage, 2 conductor cord.

No.	Each	Diameter Reel, In.	Length Cord, Ft.	Wt. Lb. per Doz.
1511	\$23.50	10	50	140
1521	12.50	7 1/4	25	96

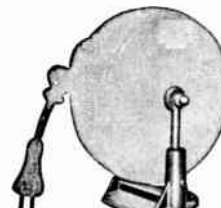


Cloth Cutting Machine Type

No. 1535 Cast Base

Used for mounting of portable reelites, base down. Base may be furnished instead of 3 1/4 or 4-inch outlet plate when specified, at no extra charge. If furnished separately, No. and price must be added.

Light grey enameled finish.
No. 1535.....each \$.75



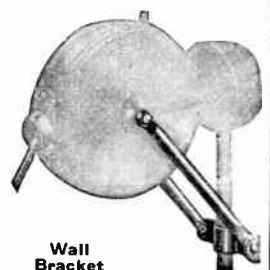
Cast Base

No. 1538 Wall Bracket

For use with 5 1/2, 7 1/4 and 10-inch reelites. For wall mounting of portable reelites. May be ordered separately or with reelite.

Light grey enameled finish.

No. 1538.....each \$1.50



Wall Bracket

Appleton Light Duty Air-Fluid Reels

Spring Driven Lift Type

For Air and Fluid Hose



Used for light duty pneumatic tool, paint spray, and blow gun applications where it is desirable to keep the hose free of kinks and out of the way.

The hose outlet is adjustable and should be so set that the hose does not drag around the rollers when mounted on the wall or ceiling. Furnished complete with 25 feet of durable, 2-braid hose.

If constant tension is unnecessary, reels will be equipped with ratchet device at extra charge. A slight jerk on the hose line allows the hose to be drawn in. Orders must specify if ratchet is desired. Ratchets can be used only with ceiling installations.

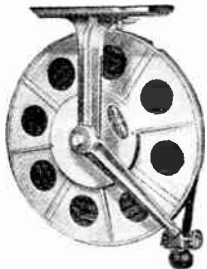
No.	Air		Fluid
	CA-11	CA-22	CF-22
Each	\$30.00	31.00	35.00
Hose Sizes: I.D. inches	1/4	3/8	3/8
O.D. inches	9/16	47/64	11/16
Shipping Weight. pounds	27	32	32

*This hose has proper outside diameter for DeVilbiss fittings.

Appleton Industrial Type Aireels

Spring Driven Lift Type

For Air Hose Lines



An open style air reel used automatically to wind and maintain constant tension on air hose lines of portable pneumatic tools.

Can be mounted either on the ceiling or wall. The outlet arm is adjustable. The swivel air joint is positive and self-adjusting.

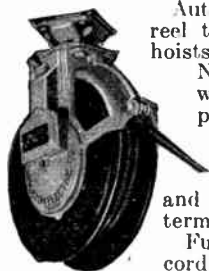
Complete with 2-braid air hose.

No.	CWT-11	CWT-21	CWT-31	CTL-31	CTL-41
Each	\$62.75	\$68.00	\$74.00	\$120.00	\$128.00
Ratchet. each	6.00	6.00	6.00	6.00	6.00
Size Hose:					
I. D. in.	1/4	3/8	1/2	1/2	3/4
O. D. in.	3/4	47/64	29/32	29/32	113/64
Lgth. Hose. ft.	25	25	*25	50	50
Ship. Wt. . lb.	70	75	75	100	110

*Only 20 feet of hose are wound on reel drum; 5 feet of hose remain outside.

Type YS Appleton Reelites

Portable Power for Electric Hoists



Automatic take-up, spring-operated cable reel to furnish power to traveling electric hoists operating on straight or curved tracks.

No exposed current collectors, trolleys or wires. Guarded by extra conductor to prevent electrical mishaps. Simple to maintain, with power spring replaceable through outer spring cover, oilless bearings at all points of rotation and solderless cord connections made to terminal block without dismantling reel.

Furnished with swivel base and Type S cord assembly.

14-Gage Wire

15 Amperes, 550 Volts A.C., 250 Volts D.C.

No.	Each	No. of Conductors	Cord Lgth. Feet	Weight Pounds
YS142-40	2	40	25
YS143-35	3	35	25
YS144-25	4	25	25

16-Gage Wire

10 Amperes, 550 Volts A.C., 250 Volts D.C.

No.	Each	No. of Conductors	Cord Lgth. Feet	Weight Pounds
YS162-45	2	45	23
YS163-45	3	45	24
YS164-40	4	40	25

Appleton Retract-o-Reels

Lightweight cast aluminum balancing reel used for supporting portable tools, air, and electrical devices weighing up to 10 pounds.

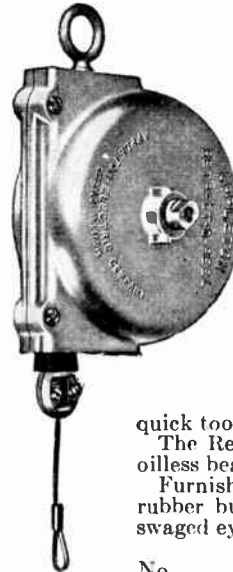
Reels support lightweight drills, screwdrivers, and assembly tools directly over production line while operator is otherwise engaged.

Spring tension is adjustable although balance point is set at factory according to weight of tool to be balanced.

The end of the wire rope is furnished with an eye loop made of a swaged-in thimble, permitting quick tool connection.

The Retract-o-Reel turns on self-lubricated oilless bearings.

Furnished with 6 feet preformed wire rope, rubber bumper, cable clamp, and thimble in swaged eye loop.



No.	B21-51	B21-71	B21-81	B21-101
Each	\$17.50	17.50	17.50	17.50
Max. Weight of Tool. lb.	5	7	8	10
Min. Weight of Tool. lb.	0	5	7	8
Max. Working Range. ft.	6	6	5	1 1/2
Min. Length Outside				
Reel Drum. feet	0	0	1	4 1/2
Weight. pounds	6	6	6	6



No. A1-B21 Retract-O-Reel Handwheels

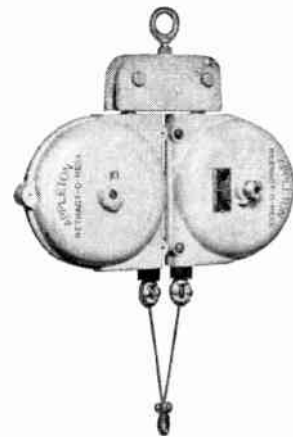
Handwheel fits tension adjustment stud on Retract-o-Reel. Affords safe and quick spring tension adjustment for proper balance.

No. A1-B21, Weight, 8 ounces. . . each \$1.50

Appleton Tandem Retract-o-Reels

For Balancing Portable Tools

Complete Units



A device which may be used in tandem to balance heavier weights by using the special tandem hanger assembly.

Reeling units must be individually adjusted to their rated balancing capacity to permit springs to share the load equally.

Complete with two standard reeling units, hanger assembly, and 6 feet of wire rope.

Weight each, 14 pounds.

No.	Each	WT., LB. OF TOOL TO BE BALANCED		Active Rope Max. Working Range Feet	Inactive Rope Min. Lgth. Outside Reel
		Max.	Min.		
B21-102	\$40.00	10	0	6	0
B21-142	40.00	14	10	6	0
B21-162	40.00	16	14	5	1
B21-202	40.00	20	16	1 1/2	4 1/2

No. B21-A2 Hanger Assemblies Only

Includes hangers, eyebolt assembly, and fastening bolts for coupling any two standard retract-o-reels in tandem.

Weight each, 2 pounds.

No. B21-A2 each \$5.00





Sticka Black Friction Tape

A popular-priced tape for general use.

Used to protect the splicing compound on a wire joint from abrasion.

Roll contains 1/2 pound gross of 3/4-inch tape, length 60 feet to a roll.

Available in 1/4-pound rolls. Special widths furnished packed in foil.

Per Pound..... \$.36

Victor Black Friction Tape

Protects the splicing compound on wire joints from abrasion.

A high grade tape for outside or inside work.

Roll contains 1/2 pound gross of 3/4-inch tape, 67 1/2 feet to a roll.

Also furnished in rolls 2 inches wide, 67 1/2 feet per roll, for repairing lead-covered telephone cables. Approximate weight per 2-inch roll in foil, 19 1/4 ounces.

Available in 1/4-pound rolls. Special widths furnished packed in foil.

Per Pound..... \$.38

Amazon A.S.T.M. Black Friction Tape

Highest quality friction tape to meet the most strict specifications.

Roll contains 1/2 pound gross of 3/4-inch tape, which is 82 1/2 feet to a roll.

Available in 1/4-pound rolls. Special widths furnished packed in foil.

Per Pound..... \$.40



Manson Friction Tape

Made with new rubber which thoroughly impregnates and coats the strong, closely woven cotton fabric. Black. Has true adhesive, aging and weathering qualities. Provides lasting protection for joint.

Roll contains 78 feet, 3/4 inch wide. Put up in 1/2 pound cans.

Per Pound..... \$.99



Okonite Rubber Tape

Compounded only from new Up-River fine Para rubber. When wrapped on the joint, it fuses into a homogeneous wall of tough insulation that is impervious to moisture and stays elastic and resilient. Insures highest electrical strength and permanence. Roll 3/4-inch wide contains 30 ft.

In 1/2-Pound Cans.....per pound \$1.16

Hydro-Proof Tape

A waterproof tape with an average dielectric strength per layer of 1850 volts.

Width, 3/4 inch.

Packed 24 yards per 8-ounce roll.

Per Pound..... \$1.00



Amazon A.S.T.M. Splicing Compound (Rubber Tape)

Designed for the severest kind of service. Meets the A.S.T.M. and A.R.A. specifications as well as U.S. Navy specification 17-T-1d.

Because of the high percentage of pure plantation rubber this tape is extremely elastic. Will amalgamate into a solid tube to make a watertight joint.

Will withstand dielectric test of at least 350 volts per mil of thickness.

Roll contains 1/2-pound gross of 3/4-inch No. 8 tape; length, 30 feet. Also available in 1/4-pound rolls. Special widths packed in foil only.



Per Pound..... \$.49

Victor Splicing Compound (Rubber Tape)

This tape is second in quality only to Amazon.

It is designed primarily for ordinary service. Its performance has more than justified the high recommendation which has been given to it.

Will withstand a dielectric test of 300 volts per mil of thickness.

Roll contains 1/2-pound gross of 3/4-inch No. 8 tape; length, 21 feet. Also available in 1/4-pound



rolls. Special widths packed in foil only. Per Pound..... \$.40

Ruberoid Insulating Tape

A black tape which will not vulcanize with heat or become defective by exposure or use, will not dry and crack or harden; water, acid and alkali-proof.

Furnished in 1/2-lb. rolls 3/4 in. wide. Per Pound..... \$.75

Other widths made to order.



Ideal Acid Core Solder

Metal virgin tin and lead—no scrap metals used. A superior liquid soldering acid flux. Size of solder approximately No. 8 standard gage.

Put up in spools only of 1, 5, and 20 pounds each.

Prices upon application.



Gem Rosin Core Solder

Metals virgin tin and lead—no scrap metals used. Rosin flux. Size of solder approximately .093 inch standard gage.

Put up in spools of 1, 5, and 20 pounds each.

Prices upon application.



Kester Plastic Rosin-Filled Solder

For Electrical and Radio Work



With plastic rosin flux, non-corrosive and electrically non-conductive.

The flux flows, as the solder melts, in just the right amounts for a perfect soldering job.

Requires only heat.

Standard size, 3/32 inch, about 50 feet to the pound.

Size Spool.....	pounds	1	5	20
Each.....				

Kester Acid-Filled Solder

For General Soldering



Easy to use, saves time, and is dependable for a permanent bond.

Contains a scientifically prepared flux that flows in just the right proportions as the solder melts. Requires only heat.

Standard size, 1/8 inch, about 25 feet to the pound.

1-Pound Carton.....	each	
1-Pound Spool.....	each	
5-Pound Spool.....	each	
20-Pound Spool.....	each	

Nokorode Core Solder



Ready for instant use; can be used for all kinds of soldering. Will replace acid or resin core solder.

Made of pure virgin tin and lead, with the proper amount of flux to a given amount of solder. Works quickly and leaves a strong, permanent soldered joint.

Nokorode Core Solder is so combined that the flux is in a solid form, care being taken that all parts of the solder contain flux. When heat is applied, the flux does not run out and

leave parts of the solder that must be thrown away. Put up in 1 1/2-ounce packages, 1, 5 and 20-pound spools.

Prices upon application.

Bar Solder



An alloy of tin and lead, made up in the form of bars for convenience in handling, for making soldered joints in metals, such as lead piping systems, for cable splices and other heavy work.

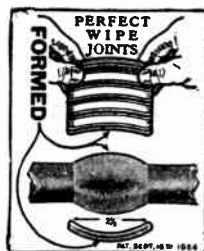
Price, Solder in Regular Bars.....per pound \$1.00

Allen Aluminum Solder



Complete solder and flux combined. Requires only heat to permanently join aluminum to itself or other metals.

Bars and wire, packed 6 pounds to carton.	
1/2-Pound Bars.....	per pound \$2.00
1-Pound Bars.....	per pound 1.50
Wire 1/8-Inch, 11-Gage, Square.....	per pound 2.20



Unique Formed Flexible Wiping Cloths

The permanent curved wiping surface of the formed finishing cloths produces perfectly symmetrical joints, uniform and smoothly finished. No waste of time or no wear on cloths in breaking in. Used successfully on first joint. Solder will not stick to the smooth slick surface. Gives twice the actual service of old style shapeless wiping cloth.

Add for moleskin: Formed cloths, 10 cents; flat catch cloths, 20 cents.

Ticking, Formed Finish

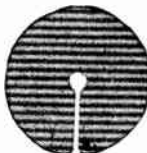
Size.....in.	2x2	2 1/2x2 1/2	3x3	3 1/2x3 1/2	4x4
Each.....	\$.40	.40	.50	.50	.60

Ticking, Flat Catch

Size.....in.	5x5	6x6	6x7	7x8	8x8
Each.....	\$.80	.90	1.00	1.20	1.30

Unique Upright Joint Wiping Cloths

The wiping side, which comes in contact with the molten solder is perfectly smooth and free from stitches, laps, folds, seams and edges. The wiping surface is treated to prevent the solder from sticking to the surface.



O.D.....in.	9	11	12	14	17
Each.....	\$1.80	2.50	3.10	3.50	5.00
Hole.....in.	1	1 3/4	2 3/4	3 3/4	6

Nokorode Soldering Fluid



Eliminates the use of corrosive soldering acid.

Ready for instant use.

Solution is strong. May be cut with water for light work.

Size Container.....	gallon	1	5	55
Per Gallon.....		\$1.50	1.10	.70

Allen Neutral Rosin Fluid Flux



Flux of absolute safety for electric motors, telephone, radio, commutators, instrument work, fine wires, etc.

Can be spilled on the work and allowed to remain with no corrosion hazard to finest wire or metals.

Absolutely neutral and moisture free and non-conductive to electrical current.

Size Can or Bottle.....	1 Quart	1 Gallon
Each.....	\$.85	3.00
No. in Carton.....	3	1

Allen Soldering Sticks



An economical rapid flux. Just a touch to the hot metal does the work.

Fuses the solder rapidly without fuss, muss or after corrosion. Size, 1x5 1/4 inches.	
Samson Formula.....	each \$1.15
Standard Formula.....	each .30

No. 2774 McGill Star and Crescent Soldering Sticks



Each stick is tinfoil wrapped and packed in pasteboard tube with cap ends. Weight per 100 sticks, 22 pounds. No. 2774..... each \$.25

Nokorode Soldering Salts



Size Can	Standard Package	Per Pound	Per Carton
1-Lb.	6 to Carton.....	\$.50	\$3.00
5-Lb.	Any Quantity.....	.40	
25-Lb.	Any Quantity.....	.30	
50-Lb.	Any Quantity.....	.27	
100-Lb.	In Drum.....	.24	

Crescent Soldering Salts



A combination of several of the most efficient soldering agents in a convenient soluble form. Gives off no obnoxious gases. Much superior to old time acids for the designed purpose.

Price, No. 2779, 1-pound.....each \$.90
 " " 2780, 1/2 "..... " .68

Burnley Soldering Salts



Size Can.....lb.	1/2	1	5
Per Pound.....	\$.63	.53	.44

Allen Soldering Salts



These salts are dry and in concentrated form. To make up a perfect flux of sufficient strength to use on old metal add three parts water to one part salts; on new metal, use even greater dilution.

Size Bottle.....	1/2-Lb.	1-Lb.	5-Lb.
Each.....	\$.40	.59	2.70
No. in Carton.....	12	6	1

Allen Soldering Paste



A corrosion free, soft form of flux.

Carries Underwriters' approval.

Size Can.....	Job Size	2-Oz.	4-Oz.	1/2-Lb.	1-Lb.	5-Lb.
Each.....	\$.08	.13	.25	.50	.90	4.40
No. in Carton.....	24	24	24	12	6	1

Allen Ezy-Flo Torch Formula Soldering Paste



Special soldering paste for torch and sweat joint soldering. Works well with the soldering iron.

Size Can.....	Job	2	4	1/2	1	5
	Size	Oz.	Oz.	Lb.	Lb.	Lb.
Each.....	\$.08	.13	.25	.50	.90	4.40
No. in Carton	24	24	24	12	6	1

Nokorode Soldering Paste



This paste will flux all metals except aluminum.

It takes the place of acid in all soldering jobs. Non-corrosive, safe as resin and rapid as acid. Not affected by heat and does not spatter.

The solder will not turn dark after using this paste.

In Cartons

Size Can.....	2-Oz.	1-Lb.
Per Can.....	\$.10	\$.70
Per Carton.....	1.20	4.20
No. Cans in Carton.....	12	6

By Pound

Size Can.....	pounds	10	25	50	100
Per Pound.....		\$.50	.45	.43	.40

Burnley Soldering Paste

Requires no preparation.



Size Can.....	Per Lb.	Size Can.....	Per Lb.
1/8	*\$1.40	5	\$.37
1/4	* 1.90	50	.29
1/2	.44	500	.23
1	.41		...

*Per dozen cans.

Star and Crescent Soldering Paste



Assures a smooth, even-flowing metal and perfect results. Thoroughly mixed, so that each paste particle contains all the flux elements. Strong and rapid in action and non-corrosive. Packed in tin boxes.

Cat. No.....	2775	2776	2777	2778
Size Tins.....oz.	2	4	8	16
Price.....each	\$.25	.35	.55	1.00

Doe Plug Burnishing Paste



For polishing telephone plugs, radio connections, signal systems, and electrical contacts of all kinds.

Non-corrosive. Chemically neutral.

Packed in 2-ounce tin containers.

Per Can.....

Doe Commutator Burnishing Paste



For cleaning and polishing commutators and slip rings on motors and generators.

Eliminates noise and sparking.

Acts as a lubricant to eliminate undue wear.

Non-corrosive. Chemically neutral.

Packed in 2-ounce tin container.

Per Can.....

Mueller Universal Test Clips and Insulators



No. 24-A Clip Only



No. 45 Clip with No. 47 Insulator

Tests clips save time in electrical work requiring quick temporary connections. May be used over and over again. Flexible insulators are a convenient protection against electric shock and prevent clips from shorting on each other. Furnished half red and half black to indicate polarity. Packed 10 to a box and 10 boxes to a carton.

Screw Connection

No.	Each	Description	Spread of Jaws In.	Wt. per 100 Lb.
45	\$.06	Pee Wee Clip Only, Cadmium.....	3/8	1 1/4
45-C	.08	5-Amp. Pee Wee Clip Only, Solid Copper	1/4	1 1/4
47	.09	Rubber Insulator for No. 45 or 45-C Clip	1/4	1 3/4
48-B	.06	Clip Only, Cadmium Plated.....	1/2	2
48-C	.10	10-Amp. Clip Only, Solid Copper.....	1/2	2
82	.14	10-Amp. Needle Clip Only, Cadmium...	1/2	2
49	.09	Rubber Insulator for No. 48-B, 48-C or 82 Clip.....		2
27	.10	Clip Only, Cadmium Plated.....	5/8	3 1/4
27-C	.17	40-Amp. Clip Only, Solid Copper.....	5/8	3 1/2
29	.15	Rubber Insulator for No. 27 or 27-C Clip		5 1/4
24-A	.12	25-Amp. Clip Only, Lead Plated.....	1	6 1/4
24	.20	50-Amp. Clip Only, Solid Copper.....	1	7
26	.19	Rubber Insulator for No. 24 or 24-A Clip		7
21-A	.17	50-Amp. Clip Only, Lead Plated.....	1 1/4	15
Lug Connection				
21	\$.50	100-Amp. Clip Only, Solid Copper.....	1 1/4	17
23	.33	Rubber Insulator for No. 21 or 21-A Clip		13
11-A	.60	100-Amp. Clip Only, Lead Plated.....	1 3/4	35
11	1.00	200-Amp. Clip Only, Solid Copper.....	1 3/4	38
13	.52	Rubber Insulator for No. 11 or 11-A Clip		23
33	1.80	300-Amp. Clip Only, Solid Copper.....	2	80
35	1.20	Rubber Insulator for No. 33 Clip.....		45

Mueller Crocodile Clips and Rubber Insulators



No. 85 Clip with No. 87 Insulator

Cadmium plated, 5-ampere clip for radio and electrical test work. Long thin nose on clip enables user to make tests in deep recesses. Teeth mesh along entire length of jaw. May be completely insulated. Jaw spread, 3/8 inch. Packed 10 in box; 100 in carton, weight, 1 1/2 pounds.

No. 85.....each \$.07

No. 85-C Frequency Test Clips

Phosphor bronze spring and brass screw. Will not heat up due to hysteresis effect. Used on radio transmitting apparatus and electrotherapeutical work.

Packed 10 per box; 100 per carton, weight, 2 pounds. No. 85-C.....each \$.10

No. 85-T Tip Clips

Same as No. 85 except that it has a standard phone tip soldered to the front end of the lower jaw. Can be used as a combination test clip and test prod; also for making connections to binding posts having insulated, non-removable heads. Jaw spread, 3/8 inch.

Packed 10 in box; 100 in carton, weight, 1 1/2 pounds. No. 85-T.....each \$.14

No. 87 Insulators

For use with both of the above clips. Packed 10 in box, 5 red and 5 black; 100 in carton, weight, 1 pound.

No. 87.....each \$.08

Mueller Wee-Pee-Wee Clips and Insulators

No. 88 clip with No. 93-P plastic insulator is used in fine electrical and telephone test work.



Clip is made entirely of phosphor bronze. Extremely small and flat jaws with 1/4-inch spread.

Packed 10 in box; 100 in carton, weight, 3/4 pound.

No. 88, Clip.....each \$.15

No. 93-P, Insulator.....each .05

Mueller Alligator Test Clips



No. 60-S



No. 60-HS

For use in making quick, temporary electrical connections. Has slim jaws, fine meshing teeth, round thumb grip, and barrel connection for banana plug. Bright finish.

No.	Each	Description	Length Inches
60	\$.06	Steel, with Soldering Lip.....	2
60-S	.07	Steel, with Screw Connection.....	2
60-CS	.09	Copper, Screw Connection.....	2
60-HS	.10	Steel, with Red and Black Insulating Sleeves on End, Screw Connection..	2 1/4
60-CHS	.13	Copper, Otherwise Same as No. 60-HS.	2 1/4

Reliable Testing Clips

For temporary connections to insulated wires. Made of heavy nickel silver with hard sharp insulation puncturing points and perfectly registering teeth



No. 1

Fitted with screw, nut spike, and washer for attaching to instrument cord.

No. 1.....each \$.16

No. 2

Same as No. 1 but with screw, nut and washer omitted. Preferred where connection to cord is to be soldered.

No. 2.....each \$.16

No. 3

Same as No. 1 but without the spike

No. 3.....each \$.16

No. 5



A light, sturdy clip with a strong spring. Convenient for temporary connections in radio, telephone and signal work.

Particularly good for congested telephone equipment.

Plenty of room for soldering flat cord terminals.

No. 5.....each \$.13

Bryant Bakelite Flat Cord Connectors

10 Amperes, 125 Volts; 5 Amperes, 250 Volts

These devices do not have standard prong spacings.

Have 1/32-inch cord hole.



No. 2956

No. 2956 Receptacle Portion

For use with No. 2958 only.

Cat. No.	Per 100	Car-ten	Std. Pkg.	Wt., Lbs. Std. Pkg.
2956	\$36.00	10	100	4



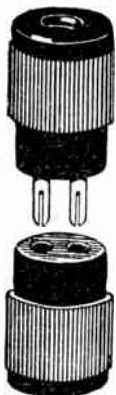
No. 2958

No. 2958 Plug Portion

For use with No. 2956 only.

Cat. No.	Per 100	Car-ten	Std. Pkg.	Wt., Lbs. Std. Pkg.
2958	\$36.00	10	100	5

Morse Eureka Cord Connectors



Made of hard rubber, with acorn or straight side composition cap.

Polarized at no extra charge.

No. 166A is available in all bakelite.

No.	166A	166	167
Per 100.....	\$.75	.67	.73
Diameter.....inches	1/2	5/8	3/4
Overall Length.....inches	2 1/2	2 1/2	2 1/2

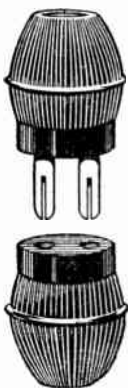
Morse Eureka Cord Connectors



Made of hard rubber.
Bakelite cap.

No.	116	117	118
Per 100.....	\$.62	.55	.64
Diameter.....inches	1/2	5/8	3/4

No. 167B Morse Eureka Cord Connectors



Made of bakelite, with acorn or straight side cap.

Has brass binding screws; and split male stems.

Diameter, 1 1/16 inch. Overall length, 2 1/2 inches.

No. 167B.....each \$.77

Morse Eureka Plug Receptacles



Made of hard rubber, with acorn or straight side cap. Can be furnished in bakelite at additional charge.

Nickel plated flange.

Polarized at no extra charge.

No. 169

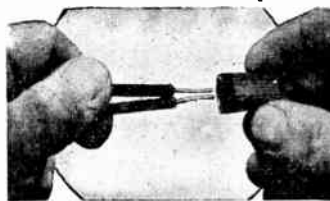
Diameters.....inches	1/2	5/8	3/4
No. 169.....each	\$.76	.76	.76

No. 2366

Made in flanged section. Furnished in 5/8-inch diameter only.

No. 2366.....each \$.75

Ideal *Wire—Nuts Solderless—Tapeless Wire Connectors



Replaces solder and tape, plug connections, terminal blocks, kindling posts, etc.

Listed by Underwriters' and Factory Mutual Laboratories. Recommended by National Electrical Code.

Making a joint with an Ideal Connector is just like screwing a nut on a bolt. The connector simply screws on giving a positive and permanent contact. Spiral metal insert which acts as a current carrying sleeve, presses threads into the wires and binds them together in a vise-like grip—assuring a doubly secure joint.

No. 72 Fixture—Appliance Type

No.	Description	Per 100	Per 1000
72	For 3 No. 18, or 1 No. 14 and 1 No. 18 Wires, Solid or Stranded.....	\$1.65	\$14.71

No. 73 Junior Universal Type

No.	Description	Per 100	Per 1000
73	For fixture wiring, joints in shallow canopies, signs, etc. For Nos. 14, 16, and 18 up to 2 No. 14 and 2 No. 18 or 4 No. 16 or 5 No. 18 Wires, Solid or Stranded.....	\$1.77	\$15.89

No. 74 Standard Universal Type

No.	Description	Per 100	Per 1000
74	For all joints of common wiring practice. For Nos. 12, 14, 16 and 18 up to 2 No. 12 and 1 No. 18 or 4 No. 14 and 1 No. 18 Solid or Stranded.....	\$2.24	\$21.18

No. 76 Large Universal Type

No.	Description	Per 100	Per 1000
76	For larger gage wires or where a large number of small wires are to be joined. For Nos. 10, 12, 14, 16 and 18 up to 3 No. 10 and 1 No. 18, 6 No. 14 and 1 No. 18, or 4 No. 12 and 1 No. 18 Solid or Stranded.....	\$3.24	\$30.59

*Trade Mark Reg. U. S. Pat. Office.

Ideal Porcelain Wire Nuts



Solderless—Tapeless Wire Connectors

Makes excellent wire joints—fast—at low cost. Ideal for roughing-in and fixture hanging. Joint is strong mechanically, and efficient electrically.

Easy to use—simply strip wire and screw on.

Made in one-piece, high-grade gray porcelain.

Approved by Underwriters' Laboratories, Inc., and Factory Mutual Laboratories.
Packed 100 in a carton.

No. G-3 size joins 2, 3, or 4 No. 18; 1 No. 14, and 1 No. 18
No. G-5 size joins 2, 3, or 4 No. 14; 2 No. 12.

No.	Description	G-3	G-5
Per 100.....		\$.86	.95
Weight per 1000.....pounds		12	16

No. 501 Sherman Fixture Connectors



Made of heavy bronze. Has two heavy non-removable headed screws. The Sherman Fixture Connector cannot rust and assures high conductivity.

Will connect all wires up to No. 12 with a maximum of two No. 12 solid or three No. 14 in either end.

Packed in small containers, insuring neat shelf stock and safe deliveries.

Carton, 100 each. Standard package, 500. Standard package weight, 12 pounds. Weight, per 1000, 25 pounds.

No. 501.....per 100 \$10.00

Sherman Soldering Lugs



Seamless all around. Solder cannot leak out at the closed end. Round end lugs in small sizes are recommended.

Approved and listed by the Underwriters' Laboratories.

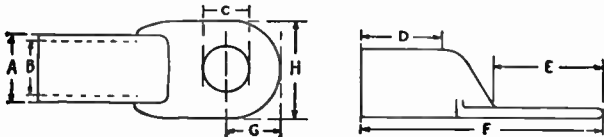
Round End

Size Inches	Amp. Cap. Rubber Insul. Conductors N. E. C. Std.	Maximum Stranded Cable	Approx. Weight Pounds per 1000
3/16	25	10 A.W.G.	4
1/4	35	8 A.W.G.	6
5/16	50	6 A.W.G.	11
3/8	70	4 A.W.G.	17
7/16	90	2 A.W.G.	24
1/2	125	0 A.W.G.	35
9/16	150	00 A.W.G.	46
5/8	175	000 A.W.G.	60
11/16	225	0,000 A.W.G.	80
13/16	250	250,000 C.M.	120

*Square End

15/16	325	400,000 C.M.	225
1	362	450,000 C.M.	285
1 1/16	400	500,000 C.M.	380
1 1/8	450	600,000 C.M.	420
1 1/4	550	800,000 C.M.	705
1 1/2	650	1,000,000 C.M.	788
1 3/4	850	1,500,000 C.M.	1470
2 1/16	1050	2,000,000 C.M.	2765
2 1/8	1200	3,500,000 C.M.	7200

Approximate Dimensions, Inches



A	B	C	D	E	F	G	H
3/16	.136	11/64	3/8	1 1/2	1 1/2	1/32	1 1/4
1/4	.186	13/64	3/8	1 1/2	1 1/2	1/32	1 1/4
5/16	.232	15/64	3/8	1 1/2	1 1/2	1/32	1 1/4
3/8	.286	1/2	3/8	1 1/2	1 1/2	1/32	1 1/4
7/16	.336	5/8	1/2	3/4	1 1/2	1/32	1 1/4
1/2	.407	1 1/32	5/8	13/16	1 3/4	1/32	1 3/4
9/16	.461	1 1/32	11/16	1 1/2	2	1/16	1 3/4
5/8	.511	1 1/32	1 1/8	1	2 1/8	1/2	2 1/8
11/16	.559	1 1/32	1 1/8	1 1/2	2 3/8	1/2	2 3/8
13/16	.688	1 1/32	1 1/4	1 3/4	2 5/8	5/8	1 3/4

A	B	C	D	E	F	G	H
15/16	.776	1 1/32	1 3/8	1 5/8	3 3/8	3/4	1 1/2
1	.82	1 1/32	1 1/4	1 3/4	3 7/16	13/16	1 1/2
1 1/16	.88	1 1/32	1 1/2	2 1/8	4 1/16	1 1/16	1 1/2
1 1/8	.943	1 1/32	1 5/8	2 1/4	4 7/16	1	1 1/2
1 1/4	1.084	1 1/32	2	2 1/2	5	1 1/8	1 1/2
1 1/2	1.21	2 1/32	2	2 1/2	5 3/8	1 3/16	2 1/8
1 3/4	1.46	1 1/32	2 3/8	3 1/8	6 5/8	1 1/2	2 3/8
2 1/16	1.66	1 1/32	2 5/8	3 5/8	7 1/2	1 5/8	3 1/16
2 1/8	2.50	1 1/32	2 3/4	4 1/4	10 3/4	1 3/4	4 1/2

STUD HOLE.—Lugs furnished with special size or location of stud holes at same prices as for regular lugs, with extra charge for each size.

TINNING.—Lugs tinned will be furnished at extra charge, depending on size.

MARKING.—For identification, as approved fittings, lugs will be marked with letter S and Underwriters' rating in amperes.

To Select Terminals According to the N.E.C. Ratings Governing Knife Switches, Use the Following Equivalents

Capacity...amperes	30	60	100	200	400	500	800	1000
Size Lug...inches	1/4	3/8	1/2	1 1/8	1 1/4	1 1/2	1 3/4	2 1/8

*Furnished square end unless specified round.

†Furnished with 3/32 or 1/16-inch stud hole at no extra charge.

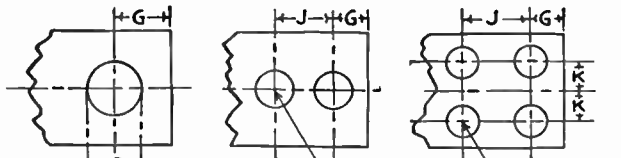
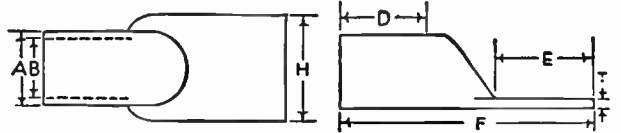
Sherman Heavy Duty Soldering Lugs

N.E.L.A. Standard

Made of best quality seamless copper tubing.

Lugs Nos. 8, 8-A, 9-A, 10 and 11 have a sufficient socket diameter to take rope core cables of sizes listed without removing core. Core can be drilled out and space filled with copper plug or solder.

Blank lugs furnished when specified; otherwise regular bolt holes as listed. Special drilling may be had at extra cost if specified. Straight lugs regularly furnished. Angle lugs 45 and 90-degree when specified at extra price. Plain finish unless otherwise specified. Special finishes as follows at added prices: Rosin dipped, cadmium plated, tinned inside only and tinned all over. Special dimensions may be made to order with dimension E other than regular or special drilling of stud holes, at added cost.



SINGLE BOLT

TWO BOLT

FOUR BOLT

Max. Size Conductor Inches	Amp. Rate N.E.C.	Single Bolt		2-Bolt		4-Bolt	
		Lug No.	Wt., Lb. per 1000	Lug No.	Wt., Lb. per 1000	Lug No.	Wt., Lb. per 1000
19/22	35	1	8	1A	12	.....	.....
6, B. & S.	50	2	18	2A	25	.....	.....
?	90	3	80	3A	105	.....	.....
00	150	4	155	4A	210	.....	.....
250000	250	5	275	5A	330	.....	.....
350000	300	6	540	6A	650	.....	.....
500000	400	.....	.....	7	1350	.....	.....
750000	525	.....	.....	8	2000	8A	2000
1000000	650	.....	.....	9	3200	9A	2800
1500000	850	.....	.....	.....	.....	10	5000
2000000	1050	.....	.....	.....	.....	11	8300

Single Bolt Tongue

Lug No.	APPROXIMATE DIMENSIONS, INCHES											
	A	B	H	D	T	E	F	G	J	K	C	
1	.25	.187	.39	.375	.06	.50	1	1 1/2	1/8	1/8	7/16	
2	.313	.232	.47	.50	.08	.75	1 1/2	1 1/2	1/8	1/8	7/8	
3	.540	.375	.74	.75	.17	.87	2	2 1/2	1/8	1/8	1 1/2	
4	.675	.494	.97	1.00	.19	1.25	2 3/4	3 1/4	1/8	1/8	1 3/4	
5	.840	.625	1.22	1.25	.22	1.50	3 1/4	4 1/4	1/8	1/8	1 3/4	
6	1.050	.822	1.50	1.69	.23	2.25	4 1/4	5 1/4	1	1	1 3/4	
1-A	.25	.187	.39	.375	.06	1.00	1 1/2	1 1/2	1/8	1/8	7/8	
2-A	.313	.232	.47	.50	.08	1.25	2	2 1/2	1/8	1/8	7/8	
3-A	.540	.375	.74	.75	.17	1.50	2 5/8	3 1/2	1/8	1/8	1 1/2	
4-A	.675	.494	.97	1.00	.19	2.25	3 3/4	4 1/2	1/8	1/8	1 3/4	
5-A	.840	.625	1.22	1.25	.22	2.25	4	5 1/4	1/8	1/8	1 3/4	
6-A	1.050	.822	1.50	1.69	.23	3.25	5 3/4	6 1/2	1 1/8	1 1/8	1 3/4	
7	1.315	.951	1.87	2.00	.37	3.25	6 1/4	7 1/4	1 1/8	1 1/8	1 3/4	
8	1.66	1.272	2.41	2.56	.39	3.25	6 7/8	8 1/4	1 1/2	1 1/2	1 3/4	
9	1.90	1.49	2.74	3.00	.41	4.25	8 7/8	10	2	2	1 3/4	
8-A	1.66	1.272	2.41	2.56	.39	3.25	6 7/8	8 1/4	1 1/2	1 1/2	1 3/4	
9-A	1.90	1.49	2.74	3.00	.41	4.25	7 7/8	9 1/4	1 1/2	1 1/2	1 3/4	
10	2.37	1.93	3.50	3.87	.44	4.25	10	11	1	1	1 3/4	
11	2.87	2.315	4.25	4.37	.56	4.25	11	12	1	1	1 3/4	

Note.—Dimensions E in larger sizes will be found slightly larger than specified to allow for bending in the field.

Sherman Soldering Lugs

2-Hole

Two-hole lugs are made from seamless tubing and furnished square end, unless otherwise specified.

Flat portion (E) may be made to order either longer or shorter but tubular portion (D) cannot be changed.

Size Inches	Amp. Cap. Rubber Insul. Conductors N.E.C.Std.	APPROX. DIMEN., IN.					Approx. Weight Pounds per 1000
		C	E	F	G	J	
3/16	25	3/32	3/4	1 1/2	5/32	3/8	5
1/4	35	1/8	1 1/8	1 1/2	1/16	7/16	8
5/16	50	1/8	1 1/8	1 3/4	1/16	1 1/8	14
3/8	70	1/4	1 1/2	1 3/4	1/16	1 1/8	23
7/16	90	1/4	1 1/2	2	1/16	1 1/8	34
1/2	125	1/2	1 1/2	2 1/2	1/16	1 1/8	46
5/8	150	1/2	2	3 1/2	1/16	1 1/8	60
9/16	175	1/2	2 1/2	3 1/2	1/16	1 1/8	90
1 1/16	225	1/2	2 1/2	3 3/4	1/16	1 1/8	115
1 1/8	250	1/2	2 3/4	4	1/16	1 1/8	218
1 1/4	325	1/2	3	4 1/2	1/16	1 1/8	270
1 1/2	382	1/2	3 1/4	4 3/4	1/16	1 1/8	355
1 3/8	400	1/2	3 1/2	5 1/8	1/16	1 1/8	420
1 1/2	450	1/2	3 3/8	5 1/8	1/16	1 1/8	475
1 5/8	550	1/2	3 3/4	6 1/8	1/16	1 1/8	845
1 7/8	650	1/2	3 3/4	7 1/8	1/16	1 1/8	1030
1 3/4	850	1 1/16	5 1/8	8 1/8	1/16	2 1/4	1850
2 1/16	1050	1 1/8	5 3/8	9 1/4	1/16	2 1/4	3200

Dimensions, except as noted are same as standard lugs.

Sherman Solderless Lugs
Type SO

Universal in application. Rigid construction. No special tools.



No.	Wire Size	Ctn. Qty.
SO-8	12-8 Str.	200
SO-4	12-4 Str.	100
SO-1/0	3-1/0 Str.	50
SO-4/0	1/0-4/0 Str.	25
SO-500	250-500M	5

Type SM



No.	Wire Size	Ctn. Qty.
SM-6	14-6 Str.	100
SM-4	14-4 Str.	100
SM-2	6-2 Str.	100

Other sizes available.

Sherman Wedge-Grip Connectors



For service entrance connections and all small wire connections.

The ovalpoint, hexagon head, non-removable bronze screw wedges wires between V-shaped corrugations.



No. SC-4X

Pure copper body is hard drawn with highest conductivity; needs no taping.

No.	Per 100	B.&S. WIRE GAGE		No. in Carton	Weight Pounds per 1000
		Strand Max.	Solid Min.		
SC-12X	\$11.45	*2-12	2-20	200	10
SC-6X	13.00	2-6	2-12	100	25
SC-6X549	13.00	2-6	2-10	100	25
SC-4X	16.90	2-4	2-8	100	38
SC-2X	22.20	2-2	2-4	50	47

*Solid.

Bull Dog Wire Grips
Solderless Lugs



Cold formed from pure electrolytic copper to provide maximum conductivity and greater mechanical strength. Clear wire holes enable user to see that full and proper contact is made.

Max. Wire Sizes	Max. Amp. Rating	Wt. Lb. Basic Qty.	Front Conn. No.	Back Conn. No.	Per 1000	
						4	70	250	6	3021	3021BC	$100.00
1	100	100	8	3031	3031BC	170.00
4/0	225	50	7	3041	3041BC	310.00
500M CM	400	10	8	3052	3052BC	1000.00
1,000M CM	650	5	8	3062	3062BC	1940.00

***Twin Wire Grips**

Two 4	70	100	5	3221		\$310.00
Two 1	100	50	8	3231		500.00

*Two solderless lugs mounted on a common base, with a tongue designed to fit the cable hole of a standard wire grip of similar capacity. Helpful in making multiple connections.

Socket Wrenches

Nos. 3021 and 3221 require a screwdriver only. Nos. 3031, 3041 and 3231 are primarily designed for tightening with a socket wrench. Nos. 3052 and 3062 require a socket wrench. No. 303SW, for Nos. 3031, 3041 and 3231 each \$.15
No. 306SW, for Nos. 3052 and 3062 each .40

T&B Wedge-On Wire Splicers

Approved by Underwriters' Laboratories



For uniting the ends of solid or stranded wire as one.

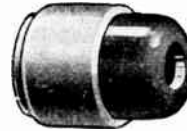
Made of high-tensile strength bronze.

WIRE SIZE Sol.	No.	Per 100	SIZE, INCHES			Wt. Lb. per 100
			Ring	Body	Length	
16	16C	\$25.00	3/16	3/16	13 3/8	21 1/2
14	14C	25.00	3/16	3/16	13 3/8	21 1/2
12	12C	25.00	3/16	3/16	13 3/8	21 1/2
10	10C	25.00	11/32	7/32	13 3/8	2
9	9C	25.00	11/32	7/32	13 3/8	2
8	8C	35.00	7/16	9/32	17 3/8	4 1/2
6	6C	40.00	9/16	3/8	17 3/8	6
4	4C	40.00	9/16	3/8	17 3/8	6

T&B Wedge-On Joints

PATENTED

Approved by Underwriters' Laboratories



For joining small wires and making permanent splices quickly without use of solder. Installed with same tool used for Wedge-On lugs and splicers.

WIRE SIZE Min.	Max.	No.	Per 100	Car- ton	Std. Pkg.	Wt. Lb. per 100
*14	14	Q-4	\$12.00	100	200	1 3/4
†14	14	Q-5	12.00	100	200	2 1/2

*Will take wire combinations from 2 No. 14 through 4 No. 14, 3 No. 12, or 2 No. 10.

†Will take wire combinations from 4 No. 14 through 7 No. 14, 5 No. 12 or 3 No. 10.

T&B Wedge-On Tools



Designed for use with T&B Wedge-On Lugs, Splicers and Joints.

The Wedge-On tool drives the wedge home in a single operation. The pressure per square inch exerted on the wire is several hundred times the pressure applied on the tool, due to the slight taper of the wedge. The serrations inside the wedge provide maximum contact and gripping area.

Packed 1 in a standard package.

Weight, 1 1/2 pounds.

No.	Green Handle	Red Handle	Blue Handle
.....	21000	21001	21004
Each	\$5.00	5.00	5.00
For Wire Size, No.	8 to 16	8, 6 & 4	22, 18, 16 & 14

T&B Wedge-On Lugs

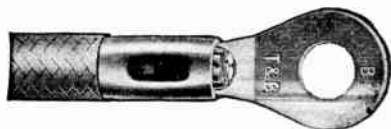


Copper body; plug of bronze, electro-tinned.

Approved by Underwriters' Laboratories

No.	Per 100	Wire Size No.	Bolt Diam. No. or Inches	Std. Pkg.	Unit Quan.	Wt. Lb. per 1000
18L100	\$5.00	22 to 18	8	200	100	4 1/2
16L100	5.00	16	10	200	100	6 1/2
14L100	5.00	14	10	200	100	8
12L100	6.00	12	12	200	100	10
10L100	7.00	10	12	200	100	11
9L101	7.50	9	1/4	200	100	18
8L100	8.00	8	1/4	200	50	21
6L100	9.00	6 Stranded	1/4	200	50	28
6SL100	9.00	6 Solid	1/4	200	50	28
4L100	10.00	4 Stranded	1/4	200	50	32
4SL100	10.00	4 Solid	1/4	200	50	32

T&B Sta-Kon Solderless Terminals



A secure mechanical grip on the wire is produced by the pressure of the stake-mark, which parallels the strands.

Wire Size A.W.G.	No.	Per 1000	Car-ton	Std. Pkg.	Wt. Lb. per 1000
22, 20, 18	A18-6	\$5.00	100	1000	1 1/2
22, 20, 18	A18-10	5.00	100	1000	1 1/2
22, 20, 18	A18-14	5.00	100	1000	3
16, 14	B14-6	5.00	100	2000	2 1/2
16, 14	B14-10	5.00	100	2000	3
16, 14	B14-14	5.00	100	2000	3 1/2
12, 10	C10-6	6.00	50	1000	4 1/2
12, 10	C10-10	6.00	50	1000	5
12, 10	C10-14	6.00	50	1000	5 1/2
12, 10	C10-516	6.00	50	1000	7 1/2
9, 8, 7	D8-10	10.00	25	500	10
9, 8, 7	D8-14	10.00	25	500	12
9, 8, 7	D8-516	10.00	25	500	16
6, 5	E6-14	12.00	20	200	17
6, 5	E6-516	12.00	20	200	20
6, 5	E6-38	12.00	20	200	20
4, 3	F4-14	15.00	20	200	24
4, 3	F4-516	15.00	20	200	25
4, 3	F4-38	15.00	20	200	25
2, 1	G1-14	25.00	10	100	40
2, 1	G1-516	25.00	10	100	47
2, 1	G1-38	25.00	10	100	45
Series H to M					
1/0	H10-14	30.00	10	100	42
2/0	J20-38	35.00	10	100	60
3/0	K30-38	45.00	5	50	82
4/0	L40-38	50.00	5	50	110
MCM 250	M250-38	60.00	5	50	135

T&B Sta-Kon Two and Four-Way Connectors

Wire Size A.W.G.	Two-Way					Four-Way				
	No.	Per 1000	Car-ton	Std. Pkg.	Wt. Lb. per 1000	No.	Per 1000	Car-ton	Std. Pkg.	Wt. Lb. per 1000
22,20,18	2A18	\$7.00	100	1000	2 1/2	4A18	\$14.00	50	500	5
16,14	2B14	7.00	100	1000	3 1/2	4B14	14.00	50	500	6
12,10	2C10	8.00	50	500	7	4C10	16.00	25	250	13
9,8,7	2D8	15.00	25	250	19					
6,5	2E6	18.00	20	200	27					
4,3	2F4	20.00	15	150	36					

T&B Sta-Kon Hand Tools



No. WT-111M

No. WT-115

Used to install Sta-Kon terminals. Every tool accommodates several sizes of terminals and tips. Standard package, 1.

No.	WT-111M	WT-115	21076
Each	\$5.00	\$1.00	\$3.00
For Use on Wire Nos.	22 to 0	8 to 1	2,1,1/0,2/0,3/0 4/0, 250M CM

Color of Handle	Red	Black	Grey
Weight, pounds	3/4	4 1/2	5

No. WT-116 Holders

For Nos. WT-115 or 21076 tools for bench mounting. Standard package, 1.
No. WT-116, Weight, 2 1/2 Pounds. each \$2.00
Power tools for rapid high production installations are also available. Information on request.

No. 20 T&B Sta-Kon Terminal Kits

Designed for work on electric wires No. 22 to 10 inclusive.

Contents

One box of 100 terminals for wire sizes Nos. 22 to 18, to fit No. 8 or 10 bolt.

One box of 100 terminals for wire size Nos. 16 to 14, to fit No. 8 or 10 bolt.

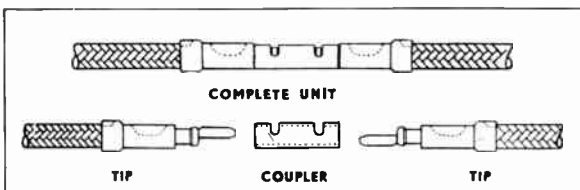
One box of 50 terminals for wire size Nos. 12 to 10, to fit No. 8 or 10 bolt. One installing tool.

No. 20 each \$10.00



T&B Sta-Kon Disconnect Splices

Listed by Underwriters' Laboratories



A quick connect and disconnect splice which employs the Sta-Kon method of terminating the wires to splicer tips, providing an electrical joint which can be made and unmade innumerable times.

Complies with Army Air Corps and Navy Department Bureau of Aeronautics resistance requirements.

Male tips are identical, and when assembled to center section are in wiping contact with each other under constant pressure of beryllium copper center unit.

No.	Description	Wire Size No.	Max. Wire Cap. In.	Min. Wire Cap. In.	Max. Insula-tion Cap. In.	Over-all Diam. In.	Over-all Lgth. In.
A-57	Complete A Splicer	22-18	.050	.025	.115	3/4	1 13/32
A-50	A Tip						
7	A or B Coupler						
B-57	Complete B Splicer	16-14	.080	.051	.140	1 1/4	1 13/32
B-50	B Tip						
7	A or B Coupler						
C-58	Complete C Splicer	12-10	.122	.081	.....	7/32	1 7/16
C-50	C Tip						
8	C Coupler						

Prices and complete information on request.

T&B Lug-Its

Approved by Underwriters' Laboratories, Inc.



For stranded or solid wire. Double thickness at thread gives double thread strength and locking action.

Serrated copper tongue gives high conductivity. Bronze body provides strength.

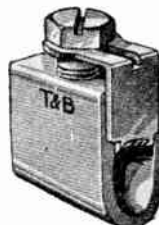
All parts are electro-tinned for enduring contact. Bodies may be purchased separately for assembly to equipment as a "built-in" unit.

WIRE SIZE		No.	Each	Bolt Hole Size In.	Lgth. In.	Width In.	Car-ton	Std. Pkg.	Wt. Lb. per 1000
Min.	Max.								
14	6	35301	\$.10	1/4	1 1/8	3/8	250	1000	24
8	2	35401	.15	1/4	1 7/16	1/2	250	1000	50
4	2/0	35501	.30	1/4	1 13/16	3/4	100	500	115
1/0	4/0	35601	.50	3/8	2 17/32	1	25	100	225

T&B Type PC Parallel Connectors

For Solid or Stranded Wire

Approved by Underwriters' Laboratories



For connecting ends of solid or stranded wire. Can be used for connections of service runs to drops, at motor outlets, for splicing wire in cabinets, etc.

Screw cannot touch the wire. Built-in contact shield is curved and corrugated for maximum conductivity and strength.

WIRE SIZE	No.	No.	Per 100	Width Inches	Height of Body Inches	Thick-ness Inches	Std. Pkg.
Min.	Max.						
8	10	PC-8	\$30.00	7/16	1 7/32	1 1/2	100
6	8	PC-6	32.00	1/2	5/8	3/8	100
4	6	PC-4	40.00	5/8	25/32	1/2	100
2	4	PC-2	55.00	1 1/16	23/32	9/16	100

T&B Solderless Connectors

Approved by Underwriters' Laboratories

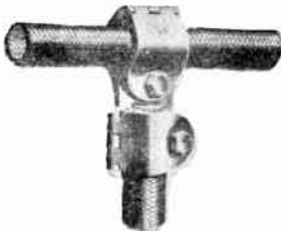
Hinjon Parallel Gutter Taps



Designed to take stranded wire or cable. Precision made for one size only. If other than standard (A.W.G.) stranded wire or cable is to be used, specify conductor.

Size A.W.G. Main and Branch	No.	Each	DIMENSIONS, INCHES	
			Overall Length	Overall Width
4	41002	\$1.20	2 5/8	1 3/4
2	41009	1.20	2 5/8	1 3/4
1/0	41027	1.40	2 5/8	1 3/4
2/0	41035	1.40	2 5/8	1 3/4
3/0	41044	1.60	3 3/16	1 15/16
4/0	41054	2.00	3 3/16	1 15/16
M CM				
250	41065	2.20	3 3/16	1 15/16
300	41077	2.50	3 3/16	1 15/16
350	41090	2.80	3 11/16	2 3/16
400	41104	2.90	3 11/16	2 3/16
500	41135	4.20	3 11/16	2 3/16
750	41230	5.60	5 1/4	2
1000	41350	7.60	5 1/4	2 3/8

Hinjon Cable Tee Taps



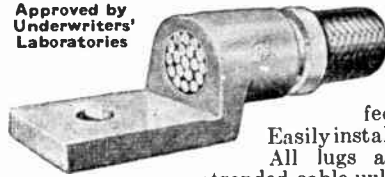
Type TH, Special Tap; Tee Tap Hinjon Main to Multiple Tite-Bind Branch.

Made for specific sizes of conductors. There is a different size for each combination of main and branch, assuring a perfect fit.

Size A.W.G. Main and Branch	No.	Each	DIMENSIONS, INCHES	
			Overall Length	Overall Width
4	40002	\$1.40	2 9/16	1 5/8
2	40009	1.50	2 9/16	1 5/8
1/0	40027	1.80	2 9/16	1 5/8
2/0	40035	2.00	2 9/16	1 5/8
3/0	40044	2.40	3 1/4	1 15/16
4/0	40054	2.40	3 1/4	1 15/16
M CM				
250	40065	3.00	3 1/4	1 15/16
300	40077	3.00	3 1/4	1 15/16
350	40090	4.20	3 25/32	2 7/32
400	40104	4.20	3 25/32	2 7/32
500	40135	5.20	3 25/32	2 7/32
750	40230	8.60	4 1/16	2 5/16
1000	40350	13.20	5 1/4	2 13/16
1250	40398	16.20	6 5/32	3 3/16
1500	40435	20.00	6 5/32	3 3/16
1750	40497	23.00	6 13/16	3 17/32
2000	40569	27.00	6 13/16	3 17/32

T&B Tite-Bind Lugs

Approved by Underwriters' Laboratories



Precision-made for one size cable for each size lug.

Tapred cone construction insures perfect, permanent contact.

Easily installed with only a wrench. All lugs are designed to take stranded cable unless otherwise noted.

One-Bolt Hole

Cable Size No.	No.	Each	Cable Size MCM	No.	Each
8	22122	\$.40	350	22148	\$2.40
6	22124	.50	400	22149	2.40
4	22126	.50	500	22151	2.90
2	22132	.70	750	22156	5.00
1/0	22138	.90	1000	22161	5.80
2/0	22140	1.10	1250	22164	8.20
4/0	22144	1.50	1500	22167	11.00
MCM			1750	22170	12.80
250	22146	1.90	2000	22173	14.80
300	22147	1.90	.....	.....	.....

Table lists popular sizes. Many other 1-bolt and 2-bolt lugs are available upon order.

T&B Tite-Bind Connectors

Approved by Underwriters' Laboratories



Two-Way



Three-Way

Two-Way connectors are available in the same range of cable sizes as Tite-Bind lugs listed above.

Three-Way connectors are available in the same range of cable sizes as Tite-Bind lugs listed above. Can also be furnished in any combination of sizes.

T&B Hinjon Junior Tee-Parallel Tap-In-One

Approved by Underwriters' Laboratories



Will take any type wire, cable, or tubing that will go into the fitting.

Installation consists of skinning the main, inserting the branch and tightening. Tightening locks the threads; vibration-proof.

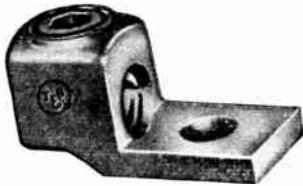
Made of high conductivity bronze.

No.	CABLE SIZE		Each
	Main	Branch	
35107	No. 8 to 4	No. 14 to 8	\$.85
35108	No. 8 to 4	No. 8 to 4	.90
35109	No. 4 to 1/0	No. 14 to 4	1.00
35110	No. 4 to 1/0	No. 4 to 1	1.20
35111	1/0 to 4/0	No. 14 to 4	1.40
35112	1/0 to 4/0	No. 8 to 1	1.50
35113	4/0 to 300,000 C.M.	No. 14 to 4	1.60
35114	4/0 to 300,000 C.M.	No. 8 to 1	1.80
35115	300,000 to 500,000 C.M.	No. 14 to 4	2.30
35116	300,000 to 500,000 C.M.	No. 8 to 1	2.80
35118	500,000 to 750,000 C.M.	No. 14 to 1	3.60
35120	750,000 to 1,000,000 C.M.	No. 14 to 1	4.80

CONNECTORS
We can supply Connectors for Aluminum Conductors

T&B Lock-Tite Lugs

Approved by Underwriters' Laboratories



Fits any kind of cable—solid, flexible, stranded hemp-core, etc. Easily installed with key wrench. Resists vibration because it is locked tight. Has a sturdy, overlapping cable-shield which nests inside an oval-shaped recess in the body.

A shake-proof locking disc, built into the cable shield, assures permanent tightness.

Single Bolt Hole

CABLE SIZE No.	Lug		Key Wrench	
	No.	Each	No.	Each
4-1	31007	\$.70	30	\$.20
1-2/0	31009	1.10	30	.20
2/0-4/0	31011	1.50	30	.20
4/0- 300M CM	31013	1.90	50	.30
300- 500M CM	31015	2.90	50	.30
500- 750M CM	31017	5.00	50	.30
750-1000M CM	31019	5.80	50	.30

T&B Lock-Tite Stud Connectors



Suitable for all types of connections, from cable to flat bus, or to any device with a drilled hole.

Also used for current transformer installations, and for attaching ground to steel transmission towers.

T&B Lock-Tite Tee-Parallel Taps

Approved by Underwriters' Laboratories

Will do the work of 264 conventional type tee and parallel taps. Takes any type wire within its range as well as round or tubular bus of equivalent diameters. Body sizes open wide to allow easiest imaginable assembly to main and branch.

One-piece; no detachable parts.

Can be used in any position; the branch can be run above, below or alongside the main on a parallel job; above, or below the main on a tee job, by swinging the tap to desired position.



No.	Main	Branch	Each
35003	1/0 to 4/0	No. 2 Solid & Strand to No. 1	\$1.80
35005	1/0 to 4/0	1/0 to 4/0	2.40
35007	4/0 to 300 M.C.M.	No. 2 Solid & Strand to 1/0	2.20
35009	4/0 to 300 M.C.M.	2/0 to 300 M.C.M.	3.00
35011	300 to 500 M.C.M.	No. 2 Solid & Strand to 3/0	3.90
35013	300 to 500 M.C.M.	4/0 to 500 M.C.M.	5.20
35015	500 to 750 M.C.M.	No. 2 Solid & Strand to 3/0	5.50
35017	500 to 750 M.C.M.	4/0 to 500 M.C.M.	7.00
35019	500 to 750 M.C.M.	500 to 750 M.C.M.	8.60
35021	750 to 1000 M.C.M.	No. 2 Solid & Strand to 3/0	6.50
35023	750 to 1000 M.C.M.	4/0 to 500 M.C.M.	8.40
35025	750 to 1000 M.C.M.	500 to 750 M.C.M.	11.00
35027	750 to 1000 M.C.M.	750 to 1000 M.C.M.	13.20

*With 2 clamping screws.

T&B Lock-Tite Two-Way Connectors

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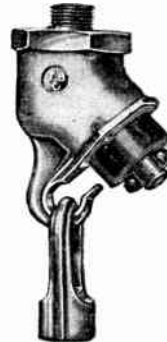


CABLE SIZE No.	Connector No.	Each	Key Wrench No.	Each
4-1	32507	\$1.00	30	\$.20
1-2/0	32509	1.50	30	.20
2/0-4/0	32511	2.20	30	.20
4/0- 300M CM	32513	3.00	50	.30
300- 500M CM	32515	5.20	50	.30
500- 750M CM	32517	8.00	50	.30
750-1000M CM	32519	10.00	50	.30

T&B Disconnect Hangers

10 Amperes, 250 Volts

Listed Under Reexamination Service of Underwriters' Laboratories



Provides a safety disconnect for light and power circuits. Can be used with other types of industrial lighting fixtures.

Made of tough malleable iron. Each hanger consists of a locking hook with a polarized receptacle and a bushed loop. Supports the fixture or pendant outlet and cannot be unhooked until the plug is out and the fixture dead. The plug closes the hook so the loop cannot be removed while the plug is in place.

To unhook for either cleaning the fixture or replacing burnt out bulbs, simply pull out plug and lift the loop over the open hook.

Loops have standard female threads. Are easily transformed to the same size male threads by use of close nipple. The male threads on the locking hooks can be converted to female thread by use of a standard conduit coupling.

Disconnect Hangers

With 2-Wire Receptacle and Bushed Loops

No.	Each	Male Thrd. on Hook In.	Female Thrd. on Loop In.	Std. Pkg.	Weight Pounds per 100
6140	\$2.75	1/2	1/2	10	100
6141	2.75	1/2	3/4	10	105
6142	2.75	3/4	1/2	10	110
6143	2.75	3/4	3/4	10	115

With 3-Wire Receptacle and Bushed Loops

No.	Each	Male Thrd. on Hook In.	Female Thrd. on Loop In.	Std. Pkg.	Weight Pounds per 100
6144	\$6.00	1/2	1/2	10	130
6145	6.00	1/2	3/4	10	135
6146	6.00	3/4	1/2	10	140
6147	6.00	3/4	3/4	10	145

Disconnect Cushion Hangers

With 2-Wire Receptacle and Cushion Loop

No.	Each	Male Thrd. on Hook In.	Loop for Weight Pounds	Std. Pkg.	Weight Pounds per 100
6160	\$3.25	1/2	3 to 6	10	120
6161	3.25	1/2	6 to 12	10	120
6162	3.25	1/2	12 to 24	10	120
6163	3.25	3/4	3 to 6	10	130
6164	3.25	3/4	6 to 12	10	130
6165	3.25	3/4	12 to 24	10	130

With 3-Wire Receptacle and Cushion Loop

No.	Each	Male Thrd. on Hook In.	Loop for Weight Pounds	Std. Pkg.	Weight Pounds per 100
6170	\$6.50	1/2	3 to 6	10	150
6171	6.50	1/2	6 to 12	10	150
6172	6.50	1/2	12 to 24	10	150
6173	6.50	1/2	3 to 6	10	160
6174	6.50	1/2	6 to 12	10	160
6175	6.50	1/2	12 to 24	10	160

O.Z. Type XW Combination 2-Way Connectors



High clamping pressure is exerted by the pressure plates, insuring high conductivity.

Can be used as a reducing connector within the wire limitations of each fitting. Wrenches for socket set-screws furnished without cost. Covers cannot be furnished.

No.	Each	CONDUCTOR RANGE EITHER END	
		Minimum	Maximum
XW0101	\$.50	No. 4 Sol.	No. 1 Str.
XW2222	.75	1 Str.	2/0 Str.
XW2424	1.10	2/0 Str.	4/0 Str.
XW3030	1.50	4/0 Str.	300 Mem
XW5050	2.60	300 Mem	500 Mem
XW7575	4.00	500 Mem	750 Mem
XW9292	5.00	750 Mem	1000 Mem

O.Z. Type XLH Solderless Combination Lugs

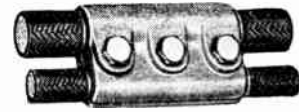


Cast copper alloy fitting made so high clamping pressure is exerted by pressure plate insuring high conductivity.

Available with socket set-screws at same price.

No.	Each	CONDUCTOR RANGE	
		Minimum	Maximum
XLH041	\$.25	1 No. 8 Sol.	No. 4 Str.
XLH011	.35	1 4 Sol.	1 Str.
XLH012	.45	2 4 Sol.	1 Str.
XLH221	.55	1 1 Str.	2/0 Str.
XLH222	.65	2 1 Str.	2/0 Str.
XLH241	.75	1 2/0 Str.	4/0 Str.
XLH242	.85	2 2/0 Str.	4/0 Str.
XLH301	.95	1 4/0 Str.	300 Mem
XLH302	1.05	2 4/0 Str.	300 Mem
XLH501	1.45	1 300 Mem	500 Mem
XLH502	1.65	2 300 Mem	500 Mem
XLH751	2.50	1 500 Mem	750 Mem
XLH752	2.50	2 500 Mem	750 Mem
XLH921	2.90	1 750 Mem	1000 Mem
XLH922	3.20	2 750 Mem	1000 Mem

O.Z. Type PC Parallel Cable Clamps



Used for connecting parallel wire.

Made of high copper alloy, insuring high conductivity and corrosion resistance.

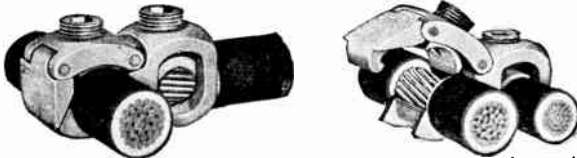
High bolting pressure is exerted by Everdur bolts, nuts and lock washers.

Sizes other than listed available upon request.

CABLE SIZE Main No.	CABLE SIZE Tap No.	No.	Each	CABLE SIZE Main MCM	CABLE SIZE Tap No.	No.	Each
2	4	PC'0204	1.05	400	*350	PC'4035	3.60
2	2	PC'0202	1.05	400	*400	PC'4040	3.60
1	4	PC'0104	1.10	500	1/0	PC'5021	3.60
1	2	PC'0102	1.10	500	2/0	PC'5022	3.60
1	1	PC'0101	1.10	500	3/0	PC'5023	3.60
1/0	4	PC'2104	1.20	500	4/0	PC'5024	3.60
1/0	2	PC'2102	1.20	500	*250	PC'5025	3.60
1/0	1	PC'2101	1.20	500	*300	PC'5030	3.60
1/0	1/0	PC'2121	1.20	500	*350	PC'5035	3.60
2/0	4	PC'2204	1.20	500	*400	PC'5040	3.60
2/0	2	PC'2202	1.20	500	*500	PC'5050	3.60
2/0	1	PC'2201	1.20	600	1/0	PC'6021	4.50
2/0	1/0	PC'2221	1.20	600	2/0	PC'6022	4.50
2/0	2/0	PC'2222	1.20	600	3/0	PC'6023	4.50
3/0	4	PC'2304	1.95	600	4/0	PC'6024	4.50
3/0	2	PC'2302	1.95	600	*250	PC'6025	4.50
3/0	1	PC'2301	1.95	600	*300	PC'6030	4.50
3/0	1/0	PC'2321	1.95	600	*350	PC'6035	4.50
3/0	2/0	PC'2322	1.95	600	*400	PC'6040	4.50
3/0	3/0	PC'2323	1.95	600	*500	PC'6050	4.50
4/0	4	PC'2404	1.95	600	*600	PC'6060	4.50
4/0	2	PC'2402	1.95	700	1/0	PC'7021	5.00
4/0	1	PC'2401	1.95	700	2/0	PC'7022	5.00
4/0	1/0	PC'2421	1.95	700	3/0	PC'7023	5.00
4/0	2/0	PC'2422	1.95	700	4/0	PC'7024	5.00
4/0	3/0	PC'2423	1.95	700	*250	PC'7025	5.00
4/0	4/0	PC'2424	1.95	700	*300	PC'7030	5.00
MCM				700	*350	PC'7035	5.00
250	4	PC'2504	2.55	700	*400	PC'7040	5.00
250	2	PC'2502	2.55	700	*500	PC'7050	5.00
250	1	PC'2501	2.55	700	*600	PC'7060	5.00
250	1/0	PC'2521	2.55	700	*700	PC'7070	5.00
250	2/0	PC'2522	2.55	750	1/0	PC'7521	5.45
250	3/0	PC'2523	2.55	750	2/0	PC'7522	5.45
250	4/0	PC'2524	2.55	750	3/0	PC'7523	5.45
250	*250	PC'2525	2.55	750	4/0	PC'7524	5.45
300	4	PC'3004	2.55	750	*250	PC'7525	5.45
300	2	PC'3002	2.55	750	*300	PC'7530	5.45
300	1	PC'3001	2.55	750	*350	PC'7535	5.45
300	1/0	PC'3021	2.55	750	*400	PC'7540	5.45
300	2/0	PC'3022	2.55	750	*500	PC'7550	5.45
300	3/0	PC'3023	2.55	750	*600	PC'7560	5.45
300	4/0	PC'3024	2.55	750	*700	PC'7570	5.45
300	*250	PC'3025	2.55	750	*750	PC'7575	5.45
300	*300	PC'3030	2.55	750			
350	1/0	PC'3521	3.60	1000	4/0	PC'9224	6.70
350	2/0	PC'3522	3.60	1000	*250	PC'9225	6.70
350	3/0	PC'3523	3.60	1000	*300	PC'9230	6.70
350	4/0	PC'3524	3.60	1000	*350	PC'9235	6.70
350	*250	PC'3525	3.60	1000	*400	PC'9240	6.70
350	*300	PC'3530	3.60	1000	*500	PC'9250	6.70
350	*350	PC'3535	3.60	1000	*600	PC'9260	6.70
400	1/0	PC'4021	3.60	1000	*700	PC'9270	6.70
400	2/0	PC'4022	3.60	1000	*750	PC'9275	6.70
400	3/0	PC'4023	3.60	1000	*800	PC'9280	6.70
400	4/0	PC'4024	3.60	1000	*900	PC'9290	6.70
400	*250	PC'4025	3.60	1000	*1000	PC'9292	6.70

*MCM

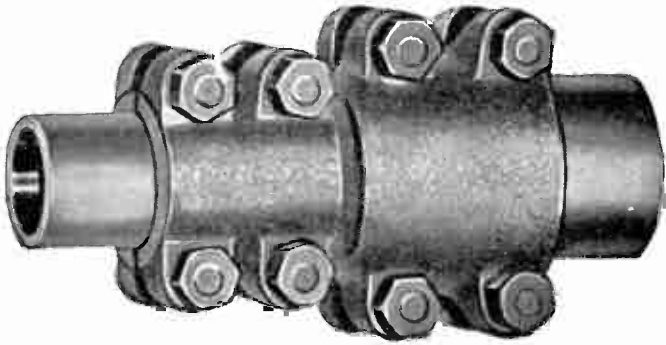
O.Z. Type XTP Combination Parallel & T Connectors



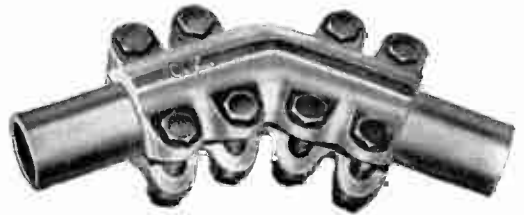
Used as either a T or parallel tap, designed to take a wide range of wire sizes on main or tap. One-piece construction eliminates detachable parts and permits easy assembly. Castings are of high conductive copper alloy. Connection with main feeder line is made by closing hinge over cable.

No.	Each	CONDUCTOR RANGE	
		Main	Tap
XTP2104	\$.75	4-1/0	8-4
XTP2121	.90	4-1/0	4-1/0
XTP2404	.80	1/0-4/0	8-4
XTP2421	.95	1/0-4/0	4-1/0
XTP2424	1.20	1/0-4/0	1/0-4/0
XTP3004	.90	4/0-300MCM	8-4
XTP3021	1.10	4/0-300MCM	4-1/0
XTP3024	1.35	4/0-300MCM	1/0-4/0
XTP3030	1.50	4/0-300MCM	4/0-300MCM
XTP5004	1.50	300MCM-500MCM	8-4
XTP5021	1.70	300MCM-500MCM	4-1/0
XTP5024	1.95	300MCM-500MCM	1/0-4/0
XTP5030	2.10	300MCM-500MCM	4/0-300MCM
XTP5050	2.60	300MCM-500MCM	300MCM-500MCM
XTP7521	2.50	500MCM-750MCM	4-1/0
XTP7524	2.75	500MCM-750MCM	1/0-4/0
XTP7530	2.90	500MCM-750MCM	4/0-300MCM
XTP7550	3.50	500MCM-750MCM	300MCM-500MCM
XTP7575	4.30	500MCM-750MCM	500MCM-750MCM
XTP9221	3.00	750MCM-1000MCM	4-1/0
XTP9224	3.25	750MCM-1000MCM	1/0-4/0
XTP9230	3.50	750MCM-1000MCM	4/0-300MCM
XTP9250	4.20	750MCM-1000MCM	300MCM-500MCM
XTP9275	5.50	750MCM-1000MCM	500MCM-750MCM
XTP9292	6.00	750MCM-1000MCM	750MCM-1000MCM

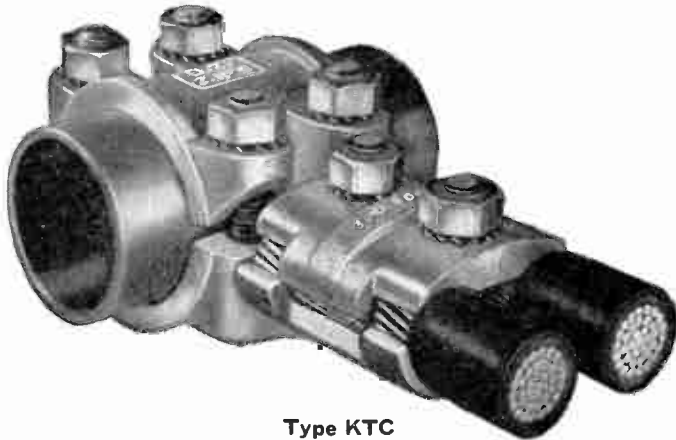
O. Z. Power Connectors



Type UM



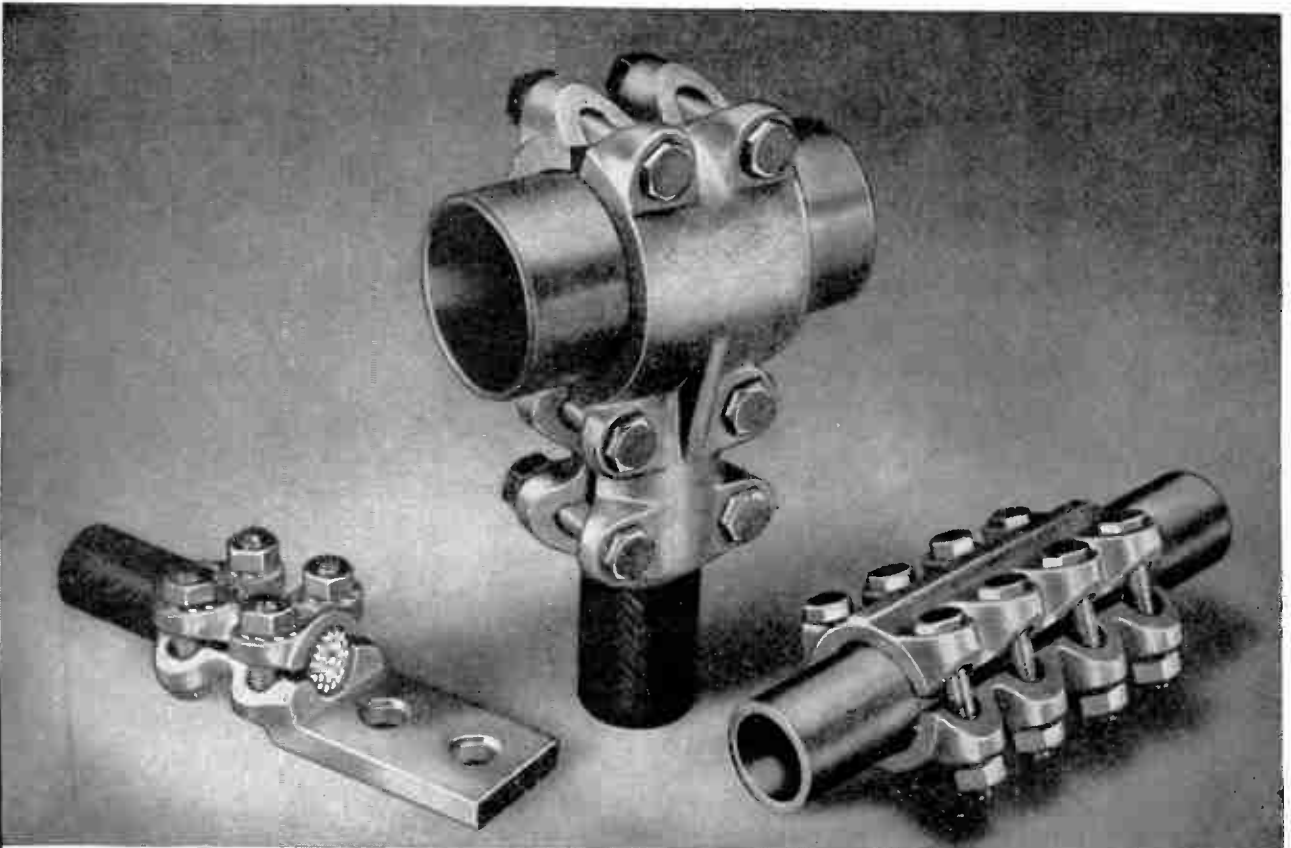
Type UA



Type KTC

HEX-CUP construction makes these fittings easy to install as only one tool is required for installation.

Prices on the types illustrated and on types **HT, UT, HW, HM, KM, HL, UA, UE, UWT,** and **UWX** are furnished upon request.

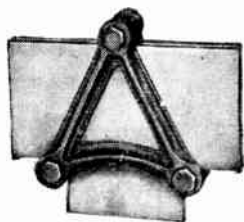


Type HL

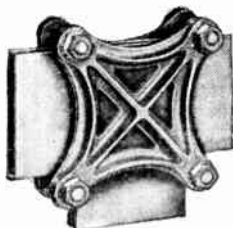
Type KT

Type UW

O.Z. Bronze Bus Bar Clamps



Type AC



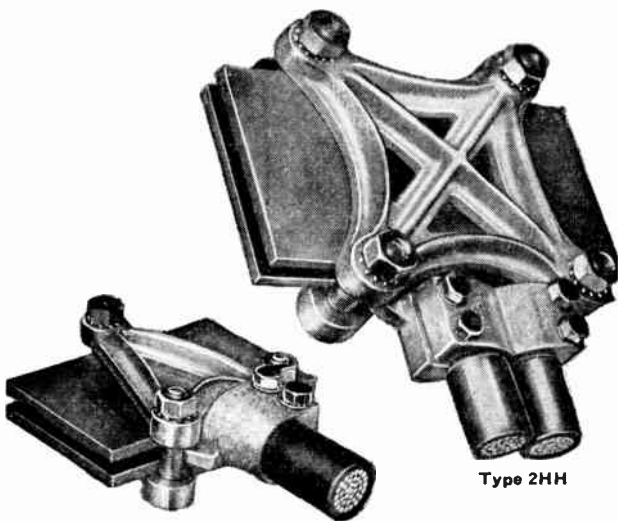
Type HC

Both halves are made of bronze. Bolts are made of Everdur alloy.

Sizes other than listed are available upon request.

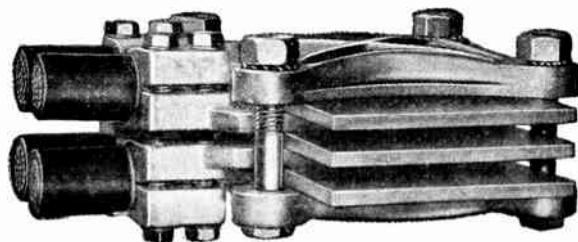
WIDTH OF BARS, IN. Main	Tap	Type AC		Type HC		DIMENSIONS, INCHES		
		No.	Each	No.	Each	Length	Width	Height
2	2	AC22	\$2.00	HC22	\$2.60	3 1/4	3 1/4	3/4
3	2	AC32	2.20	HC32	2.80	4 5/16	3 9/16	13/16
3	3	AC33	2.30	HC33	2.90	4 1/2	4 1/2	7/8
4	2	AC42	2.80	HC42	3.50	5 5/16	3 9/16	13/16
4	3	AC43	3.00	HC43	3.80	5 1/2	4 1/2	7/8
4	4	AC44	3.10	HC44	3.90	5 11/16	5 11/16	1 15/16
5	2	AC52	4.00	HC52	5.20	6 1/2	3 1/2	1 15/16
5	3	AC53	4.30	HC53	5.50	6 1/2	4 1/2	1 15/16
5	4	AC54	4.50	HC54	5.70	6 11/16	5 11/16	1 15/16
5	5	AC55	4.70	HC55	5.90	6 11/16	6 11/16	1 11/16
6	2	AC62	6.80	HC62	8.80	7 1/2	3 1/2	1
6	3	AC63	7.20	HC63	9.20	7 1/2	4 1/2	1
6	4	AC64	7.40	HC64	9.40	7 11/16	5 11/16	1 11/16
6	5	AC65	7.60	HC65	9.60	7 11/16	6 11/16	1 11/16
6	6	AC66	7.80	HC66	9.80	8 1/16	8 1/16	1 1/4

O.Z. Bus Bar Clamps and Lug T-Connections



Type 1HA

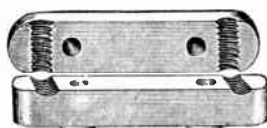
Type 2HH



Type 4HH

Available in types ULA and ULH for bus bar to tube connections. Prices on request.

No. 334 Standard 2-Wire Porcelain Cleats

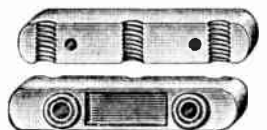


Cat. No.	334
Glazed.....per 1000	\$90.00
Unglazed.....per 1000	52.00
Height.....inches	1 1/8
Width.....inches	1 1/16
Length.....inches	3 1/2
Size Wire.....inches	12 to 14

Std. Pkg..... pairs 2000

Wt. per 1000.....pounds 225

No. 337 Standard 3-Wire Porcelain Cleats



Cat. No.	337
Height.....inches	1 1/8
Width.....inches	1 1/16
Length.....inches	3 1/2
Size Wire.....gauge	12 to 14
No. Prs. per Std. Bbl.	2000
Wt. per 1000.....lb.	225

Glazed.....per 1000 \$90.00

Unglazed.....\$52.00

One-Wire Glazed Cleats

White Glaze Standard



The Style R (regular) wire grooves are 1/2 inch from surface of both cap and base.

Style A wire grooves are 1 inch from surface to base, and 1/2 inch from surface of cap.

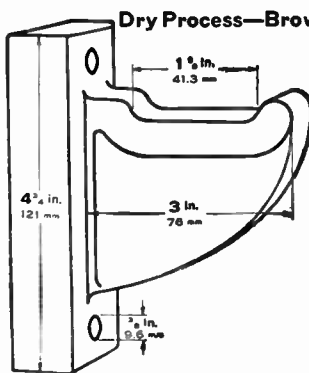
Style B wire grooves are 1 inch from surface of both cap and base.



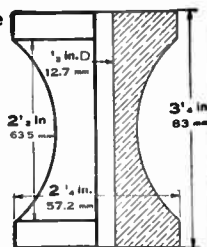
Style A

Cat. No.	Per 1000 Pair	Takes Wire Sizes	Size Groove In.	No. Pr. per Barrel	Ship. Wt. per 1000 Pair	Lb.
1R	\$74.00	14-2	3/16 - 1/2	2800	170	
1A	80.00	14-2	3/16 - 1/2	2400	220	
1B	86.00	14-2	3/16 - 1/2	1800	270	
1 1/2 R	96.00	6-1	3/8 - 9/16	1800	260	
1 1/2 A	108.00	6-1	3/8 - 9/16	1400	340	
1 1/2 B	120.00	6-1	3/8 - 9/16	1150	420	
2R	110.00	4-00	7/16 - 1 1/16	1500	310	
2A	120.00	4-00	7/16 - 1 1/16	1200	395	
2B	140.00	4-00	7/16 - 1 1/16	1000	480	
2 1/2 R	140.00	4-0000	7/16 - 3/4	950	500	
2 1/2 A	156.00	4-0000	7/16 - 3/4	800	575	
2 1/2 B	172.00	4-0000	7/16 - 3/4	750	650	
3R	180.00	2-400M	1/2 - 1	800	560	
3A	196.00	2-400M	1/2 - 1	700	650	
3B	212.00	2-400M	1/2 - 1	650	740	
3 1/2 B	260.00	10 Duplex Parallel	.....	450	900	
3 3/4 B	260.00	000-700MCM	3/4 - 1 1/4	450	1000	
4B	330.00	600MCM-900MCM	1 1/8 - 1 3/8	375	1400	
4 1/4 B	500.00	800MCM-1250MCM	1 5/16 - 1 5/8	250	2300	
4 1/2 B	620.00	1MMCM-2MMCM	1 5/8 - 2 1/4	300	2700	

Porcelain Crane Insulators



No. 6583



No. 61

Any quantity, no standard package.

No. 6583 5

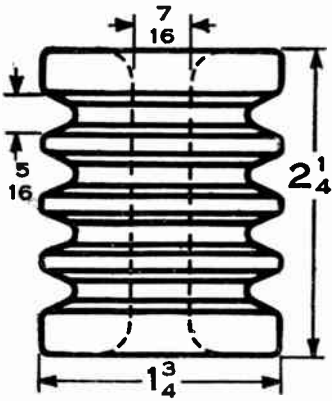
Gross Wt. per 100.....lb. 150 7

Prices upon application

Porcelain Telephone Knobs

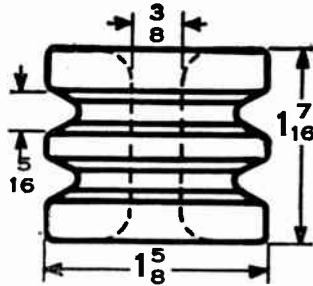
Dry Process Porcelain

No. 6062



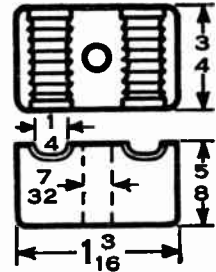
No. 6062
 No. in Barrel..... 1000
 Ship. Wt. per Barrel.....lb. 375

No. 6061



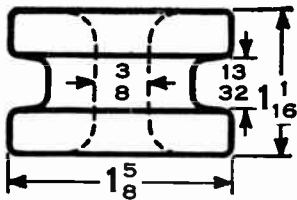
No. 6061
 No. in Barrel..... 2000
 Ship. Wt. per Barrel.....lb. 455

No. 7137-C



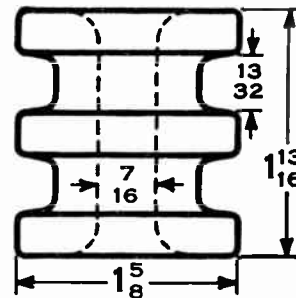
No. 7137-C
 No. in Barrel..... 5000
 Ship. Wt. per Barrel.....lb. 460

No. 7138-S



No. 7138-S
 No. in Barrel..... 2500
 Ship. Wt. per Barrel.....lb. 375

No. 7139-T

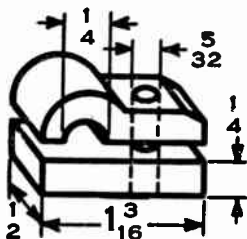


No. 7139-T
 No. in Barrel..... 1500
 Ship. Wt. per Barrel.....lb. 360

Porcelain Telephone Cleats

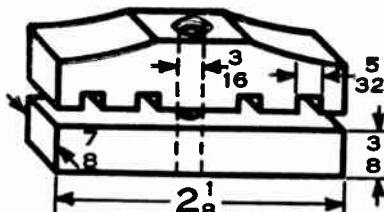
Drop Process Porcelain

No. 333, Top
 No. 333 1/2, Base



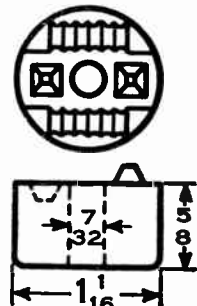
No. 333 333 1/2
 No. in Barrel..... 21,500 22,000
 Ship. Wt. per Barrel.....lb. 465 475

No. 314, Top
 No. 315, Base



No. 314 315
 No. in Barrel..... 3000 3000
 Ship. Wt. per Barrel.....lb. 350 375

No. 6250



No. 6250
 No. in Barrel..... 5000
 Ship. Wt. per Barrel.....lb. 460

Porcelain Tubes



Approximate Number of Standard Tubes per Barrel and Approximate Shipping Weights per 1000

Length Under Head Inches	5/16-Inch Hole 1 1/16-Inch O.D.			3/8-Inch Hole 1 1/16-Inch O.D.			1/2-Inch Hole 1 5/16-Inch O.D.		
	Tubes per Barrel	Per 100	Wt. Lb. per 1000	Tubes per Barrel	Per 100	Wt. Lb. per 1000	Tubes per Barrel	Per 100	Wt. Lb. per 1000
1/2	13000	\$1.60	26	12000	\$2.00	30	5500	\$2.70	56
1	9500	1.70	32	8800	2.10	37	4200	2.80	74
1 1/2	8200	1.80	40	7500	2.20	48	3500	3.00	86
2	7000	1.90	45	6000	2.40	54	3000	3.30	100
2 1/2	5500	2.10	58	4000	2.70	76			
3	4500	2.30	62	3100	3.00	107	2500	3.70	114
4	3600	3.00	80	2000	4.00	117	2000	4.80	138
5	2900	3.90	100	1900	5.00	142	1600	6.00	169
6	2000	5.00	118	1500	6.00	183	1300	7.20	204
8	2000	9.00	155	1200	10.50	225	1000	13.00	255
10	1600	16.70	194	1000	18.60	275	900	21.50	311
12	1050	24.40	244	800	26.70	350	800	30.00	344
14	900	32.10	333	650	34.80	400	700	38.50	393
16	750	39.80	387	550	42.90	483	550	47.00	500
18	650	47.50	435	450	51.00	580	450	55.50	589
20	550	55.20	485	400	59.10	644	400	64.00	665
24	500	70.60	535	350	75.30	725	350	81.00	727

Length Under Head Inches	3/8-Inch Hole 1 1/16-Inch O.D.			1/2-Inch Hole 1 1/16-Inch O.D.			1-Inch Hole 1 7/16-Inch O.D.		
	Tubes per Barrel	Per 100	Wt. Lb. per 1000	Tubes per Barrel	Per 100	Wt. Lb. per 1000	Tubes per Barrel	Per 100	Wt. Lb. per 1000
1	3700	\$4.00	78	3000	\$6.00	93			
1 1/2	3000	4.60	97	2200	7.00	127	1400	\$11.20	193
2	2500	5.20	112	1700	8.00	159	1000	12.50	260
2 1/2	2200	5.80	127	1400	9.00	193	800	13.80	325
3	2000	6.50	135	1200	10.00	217	650	15.00	385
4	1750	8.00	149	1000	11.60	250	550	16.80	436
5	1450	9.50	155	900	13.20	239	500	18.60	440
6	950	11.00	226	550	14.80	373	450	20.40	489
8	680	14.00	294	450	18.00	444	400	24.00	525
10	550	25.00	364	300	29.00	667	280	37.50	750
12	500	34.00	400	250	39.00	800	220	50.00	955
14	450	43.00	444	200	49.20	900	180	62.50	1167
16	400	52.00	500	200	59.40	1000	160	75.00	1312
18	350	61.00	571	175	69.60	1100	150	87.50	1400
20	350	70.00	700	175	79.80	1200	120	100.00	1750
24	300	88.00	800	150	100.00	1334	100	125.00	2100

Length Under Head Inches	1 1/4-Inch Hole 1 3/16-Inch O.D.			1 1/2-Inch Hole 2 1/16-Inch O.D.			1 3/4-Inch Hole 2 5/16-Inch O.D.		
	Tubes per Barrel	Per 100	Wt. Lb. per 1000	Tubes per Barrel	Per 100	Wt. Lb. per 1000	Tubes per Barrel	Per 100	Wt. Lb. per 1000
2 1/2	450	\$19.00	578	325	\$25.50	815	275	\$34.00	982
3	400	21.00	650	300	28.00	883	250	37.00	1080
4	350	24.00	714	250	32.00	1020	225	44.50	1156
5	325	27.20	708	180	36.00	1306	160	52.00	1500
6	275	30.60	836	160	40.50	1407	140	60.00	1714
8	220	37.60	1000	140	49.00	1607	120	75.00	1917
10	200	45.00	1100	120	58.00	1875	100	90.00	2300
12	160	70.00	1375	100	102.50	2250	90	160.00	2556
14	120	87.00	1833	80	123.50	2812	75	190.00	3067
16	100	104.00	2200	60	144.50	3750	55	220.00	4182
18	80	121.00	2750	50	166.00	4500	45	250.00	5111
20	60	138.00	3200	45	187.50	4800	40	280.00	5500
24	60	172.00	3667	45	230.00	5000	40	340.00	5750

Nail Assembled Split Knobs



Consists of cap, base, 10d nail and nail head assembled. Has two grooves and will take wire sizes 12 to 14.

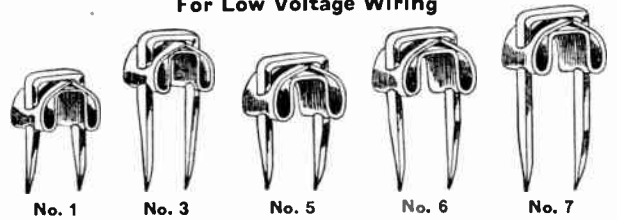
No.	5 1/2 Split
Diameter	1 3/16 inches
Height	1 inch
No. per Barrel	3000
Shipping Weight per Barrel	490 pounds

Screw Assembled Split Knobs

Consists of base, cap and 3-inch screw assembled. No 5 1/2 Split and Detroit have 2 grooves, and take wire sizes 12 to 14. Nos. 9419 and 9420, 4 grooves, take wire sizes 10 to 12 and 4 to 6 respectively.

No.	5 1/2 Split	Detroit	9419	9420
Diameter	1 3/16 inches	1 1/4	1 1/2	1 5/16
Height Base	1 inches	1 1/16	1 3/32	1 7/32
No. per Barrel	3000	3000	1500	875
Ship. Wt. per Barrel	415 lb.	450	415	430

Superior Standard Insulated Staples For Low Voltage Wiring



100 Size—For Industrial and Telephone Use

Coppered insulated staples packed 100 to the box, 1000 to the container, 25 boxes to the standard carton. Nos. 1, 3, or 5..... per 1000 \$1.90 Nos. 6 or 7..... per 1000 2.00

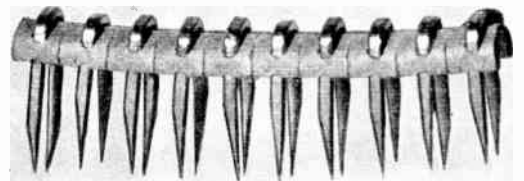
50 Size—For Commercial and Household Use

Coppered insulated staples packed 50 to a box, 1000 to a container, 25 boxes to the standard carton. Furnished in red-white-blue cellophane window boxes. Nos. 1, 3, or 5..... per 1000 \$2.00

40 Size—For Commercial and Home Use

Colored insulated staples packed 40 to the box, 1000 to the container, 25 boxes to the standard carton. Available in white, brown, or ivory finish. Furnished in display cartons with cellophane window boxes. Nos. 1, 3, or 5..... per 1000 \$2.50 Add 12 cents to prices for white finish.

Superior Strip-Insulated Staples



Designed for use where special packaging is required in kits which are sold by manufacturers of thermostat, radio, and electronic equipment.

Made in strips of 10 staples.

100 Size—For Telephone and Industrial Use

Coppered insulated staples packed 100 to the box, 1000 to the container, and 25 boxes to the standard carton. Furnished in sizes No. 1 or 3.

Nos. 1 or 3, Packed in containers	per 1000 \$3.50
Nos. 1 or 3, Packed in Bulk	per 1000 3.00

40 Size—For Commercial and Home Use

Available in brown, ivory, and white. Packed 40 to the open-face box, 1000 to the container 25 boxes to the standard carton. Furnished in sizes No. 1 or 3. Nos. 1 or 3..... per 1000 \$5.00 Add 12 cents to prices for white finish.

No. F4 Superior Insulated Fiber Washer Telephone Wiring Nails



Made in sizes of 1/2 and 7/8-inch.
Available in white, brown, and ivory.
Packed 100 size.

No. F4..... per 1000 \$4.24

No. F5 Superior Plastic Wiring Nails



Insures permanent installation, permanent color, and a secure grip on all inside wiring including synthetic wire.

Made in sizes of 1/2 and 7/8-inch.
Available in white, brown, and ivory.

Packed 100 to the box, 10 boxes to a container, and 25 containers in a shipping carton, which totals 25,000 nails. Shipping weight per carton, 30 pounds.

No. F5..... per 1000 \$7.10

Superior All Steel Metal Wiring Nails



For inside and outside low voltage electrical wiring. Made in sizes of 1/2 and 7/8-inch.

Available in olive drab, brown, ivory, and white.
Packed 100 size, 1000 to the container, 25,000 to the standard carton.

No. IW9, 1/2-Inch..... per 1000 \$3.50

No. IW10, 7/8-Inch..... per 1000 3.50

Add 12 cents per 1000 to prices for white finish.

No. 18 Superior Fiber Head Wiring and Upholstering Nails

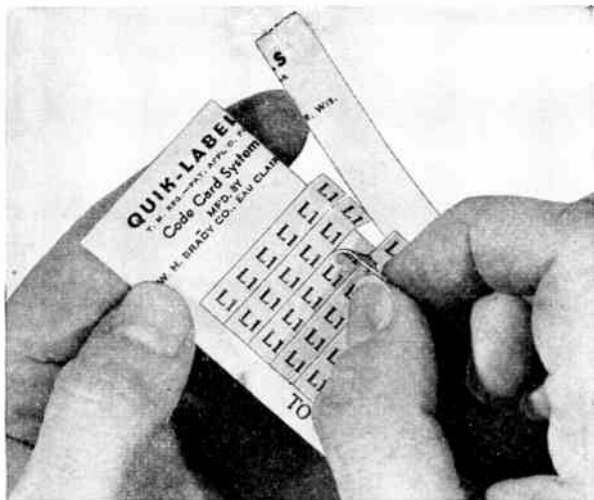


Made in sizes of 5/8 and 7/8-inch.
Available in white, brown, and green finish.
Packed either 100 size (1000 to the container) or 1000 size.

Add 12 cents to above for white finish.

No. 18, Packed 1000 Size..... per 1000 \$2.60
No. 18, Packed 100 Size..... per 1000 2.84

Brady Quik-Label Wire Markers



Used for marking electrical wires.

Self-adhesive feature makes labels stick without moistening. Labels come in rows on handy cards.

Plastic coated for resistance to dirt, oil, fumes, water, weather, abrasion, and handling.

Have high dielectric strength, preventing shorts. Will not creep, lift, break, chip, slur or fall off wire.

Available in 400 standard N.E.M.A. electrical symbols, including 15 colors. Symbols are always visible with the wire in any position as the label goes all around the wire.

Labels are 1 1/2 inches long and can be cut horizontally through the middle for small diameter wires to provide individual 3/4-inch labels.

Features a self-starter strip, which partly peels each label automatically.

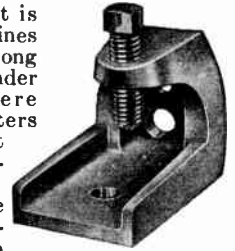
Write for complete list of cards and prices.

Steel City Universal Insulator Supports



Nos. 500, 501, 502 and 503

This support is for use where lines are to be run along steel girders, under roofs, or where cramped quarters will not permit nailing up insulators.



Nos. 505 and 506

Malleable iron; cadmium-plated, electro galvanized or

sherardized, with cupped steel set screws. Prices include leather washers. Standard tapped as listed but can be tapped as specified at no extra cost.

No.	Per 100	Standard Tapping	Size In.	Jaw Open. In.	Std. Pkg.	Approx. Wt., Lb. per 100
500	\$36.00	1/4-20	1	3/4	100	20
509	36.00	10-24	1	3/4	100	20
501	60.00	5/16-18	1 1/2	3/4	100	50
502	103.20	3/8-16	2	7/8	100	86
503	144.00	1/2-13	2 1/2	7/8	50	150
507	158.40	1/2-13	2 1/2	1 1/4	50	150
508	198.00	1/2-13	2 1/2	2	50	188

Long Base

*505	\$72.00	*10-24	1 1/2	3/4	100	75
506	108.00	10-24, 1/2-13	2	1	100	117

*3/8-inch clearance.

Accessories

Furnished only when specified and at additional cost. If desired, specify number of accessory. Standard package, 100.

Machine Screws

Screws not listed are also available; prices on request.

No.	Per 100	Size In.	Description	Std. Insulator No.	Universal Insulator Support Recommended
600	\$3.60	2 1/4	No. 10-24 Flat Head	5 1/2 Split	500
601	3.60	2	No. 14-20 Flat Head	5 1/2	500
602	6.00	2 1/4	No. 18-18 Flat Head	4 1/2	501
603	10.80	3 1/4	No. 24-16 Flat Head	1	502
604	7.20	2 1/2	No. 24-16 Rd. Head.	2, 26 & 30	502
606	7.20	2 1/2	No. 24-16 Flat Head	3 W.G. & 3 1/2	502
607	7.20	2 1/4	No. 24-16 Rd. Head.	24	502
608	7.20	2x1 1/2	13 Machine Bolt....	49	503
609	6.00	2 3/4	No. 18-18 Flat Head	33 Sect.	501
621	4.80	2 1/2	No. 14-20 Flat Head	9419	501
622	6.00	2 3/4	No. 18-18 Flat Head	9420	502
624	9.60	3 1/2 x 1 1/2	13 Machine Bolt....	53	503
625	7.20	3x3/8	16 Machine Bolt....	52	503
626	9.60	3 3/4 x 1 1/2	13 Machine Bolt....	52	503

Cleat Attachments

No.	Per 100	B & D Cleats No.	Support Recommended	B & D Cleat Attachments	Thrs. per Inch
510	\$110.00	1	501	Type A No. 1	18
511	110.00	1 1/2	501	Type A No. 1 1/2	18
512	123.20	2	502	Type A No. 2	16
513	123.20	2 1/2	502	Type A No. 2 1/2	16
514	123.20	3	502	Type A No. 3	16
514A	137.50	3 1/2	503	Type A No. 3 1/2	13
516	137.50	4	503	Type A No. 4	13
517	165.00	4 1/2	503	Type A No. 4 1/2	13

Wooden Pins

615	\$41.40	*Insulator	503	†For 1" Pin Hole	13
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Pipe Hangers

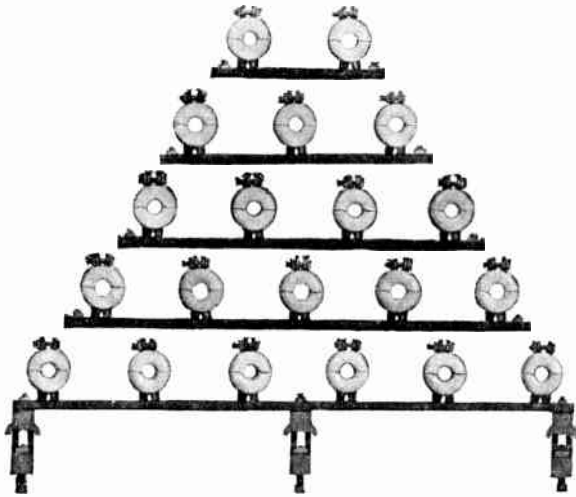
616	\$13.80	1/2" Pipe Hanger	501	1/2" Pipe Hanger	18
617	13.80	3/4" Pipe Hanger	501	3/4" Pipe Hanger	18
618	19.30	1" Pipe Hanger	502	1" Pipe Hanger	16
619	19.30	1 1/4" Pipe Hanger	502	1 1/4" Pipe Hanger	16
620	22.00	1 1/2" Pipe Hanger	503	1 1/2" Pipe Hanger	13

*Double-groove, double petticoat glass insulators.

†Paraffin treated 4 3/4 inches high, 1 1/2-inch base, with bolt 5 inches long.

Efficiency Bushing Racks and Supports

Type B Bushing Racks



2, 3, 4, 5, and 6-Bushing Racks
Bottom Illustration Shows Rack Mounted on Triple Adjustable Support

The same type cable support is used as in Type U, in which a single bolt is required to support the bushing and at the same time clamp the bushing support to the rack. Available with or without single or double adjustable beam supports, for a.c. or d.c. service, in sizes to fit $\frac{5}{16}$ to $2\frac{3}{8}$ -inch wire sizes.

Bushing Supports



Type G

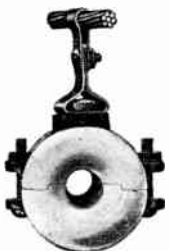


Type VB

Type G. Adjustable to any angle and eliminates drilling of holes for mounting. A.c. or d.c. service in sizes to fit $\frac{5}{16}$ to $2\frac{3}{8}$ -inch cable. A.c. service furnished with brass half.

Type VB. Mounted tight with one bolt, the circular base permits adjustment to any angle. Only one bolt required to hold porcelain bushing and clamp to base. Made of high grade malleable iron with highest quality split porcelain bushings. For a.c. or d.c. service in sizes to fit $\frac{5}{16}$ to $2\frac{3}{8}$ -inch wire sizes.

Type GM Bushing Messenger Supports

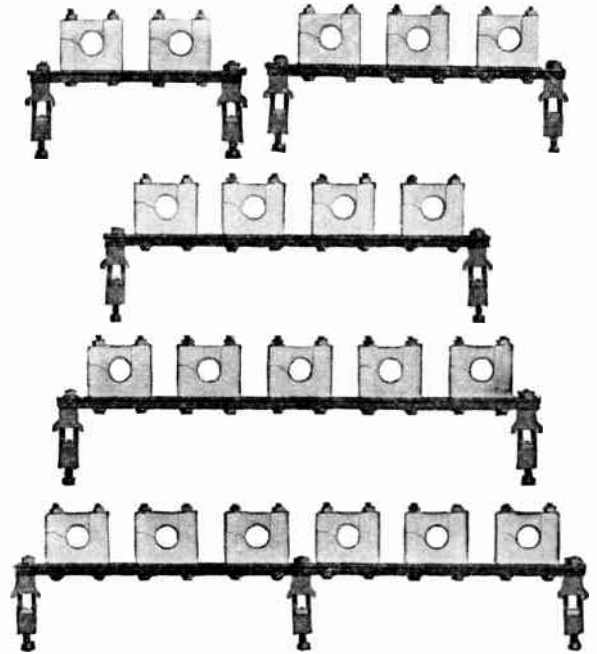


Designed to suspend wire or cable from messengers where beam mounting is impossible.

Combination of Type G bushing support with strip steel messenger attachment.

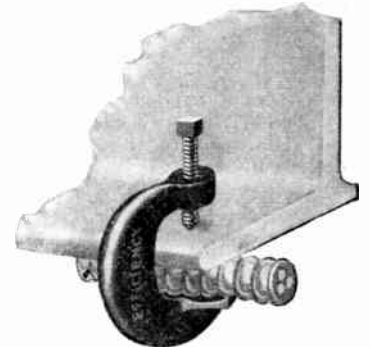
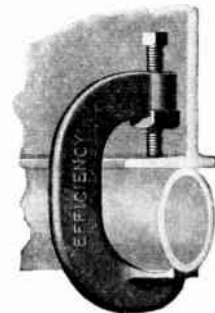
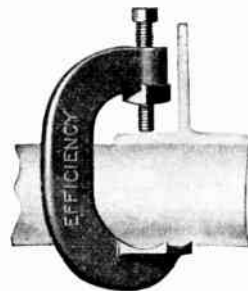
Furnished complete as shown, for a.c. or d.c. service, to fit $\frac{5}{16}$ to $2\frac{3}{8}$ -inch wire sizes.

Efficiency Cleat Racks



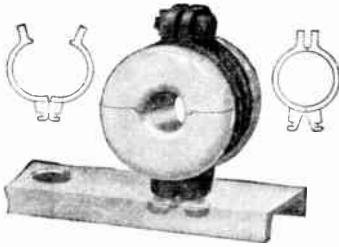
Base of the cleat is permanently mounted with one bolt, forming a solid support for the wire or cable. The cap is then inserted and bolted down. Supplied with or without adjustable beam supports, for a.c. or d.c. service, in sizes to fit $\frac{5}{16}$ to $2\frac{3}{8}$ -inch wire sizes, in 2, 3, 4, 5, 6-cleat type and 3-phase cleat rack.

Type F Efficiency Conduit Hangers



Used for open steel construction to carry armored cable and $\frac{1}{2}$ to $2\frac{1}{2}$ -inch pipe. Patented radiating ridges and 5-point gripping surface keep the pipe suspended dead center with the set screw above permitting the pipe to be carried securely at any angle to the beam. Also used for carrying gas, water and air lines. Made of highest quality malleable iron.

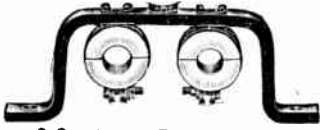
Efficiency Conductor Racks



Provides a quick, compact method of temporarily or permanently suspending cables of one size or varied sizes—and additional cables can be added as required. Types for a.c. and d.c. service. Only one bolt required for mounting cable. Can be used where space is limited. Will not loosen

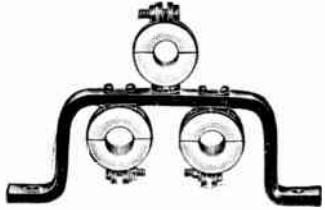
from jar or building vibration. Extra large, extra heavy vitreous porcelain bushings. Will not injure cable insulation. For a.c. service, a brass half bushing support is furnished.

Type U Nested Conductor Racks



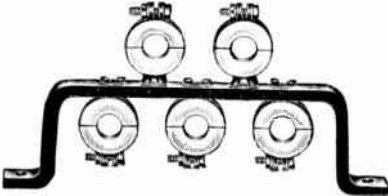
2-Conductor Bushing Rack

Simple, compact, scientifically designed to carry conductors equidistant from center to center.



3-Conductor Bushing Rack

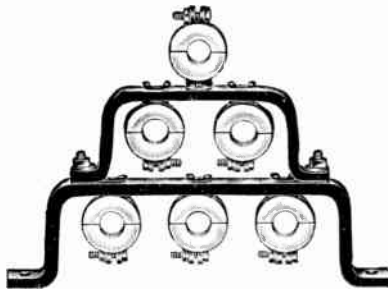
One bolt supports the bushing and clamps the bushing support to the frame.



4 and 5-Conductor Bushing Racks

Each clamp is a separate unit—allowing independent installation of each cable line.

Rack and bushing supports patented.



6-Conductor Bushing Rack

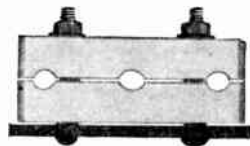
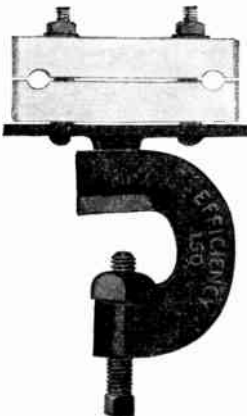
Approved and in constant use by many of the largest industrial plants.

Relieves impedance.

Available in sizes to fit $\frac{3}{8}$ to $2\frac{3}{8}$ -inch wire sizes.

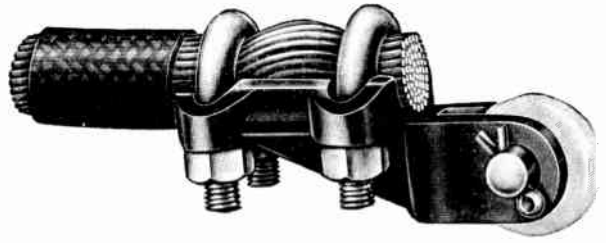
Efficiency Hangers

2 or 3-Wire Cleat Mounting



This fitting is furnished complete with No. 150 adjustable support; malleable iron cleat fitting, 2 or 3-wire glazed porcelain cleats and all bolts furnished.

Type CHS Cable Strain Clamps



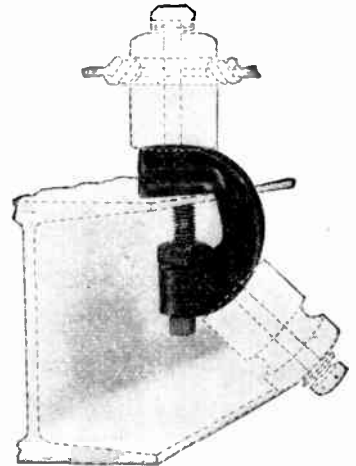
Provides a powerful grip that prevents cable from slipping. Cast of malleable iron "H" construction, with a high ridge across the center of the cable channel and a U-bolt at each end.

Slipped over cable as illustrated, with U-bolts tightened, it locks cable safely and securely over middle hump without strain or damage. Stands a direct pull of over 12,500 pounds before slipping. For a.c. or d.c. service.

Takes cable from 1/0 to 1,500,000 c.m. Furnished in 3 clamp sizes which cover all cable sizes.

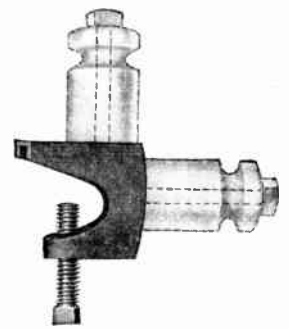
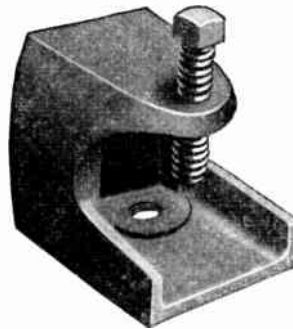
Available either with eye or clevis.

Adjustable Insulator Supports



Designed to carry insulators and fittings at any angle—above or below the beam. Several conductors or any combination of wires or cables can be used by the addition of various fittings which can be attached anywhere within a 120° radius from vertical position. Eliminates the need for drilling or burning holes in beams or angles. Supports can be used and re-used indefinitely. Height sizes, $2\frac{1}{8}$, 3, 4 and $4\frac{1}{4}$ inches.

Type K Efficiency Non-Adjustable Supports



Used for supporting porcelain and glass insulators to beams and angles in open steel construction. Made of high quality malleable iron. The head is threaded to receive a case hardened cup point set screw which imbeds into the beam when tightened. Fittings are attached with standard machine screws, through ready-threaded holes with a reinforced section. Available in sizes 1, $1\frac{1}{2}$, 2 and $2\frac{1}{2}$ inches.

National Rigid Steel Conduit Enamelled Conduit



Enamelled conduit is manufactured from mild drawn steel tubing. Before enameling, the tubing is thoroughly cleaned and freed from dirt, grease, scale, silicates and burrs. This process leaves clean surface for the application of the compound.

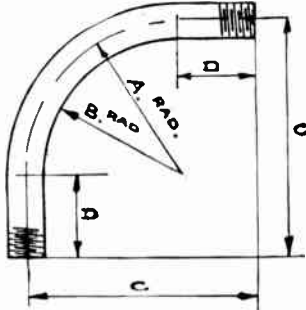
Sheararduct



Sherarduct rigid conduit is made of full weight mild spellerized steel tube and finished under the famous sherardizing process. In this process pure zinc is alloyed with the steel tube both inside and outside to form a rustproof finish which is so entirely a part of the pipe that it cannot be knocked or chipped off.

Standard Pipe Size Inches	Per 100 Feet	DIAMETER, INCHES		Wall Thickness Inches	Threads per Inch	Wt. Lb. per 1000 Feet
		Inside	Outside			
1/2635	.840	.1025	14	852
3/4837	1.050	.1065	14	1131
1	1.070	1.315	.1225	11 1/2	1684
1 1/4	1.409	1.660	.1255	11 1/2	2281
1 1/2	1.633	1.900	.1335	11 1/2	2731
2	2.094	2.375	.1405	11 1/2	3678
2 1/2	2.502	2.875	.1865	8	5819
3	3.102	3.500	.199	8	7616
3 1/2	3.588	4.000	.206	8	9202
4	4.072	4.500	.214	8	10889
4 1/2	4.548	5.000	.226	8	12642
5	5.097	5.563	.233	8	14810
6	6.109	6.625	.258	8	19185

Conduit Elbows



Size Inches	Per 100	ACTUAL DIAMETER INCHES		DIMENSIONS, INCHES				Weight Pounds per 100
		Inside	Outside	A	B	C	D	
1/2622	.840	4	3 3/16	6 3/4	2 3/4	82
3/4824	1.050	4 1/2	4	6 7/8	2 3/8	109
1	1.049	1.315	5 3/4	5 1/16	8 1/2	2 7/8	201
1 1/4	1.380	1.660	7 1/4	6 7/16	9 1/2	2 11/16	313
1 1/2	1.610	1.900	8 1/4	7 3/16	11 1/2	3 1/16	441
2	2.067	2.375	9 1/2	8 5/16	13 1/2	4 5/16	707
2 1/2	2.469	2.875	10 1/2	9 1/16	16	5 1/2	1411
3	3.068	3.500	13	11 1/4	18 1/2	5 13/16	1850
3 1/2	3.548	4.000	15	13	22	7	2979
4	4.026	4.500	16	13 3/4	23 1/2	7 1/16	3528
5	5.047	5.563	24	21 1/4	30 5/8	6 5/8	6575
6	6.065	6.625	30	26 1/16	36 7/16	6 1/16	9645

Couplings

Standard Pipe Size Inches	Per 100	Length Inches	Weight Pounds per 100	Standard Pipe Size Inches	Per 100	Length Inches	Weight Pounds per 100
3/4	1 5/8	20.9	3 1/2	.....	3 5/8	424.1
1	1 7/8	34.3	4	.....	3 5/8	474.1
1 1/4	2 1/8	53.5	4 1/2	.....	3 5/8	550.0
1 1/2	2 3/8	74.3	5	.....	4 1/8	700.0
2	2 5/8	120.8	6	.....	4 1/8	750.0
2 1/2	2 7/8	172.0	.....	.....	.....	.....

In ordering, specify finish desired.

Fretz-Moon Easy-Bending Steel Conduit

High quality rigid steel raceway made from soft, ductile steel. Produced by the continuous weld process which assures welds that are sound, smooth, and strong. Welds will not open even under severe abuse.

Free from burnt or hard spots. Bends, cuts, and threads easily on the job. Threads are clean, sharp, and free running; and the inside surface is clean and free from rough spots and burrs.

Enamelite Finish



Red Label. Protected inside and outside with a heavy, baked-on-coating of wear-resisting black enamel, highly resistant to acid types of corrosion. Will not chip, crack, or flake under the most severe installation requirements.

Hot Dipped Galvite Finish



Blue Label. Hot-dipped galvanized inside and outside with a special coating of baked-on lacquer applied inside and outside to further insure high corrosion-resistance.

Conduit is furnished in 10-foot lengths, threaded both ends, with coupling screwed on one end.

Conduit is always designated by its nominal inside diameter. All weights and dimensions shown are nominal.

Size In.	DIAMETER, IN.		Thick-ness Inches	Threads per Inch	Weight Pounds per Ft.
	External	Internal			
1/4	.510	.361	.088	18	.425
3/8	.675	.493	.091	18	.568
1/2	.840	.622	.109	14	.852
3/4	1.050	.821	.113	14	1.134
1	1.315	1.049	.133	11 1/2	1.684
1 1/4	1.660	1.380	.140	11 1/2	2.281
1 1/2	1.900	1.610	.145	11 1/2	2.731
2	2.375	2.067	.154	11 1/2	3.678
2 1/2	2.875	2.469	.203	8	5.819
3	3.500	3.068	.216	8	7.616
3 1/2	4.000	3.548	.226	8	9.202
4	4.500	4.026	.237	8	10.889
4 1/2	5.000	4.506	.247	8	12.642
5	5.563	5.047	.258	8	14.810
6	6.625	6.065	.280	8	19.185

Size In.	Couplings Weight Pounds	Elbows DIMENSIONS, INCHES			Weight Pounds	Lgth. of Thread Inches
		Radius	Tangent	Offset		
1/4	.060	.....	.....	.....	.....	.....
3/8	.095	.....	.....	.....	.....	.....
1/2	.116	4	2 3/4	6 3/4	.82	.75
3/4	.209	4 1/2	2 3/4	7 1/4	1.09	.76
1	.343	5 3/4	2 3/4	8 1/2	2.01	.94
1 1/4	.535	7 1/4	3 1/4	10 1/2	3.13	.97
1 1/2	.743	8 1/4	3 1/4	11 1/2	4.41	.98
2	1.208	9 1/2	4	13 1/2	7.07	1.12
2 1/2	1.720	10 1/2	4 1/4	14 3/4	14.11	1.51
3	2.498	13	4 1/4	17 1/4	18.50	1.57
3 1/2	2.241	15	4 3/4	19 3/4	29.79	1.62
4	4.741	16	5	21	35.28	1.67
4 1/2	5.500	.....	.....	.....	43.10	.....
5	7.000	21	6 3/8	30 1/8	65.75	1.73
6	7.500	30	6 1/2	36 1/2	96.45	1.89

Triangle Rigid Steel Conduit, Couplings and Elbows

Hot-Dipped Galvanized and Lacquer Finished
Conduit also Made in Black Enameled Finish

Approved by Underwriters' Laboratories, Inc.



Hot-Dipped Galvanized

In hot-dipped galvanizing, each length is immersed in a bath of molten virgin zinc (99.85% pure) thoroughly zinging the interior as well as the exterior.

The intimate contact of the surfaces of the tube with the molten zinc results in an alloying action thoroughly bonding the heavy, pure zinc coating to the pipe.

Conduit is submerged in a linseed oil base lacquer and thoroughly baked, giving a smooth finish.

Conforms to federal specification WWC581a.



Black Enameled

Immersed in a bath of black enamel and baked, producing a pipe with black luster finish.

Conforms to federal specification WWC571.

Size	CONDUIT		Thick-ness Inches	Threads per In.	Wt. Lb. per Ft.
	DIAMETER, IN.				
	Outside	Inside			
1/4	540	.364	.088	18	.425
3/8	.675	.493	.091	18	.568
1/2	.810	.622	.109	14	.852
3/4	1.050	.824	.113	14	1.134
1	1.315	1.049	.133	11 1/2	1.684
1 1/4	1.660	1.380	.140	11 1/2	2.281
1 1/2	1.900	1.610	.145	11 1/2	2.731
2	2.375	2.067	.154	11 1/2	3.678
2 1/2	2.875	2.469	.203	8	5.819
3	3.500	3.068	.216	8	7.616
3 1/2	4.000	3.548	.226	8	9.202
4	4.500	4.026	.237	8	10.889
5	5.563	5.047	.258	8	14.810
6	6.625	6.065	.280	8	19.185

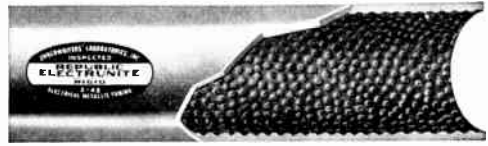
Size	COUPLINGS Wt. Lb. per 100	90° Elbows		Wt. Lb. per 100
		Radius Inches	Offset Inches	
1/4	6.0	3.850	6.375	41
3/8	9.5	3.917	6.437	55
1/2	11.6	4.000	6.500	82
3/4	20.9	4.500	7.250	109
1	34.3	5.750	8.625	201
1 1/4	53.5	7.250	10.000	313
1 1/2	74.3	8.250	11.000	441
2	120.8	9.500	13.625	707
2 1/2	172.0	10.500	15.687	1411
3	249.8	13.000	17.750	1850
3 1/2	424.1	15.000	20.000	2979
4	474.1	16.000	21.312	3528
5	700.0	24.000	29.000	6575
6	750.0	30.000	36.500	9645

Conduit furnished in 10-foot lengths, threaded both ends with one coupling. Conduit pipe is known and spoken of by its nominal inside diameter.

Write for prices on special sizes, bends, and lengths.

All weights are subject to a 5 per cent variation.

Republic Electruntite E.M.T. Lightweight Threadless Rigid Steel Conduit Inch-Marked



No threads to cut, ductile, bends easily, is light, tough and strong; resists corrosion.

Steeltubes takes up less space and consequently can be used in narrower quarters.

Knurled inside finish shows by actual test a saving of 20 to 30 per cent in the effort required to pull cable through. Cable rides the tops of the tiny knobs instead of making contact the entire length.

The National Electrical Code approves Steeltubes for open and concealed work and buried in concrete.

Size Inches	DIAMETER		Ft. to a Bundle	Approx. Wt., Lb. per 1000 Ft.
	Internal Inches	External Inches		
3/8	.493	.577	200	250
*1/2	.622	.706	100	321
*3/4	.824	.922	100	488
*1	1.049	1.163	100	711
1 1/4	1.380	1.508	50	1000
1 1/2	1.610	1.738	50	1180
2	2.067	2.195	30	1500

*Furnished with knurled inside finish and inch-marked.

Elbows

Elbow Size Inches	Radius to Center Line (45° and 90°) Inches	Offset (90° Elbows) Inches	Straight Leg or Tangent (90° Elbows) Inches	Weight, Lb.	
				Std. Pkg. (90°)	Per 100 Pcs. Elbows
1	5.063	9.438	4.375	25	100
1 1/4	5.500	10	4.500	25	144
1 1/2	6.875	10.938	4.063	20	180
2	8	13	5	10	277

Triangle Metallic Thin Wall Conduit and 90° Elbows

Hot-Dipped Galvanized—Threadless

Approved by Underwriters' Laboratories, Inc.



Made from flat cold rolled steel and welded, giving a true tube of uniform thickness and strength.

Tubing is first pickled and cleaned to remove all scale and foreign substances, and is then immersed in a bath of molten virgin zinc (99.85% pure) giving a uniformly heavy zinc coating on the inside and outside surfaces.

Approved by N.E.C. up to and including 2-inch size for use on circuits where the conductor size does not exceed No. 1/0 and where the voltage does not exceed 600 volts.

Furnished in 10-foot lengths.

Conduit

Size Inches	Per Foot	Inside Diameter Inches	Outside Diameter Inches	Feet per Bundle	Approx. Wt., Lb. per 1000 Feet
1/2622	.706	100	321
3/4824	.922	100	488
1	1.049	1.163	100	711
1 1/4	1.380	1.508	50	1000
1 1/2	1.610	1.738	50	1180
2	2.067	2.195	..	1500

90° Elbows

Without Couplings

Size.....inches	1/2	3/4	1	1 1/4	1 1/2	2
Per 100.....
Weight per 100.....lb.	100	144	180	277

Everdur Electrical Conduit



Composed principally of copper. A non-magnetic copper-silicon alloy which provides great strength, excellent corrosion resistance, high fatigue limit and exceptional ductility.

In addition to strength and other excellent physical qualities, this copper-silicon alloy offers good resistance to a large number of corroding agents. The durability of this alloy is attested by the records of equipment, such as smoke and soot washers and blowers; air conditioning and drainage fittings in battery and plating rooms; pumps, valves, and process piping and vessels in many chemical plants which have been operated successfully for long periods under unusually corrosive conditions.

Seamless Rigid Conduit

Listed by the Underwriters' Laboratories, Inc.

Everdur rigid conduit is supplied in nominal sizes from 1/4 to 4 inches. Its physical properties are comparable to mild steel rigid conduit. As ordinarily supplied, the 10-foot lengths are threaded both ends with one Everdur coupling attached.

Nom. Size In.	Outside Diameter Inches	Inside Diameter Inches	Wall Thickness Inches	Wt. Lb. per Foot
1/4	.540	.382	.079	.4339
3/8	.675	.503	.086	.6034
1/2	.840	.636	.102	.8968
3/4	1.050	.834	.108	1.212
1	1.315	1.075	.120	1.708
1 1/4	1.660	1.382	.139	2.519
1 1/2	1.900	1.614	.143	2.993
2	2.375	2.077	.149	3.951
2 1/2	2.875	2.519	.178	5.719
3	3.500	3.084	.208	8.157
3 1/2	4.000	3.548	.226	10.16
4	4.500	4.026	.237	12.04

Seamless EMT Conduit

Listed by the Underwriters' Laboratories, Inc.

Everdur electric metallic tubing is a thin-wall conduit made of Everdur metal. Its physical properties are comparable to mild steel tubing of equivalent wall thickness. It is available in sizes 3/8 to 2 inches in diameter, in standard 10-foot lengths, for assembly with threadless fittings which facilitate installation and dismantling.

Nom. Size, In.	Outside Diameter Inches	Inside Diameter Inches	Wall Thickness Inches	Wt. Lb. per Foot
3/8	.577	.493	.042	.2677
1/2	.706	.622	.042	.3322
3/4	.922	.824	.049	.5096
1	1.163	1.049	.057	.7510
1 1/4	1.510	1.380	.065	1.119
1 1/2	1.740	1.610	.065	1.297
2	2.197	2.067	.065	1.651

Seamless Raceways

Special sizes in larger diameters with wall thicknesses comparable to Everdur Electrical Metallic Tubing are available up to 4 inches, nominal sizes, in random lengths of 10 to 14 feet. They are not listed with Underwriters', but are specified as Everdur Seamless Raceways.

Nom. Size In.	Outside Diameter Inches	Inside Diameter Inches	Wall Thickness Inches	Approx. Wt. Lb. per Foot
2 1/2	2.605	2.469	.068	2.055
2 3/4	2.875	2.739	.068	2.274
3	3.210	3.068	.071	2.655
3 1/4	3.500	3.358	.071	2.900
3 1/2	3.696	3.548	.074	3.193
3 3/4	4.000	3.852	.074	3.461
4	4.182	4.026	.078	3.813

Seamless Couplings

For Rigid Conduit—With Tapered Threads

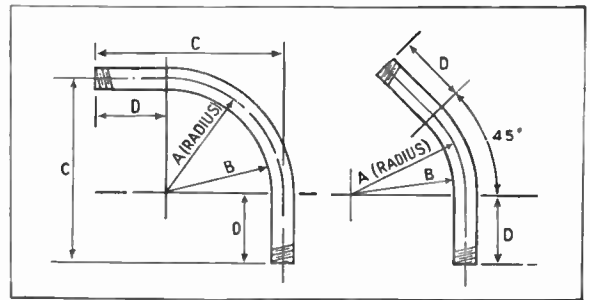
All Everdur couplings have tapered threads resulting in stronger and tighter joints which are essential for installations in hazardous locations.

Nom. Size In.	Outside Diameter Inches	Outside Surface	Length Inches	Wt. Lb. per 100 Pieces
1/4	.70	Plain	1.09	7
3/8	.84	Plain	1.13	9
1/2	1.03	Plain	1.47	17
3/4	1.28	Plain	1.50	25
1	1.56	Plain	1.88	42
1 1/4	1.95	Knurled	1.94	63
1 1/2	2.22	Knurled	2.00	80
2	2.72	Knurled	2.06	110
2 1/2	3.28	Knurled	3.06	240
3	3.95	Knurled	3.18	330
*3 1/2	4.75	Casting	3.38	460
*4	5.25	Casting	3.44	520

*Cast Everdur couplings, outside diameters are approximate.

Seamless Rigid Conduit Elbows

Threaded Both Ends—Without Coupling



Listed under Factory Inspection and Label Service Procedure by the Underwriters' Laboratories, Inc.

Nom. Size Inches	APPROXIMATE DIMENSIONS, INCHES				
	A Radius	B	C Offset 90° Elbow	D TANGENT	
				90° Elbow	45° Elbow
1/2	4	3 3/16	6 3/4	2 3/4	2 3/4
3/4	4 1/2	4	7 1/2	3	3
1	5 3/4	5 1/16	8 1/2	3 3/4	3 3/4
1 1/4	7 1/4	6 7/16	10	2 3/4	2 3/4
1 1/2	8 1/4	7 5/16	11 1/4	3	3
2	9 1/2	8 3/16	13 7/8	4 3/8	4 3/8
2 1/2	10 1/2	9 1/16	15 1/4	4 3/4	4 3/4
3	13	11 1/4	19 3/4	6 3/4	5 1/2
3 1/2	15	13	22 7/8	7 7/8	6
4	16	13 3/4	23 3/8	7 1/8	6

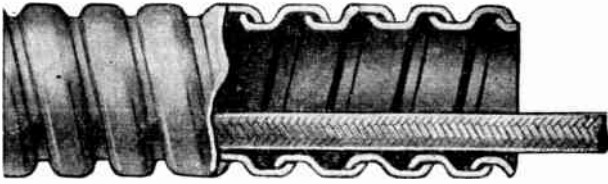
Seamless EMT Conduit Elbows

Everdur Not Threaded

Nom. Size Inches	APPROXIMATE DIMENSIONS, INCHES				
	A Radius	B	C Offset 90° Elbow	D TANGENT	
				90° Elbow	45° Elbow
1/2	4	3 3/16	6 3/4	2 3/4	2 3/4
3/4	4 1/2	4	7 1/2	3	3
1	5 3/4	5 1/16	8 1/2	2 3/4	2 3/4
1 1/4	7 1/4	6 7/16	10	2 3/4	2 3/4
1 1/2	8 1/4	7 5/16	11 1/4	3	3
2	9 1/2	8 3/16	13 7/8	4 3/8	4 3/8

Prices Upon Application

National Flexsteel Flexible Metallic Conduit



The steel armor of Flexsteel (E.+S.+S.) flexible metallic conduit is of bondhook construction which enables it to be fished more readily than other types of this material.

Size In.	Per 1000 Feet	Ft. per Std. Coil	Approx. Wt. Lb. per 1000 Ft.	Size In.	Per 1000 Feet	Ft. per Std. Coil	Approx. Wt. Lb. per 1000 Ft.
5/16	\$51.00	250	150	1 1/4	\$300.00	50	1250
3/8	63.00	250	255	1 1/2	380.00	25	1625
1/2	89.00	100	480	2	488.00	25	2125
3/4	113.00	50	595	2 1/2	575.00	25	2630
1	239.00	50	1020	3	770.00	25	3130

Triangle Flexible Steel Conduit Hot-Dip Galvanized

Approved by Underwriters' Laboratories, Inc.



Made from one continuous length of steel strip. Exceptionally flexible in short radius bends. Interlocking convolutions eliminate accidental opening when being bent. Interior surface is free from burrs and sharp edges. Conforms to federal specification WWC566.

Size Inches	Per Foot	Approx. Feet per Std. Coil	Wt., Lb. per 1000 Feet	Nominal Inside Diameter Inches
5/16	...	350	150	3/16
3/8	...	250	255	3/8
1/2	...	100	470	5/8
3/4	...	50	575	13/16
1	...	50	1020	1
1 1/4	...	50	1250	1 1/4
1 1/2	...	25	1620	1 1/2
2	...	25	2125	2
2 1/2	...	25	2630	2 1/2
3	...	25	3130	3

Flextube Non-Metallic Flexible Conduit Loom



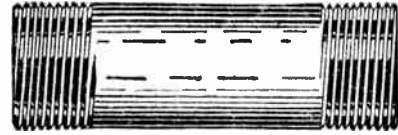
Made from an especially prepared stiff fiber cord interwoven with a tough yarn. The result is a seamless tube with a smooth, hard, canvas-like roller-bearing interior which affords the best obtainable fishing surface. This interwoven insulating tubing is then treated with a superior moisture and flame resisting compound, is further protected by a strong, tough braiding which is also compounded.

Regularly inspected and labeled by the Underwriters' Laboratories.

Trade Size I.D. Inches	Per Foot	Size Coil Feet	Weight Pounds per 1000 Feet	Trade Size I.D. Inches	Per Foot	Size Coil Feet	Weight Pounds per 1000 Feet
7/32	\$.03	250	33	1 1/4	\$.26	...	338
1/4	.04	250	35	1 1/2	.36	...	440
3/8	.06	250	55	1 3/4	.41	...	425
1/2	.08	200	73	2	.45	...	460
5/8	.10	200	99	2 1/4	.47	...	700
3/4	.12	150	145	2 1/2	.58	...	740
1	.21	100	182	...	...	...	...

Rigid Conduit Pipe Nipples

Right-Hand Thread



(Galvanized finish only. Less than unit package, add 20 per cent.)

Pipe Size In.	Close		Short		2-In. Long	3-In. Long	4-Inch Long
	Per 100	Unit Pkg.	Per 100	Unit Pkg.			
1/2	\$3.00	1 1/8 100	\$3.60	1 1/2 50	\$3.90	25	\$4.60 25
3/4	4.10	1 3/8 50	4.70	2 25	...	...	5.70 25
1	5.25	1 1/2 25	6.00	2 15	...	...	7.40 20
1 1/4	6.30	1 5/8 25	8.25	2 1/2 10	...	...	9.20 10
1 1/2	8.75	1 3/4 15	9.75	2 1/2 10	...	...	10.75 10
2	11.75	2 10	13.75	2 1/2 5	...	...	15.00 5
2 1/2	21.75	2 1/2 5	25.50	3 5	...	...	...
3	30.00	2 3/8 5	33.50	3 5	...	...	...
3 1/2	40.00	2 3/4 1	53.00	4 1	...	...	...

Long Conduit Nipples

Pipe Size In.	5-In. Long		6-In. Long		8-In. Long		10-In. Long		12-In. Long	
	Per 100	Unit Pkg.	Per 100	Unit Pkg.	Per 100	Unit Pkg.	Per 100	Unit Pkg.	Per 100	Unit Pkg.
1/2	\$6.40	25	\$7.60	25	\$9.50	25	\$11.70	25	\$14.10	25
3/4	8.10	20	9.40	20	11.90	10	14.40	25	17.00	25
1	10.25	10	12.05	10	15.75	10	19.20	10	22.75	10
1 1/4	13.75	5	16.25	5	21.25	5	26.25	5	31.50	1
1 1/2	16.50	5	19.75	5	25.50	5	31.25	1	36.50	1
2	22.75	5	27.25	5	34.60	5	45.40	1	52.00	1
2 1/2	39.50	5	46.50	5	58.50	5	70.75	1	82.50	1
3	49.00	5	58.00	5	76.00	5	94.75	1	114.00	1
3 1/2	61.00	1	71.00	1	91.50	1	111.50	1	131.00	1

Special Large Radius Elbows

Black Enameled or Sherardized

For Thick Wall Conduit

Size In.	EACH RADIUS, INCHES							
	12	15	18	24	30	36	42	48
1	\$1.80	\$2.15	\$2.65	\$3.05	\$3.45	\$4.00	\$4.55	\$5.05
1 1/4	2.00	2.35	2.95	3.35	3.85	4.55	5.05	5.75
1 1/2	2.40	2.80	3.45	4.00	4.65	5.35	6.00	6.80
2	3.40	4.00	4.95	5.75	6.55	7.60	8.55	9.60
2 1/2	4.15	4.90	5.90	6.90	8.00	9.25	10.40	11.75
3	Std.	7.50	9.15	10.65	12.25	14.40	16.00	18.15
3 1/2	...	Std.	15.10	17.80	20.50	24.00	26.70	30.20
4	...	...	16.60	19.50	22.50	26.30	32.25	36.50
4 1/2	...	...	Std.	27.30	31.40	36.80	40.90	46.30
5	...	...	...	Std.	35.40	41.60	46.20	52.35
6	...	...	...	...	Std.	43.45	48.30	54.65

90° elbows take above list.

60° elbows take above list, less 5 per cent.

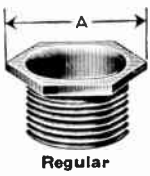
45° elbows take above list, less 10 per cent.

30° elbows take above list, less 15 per cent.

Dimensions

Radius Inches	OFFSET		Across Straight End Inches	LENGTH UNBENT	
	Feet	Inches		Feet	Inches
12	1	9	3	0	
15	2	0	3	6	
18	2	4	4	0	
24	2	11	4	11	
30	3	5	5	9	
36	3	11	6	6	
42	4	6	7	6	
48	5	0	8	5	

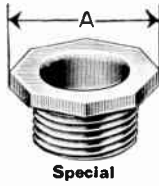
Prices for special sizes, bends and lengths, quoted upon request.



Appleton Conduit Nipples

Schedule CF

Cadmium Finish



Special

No.	Size Inches	Regular		Std. Pkg.	Wt. Lb. Std. Pkg.
		A Inches	Car-ton		
7200	3/8	13/16	50	100	3
7201	1/2	1	50	100	4
7202	3/4	1 1/16	50	100	8
7203	1	1 1/16	25	50	7 1/2
7115	1 1/4	2 1/8	10	25	6
7116	1 1/2	2 3/16	10	25	7 1/2
7117	2	2 7/8	5	10	5
7118	2 1/2	3 1/2	5	10	6 1/2
7119	3	4 3/8	2	5	5
7120	3 1/2	4 5/8	2	5	6 1/2
7121	4	5 3/16	2	5	7 1/2
7123	5	6 3/16	2	5	10 1/2
Special					
7125	1/2	1 1/4	50	100	100
7126	3/4	1 3/16	50	100	90

Chase Nipples

Approved by Underwriters' Laboratories

Where a Chase Nipple and coupling are used, a box can be removed without disturbing the conduit. Where two outlet boxes are to be used back to back, break out center knock-outs and use a Chase Nipple and a lock-nut to hold the boxes together.



Size In.	Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt. Lb. Per 100
1/4	840	\$5.00	50	100	2
3/8	841	5.00	50	100	3
1/2	842	5.00	50	100	4
3/4	843	8.00	50	100	7
1	844	15.00	25	50	14
1 1/4	845	18.00	10	25	22
1 1/2	846	20.00	10	25	30
2	847	30.00	5	10	58
2 1/2	848	50.00	5	10	76
3	849	80.00	2	5	104
3 1/2	850	250.00	2	5	130
4	851	325.00	2	5	150
4 1/2	852	500.00	2	5	180
5	853	750.00	2	5	210

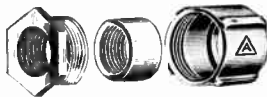
Appleton Conduit Fittings

Schedule CF

Cadmium Finish

For Rigid Conduit (Heavy-Wall)

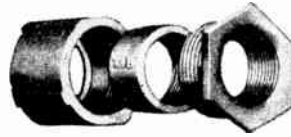
Conduit Couplings



No.	Size Inches	Carton	Std. Pkg.	Wt. Lb. per 100
18800	3/8	50	100	13
18801	1/2	50	100	24
18802	3/4	5	50	34
18803	1	5	25	52
18804	1 1/4	5	25	92
18805	1 1/2	5	25	116
18806	2	5	20	195
18807	2 1/2	5	10	380
18808	3	5	10	420
18809	3 1/2	2	5	520
18810	4	2	5	620
18812	5	1	2	900

T&B *Erickson Conduit Couplings

Approved by Underwriters' Laboratories



Conduit Union does away with running threads, saving dies and labor. Permits opening of conduit at any desired point. Enables the start of circuit from 2 outlets and makes a good, strong connection at any

point in the run. The pipe ends abut so that no space is left between the lengths of conduit, therefore, it is not necessary to draw the 2 ends of the conduit together. Vibration will not loosen a connection made with an Erickson coupling. The hexagon shoulder and ridges on the outside of the coupling make an easy grip for a pipe wrench.

Conduit Size Inches	No.	Per 100	Car-ton	Std. Pkg.	Wt. Lb. Per 100
3/8	674	\$32.00	50	100	13
1/2	675	32.00	50	100	21
3/4	676	40.00	25	50	34
1	677	56.00	5	25	52
1 1/4	678	100.00	5	25	92
1 1/2	679	150.00	5	25	116
2	680	260.00	5	20	195
2 1/2	681	500.00	5	10	380
3	682	800.00	5	10	420
3 1/2	683	1200.00	2	5	520
4	684	1600.00	2	5	620
4 1/2	685	2000.00	1	2	850
5	686	2500.00	1	2	900

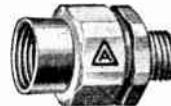
*Trade mark registered.

Appleton Male and Female Conduit Unions

Schedule CFS

Cadmium Finish

For Use With Rigid (Heavy-Wall)



Male



Female

Used in non-hazardous locations.

Male Unions

No.	Size Inches	Dimensions, In. Length	Diameter	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
37460	1/2	2 1/8	1 9/16	10	50	25
37461	3/4 to 1/2	2 1/8	1 9/16	10	50	27
37462	3/4	2 1/8	1 9/16	10	50	23
37463	1	2 7/16	1 7/8	5	25	17
37464	1 1/4	3	2 5/16	5	25	26
37465	1 1/2	3 1/8	2 11/16	5	25	37
37466	2	3 3/4	3 1/8	2	10	21
37467	2 1/2	3 7/8	4 5/16	2	10	35
37468	3	4 3/16	5	1	5	19

Female Unions

No.	Size Inches	Dimensions, In. Length	Diameter	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
37470	1/2	1 3/4	1 9/16	10	50	21
37471	3/4 to 1/2	1 3/4	1 9/16	10	50	23
37472	3/4	1 3/4	1 9/16	10	50	19
37473	1	1 7/8	1 7/8	5	25	14
37474	1 1/4	2 3/16	2 5/16	5	25	23
37475	1 1/2	2 3/16	2 11/16	5	25	33
37476	2	2 5/8	3 1/8	2	10	18
37477	2 1/2	2 7/8	4 5/16	2	10	32
37478	3	3 5/16	5	1	5	16

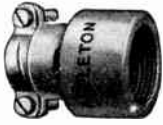
Appleton Conduit Fittings

Schedule CF

Cadmium Finish

For Rigid Conduit (Heavy-Wall)

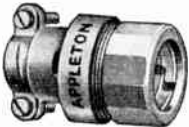
Combination Threaded Couplings



For connecting flexible metallic conduit or armored bushed cable to rigid conduit.

No.	Size Inches	Designed to Hold	Max. Diam. Hole, In.	Car-ton	Std. Pkg.	Wt. Lb. per 100
18839	1/2	*1 3/8-In. BX	...	10	50	8
18840	1/2	1/2-In. Flex.	15/16	10	50	9
18841	3/4	3/4-In. Flex.	1 1/8	10	50	13
18842	1	1-In. Flex.	1 1/32	5	25	9
18843	1 1/4	1 1/4-In. Flex.	1 1/16	5	25	10
18844	1 1/2	1 1/2-In. Flex.	2	5	25	19
18845	2	2-In. Flex.	2 15/32	5	10	9

Combination No-Thread Couplings



For connecting flexible metallic conduit or armored bushed cable to rigid conduit.

No.	Size Inches	Designed to Hold	Max. Diam. Hole, In.	Car-ton	Std. Pkg.	Wt. Lb. per 100
18849	1/2	*1 3/8-In. BX	...	10	50	10
18850	1/2	1/2-In. Flex.	15/16	10	50	11
18851	3/4	3/4-In. Flex.	1 1/8	10	50	15

*Armored Cable 1947 Code: 14-2, 14-3, 12-2, 12-3, 12-4, 10-2, 10-3, 10-4, 8-2, 8-3, 8-4, 6-2.

†Armored Cable 1940 Code: 14-2, 14-3, 14-4, 12-2, 12-3, 12-4 and Flexible Steel Conduit 3/8 inch.

T&B Conduit Fittings

Tite-Bite Combination Couplings



The Tite-Bite grip holds the flexible conduit securely and is vibration proof. The one-piece design cannot pull apart.

For Connecting Flexible Conduit and Standard Threaded Rigid Conduit

No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
440	\$15.00	1/2	10	50	18
441	20.00	3/4	10	50	25
442	35.00	1	5	25	35
443	50.00	1 1/4	5	25	40
444	75.00	1 1/2	5	25	76
445	100.00	2	5	25	92
446	150.00	2 1/2	5	25	180
447	200.00	3	2	5	240

For Connecting Flexible Conduit and E.M.T. (Thinwall Conduit)

No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
469	\$30.00	3/8	10	50	19
470	30.00	1/2	10	50	20
471	50.00	3/4	10	50	27
472	75.00	1	5	25	40
473	100.00	1 1/4	5	25	45
474	125.00	1 1/2	5	25	85
475	175.00	2	5	10	100

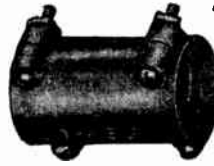
For Connecting Flexible Conduit and Standard Threadless Rigid Conduit

No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
450	\$30.00	1/2	10	50	20
451	50.00	3/4	10	50	27
452	75.00	1	5	25	40
453	100.00	1 1/4	5	25	45
454	125.00	1 1/2	5	25	85
455	175.00	2	5	10	100
456	250.00	2 1/2	5	10	200
457	375.00	3	2	5	275

T&B Split Couplings

For Flexible Conduit

Approved by Underwriters' Laboratories



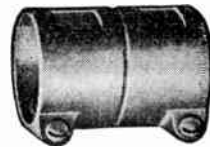
For coupling short lengths of flexible steel conduit. Fittings are well bushed to protect the rough edges of flexible conduit.

Made of malleable iron.

No.	Per 100	Conduit In.	Unit Qty.	Std. Pkg.	Wt., Lb. per 100
46	\$18.50	1/2	25	100	28
47	24.00	3/4	10	100	38
48	32.00	1	25	50	68
49	44.00	1 1/4	25	50	75
56	60.00	1 1/2	10	25	100
57	86.00	2	10	25	180
58	150.00	2 1/2	5	10	250
59	200.00	3	5	10	350

National Conduit Couplings

Tangent Set Screw Type



For flexible steel conduit. Galvanized finish.

Packed 100 in standard package.

No.	2182	2184
Per 100.....	\$31.62	\$9.88
Open I.D. inches	1 1/32	6 1/64
Closed I.D. inches	7/16	13/16
For Flexible Steel Conduit..... inches	5/16	1/2
No. in Carton.....	25	10
Weight per Std. Pkg..... pounds	7	24

No. 2193-S National Rigid Conduit to Flexible Conduit Connectors

Squeeze Type

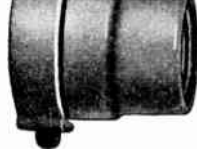
For 1 1/4-inch conduit. Galvanized finish. Open I.D., 1 13/64 inches; closed I.D., 1 1/2 inches.

Packed 25 in std. pkg.; 5 in carton. Weight per standard package, 16 lb.

No. 2193-S..... per 100 \$60.50

No. 2192-EZ National Conduit Couplings

EZ Hinged Strap Type



Rigid to flexible. For one-inch conduit. Galvanized finish.

Open I.D., 1 27/64 inches; closed I.D., 1 1/8 inches.

Packed 25 in standard package; 5 in carton. Weight per std. pkg., 9 pounds.

No. 2192-EZ..... per 100 \$43.30

O.Z. Type AX Expansion Fittings



A weathertight fitting furnished complete with insulated bushing. Constructed with copper grounding ring. Standard finish is cadmium plated.

No.	Each	Conduit Size Inches	Free Lgth. Expansion Chamber In.	Max. O.D. In.	Overall Length Inches	Approx. Wt. Lb.
AX 50	\$2.00	1/2	4	1 1/8	6 1/4	1 3/8
AX 75	2.40	3/4	4	2 1/4	6 5/8	2
AX100	3.00	1	4	2 5/8	6 5/8	2 1/2
AX125	3.75	1 1/4	4	3	6 5/8	3 3/4
AX150	5.25	1 1/2	4	3 1/2	6 5/8	5
AX200	7.50	2	4	4	7 1/8	7
AX250	11.00	2 1/2	4	4 1/2	7 1/2	9
AX300	15.00	3	4	5 3/8	8 1/8	12

Fitting can be furnished in bronze; prices on request.

O.Z. Type IC Insulating Couplings

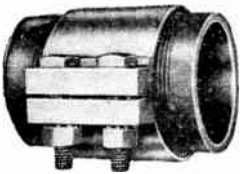
A canvas bakelite insulating coupling having a substantial center shoulder, which prevents butting of the conduits to assure a definite break in the metallic path.



No.	Each	Conduit DIMENSIONS, INCHES			
		Size Outside	Diameter	Length	Shoulder
IC 50	\$1.90	1/2	1 1/4	1 3/4	3/8
IC 75	1.20	3/4	1 1/2	1 3/4	3/8
IC100	1.80	1	1 13/16	2 3/16	3/8
IC125	2.50	1 1/4	2 3/16	2 3/8	1/2
IC150	3.20	1 1/2	2 7/16	2 7/8	1/2
IC200	4.00	2	2 13/16	2 7/8	1/2
IC250	6.50	2 1/2	3 7/16	3 3/4	3/4
IC300	8.50	3	4 1/8	3 15/16	3/4
IC350	10.50	3 1/2	4 5/8	4	3/4
IC400	13.00	4	5 1/4	4 5/16	1

O.Z. Type SP Split Couplings

Eliminates use of running thread.



Constructed so that it will slip over the conduit when in an open position to permit butting of the ends of the conduit. The fitting can then be brought back into proper position, meshed and tightened, making a rigid conduit connection.

Made of malleable iron, cadmium plated.

No.	Each	Conduit Size Inches	No.	Each	Conduit Size Inches
SP125	\$1.35	1 1/4	SP350	\$5.00	3 1/2
SP150	1.50	1 1/2	SP400	6.50	4
SP200	1.85	2	SP450	10.00	4 1/2
SP250	2.75	2 1/2	SP500	15.00	5
SP300	3.75	3			

Appleton Conduit End Fittings

Schedule CF

Cadmium Finish

Threaded and No-Thread



Threaded
1/2 to 4-Inch



No-Thread
1/2 to 2-Inch

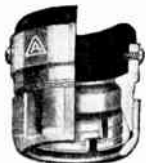


No-Thread
2 1/2 to 4-Inch

Inside diameter of the bushing is the same as the inside dimension of the pipe as shown in sectional view.

The Bushing is made of bakelite and is held in place by two screws.

The No-Thread type can be installed on the end of pipe without threading of the conduit.

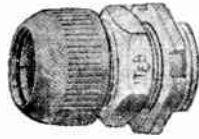


No-Thread
(Sectional View)

Size Inches	Car-ton	Threaded		No-Thread	
		No.	Std. Pkg. Wt. Lb.	No.	Std. Pkg. Wt. Lb.
1/2	20	7190	100 23	71N90	100 23
3/4	15	7191	75 24	71N91	50 27
1	10	7192	50 23	71N92	25 27
1 1/4	5	7193	40 25	71N93	10 31
1 1/2	5	7194	20 17	71N94	10 22
2	1	7195	15 20	71N95	5 26
2 1/2	1	7196	10 22	71N96	5 32
3	1	7197	5 15	71N97	5 18
3 1/2	1	7198	5 21	71N98	5 26
4	1	7199	5 25	71N99	5 38

T & B Threadless Couplings and Connectors

Approved by Underwriters' Laboratories



Connector



Coupling

For standard rigid conduit. Easy to tighten; made ready with fingers, then a turn with a wrench, and the connection is permanent. Made of malleable iron and steel.

Couplings

No.	Per 100	Size Inches	Std. Pkg.	Unit Quan.	Weight Pounds per 100
8120	\$50.00	1/2	100	50	21
8220	75.00	3/4	50	25	30
8320	100.00	1	25	5	50
8420	150.00	1 1/4	25	5	100
8520	200.00	1 1/2	10	2	135
8620	300.00	2	5	1	220
8720	400.00	2 1/2	5	1	535
8820	900.00	3	5	1	680
8850	1200.00	3 1/2	5	1	800
8970	2000.00	4	5	1	940

Connectors

No.	Per 100	Size Inches	Std. Pkg.	Unit Quan.	Weight Pounds per 100
8121	\$30.00	1/2	100	25	18
8221	50.00	3/4	50	25	25
8321	100.00	1	25	5	40
8421	150.00	1 1/4	25	5	75
8521	200.00	1 1/2	10	2	100
8621	300.00	2	5	1	180
8721	400.00	2 1/2	5	1	360
8821	600.00	3	5	1	470
8851	800.00	3 1/2	5	1	560
8971	1000.00	4	5	1	630

Appleton Conduit Fittings

Schedule CF

Cadmium Finish

For Use with Standard Rigid Conduit (Heavy Wall)

No-Thread Couplings



1 1/2 to 2-Inch



2 1/2 to 4-Inch

No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std.	No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std.
82N80	1/2	50	100	23	80N90	2	1	5	15
82N81	3/4	25	50	18	80N91	2 1/2	1	5	21
82N82	1	5	25	16	80N92	3	1	5	26
82N83	1 1/4	5	25	25	80N93	3 1/2	1	5	36
82N84	1 1/2	2	10	15	80N94	4	1	5	34

Type L Connectors



1 1/2 to 2-Inch



2 1/2 to 4-Inch

No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std.	No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std.
80N95	1/2	25	100	15	82N90	2	1	5	9
80N96	3/4	25	50	12	82N91	2 1/2	1	5	13
80N97	1	5	25	10	82N92	3	1	5	16
80N98	1 1/4	5	25	17	82N93	3 1/2	1	5	24
80N99	1 1/2	2	10	10	82N94	4	1	5	33

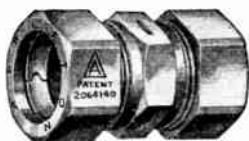
Type CN Connectors



No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std.	No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std.
80N20	1/2	25	100	17	80N22	1	5	25	13
80N21	3/4	25	50	15	80N23	1 1/4	5	25	19

Appleton Conduit Fittings

Schedule TW
For Electrical Metallic Tubing—Cadmium Finish
Gland Ring Type Couplings and Connectors
 Approved Raintight—PATENT 2064140
 Couplings



Gland ring type coupling and connector are furnished with a round split curved ring and tightening nut. The ring drops into position and the nut tightens the ring securely to the electrical metallic tubing, making a rigid connection which is absolutely raintight. Couplings in 1/2 to 2-inch sizes have hexagonal nuts and the center portion is also hexagonal so that it can be held rigidly with wrench when connecting lengths of electrical metallic tubing.

No.	Size In.	Std. Pkg.	Car-ton	Wt., Lb. Std. Pkg.
95T038	3/8	200	50	12
95T050	1/2	200	50	13
95T075	3/4	100	25	15
95T100	1	50	25	20
95T125	1 1/4	25	5	50
95T150	1 1/2	10	2	80
95T200	2	5	2	140

*Designed to take 3/8-inch electrical metallic tubing, and the other end is threaded and furnished with locknut to fit in regular 1/2-inch knock out.

Connectors



Connector is similar to coupling except that one end is threaded and equipped with a locknut for use in connecting to boxes.

No.	Size In.	Std. Pkg.	Car-ton	Wt., Lb. Std. Pkg.
*96T038	3/8	200	50	10
96T050	1/2	200	50	11
96T075	3/4	100	25	13
96T100	1	50	25	20
96T125	1 1/4	25	5	50
96T150	1 1/2	10	2	60
96T200	2	5	2	100

Appleton Conduit Adapters

Schedule TW
For Use with Electrical Metallic Tubing
For Threaded Conduit Fittings



This adapter practically makes a no-thread fitting out of any threaded conduit fitting.

No special parts are needed.

No.	Size In.	Car-ton	Std. Pkg.	Wt., Lb. per 100
80T59	3/8	50	200	1 1/2
80T60	1/2	50	200	1 1/2
80T61	3/4	25	100	5
80T62	1	25	50	6
80T63	1 1/4	10	20	10
80T64	1 1/2	5	10	15
80T65	2	2	5	20

Appleton No-Thread End Conduit Fittings

Schedule TW
Cadmium Finish



No.	Size In.	Car-ton	Std. Pkg.	Wt., Lb. Per 100
71T90	1/2	50	300	28
71T91	3/4	50	300	58
71T92	1	25	300	116
71T93	1 1/4	20	200	370
71T94	1 1/2	20	200	380
71T95	2	20	100	340

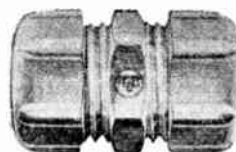
T&B Watertight Couplings and Connectors

For Thinwall Conduit (E.M.T.)

With Slotted Steel Compression Rings and Watertight Brass Sealing Rings
 Approved by Underwriters' Laboratories

Has formed steel ribbed glands, with opposite faces parallel, which are easily tightened with wrench or pliers. Double-ring watertight construction.

Couplings



Size Inches	No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. per 100
3/8	5118	\$12.00	50	200	13
1/2	5120	12.00	50	200	13
3/4	5220	17.00	25	100	20
1	5320	25.00	25	50	28
1 1/4	5420	50.00	5	25	60
1 1/2	5520	70.00	2	10	100
2	5620	100.00	2	5	140

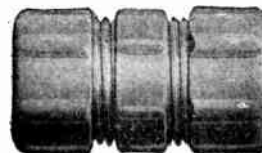
Connectors



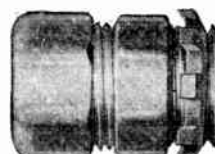
Size Inches	No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. per 100
3/8	5119	\$12.00	50	200	12
1/2	5121	12.00	50	200	12
3/4	5221	17.00	25	100	18
1	5321	25.00	25	50	26
1 1/4	5421	50.00	5	25	60
1 1/2	5521	70.00	2	10	100
2	5621	100.00	2	5	140

T&B Non-Watertight Couplings and Connectors

For Thinwall Conduit (E.M.T.)
 Approved by Underwriters' Laboratories



No. 4270, Coupling



No. 4271, Connector

Light, strong and efficient. Has satin-smooth threads and rounded edges. No burrs in the interior of the body. Ribbed design of the glands means parts are easily tightened.

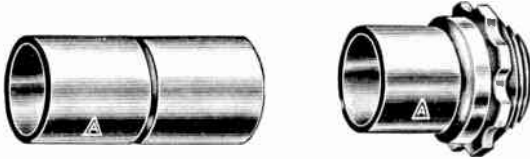
Size In.	No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. per 100
1/2	4270	\$8.00	50	200	11
1/2	4271	8.00	50	200	9

Appleton Indenter Type Couplings, Connectors and Tools

Schedule TW

For Use With Electrical Metallic Tubing
(Threadless Thin-Wall Conduit)

Couplings and Connectors



Coupling

Connector

Size In.	Car-ton	Std. Pkg.	Couplings		Connectors	
			No.	Wt. Std. Pkg. Lb.	No.	Wt. Std. Pkg. Lb.
1/2	50	200	97T050	10	98T050	12
3/4	25	100	97T075	10	98T075	12
1	10	50	97T100	6	98T100	7 1/2

Indenter Tools and Points



Each tool is furnished complete with points for 1/2, 3/4 or 1-inch tubing as listed.

No.	14200	14201	14202
With Points for Tubing inches	1/2	3/4	1

No. 14210 indenter points for above tools are available.

Electrician's Thin Wall Conduit Utility Tools



With two of these tools it is possible to tighten nuts on couplings, remove burrs from conduit, ream for a smooth edge, and tighten nut at outlet box. Will fit both 1/2 and 3/4-inch thin wall conduit fittings.

Drop forged from selected steel. Heat-treated and tempered. Heavily plated with polished heads.

Packed 12 in a display carton.

Weight per dozen, 5 pounds.

No. 2000, For Appleton and Similar Type Fittings, Openings, 1 5/16 and 1 3/16 Inches. each \$2.00

No. 2001, For T&B and Similar Type Fittings, Openings, 1x1 13/64 Inches. each 2.00

No. 33 T&B Wrenches and Reamers For E.M.T.



A combination tool. Extremely handy for all 1/2 and 3/4-inch E.M.T. installations. The same tool tightens the glands on couplings and connectors, removes burrs from tubing, and reams edge of conduit. Drop-forged steel, heat-treated and tempered.

No. 33. each \$1.00

National Conduit Locknuts



Size In.	Per 100	Std. Pkg.	Wt., Lb. Std. Pkg.	Size In.	Per 100	Std. Pkg.	Wt., Lb. Std. Pkg.
2 1/2	\$14.66	30	8	4 1/2	\$80.80	10	10
3	21.90	25	10	5	97.98	10	13
3 1/2	33.72	25	14	6	175.98	10	20
4	40.76	25	20	.....	.....	.....	.....

Appleton Tiger-Grip Bondnuts

Schedule LB

Cadmium Finish



3/8 to 2 Inches



2 1/2 and 3 Inches



3 1/2 to 6 Inches

No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
BL-38	3/8	100	1000	14
BL-50	1/2	100	2500	30
BL-75	3/4	100	1000	21
BL-100	1	50	500	21
BL-125	1 1/4	50	200	12
BL-150	1 1/2	50	100	7
BL-200	2	25	50	6

Appleton E-Z-On Locknuts

Schedule LB

Cadmium Finish

Furnished in galvanized finish only.

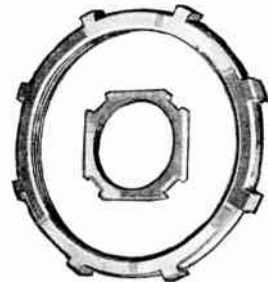


3 1/2 to 6 Inches

No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
BL-250	2 1/2	10	50	6
BL-300	3	5	50	16
BL-350	3 1/2	5	25	8
BL-400	4	5	25	10
BL-500	5	2	10	9
BL-600	6	2	10	14

T & B Locknuts

Approved by Underwriters' Laboratories




Nos. 140 to 145 are extra heavy steel and have 4 notches for driving. Nos. 146 to 153 are malleable iron and have 8 high ribs.

Steel					
Size In.	Cat. No.	Per 100	Unit Pkg.	Std. Pkg.	Wt., Lb. per 100
3/8	140	\$2.50	100	1000	1 1/2
1/2	141	2.50	100	2500	1 1/2
3/4	142	3.50	100	1000	2 1/2
1	143	6.00	50	500	4
1 1/4	144	10.00	50	200	7
1 1/2	145	15.00	50	100	8
2	146	20.00	25	50	12

Malleable Iron					
Size In.	Cat. No.	Per 100	Unit Pkg.	Std. Pkg.	Wt., Lb. per 100
2 1/2	147	\$30.00	10	30	22
3	148	50.00	5	25	38
3 1/2	149	70.00	5	25	48
4	150	100.00	5	25	52
4 1/2	151	140.00	2	10	65
5	152	160.00	2	10	90
6	153	200.00	2	10	110

National Conduit Bushings



Size In.	Per 100	Std. Pkg.	Wt., Lb. Std. Pkg.
1/2	\$1.28	2500	63
3/4	2.04	1000	37
1	3.58	500	38
1 1/4	6.02	200	20
1 1/2	6.32	100	12
2	9.28	50	9
2 1/2	15.60	30	10
3	25.06	25	13
3 1/2	46.10	25	16
4	66.52	25	23
4 1/2	117.90	10	10
5	143.46	10	15
6	279.62	10	20

Galvanized finish

Packed in strong wooden cases.

National Busheaps

Galvanized Bushings—Tin Caps



A National Busheap consists of a full strength, National Malleable Iron Bushing closed by a tin cap. The cap is pressed in tightly and will stay put. It can be easily removed when desired.

A National Busheap placed on an open end, when conduit is installed, will keep it clean and clear until the wires are drawn in.

Size.....in.	1/2	3/4	1	1 1/4	1 1/2	2
Per 100.....	\$3.00	3.80	7.68	12.62	13.86	28.74
Standard Package....	2500	1000	500	200	100	50
Weight per Standard Package.....lbs.	68	38	39	25	17	11

Appleton Conduit Bushings

Schedule LB

Cadmium Finish



No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
BU-38	3/8	100	1000	30
BU-50	1/2	100	2500	55
BU-75	3/4	100	1000	37
BU-100	1	50	500	32
BU-125	1 1/4	50	200	21
BU-150	1 1/2	50	200	26
BU-200	2	25	100	36
BU-250	2 1/2	10	50	25
BU-300	3	5	50	32
BU-350	3 1/2	5	25	20
BU-400	4	5	25	29
BU-500	5	2	10	16
BU-600	6	2	10	21

Bushings are furnished with galvanized finish only.

Bushings cannot be assorted to make up a standard package.

Appleton Capped Bushings

Schedule LB

Cadmium Finish



No.	Size Inches	Carton	Std. Pkg.	Wt. Lb. Std. Pkg.
BUC-50	1/2	100	2500	75
BUC-75	3/4	100	1000	39
BUC-100	1	50	500	35
BUC-125	1 1/4	25	200	24
BUC-150	1 1/2	10	100	18
BUC-200	2	10	50	10
BUC-250	2 1/2	5	30	16
BUC-300	3	5	25	17
BUC-350	3 1/2	5	25	21
BUC-400	4	5	25	28

T&B Malleable Conduit Bushings

Approved by Underwriters' Laboratories



A protection for conductors. Round top shoulder overlaps end of the conduit. High ribs permit easy turning.

Made of tough malleable iron protected from corrosion with Tabolite.

No.	Per 100	Size In.	Unit Pkg.	Std. Pkg.	Wt. Lb. per 100	No.	Per 100	Size In.	Unit Pkg.	Std. Pkg.	Wt. Lb. per 100
121	\$6.00	3/8	100	1000	2	128	\$60.00	2 1/2	10	30	30
122	6.00	1/2	100	2500	2 1/2	129	90.00	3	5	25	40
123	8.00	3/4	100	1000	4	130	200.00	3 1/2	5	25	76
124	15.00	1	50	500	9	131	300.00	4	5	25	108
125	20.00	1 1/4	50	200	11	132	400.00	4 1/2	2	10	120
126	25.00	1 1/2	50	100	13	133	500.00	5	2	10	165
127	40.00	2	25	50	22	134	600.00	6	2	10	260

National Malleable Iron Insulated Bushings



Designed to prevent disastrous grounds which frequently occur with uninsulated bushings. Insulating ring is an integral part of bushing and cannot loosen or fall out. Extremely tough, but not brittle, material and will stand intense strain in installation and use.

Made to N.E.C. standard.

Sherardized; minimum four-dip Preece test; rustproof.

No.....	860	867
Per 100.....	\$26.26	218.76
Size.....inches	1/2	3
Carton.....	10	1
Standard Package.....	50	5
Weight per Standard Package.....pounds	6	3 1/2

T&B Pennies

Approved by Underwriters' Laboratories



Used under conduit bushings to seal conduit during construction.

Removed from bushing with screwdriver.

Made of steel with Tabolite finish.

For Conduit Size Inches	No.	Per 100	Car-ton	Std. Pkg.	Weight Pounds per 1000
1/2	815	\$.40	500	1000	4
3/4	816	.60	250	500	7
1	817	.80	125	250	11
1 1/4	818	1.20	125	250	17
1 1/2	819	1.60	50	100	26
2	820	2.00	50	100	28
2 1/2	821	3.00	50	100	56
3	822	4.00	50	100	84
3 1/2	823	4.50	50	100	125
4	824	5.00	25	100	150
4 1/2	825	6.00	25	100	175

T&B Knockout Plugs



Quickly installed. Fit tight and stay in place.

Face of the plug is convex. A slight blow after it is inserted in the hole flattens it out and spreads lugs.

Knockout Size Inches	No.	Per 100	Car-ton	Std. Pkg.	Wt. Lb. per 1000
1/2	1451	\$5.00	50	100	2
3/4	1452	5.00	50	100	2 1/2
1	1453	8.00	50	100	3
1 1/4	1454	10.00	50	100	3 1/2
1 1/2	1455	12.00	50	100	4

Appleton Male Type Insulating End Bushings

Schedule EB



Type MEB



Type MEBL

Size inches	Type MEB Without Locknut No.	Type MEBL With Locknut No.	Diam. Inches	DEPTH, IN.		Std. Pkg.
				A	B	
1/2	29301	29321	1 1/8	3/4	7/16	100
3/4	29302	29322	1 5/16	7/8	7/16	100
1	29303	29323	1 5/8	7/8	9/16	100
1 1/4	29304	29324	2	7/8	9/16	50
1 1/2	29305	29325	2 1/4	7/8	9/16	50
2	29306	29326	2 3/4	1 5/16	9/16	50
2 1/2	29307	29327	3 1/4	1 1/4	3/4	20
3	29308	29328	3 7/8	1 1/4	3/4	20
3 1/2	29309	29329	4 3/8	1 1/4	3/4	10
4	29310	29330	5	1 1/4	3/4	10

Appleton Insulating End Bushings

Schedule EB



Type EB—Deep Type Threaded



Type EBC—Deep Type No-Thread With Set Screw



Type EBS—Shallow Type Threaded

Designed for use where space is limited and where a neat appearing and substantial insulated outlet is required on the end of conduit.

Made of bakelite, laminated, which has a high insulative property and mechanical strength.

Special treatment renders bushing impervious to moisture absorption and affords excellent electrical properties.

Tensile strength per square inch, 8000 pounds.

Dielectric strength, 700 volts per Mil.

Flexural strength per square inch, 16000 pounds.

After immersion in water for 24 hours at 25 degrees C., moisture absorption is 1.3 to 2 per cent.

Withstands heat test of 200 degrees F. without change in shape.

Appleton Insulating End Bushing Covers

Schedule EB

For Rigid Conduit (Heavy Wall)



Blank Cover



2-Hole Cover



3-Hole Cover

Made of bakelite, laminated.

Size Inches	Blank No.	2-Hole		3-Hole		Std. Pkg.
		No.	Diam. Hole Inches	No.	Diam. Hole Inches	
1/2	29140	29180	17/64	29160	1/4	50
3/4	29141	29181	11/32	29161	17/64	50
1	29142	29182	7/16	29162	11/32	50
1 1/4	29143	29183	9/16	29163	15/32	10
1 1/2	29144	29184	11/16	29164	5/8	10
2	29145	29185	7/8	29165	13/16	10
2 1/2	29146	29186	1 1/8	29166	1 1/16	5
3	29147	29187	1 3/8	29167	1 1/8	5
3 1/2	29148	29188	1 5/8	29168	1 3/8	5
4	29149	29189	1 7/8	29169	1 1/2	5
5	29151	29191	2 1/4	29171	1 7/8	1
6	29152	29192	2 1/4	29172	2 1/4	1

Type EB and EBC—Deep Type

For 1/2 to 6-Inch Rigid Conduit (Heavy Wall)

Type EB Threaded No.	Type EBC No-Thread No.	Size Inches	DIMENSIONS, IN.		Std. Pkg.	Wt. 100 per Lb.
			Depth	Diameter		
29101	29201	1/2	3/4	1 1/8	50	2
29102	29202	3/4	7/8	1 5/16	50	2 1/2
29103	29203	1	7/8	1 7/8	50	5 1/2
29104	29204	1 1/4	7/8	2	10	7 1/2
29105	29205	1 1/2	7/8	2 1/4	10	7 1/2
29106	29206	2	1 5/16	2 3/4	10	10
29107	29207	2 1/2	1 1/4	3 1/4	5	20
29108	29208	3	1 1/4	3 7/8	5	20
29109	29209	3 1/2	1 1/4	4 3/8	5	25
29110	29210	4	1 1/4	5	5	25
29112	29212	5	1 1/4	6	1	50
29113	29213	6	1 1/4	7	1	60

Type EBC—Deep Type—No thread

For 1/2 to 2-Inch Electrical Metallic Tubing

No.	Pipe Size Inches	DIMENSIONS, IN.		Std. Pkg.	Wt. Lb. per 100
		Depth	Diameter		
29T201	1/2	3/4	63/64	50	2
29T202	3/4	3/4	1.218	50	2 1/2
29T203	1	7/8	1.460	50	5 1/2
29T204	1 1/4	7/8	1.803	10	7 1/2
29T205	1 1/2	7/8	2.020	10	7 1/2
29T206	2	1 5/16	2.480	10	10

Type EBS—Shallow Type Threaded

For 1/2 to 6-Inch Rigid Conduit (Heavy Wall)

No.	Size Inches	DIMENSIONS, IN.		Std. Pkg.	Wt. Lb. per 100
		Depth	Diameter		
29121	1/2	1/2	1 1/8	50	1 1/2
29122	3/4	1/2	1 5/16	50	1 1/2
29123	1	9/16	1 5/8	50	2 1/2
29124	1 1/4	9/16	2	10	5
29125	1 1/2	9/16	2 1/4	10	5
29126	2	9/16	2 3/4	10	7 1/2
29127	2 1/2	3/4	3 1/4	5	15
29128	3	3/4	3 7/8	5	15
29129	3 1/2	3/4	4 3/8	5	20
29130	4	3/4	5	5	25
29132	5	3/4	6	1	35
29133	6	3/4	7	1	40

Appleton Snap-In Blanks and Bushings

Schedule LB

Snaps into place; closes up knockouts in service or outlet boxes. One-piece; rust-proofed; neat in appearance.



No.	Size In.	Wt. Lb per 1000
18870	1/2	17
18871	3/4	20
18872	1	30
18873	1 1/4	40
18874	1 1/2	43
18875	2	65



No.	Size In.	Wt. Lb per 1000
18880	1/2	15
18881	3/4	20

The 1/2-inch bushing has hole for single braid rubber-covered wire up to No. 8; 3/4-inch bushing has hole for double braid wire up to No. 4.

T & B Insulating End Bushings

Used to provide a smoothly rounded insulated surface protecting wires against possible abrasion and shorts where wires emerge from conduit. Especially useful where conduit terminates in switch or junction boxes and also on conduit runs terminating behind switch boards, at motors, etc.

Formed from solid insulating material of the strongest and most durable type available, and are unaffected by normal heat, moisture and corrosive agents.

Deep Type—Threaded for 1/2 to 6-Inch Conduit



For ends of conduit at switchboards, motors, etc. Can be used with insulating inserts. Long threads and rugged design assure against breakage.

No.	Each	Size In.	DIMENSIONS, INCHES		Std. Pkg.	Wt. Lb. Per 100
			Depth	Diameter		
70D	\$.21	1/2	3/4	1 1/8	50	2
71D	.25	3/4	3/4	1 5/16	50	2 1/2
72D	.35	1	7/8	1 5/8	50	5 1/2
73D	.55	1 1/4	7/8	2	10	7 1/2
74D	.60	1 1/2	7/8	2 1/4	10	10
75D	.85	2	1 5/16	2 3/4	10	10
76D	1.65	2 1/2	1 1/4	3 1/4	5	20
77D	1.75	3	1 1/4	3 7/8	5	20
78D	2.20	3 1/2	1 1/4	4 3/8	5	25
79D	2.90	4	1 1/4	5	5	25
80D	4.50	4 1/2	1 1/4	5 1/2	1	50
81D	6.50	5	1 1/4	6	1	50
82D	9.50	6	1 1/4	7	1	60

Shallow Type—Threaded for 1/2 to 6-Inch Conduit



The cut down design will fit in limited spaces such as inside of junction and switch boxes. Where insulating inserts are required, deep type is recommended.

No.	Each	Size In.	DIMENSIONS, INCHES		Std. Pkg.	Wt. Lb. Per 100
			Depth	Diameter		
70S	\$.15	1/2	1/2	1 1/8	50	1 1/2
71S	.20	3/4	1/2	1 5/16	50	1 1/2
72S	.30	1	9/16	1 5/8	50	2 1/2
73S	.45	1 1/4	9/16	2	10	5
74S	.50	1 1/2	9/16	2 1/4	10	5
75S	.75	2	9/16	2 3/4	10	7 1/2
76S	1.50	2 1/2	3/4	3 1/4	5	15
77S	1.60	3	3/4	3 7/8	5	15
78S	1.85	3 1/2	3/4	4 3/8	5	20
79S	2.00	4	3/4	5	5	25
80S	3.10	4 1/2	3/4	5 1/2	1	30
81S	4.30	5	3/4	6	1	35
82S	7.00	6	3/4	7	1	40



Threadless Type—For 1/2 to 6-Inch Standard Heavywall Conduit

Can be used with insulating inserts.

No.	Each	Size In.	DIMENSIONS, INCHES		Std. Pkg.	Wt. Lb. Per 100
			Depth	Diameter		
70N	\$.36	1/2	3/4	1 1/8	50	2
71N	.40	3/4	3/4	1 5/16	50	2 1/2
72N	.50	1	7/8	1 5/8	50	5 1/2
73N	.70	1 1/4	7/8	2	10	7 1/2
74N	.75	1 1/2	7/8	2 1/4	10	7 1/2
75N	1.00	2	1 5/16	2 3/4	10	10
76N	1.85	2 1/2	1 1/4	3 1/4	5	20
77N	1.95	3	1 1/4	3 7/8	5	20
78N	2.40	3 1/2	1 1/4	4 3/8	5	25
79N	3.10	4	1 1/4	5	5	25
80N	4.70	4 1/2	1 1/4	5 1/2	1	50
81N	6.70	5	1 1/4	6	1	50
82N	9.70	6	1 1/4	7	1	60



Threadless Type—For Thinwall Conduit (E.M.T.)

Can be used with the insulating inserts.

No.	Each	Size In.	DIMENSIONS, INCHES		Std. Pkg.	Wt. Lb. Per 100
			Depth	Diameter		
83E	\$.36	3/8	3/4	1	50	2
70E	.36	1/2	3/4	1 1/8	50	2
71E	.40	3/4	3/4	1 5/16	50	2 1/2
72E	.50	1	7/8	1 5/8	50	5 1/2
73E	.70	1 1/4	7/8	2	10	7 1/2
74E	.75	1 1/2	7/8	2 1/4	10	7 1/2
75E	1.00	2	1 5/16	2 3/4	10	10

T & B Insulating End Bushings

Male Type—Without Locknut

Used to insulate wires entering outlet or switch box knockouts and auxiliary gutters.



No.	Each	Size In.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. Per 100
			Diam.	Depth Over All	Depth Thrd.		
83M	\$.25	3/8	...	...	...	100	1 1/2
70M	.25	1/2	1 1/8	3/4	7/16	100	1 1/2
71M	.30	3/4	1 5/16	3/4	7/16	100	2
72M	.40	1	1 5/8	7/8	9/16	100	3
73M	.70	1 1/4	2	7/8	9/16	50	6
74M	.75	1 1/2	2 1/4	7/8	9/16	50	7
75M	1.05	2	2 3/4	1 5/16	9/16	50	8
76M	1.85	2 1/2	3 1/4	1 1/4	3/4	20	20
77M	1.95	3	3 7/8	1 1/4	3/4	20	25
78M	2.40	3 1/2	4 3/8	1 1/4	3/4	10	30
79M	3.10	4	5	1 1/4	3/4	10	40
80M	4.70	4 1/2	5 1/2	1 1/4	3/4	5	50
81M	6.80	5	6	1 1/4	3/4	5	65
82M	9.75	6	7	1 1/4	3/4	5	90

Male Type—With Locknut

Used to insulate wires entering outlet or switch box knockouts and auxiliary gutters.



No.	Each	Size In.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. Per 100
			Diam.	Depth Over All	Depth Thrd.		
83L	\$.29	3/8	...	...	...	100	3
70L	.29	1/2	1 1/8	3/4	7/16	100	3
71L	.35	3/4	1 5/16	3/4	7/16	100	5
72L	.48	1	1 5/8	7/8	9/16	100	7
73L	.73	1 1/4	2	7/8	9/16	50	14
74L	.91	1 1/2	2 1/4	7/8	9/16	50	18
75L	1.34	2	2 3/4	1 5/16	9/16	50	26
76L	2.29	2 1/2	3 1/4	1 1/4	3/4	20	45
77L	2.80	3	3 7/8	1 1/4	3/4	20	60
78L	3.80	3 1/2	4 3/8	1 1/4	3/4	10	80
79L	4.65	4	5	1 1/4	3/4	10	100
80L	5.70	4 1/2	5 1/2	1 1/4	3/4	5	125
81L	7.90	5	6	1 1/4	3/4	5	160
82L	11.00	6	7	1 1/4	3/4	5	190

T & B Insulating Inserts



Blank

2-Hole

3-Hole

Blank is for use with deep type, threaded and threadless, insulating end bushings where it is desired to insulate each conductor.

Two-Hole and Three-Hole will pass the maximum size of conductors allowed in the conduit by the N.E.C.

Size Inches	Blank			2-Hole			3-Hole		
	No.	Each	Std. Pkg.	No.	Each	Std. Pkg.	No.	Each	Std. Pkg.
3/8	83P	\$.12	50	70B	\$.15	50	70J	\$.15	50
1/2	70P	.12	50	70B	.21	50	70J	.21	50
3/4	71P	.15	50	70B	.30	50	72T	.30	50
1	72P	.20	50	72B	.30	50	72T	.30	50
1 1/4	73P	.30	10	73B	.40	50	73T	.40	50
1 1/2	74P	.35	10	74B	.53	10	74T	.53	10
2	75P	.40	10	75B	.66	10	75T	.66	10
2 1/2	76P	.55	5	76B	1.00	5	76T	1.00	5
3	77P	.65	5	77B	1.30	5	77T	1.30	5
3 1/2	78P	1.25	5	78B	1.90	5	78T	1.90	5
4	79P	1.75	5	79B	2.40	5	79T	2.40	5
4 1/2	80P	2.25	1	80B	2.90	1	80T	2.90	1
5	81P	2.50	1	81B	3.30	1	81T	3.30	1
6	82P	3.00	1	82B	3.90	1	82T	3.90	1

O.Z. Type BB Insulating Bushings

With Locknut

Used for insulating cable passing through metal boxes or troughs. Made of bakelite with standard conduit threads.

Also available in type EB. Prices on request.



No.	Each	Conduit Size Inches	DIMENSIONS, INCHES		
			Diameter of Hole	Outside Diameter	Length of Thread
BB 50	\$.30	1/2	1 1/2	1 1/8	1/16
BB 75	.35	3/4	1 11/16	1 5/8	1/16
BB100	.50	1	1 15/16	1 5/8	9/16
BB125	.75	1 1/4	1 15/16	2	9/16
BB150	.90	1 1/2	1 15/16	2 1/4	9/16
BB200	1.35	2	1 7/8	2 3/4	9/16
BB250	2.30	2 1/2	2 1/8	3 3/8	9/16
BB300	2.80	3	2 3/16	4	3/4
BB350	3.80	3 1/2	3 1/4	4 1/2	3/4
BB400	4.65	4	3 3/4	5	3/4
BB450	5.70	4 1/2	4 3/8	5 1/2	3/4
BB500	7.90	5	4 7/8	6	3/4
BB600	11.00	6	5 7/8	7	3/4

O.Z. Type B Insulated Conduit Bushings



Illustrates how Insulating Material is Molded and Locked into the Casting

A bushing designed for prevention of grounds using bakelite as an insulator. Casting made of malleable iron and cadmium plated. Bushing is capped.

Can be supplied hot-dipped galvanized, bronze or aluminum. Prices on application.

No.	Each	Conduit Size In.	Diam. In.	Ht. In.	Std. Pkg.
B 50	\$.10	1/2	1	1 1/2	100
B 75	.20	3/4	1 1/4	9/16	50
B100	.30	1	1 1/8	1 1/16	25
B125	.40	1 1/4	1 7/8	3/4	20
B150	.50	1 1/2	2 1/8	3/4	20
B200	.70	2	2 3/4	3/4	10
B250	1.00	2 1/2	3 1/4	7/8	10
B300	1.35	3	3 15/16	1 1/16	5
B350	1.75	3 1/2	4 9/16	1	5
B400	2.25	4	5	1 1/16	5
B450	3.25	4 1/2	5 9/16	1 3/16	1
B500	4.50	5	6 1/4	1 3/16	1
B600	7.00	6	7 3/16	1 3/8	1

Federal Porcelain Spring Clamp Bushings

A special short shank bushing with spring clamp instead of ferrule. Carton, 100. Standard package, 500.

Shipping weight, standard package, 15 pounds.



No. C-2

No.	C-1	C-2
Per 100	\$7.20	8.50
Inside Diameter.....inches	1 1/32	1 1/2
Outside Diameter.....inches	9/16	13/16
Length Under Head....inches	3/8	3/8

Federal Porcelain Pipe Thread Bushings

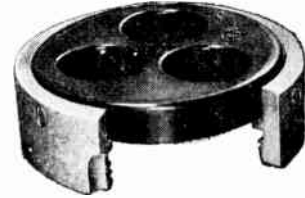


No. F-2L

No.	Plain			With Lock Nut		
	F-1	*F-1 1/2	F-2	F-1L	*F-1 1/2 L	F-2L
Per 100	\$5.25	6.25	6.25	7.70	9.20	9.20
Diam.						
Hole.in.	13/32	13/32	1/2	13/32	13/32	1/2
Carton.	100	50	50	100	50	50
Std.Pkg	500	250	250	500	250	250

*F-1 1/2 bushings have longer shank.

O.Z. Type E Conduit End Fittings



Installed at the end of the conduit to provide a means of spacing and individually insulating wires as they emerge from the conduit end. Body made of cadmium plated malleable iron. Cover made of molded canvas bakelite which has a high dielectric and mechanical strength. Holes other than standard can be drilled according to specification. Set-screw type fittings for threadless conduit can be furnished.

No.	Complete with Cover			Cover Only			Conduit Size In.	Diam. In.	Ht. Std. In.	Std. Pkg.
	Blank Each	Hole Each	Hole Each	Blank Each	Hole Each	Hole Each				
E 50	\$.35	\$.35	\$.40	\$.10	\$.10	\$.15	1/2	1 1/4	7/8	5
E 75	.45	.45	.50	.15	.15	.20	3/4	1 1/2	7/8	5
E100	.60	.60	.70	.20	.20	.30	1	1 11/16	15/16	5
E125	.80	.80	.95	.30	.30	.45	1 1/4	2	15/16	5
E150	1.15	1.15	1.35	.40	.40	.60	1 1/2	2 1/4	15/16	5
E200	1.75	1.75	2.00	.50	.50	.75	2	2 15/16	1 1/8	1
E250	3.00	3.00	3.45	.75	.75	1.20	2 1/2	3 7/16	1 1/4	1
E300	4.00	4.00	4.50	1.00	1.00	1.50	3	4	1 1/4	1
E350	5.25	5.25	5.75	1.25	1.25	1.75	3 1/2	4 3/4	1 15/32	1
E400	7.00	7.00	7.50	1.50	1.50	2.00	4	5 3/8	1 7/16	1
E450	9.00	9.00	9.50	2.00	2.00	2.50	4 1/2	5 1/2	1 7/16	1
E500	12.00	12.00	12.50	2.50	2.50	3.00	5	6 3/8	1 19/32	1
E600	15.00	15.00	15.50	3.00	3.00	3.50	6	7 3/8	1 19/32	1

For hot-dip galvanized body, add 20 per cent to price. Can be supplied for thin wall conduit (E.M.T.) and fiber conduit on request at additional cost.

*Holes accommodate maximum size cable according to code.

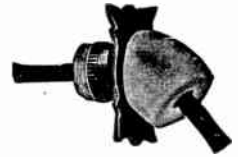
Federal Porcelain Clamp Bushings



No. A-1



No. B-1



No. K-1

Made of vitrified porcelain in one piece. Clamping rings are made of metal, threaded to fit threads on the porcelain. By reversing the clamp ring bushings can be used on thicker material. Bushings furnished in all colors.

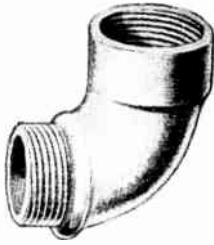
Nos. K-1 and K-2 elbow bushings are of a special shape for outdoor work, preventing water from entering around wire; also prevents damage to wire or insulation by sudden bending at the bushing.

Cat. No.	Per 100	Conduit K.O. Size In.	I.D. In.	O.D. In.	Length Under Head In.	Approx. Max. Size R.C. Wire	Ship. Wt. Lbs.	Std. Pkg.
A-1	\$7.50	1 1/4	3/16	4 1/64	3/8	No. 10	500	15
A-1 1/2	8.00	1 1/2	3/16	13/16	9/16	No. 10	250	14
†A-1 1/2 LS	9.00	1 1/2	3/16	13/16	3/4	No. 10	250	16
A-2	8.00	1 1/2	15/32	13/16	9/16	No. 8	250	12
A-2 LS	9.00	1 1/2	27/64	13/16	3/4	No. 8	250	14
A-2 1/2	9.00	1 1/2	33/64	13/16	9/16	*No. 4	250	11
A-3	10.00	1 3/4	9/16	1	13/16	No. 3	250	22
A-4	14.00	1	3/4	1 15/16	1 13/16	No. 00	125	18
A-4L	14.00	1	11/8	1 13/16	1 13/16	No. 4/0	125	17
A-5	18.00	1 1/4	1 1/8	1 5/8	1 5/8	450000 C.M.	125	23
A-6	35.00	2	1 5/8	2 5/16	1 1/16	1000000 C.M.	60	24
B-1	14.00	1 1/4	3/32	4 1/64	1 1/4	No. 10	250	17

*For 1/2-inch Neon sign cable. †L.S., Long shank. †Loom

T & B Short Elbows

Well bushed, with clean machine-cut threads. Made of malleable iron and plated inside and outside with Tabolite superior galvanizing.



Conduit Size Inches	No.	Per 100	Radius Inches	Offset Inches	Car-ton	Std. Pkg.	Wt. Lb. per 100
1/2	4250	\$15.00	9/16	11/16	25	50	17
3/4	4251	24.00	11/16	13/16	25	50	26
1	4252	45.00	13/16	15/16	10	25	36
1 1/4	4253	55.00	1 1/16	1 1/32	10	25	90
1 1/2	4254	70.00	1 3/16	1 1/32	10	25	105
2	4255	95.00	1 7/16	1 5/8	5	10	200

T&B Watertight Short Elbows

90° Box Connectors

For Thinwall Conduit (E.M.T.)

Approved by Underwriters' Laboratories



Conduit Size Inches	No.	Per 100	Radius Inches	Offset Inches	Car-ton	Std. Pkg.	Wt. Lb. per 100
1/2	4230	\$36.00	9/16	11/16	25	50	21
3/4	4231	38.00	11/16	13/16	25	50	32
1	4232	50.00	13/16	15/16	5	25	52
1 1/4	4233	125.00	1 1/16	1 1/32	2	10	100
1 1/2	4234	175.00	1 3/16	1 1/32	2	10	180
2	4235	250.00	1 7/16	1 5/8	2	10	320

T&B Bushed Elbows

Approved by Underwriters' Laboratories

Schedule F

Handy fittings for use wherever it is necessary to terminate a conduit run in a sharp turn. Designed with male and female threaded ends with well rounded shoulders which eliminate any possibility of damage to wires.

Made of malleable iron, protected from corrosion with Tabolite galvanizing.



No.	Per 100	Conduit Size In.	Radius In.	Offset In.	Unit Qty.	Std. Pkg.	Wt. Lb. per 100
460	\$32.00	1/2	1 1/8	1 1/8	10	100	28
461	45.00	3/4	1 1/2	1 1/2	10	100	43
462	65.00	1	1 13/16	1 13/16	5	25	82
463	200.00	1 1/4	2 1/4	2 1/4	5	10	130

Appleton 90-Degree Bushed Elbows

Schedule CF

Cadmium Finish
For Rigid Conduit (Heavy Wall)



Cat. No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
7490	1/2	25	100	30
7491	3/4	25	100	50
7492	1	10	25	20
7493	1 1/4	10	20	26
7494	1 1/2	5	10	24
7494-A	2	5	10	38

Appleton Malleable 90° Elbows

Schedule CF

Cadmium Finish

Short, 90° bushed elbow.



No.	7495	7496	7497
Size.....in.	1/2	3/4	1
No. in Carton.....	25	25	10
No. in Stand. Pkg.....	100	100	50
Wt. per Stand. Pkg.....lb.	16	26	18

Appleton 90-Degree Connector Extension

Schedule CF

Cadmium Finish



No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
27495	1/2	25	500	80
27496	3/4	25	300	78
27497	1	20	200	72

Appleton Conduit Elbows

Schedule CFS

Cadmium Finish

For Rigid Conduit (Heavy-Wall)



45-Degree Female

90-Degree Female

Type EL 45-Degree Female

No.	Size Inches	Car-ton	Std. Pkg.	No.	Size Inches	Car-ton	Std. Pkg.
8285	1/2	10	200	8295	2	1	5
8286	3/4	10	100	8296	2 1/2	1	5
8287	1	5	50	8297	3	1	5
8288	1 1/4	5	25	8298	3 1/2	1	5
8289	1 1/2	5	10	8299	4	1	5

Type EL 90-Degree Female

8270	1/2	10	200	8271	3/4	10	100
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Type EL 90-Degree—No-Thread



No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
82N70	1/2	5	100	37
82N71	3/4	5	50	36



Type ELB 90-Degree Female

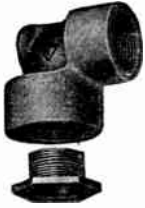
No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
8192	1	5	50	180

Appleton 90-Degree Knockout Box Connectors

Schedule CFS

Cadmium Finish

For Rigid Conduit (Heavy-Wall)



Threaded Type

No.	Size, In. A B	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
7360	1/2x1/2	5	25	8
7361	3/4x1/2	5	10	5
7362	3/4x3/4	5	10	6
7363	1x3/4	5	10	6



Combination Threaded and No-Thread Type

No.	Threaded Size, In.	No-Thread Size, In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
7370	1/2	1/2	5	25	12
7371	1/2	3/4	5	10	5
7372	3/4	1/2	5	10	5
7373	3/4	3/4	5	10	7
7374	3/4	1	5	10	7
7375	1	3/4	5	10	7



No-Thread Type

No.	Size, In. A B	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
73N61	3/4x1/2	5	10	4
73N63	1x3/4	5	10	6



Threaded Type

No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
7390	1/2	25	50	8 1/2
7391	3/4	25	50	13



No-Thread Type

No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
73N90	1/2	25	50	10
73N91	3/4	25	50	16

Type PEL Appleton Pulling Elbows

Schedule CFS

Cadmium Finish

For Rigid Conduit (Heavy-Wall)



Threaded



No-Thread

Designed for use in practically any corner, and the cover, which is instantly accessible, makes it possible to pull wires without difficulty. All sizes have exceedingly large wiring space.

Threaded

No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
37450	1/2	10	100	52
37451	3/4	5	50	40
37452	1	5	20	27

No-Thread

No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
374N50	1/2	10	100	62
374N51	3/4	5	50	48
374N52	1	5	20	34

Type ET Appleton Elbows

Schedule CFS

Cadmium Finish

For Short Radius Bend For Rigid Conduit (Heavy-Wall)



With Lugs



Without Lugs

Designed for use in making junctions in the conduit system at concealed or inaccessible points.

Especially suitable for use in connections in service conduit with outdoor meters or with lighting fixtures.

Threaded

With Lugs		Without Lugs		SIZE, INCHES			Car-ton	Std. Pkg.
No.	Wt. Lb. Std. Pkg.	No.	Wt. Lb. Std. Pkg.					
8630	8690	84	8690	3/4	1/2	1/2*	5	100
8631	8691	104	8691	3/4	3/4	3/4	5	100
8632	8692	65	8692	1	3/4	3/4*	5	50
8633	8693	..	8693	1	-1	-1	5	50
8634	8694	46	8694	1 1/4	-1	*	5	25

Designed for use in making junctions in the conduit system at concealed or inaccessible points.

No-Thread Without Lugs



Main hubs are No-Thread and large branch hub is threaded.

No.	Size, INCHES	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
86N90	3/4-1/2-1/2*	5	100	95
86N91	3/4-3/4-3/4	5	100	..
86N92	1-3/4-3/4	5	50	72

*Size of larger hub is given first, and is shown at bottom in illustration.

No. 18860 Appleton Meter Connectors

Schedule CFS

Cadmium Finish



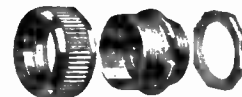
No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
18860	1 1/4	5	25	13

Appleton Reducing Connectors

Schedule CFS

Cadmium Finish

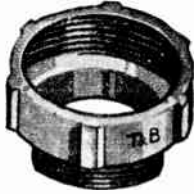
For Knockout or Panel Box Connections—No-Thread Type



No.	Size, INCHES A B	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
73N80	1/2x 3/4	10	50	10
73N81	1/2x1	10	50	16
73N82	3/4x1	10	50	17
73N83	1/2x1 1/4	5	25	12
73N84	3/4x1 1/4	5	25	13
73N85	1x1 1/4	5	25	19

T&B Male Conduit Enlargers

Approved by Underwriters' Laboratories



For securing conduit in an outlet of the next larger size. Bushed so that the rough ends of conduit are protected.

Size Inches	No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. per 100
1/2-3/4	1245	\$20.00	25	100	10
3/4-1	1246	30.00	25	50	20
1-1 1/4	1244	40.00	5	50	32
1 1/4-1 1/2	1247	50.00	5	25	45

Appleton Male Enlarger Conduit Fittings

Schedule CF

Cadmium Finish



When screwed into the hub of any conduit fitting having 1/2, 3/4, or 1-inch female hubs respectively, will enlarge the hub to the next size, namely, 3/4, 1, and 1 1/4 inches according to the number selected.

No.	Size Inches	Carton	Std. Pkg.	Wt. Lb. Std. Pkg.
9407	3/4 F.x 1/2 M.	50	500	70
9408	1 F.x 3/4 M.	50	500	80
9409	1 1/4 F.x 1 M.	20	200	40

T&B Female Conduit Reducers

Approved by Underwriters' Laboratories

Designed to adapt an outlet to the next smaller size of conduit.

Size Inches	No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. per 100
3/4-1/2	1250	\$10.00	50	100	8
1-3/4	1251	20.00	25	50	12
1 1/4-1	1252	35.00	25	50	22
1 1/2-1 1/4	1253	50.00	25	50	29
2-1 1/2	1254	65.00	10	25	53
2 1/2-2	1255	100.00	10	25	90
3-2 1/2	1256	135.00	10	25	170
3 1/2-3	1257	200.00	5	10	175
4-3 1/2	1258	275.00	5	10	290
4 1/2-4	1259	500.00	2	5	355
5-4 1/2	1260	750.00	2	5	430



T & B Threaded Split Steel Adapters

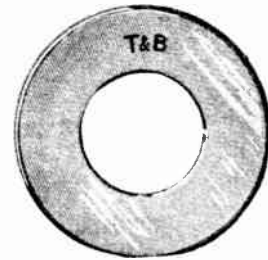
Threaded Tubelets to Thinwall Conduit



No.	Per 100	Size In.	Unit Pkg.	Std. Pkg.	Wt. Lb. per 100
1038	\$4.00	3/8	50	200	1 1/2
1050	4.00	1/2	50	200	2 1/2
1075	6.00	3/4	25	100	5
1090	10.00	1	25	50	6
1125	20.00	1 1/4	5	20	10
1150	25.00	1 1/2	2	10	15
1151	35.00	2	2	5	20

T&B Reducing Washers

Drilled Pennies



Designed to reduce the size of knockouts in outlet boxes. Made of steel and galvanized.

Size, INCHES K.O. Conduit	No.	Per 100	Std. Pkg.	Car-ton	Wt., Lb. per 1000
3/4 to 3/8	3700	\$2.50	500	250	10
3/4 to 1/2	3701	2.50	500	250	10
1 to 3/8	3702	4.00	250	125	15
1 to 1/2	3703	4.00	250	125	13
1 to 3/4	3704	4.00	250	125	25
1 1/4 to 3/8	3705	5.00	250	125	20
1 1/4 to 1/2	3706	5.00	250	125	18
1 1/4 to 3/4	3707	5.00	250	125	13
1 1/4 to 1	3708	5.00	250	125	30
1 1/2 to 3/8	3709	5.50	100	50	28
1 1/2 to 1/2	3710	5.50	100	50	25
1 1/2 to 3/4	3711	5.50	100	50	23
1 1/2 to 1	3712	5.50	100	50	40
1 1/2 to 1 1/4	3713	5.50	100	50	38
2 to 1/2	3714	7.00	100	50	35
2 to 3/4	3715	7.00	100	50	72
2 to 1	3716	7.00	100	50	68
2 to 1 1/4	3717	7.00	100	50	63
2 to 1 1/2	3718	7.00	100	50	56
2 1/2 to 1/2	3719	9.00	100	25	120
2 1/2 to 3/4	3720	9.00	100	25	120
2 1/2 to 1	3721	9.00	100	25	110
2 1/2 to 1 1/4	3722	9.00	100	25	100
2 1/2 to 1 1/2	3723	9.00	100	25	90
2 1/2 to 2	3724	9.00	100	25	80
3 to 1/2	3725	11.00	100	25	150
3 to 3/4	3726	11.00	100	25	140
3 to 1	3727	11.00	100	25	140
3 to 1 1/4	3728	11.00	100	25	140
3 to 1 1/2	3729	11.00	100	25	130
3 to 2	3730	11.00	100	25	110
3 to 2 1/2	3731	11.00	100	25	90

Appleton Cupped Reducing Washers

Schedule CF

Cadmium Finish



For reducing the knockouts in outlet boxes, cabinets, etc. Galvanized finish.

No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. per 100
7336	3/4 to 1/2	250	500	2
7337	1 to 3/4	125	250	3
7338	1 to 1/2	125	250	4
7339	1 1/4 to 1	125	250	5
7340	1 1/4 to 3/4	125	250	6
7341	1 1/4 to 1/2	125	250	7
7342	1 1/2 to 1 1/4	50	100	7
7343	1 1/2 to 1	50	100	8
7344	1 1/2 to 3/4	50	100	9
7345	1 1/2 to 1/2	50	100	10
7346	2 to 1 1/2	50	100	5
7347	2 to 1 1/4	50	100	6
7348	2 to 1	50	100	7
7349	2 to 3/4	50	100	8
7350	2 to 1/2	50	100	9

Appleton Reducers

Schedule CF

Cadmium Finish—Threaded



Use to reduce conduit fittings from larger to smaller sizes as shown.

No.	Size In.	Carton Pkg.	Std. Pkg.	Wt., Lb. per 100	No.	Size In.	Carton Pkg.	Std. Pkg.	Wt., Lb. per 100
8200	1/2 - 3/8	50	100	4	8229	3 1/2 - 1	5	10	170
8201	3/4 - 1/2	50	100	5	8230	4 - 1	5	10	220
8202	1 - 1/2	25	50	12	8234	1 1/2 - 1 1/4	25	50	15
8203	1 1/4 - 1/2	25	50	33	8235	2 - 1 1/4	10	25	50
8204	1 1/2 - 1/2	25	50	40	8236	2 1/2 - 1 1/4	10	25	90
8205	2 - 1/2	10	25	65	8237	3 - 1 1/4	10	25	145
8206	2 1/2 - 1/2	10	25	87	8238	3 1/2 - 1 1/4	5	10	210
8207	3 - 1/2	10	25	115	8239	4 - 1 1/4	5	10	230
8208	3 1/2 - 1/2	5	10	175	8243	2 - 1 1/2	10	25	38
8209	4 - 1/2	5	10	250	8244	2 1/2 - 1 1/2	10	25	87
8213	1 - 3/4	25	50	9	8245	3 - 1 1/2	10	25	125
8214	1 1/4 - 3/4	25	50	24	8246	3 1/2 - 1 1/2	5	10	215
8215	1 1/2 - 3/4	25	50	36	8247	4 - 1 1/2	5	10	255
8216	2 - 3/4	10	25	70	8251	2 1/2 - 2	10	25	53
8217	2 1/2 - 3/4	10	25	84	8252	3 - 2	10	25	130
8218	3 - 3/4	10	25	120	8253	3 1/2 - 2	5	10	280
8219	3 1/2 - 3/4	5	10	170	8254	4 - 2	5	10	320
8220	4 - 3/4	5	10	250	8258	3 - 2 1/2	10	25	100
8224	1 1/4 - 1	25	50	14	8259	3 1/2 - 2 1/2	5	10	200
8225	1 1/2 - 1	25	50	29	8260	4 - 2 1/2	5	10	263
8226	2 - 1	10	25	52	8264	3 1/2 - 3	5	10	93
8227	2 1/2 - 1	10	25	102	8265	4 - 3	5	10	250
8228	3 - 1	10	25	115	8269	4 - 3 1/2	5	10	200

T&B Insuliner Sleeves

Approved by Underwriters' Laboratories

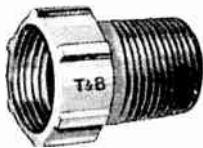
Insulates and lines bushing and conduit. Can be used with any outlet for wires such as bushings, tubelets, connectors, or chase nipples. Prevents cable insulation abrasion and shorts. Overlapping ends automatically adjust for normal variations in conduit diameters.



No.	Per 100	Conduit Size, In.	Unit Pkg.	Std. Pkg.	Wt., Lb. per 100
422	\$15.00	1/2	25	50	3
423	17.00	3/4	25	50	6
424	20.00	1	25	50	7
425	25.00	1 1/4	20	40	13
426	27.00	1 1/2	20	40	14
427	30.00	2	15	30	20
428	50.00	2 1/2	15	30	35
429	80.00	3	5	25	50
430	100.00	3 1/2	5	25	75
431	200.00	4	5	20	90
432	300.00	4 1/2	5	15	110
433	400.00	5	2	10	140
434	500.00	6	1	5	200

T&B Fixture Extensions

Approved by Underwriters' Laboratories



Made of malleable iron with high ribs for a good finger grip. Clean-cut threads for easy installation.

No.	Per 100	Size Inches	Unit Quan.	Std. Pkg.	Weight Pounds per 1000
1590	\$4.00	3/8 x 1	100 or 500	1000	70
1591	4.00	3/8 x 1 3/8	100 or 500	1000	85
1592	4.00	3/8 x 1 1/4	100 or 500	1000	65

Appleton Combination Extension Pieces

Schedule CF

Cadmium Finish



Made with internal threads in addition to the standard male thread, so that they may also be used for bracket outlets.

No.	Size and Description	Carton	*Std. Pkg.	Wt. Lb. per 1000
18835	3/8-In. F. x 3/8-In. M., and 1/8-In. F.—1-In. Long.	100	1000	52
18836	3/8-In. F. x 3/8-In. M., and 1/8-In. and F.—1-In. Long.	100	1000	50

*Extensions may be assorted to make up standard package.

Appleton Fixture Extension Pieces

Schedule CF

Cadmium Finish
3/8-Inch Male by 3/8-Inch Female



No.	18830	18831
Length..... inches	1	1 3/8
Carton.....	100	100
Standard Package.....	1000	1000
Weight per Standard Package lbs.	52	70

Appleton E-Z-On Fixture Stems

Schedule CF

Cadmium Finish



Size, 3/8 inch.
Standard package, 1000. Carton, 100.
Weight per standard package, 60 pounds.

No. 8059 is the solid type. No. 8060 is the open type.

Appleton Boltless Fixture Stems

Schedule CF

Cadmium Finish



Requires no bolts.
Standard carton, 100. Standard package, 1000.

No.	Solid		Open		
	8055	8057	8056	8058	8070
Size.....	3/8	1/2	3/8	1/2	3/8M, 1/4F
Wt. per Std. Pkg.....	72	80	72	80	80

Appleton Hickey Fixture Stems

Schedule CF

Cadmium Finish

Open Type—Without Bolts



Malleable



Steel

Furnished with galvanized finish only. Cannot be assorted to make up a standard package.

Malleable					Steel				
No.	Size In.	Carton Pkg.	Std. Pkg.	Wt. Lb. per 1000	No.	Size In.	Carton Pkg.	Std. Pkg.	Wt. Lb. per 1000
8050	3/8	100	1000	76	8090	3/8	100	1000	75
8052	1/2	100	500	55	8091	3/8M, 1/4F	100	1000	75

T & B Hickey Fixture Studs

Approved by Underwriters' Laboratories



Made of malleable iron, and furnished in Tabolite—the superior galvanized finish. All four prongs have extra long slots to allow adjustment. With this stud no hickey keys are required on straight electrical work.

Size Stud Inches	No.	Per 100	Std. Pkg.	Wt., Lb. per 100
3/8	16	\$5.00	1000	8
1/2	17	6.50	1000	13

Stove Bolts & Nuts .50 1000 1

T & B Slip-In Fixture Studs

Approved by Underwriters' Laboratories



Can be installed from interior of box without removal of parts. Occupies minimum space in box, thus allowing more room for wires.

No small nuts and bolts to lose or fuss with.

To install this stud, back off locknut a few turns, slip base of stud into knockout

from inside of box, allow prongs to drop into fixture stud holes and tighten down the locknut.

No.	Type	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
1601	Hollow Steam	\$5.00	3/8	100	500	7
1600	Solid Stem for Concrete Work	5.00	3/8	100	500	8
1602	3/8-In. Male by 1/8-In. Female	5.00	..	100	500	8

Appleton Swivel Conduit Fixture Hangers

Schedule CFS

Cadmium Finish

Allows fixture to swing 15 degrees from perpendicular.



Ball Without Cushion Type

No.	Size, Fixture Stem In.	In. Male Hub	Fixture Wt., Lb.	Carton	Std. Pkg.	Wt. Lb.
7160	3/8	1/2	.....	10	50	33
7161	1/2	1/2	.....	10	50	34
7162	3/4	1/2	.....	10	50	35
7163	3/4	3/4	.....	10	50	36

Ball With Cushion Type

7165	3/8	1/2	3 to 6	10	50	40
7166	1/2	1/2	3 to 6	10	50	41
7167	3/4	1/2	3 to 6	10	50	42
7168	3/4	3/4	3 to 6	10	50	43
7170	3/8	1/2	6 to 12	10	50	40
7171	1/2	1/2	6 to 12	10	50	41
7172	3/4	1/2	6 to 12	10	50	42
7173	3/4	3/4	6 to 12	10	50	43
7185	3/8	1/2	12 to 24	10	50	41
7186	1/2	1/2	12 to 24	10	50	42
7187	3/4	1/2	12 to 24	10	50	43
7188	3/4	3/4	12 to 24	10	50	44

Combination Hickey and Swivel Joint Type

In addition to the swivel fixture joint feature, it also has the added feature of being a hickey and eliminates the use of the ordinary hickey.



No.	Size In.	Carton	Std. Pkg.	Wt. Lb.
7220	3/8-3/4	25	50	14
7221	3/8-1/2	25	50	14

T & B Entrance Caps

For Use with Service Entrance Cable

Approved by Underwriters' Laboratories.



No. 5550

No.	Description	Unit Pkg.	Std. Pkg.	Wt. per 100	Lb. per 100	Per 100
5549	For Service Entrance Cable from 2W12 through 2W6.....	5	50	15		\$40.00
5550	For Service Entrance Cable from 2 or 3W12 through 2 or 3W8...	5	50	20		50.00
5551	For Service Entrance Cable from 2 or 3W6 through 2 or 3W4 and 2W2.....	5	50	25		62.50
5535	3-Hole Insulator.....	2	5	125		100.00
5536	3-Hole Insulator.....	2	5	175		125.00
5537	5-Hole Insulator.....	5	50	65		115.00

T & B Straight Insulets

Approved by Underwriters' Laboratories



For use at motor outlets or at the end of any conduit run where wires emerge. Insulator has 3 wire holes with one hole plugged.

Can also be used with T & B chase nipples where wires emerge from an outlet box knockout. For all conduit sizes, from 1/2 to 1 1/4 in.

No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt. Lb.
1610	\$20.00	1/2	25	100	15
1611	30.00	3/4	25	100	19
1612	40.00	1	5	50	38
1613	50.00	1 1/4	5	25	110

No. 1660 T & B Round Type Insulets



Plated with Tabolite. Has 3 wire holes with one hole plugged.

Where it is desirable to bring 2 or 3 wires out of 1/2, 3/4 or 1-inch knockout use the insulet and T & B chase nipple.

No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt. Lb.
1660	\$20.00	1/2	25	100	11

T & B Angle Insulets

Approved by Underwriters' Laboratories



Can be used as a service entrance on horizontal conduit, or as an inside installation.

Insulator has 3 wire holes, with one hole plugged.

No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt. Lb.
1640	\$30.00	1/2	5	50	44
1641	45.00	3/4	5	50	52
1642	60.00	1	6	30	108
1643	75.00	1 1/4	5	25	143

No. 1665 T & B Insulets For Armored Cables

Approved by Underwriters' Laboratories



Has a Tite-Bite grip made to hold all 3/8-inch sizes of armored cable, as well as non-metallic cable.

Has 3 wire holes with one hole plugged.

No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt. Lb.
1665	\$20.00	3/8	25	100	18



T&B Entrance Caps

Approved by Underwriters' Laboratories

May be used in both vertical and horizontal positions with entrance hole always 45° from the weather. Insulator is of heavy composition, molded to set in the frame. Cap is hot galvanized; frame Tabolited.

No.	Per 100	Holes in Insulator		Unit	Std. Pkg.	Wt. Lb.	No.	Per 100	Holes in Insulator		Unit	Std. Pkg.	Wt. Lb.
		Size In.	Quan.						Size In.	Quan.			
1525	\$50.00	1/2	4	10	50	76	1531	\$900.00	2 1/2	4	1	1	1500
1521	65.00	3/4	5	5	50	108	1532	1100.00	3	6	1	1	2600
1522	80.00	1	5	5	25	164	1533	1900.00	3 1/2	6	1	1	2600
1523	200.00	1 1/4	5	1	10	220	1534	2400.00	4	6	1	1	2600
1524	200.00	1 1/4	7	1	10	220	1553	3000.00	4 1/2	6	1	1	3000
1529	225.00	1 1/2	4	1	5	300	1554	3400.00	5	6	1	1	3000
1530	400.00	2	4	1	5	800	1555	3900.00	6	6	1	1	3000

T&B Entrance Ells

For Electrical Metallic Tubing

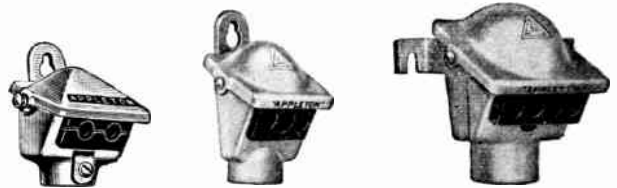
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Conduit Size Inches	No.	Per 100	Car-ton	Std. Pkg.	Weight Pounds per 100
1/2	5490	\$54.00	5	50	61
3/4	5491	62.00	5	20	92
1	5492	101.00	5	10	114
1 1/4	5493	245.00	1	10	255
1 1/2	5494	330.00	1	5	310
2	5495	530.00	1	5	500

Appleton Aluminum Entrance Fittings

Schedule OF



No. 15200 and 15201

No. 15205

No. 15206

For use with oval and round bare neutral concentric service entrance cable and also round armored service entrance cable.

No.	DIAMETER Minimum	OPENING, IN. Maximum	Underwriters Type of Cable	Car-ton	Std. Pkg.
15200	3/16 X 5/8	2 1/2 X 1 3/16	SE	5	50
15201	15/32 X 1 1/16	2 3/32 X 1 1/32	and SD	5	50
15205	19/32	7/8	ASE	5	50
15206	19/32	1 3/32		1	5
*15260	.....	.....	.....	1	5

T&B Entrance Caps

For Thinwall Conduit



Cap is held in place by two screws which are burred to prevent falling out.

Frame is pushed to protect the conductor.

Top of frame, which holds the insulator, is split permitting conductors to slip in without threading.

Connection to tubing is watertight.

Hot galvanized finish.

Size Inches	No.	Per 100	No. Holes in Insulator	Car-ton	Std. Pkg.	Wt., Lb. per 100
1/2	5525	\$50.00	4	10	50	80
3/4	5526	70.00	4	5	50	112
1	5527	90.00	4	5	25	168
1 1/4	5528	210.00	4	1	10	260

For Use with Service Entrance or Drop Cable

Cable passes through the large, one-hole insulator and is then protected by E.M.T. to the meter box or switch.

3/4	5526KC	\$70.00	Insulator Open.	1-In. Diameter	5	50	112
1	5527KC	90.00	Insulator Open.	1 1/4-In. Diameter	5	25	168

T&B Entrance Ells

Approved by Underwriters' Laboratories



Designed for a straight pull in either direction. Mounts flush on the wall, eliminating any need for bending conduit.

No sharp edges. Carefully bushed to protect the cable. Cover held in place with one screw which does not come out. A turn of the screw, and the cover slips out. Made of heavy cast iron and plated with Tabolite—the superior galvanized finish.

Conduit Size Inches	Regular No.	Locked No.	Drip No.	Per 100	Car-ton	Std. Pkg.	Wt. Lb. per 100
1/2	1490	1990	2090	\$40.00	5	50	80
3/4	1491	1991	2091	45.00	5	50	90
1	1492	1992	2092	65.00	5	25	150
1 1/4	1493	1993	2093	115.00	5	10	180
1 1/2	1494	1994	2094	140.00	1	5	443
2	1495	1995	2095	290.00	1	1	731
2 1/2	1496	1996	2096	675.00	1	1	900
3	1497	1997	2097	850.00	1	1	1225

Appleton Entrance Fitting Composition Covers

Schedule OF

For Oval and Round Service Entrance Cable



No.	For Fittings Nos.	Style	Car-ton	Std. Pkg.	Wt. Lb. per 100
15500	15200, 25200	2-Hole	10	50	...
15501	15201, 25201	2-Hole	10	50	...
15502	15205, 25205	3-Hole	10	50	...
15503	15206, 25206	3-Hole	5	5	...

Type FEL Appleton Special Entrance Ell

Schedule EF

Threaded—Cadmium Finish

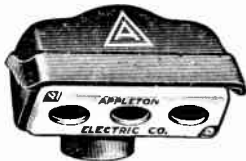


No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. per 100
37490	1/2	25	100	28
37491	3/4	25	100	43
37492	1	10	25	84
37493	1 1/4	10	10	130

Type FEB Appleton Entrance Fittings

Schedule EF

**Threaded—Cadmium Finish
With 3-Wire Porcelain Covers
For Rigid Conduit (Heavy-Wall)**



Can be furnished with four, five, six, seven or eight-wire covers when specified on order.

For example, Type FEB for 2½-inch conduit with 4-wire cover.

No.	Size Inches	Carton	Standard Package	Wt. Lb. Std. Pkg.
1973	2½	1	1	22
1974	3	1	1	22
1975	3½	1	1	57
1976	4	1	1	57
1978	5	1	1	62
1979	6	1	1	78

Type AY Appleton Angle Fittings

Schedule EF

With 2 Threaded Female Hubs—Cadmium Finish For Rigid Conduit (Heavy Wall)



No.	Size In.	Carton	Std. Pkg.	Wt. Lb. per 100
1950	½	10	50	84
1951	¾	5	50	100
1952	1	5	25	108
1953	1¼	5	10	135
1954	1½	5	5	340

Type AYM Appleton Entrance Fittings

Schedule EF

Cadmium Finish

With Male and Female Threaded Hubs



Designed especially for use with poles used for floodlights and for signs used around gasoline filling stations, etc.

No.	Size Inches	Carton	Std. Pkg.	Wt. Lb. per 100
11950	½x1½	10	50	84
11951	¾x¾	5	50	100
11952	1x1	5	25	108

T&B Capped Elbows

Approved by Underwriters' Laboratories



Eliminates the fishing of wires through a sharp bend.

Smooth on the interior, all openings bushed to prevent abrasion.

Made of cast iron, plated with Tabolite to resist corrosion.

No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
1480	\$60.00	½	10	50	50
1481	70.00	¾	5	50	64
1482	90.00	1	5	25	132
1483	250.00	1¼	5	10	250
1484	300.00	1½	2	5	320

Appleton Entrance Fittings

Schedule EF

**Cadmium Finish
For Rigid Conduit
(Heavy Wall)
Threaded and No-Thread
Type FEBs**



Threaded



No-Thread

The ½-inch size has combination 2, 3 and 4-wire bakelite cover; 2 holes plugged. The ¾ to 1¼-inch sizes have combination 2, 3, 4 and 5-wire bakelite covers; 2 holes plugged. The 1¼-inch size (FN125S) has combination 4, 5, 6 and 7-wire composition cover; 3 holes plugged. The 1½ and 2-inch sizes have combination 2, 3, 4, 5 and 6-wire bakelite covers; 4 holes plugged.

Threaded No.	No-Thread No.	Size In.	Insulator	Holes	Carton	Std. Pkg.	Wt. Lb. per 100
F-50	FN-50	½	4	4-5/16"	10	100	55
F-75	FN-75	¾	5	3-1/8", 2-3/8"	10	100	63
F-100	FN-100	1	5	3-1/2", 2-13/32"	5	25	105
F-125	FN-125	1¼	5	3-5/8", 2-13/32"	5	10	145
F-125S	FN-125S	1¼	7	5-1/16", 2-9/16"	5	10	145
F-150	FN-150	1½	6	3-23/32", 2-9/16", 1-3/8"	1	5	260
F-200	FN-200	2	6	3-1", 2-3/4", 1-17/32"	1	5	520



Reversible

Threaded

With combination 2, 3, 4, 5 and 6-wire composition covers.

Reversible type for outside conduit installation. Can be used either vertically or horizontally on conduit.

No.	Size In.	K. O., in Covers	No. and Size K.O. In.	Carton	Std. Pkg.	Wt. Lb. Std. Pkg.
1932	2½	6	3-1¾", 3-1½"	1	1	11½
1933	3	6	3-1¾", 3-1½"	1	1	12½
1934	3½	6	3-1¾", 3-1½"	1	1	13¼
1935	4	6	3-1¾", 3-1½"	1	1	13½

Type FB Appleton Entrance Fittings

Schedule EF

**Threaded—Cadmium Finish
For Rigid Conduit (Heavy-Wall)**

With combination 2, 3 and 4-wire composition covers.



No.	Size In.	Carton	Std. Pkg.	Wt. Lb. per 100
1713	½	10	100	48
1714	¾	10	100	56
1716	1	5	50	15

Type FC Appleton Entrance Fittings

Schedule EF

**Threaded—Cadmium Finish
For Rigid Conduit (Heavy-Wall)**

With combination 2, 3, and 4-wire composition covers.



No.	Size In.	Carton	Std. Pkg.	Wt. Lb. per 100
1723	½	20	200	17
1733	¾	20	200	17
1743	1	10	100	44

Type FCE Appleton Cable End Entrance Fittings

Schedule EF

**Threaded—Cadmium Finish
For Armored or Non-Metallic Sheathed Cable
With 3-hole composition cover.**



No.	Size In.	Carton	Std. Pkg.	Wt., Lb. per 100
1755	¾	25	200	14

Type FCC Appleton Conduit End Entrance Fittings

Schedule EF

**Threaded—Cadmium Finish
For Rigid Conduit (Heavy-Wall)**

With 3-hole composition cover.



No.	Size In.	Carton	Std. Pkg.	Wt. Lb. per 100
1756	½	25	200	10

Type SLAY Appleton Entrance Fittings

Schedule EF

Cadmium Finish

Threaded or No-Thread With Gasket

For Rigid Conduit (Heavy Wall)

For service entrance and outside conduit installations. May be installed close to buildings.

Sealing screws furnished at no extra cost if specified on order.



Threaded



No-Thread

Size In.	No.	Threaded			No-Thread			
		Car-ton	Std. Pkg.	Wt. Lb. Pkg.	No.	Car-ton	Std. Pkg. Wt. Lb. Pkg.	
1/2	31790	10	100	66	317N90	10	100	68
3/4	31791	10	100	84	317N91	10	50	100
1	31792	5	50	136	317N92	5	25	160
1 1/4	31793	5	25	260	317N93	5	10	250

Type SLAY Appleton Entrance Fittings

Schedule EF

Cadmium Finish

Threaded—For Driven Grounds With Gasket

For Rigid Conduit (Heavy Wall)

Designed especially for services that are grounded outside of building. Hub in bottom of fitting is for 3/4-inch conduit, which should extend far enough to protect ground wire.



No.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Pkg.
41791	3/4 x 3/4 x 3/4	10	50	105
41792	1 x 1 x 3/4	10	50	151
41793	1 1/4 x 1 1/4 x 3/4	5	25	210

Sealing screws furnished at no extra cost if specified on order.

Type LAY Appleton Entrance Fittings

Schedule EF

Threaded—Cadmium Finish

For Rigid Conduit (Heavy-Wall)



Threaded

Weatherproof gasket not required. Cover held in place by flange and securely fastened by means of screw.

Threaded

For service entrance and outside conduit installation. May be installed close to buildings.

No.	Size Inches	Carton	Standard Package per 100	Wt. Lb. Pkg.
1790	1/2	10	100	90
1791	3/4	10	100	94
1792	1	5	50	156
1793	1 1/4	5	50	330
1794	1 1/2	5	50	400
1795	2	5	25	500

No-Thread

For service entrance and outside conduit installations. May be installed close to buildings.

No.	Size Inches	Carton	Std. Pkg.	Wt. Lb. Pkg.
17N90	1/2	10	50	100
17N91	3/4	10	50	124
17N92	1	5	25	170
17N93	1 1/4	5	10	380
17N94	1 1/2	5	10	500
17N95	2	5	5	700

Threaded For Driven Grounds

Made especially for services that are grounded outside of building. The hub in bottom of fitting is for 1/2-inch conduit which should extend far enough to protect ground wire.

No.	Size Inches	Carton	Std. Pkg.	Wt. Lb. Pkg.
11791	3/4 x 3/4 x 1/2	10	50	100
11792	1 x 1 x 1/2	10	50	151
11793	1 1/4 x 1 1/4 x 1/2	5	20	210

Threaded For Driven Grounds

Appleton Conduit Fittings

Schedule TW

Cadmium Finish

For Electrical Metallic Tubing (Thin-Wall Conduit)

Type FEBS

Size, 1/2-inch with combination 2, 3, and 4-wire Bakelite cover; 2 holes plugged. Sizes 3/4 to 1 1/4-inch with combination 2, 3, 4 and 5-wire Bakelite covers; 2 holes plugged. Size, 1 1/4-inch (FT125S) with combination 4, 5, 6, and 7-wire composition cover; 3 holes plugged. Sizes 1 1/2 and 2-inch with combination 2, 3, 4, 5, and 6-wire Bakelite covers; 4 holes plugged.



No.	Size Inches	No. of Holes and Size, In.	Insulator	Car-ton	Std. Pkg.	Wt. Lb. Per 100
FT-50	1/4	4—3/16	4	10	100	55
FT-75	3/4	3—1 3/32, 2—3/8	5	10	100	63
FT-100	1	3—1 1/2, 2—1 3/32	5	5	50	105
FT-125	1 1/4	3—5/8, 2—1 1/32	5	5	50	145
FT-125S	1 1/4	5—1 1/16, 2—9/16	7	5	50	21
FT-150	1 1/2	3—2 3/32, 2—3/16				
		1—3/8	6	1	25	260
FT-200	2	3—1, 2—3/4				
		1—1 1/32	6	1	20	520

Type SLAY

Approved Raintight

With flanged cover and gasket. Supplied with sealing screws when specified.



No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. per 100
317T90	1/2	10	100	76
317T91	3/4	10	100	210
317T92	1	5	50	350
317T93	1 1/4	5	50	300

Combination No-Thread Couplings

For connecting flexible metallic conduit or armored bushed cable to electrical metallic tubing.



No.	Size Inches	Designed to Hold	Max. Diam. Hole, In.	Car-ton	Std. Pkg.	Wt. Lb. Per 100
18854	1/2	3/8-In. BX	...	50	200	18
18855	1/2	*1/2-In. Flex.	15/16	50	200	20
18856	3/4	†3/4-In. Flex.	1 1/8	50	200	28

*Also 10W3L, 8W2L, 6W2 and 6W2L armored cable.

†Also 6W3, 6W3L, 4W2, 4W2L, 4W3, and 4W3L armored cable.

90-Degree Short Elbow



No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. per 100
73T90	1/2	100	300	22
73T91	3/4	50	300	32
73T92	1	25	100	52

Type FEL Special Entrance Ell



No.	Size Inches	Car-ton	Std. Pkg.	Wt. Lb. per 100
37T90	1/2	50	200	30
37T91	3/4	25	200	52
37T92	1	25	100	96
37T93	1 1/4	25	100	136

Service Entrance Conduit Fittings

Schedule CM

For Threaded Heavy Wall Conduit

*Type F Caps

Form 8



Furnished with composition cover with knockouts to accommodate 2 to 6 wires.

Size In.	No.
1/2	F184
3/4	F284
1	F384
1 1/4	F484
1 1/2	F584
2	F684

Form 6



Furnished with composition cover for 2 or 3-wire service. Four-wire covers can be furnished at the same price.

Size In.	No.
2 1/2	F763
3	F863
3 1/2	F963
4	F1063
4 1/2	FO1163
5	FO1263
6	FO1463

Type FEE Caps



Caps for 3-conductor oval or 2-conductor round bare neutral service entrance concentric cable.

Made of cast aluminum.

No.	†MAX. DIMENSIONS OF CABLE, IN.		No.
	Oval	Round	
FEE8	.625x .750	.625	FEE284
FEE4	.750x .940	.750	FEE384
FEE2	.844x1.281	.844	

Type FED Caps



No.	Size of Cable No.
FED284	8
FED384	6 or 4

Elbows and Tees

Form 6

Type LB



Furnished with blank cast Feraloy cover and break neck locking screw.

Size In.	No.
1/2	LB16
3/4	LB26
1	LB36
1 1/4	LB46
1 1/2	LB56
2	LB666
2 1/2	LB76

Type LBC



For driven grounds. Furnished with blank cast Feraloy cover and break neck locking screw. Hubs in illustration are 1/2-inch.

Size In.	No.
1	LBC216
3/4	LBC316
1 1/4	LBC416

*For any wiring arrangement differing from those listed, information will be furnished upon request.

†Over insulation.

Service Entrance Conduit Fittings

Schedule CM

For Threaded Heavy Wall Conduit

Type FBM



Size In.	Without Sealing Compound No.	With Sealing Compound No.	Conduit
1/2	FBM145	FBM146	Threaded Thick Wall
1/2	FBM145-MT	FBM146-MT	Theadless Thin Wall

Type FBA End Fittings

Furnished with composition cover for 2, 3, or 4-wire service.

No.	FBA1	FBA2	FBA3	FBA4
Size...inches	1/2	3/4	1	1 1/4

Type FBB End Fittings

Furnished with composition cover for 2, 3, or 4-wire service.

No.	FBB1	FBB2	FBB3	FBB4
Size...inches	1/2	3/4	1	1 1/4

Type LBY Elbows

Furnished with cast screw cover.

No.	LBY1	LBY2	LBY3	LBY4	LBY5
Size.in.	1/2	3/4	1	1 1/4	1 1/2

Type CGY Service Entrance Connectors

Schedule CM

2-Screw Compression Clamp Type



This connector meets the requirements of watertightness and resistance to corrosion, the two most important requirements of a service entrance cable connector.

Screws are reversible which means they may be threaded in from either direction, making heads accessible under all conditions of installation.

Non-ferrous metal, corrosion-resistant alloy, and chromium-plated steel clamping screws.

Round Cable

No.	Each	TYPES SE AND SD CABLE WITH ARMORED OR UNARMORED BARE NEUTRAL CONDUCTORS		Size Thrd. Nipple In.	No. of Cap
		CONDUCTORS			
		Size Insulated	*Size Uninsulated		
CGY2292	1	10	10	3/4	FEE8
CGY3292	1	10	10	1	FEE8
CGY2282	1	8	8	3/4	FEE8
CGY3412	1	8	8	1	FEE8
CGY2282	1	6	8	3/4	FEE8
CGY3412	1	6	8	1	FEE8
CGY2272	1	6	6	3/4	FEE8
CGY3422	1	6	6	1	FEE8
CGY2242	1	4	6	3/4	FEE4
CGY2242	1	4	4	3/4	FEE4

Oval Cable

CGY2412	2	12 or 10	12 or 10	3/4	FEE8
CGY2352	2	8	10 or 8	3/4	FEE8
CGY3402	2	8	8	1	FEE8
CGY3352	2	6	8 or 6	1	FEE8 or 4
CGY3232	2	4	6	1	FEE4
CGY3232	2	4	4	1	FEE4

*Neutral concentric conductor.

Appleton Sill Plates for Service Entrance Cable

Schedule OF



Provides metallic protection to the service entrance cable at the point it enters the building.

Can be furnished with DuxSeal weatherproof compound which is compressed around the cable and fills up the hole when the plate is screwed down.

Made of aluminum and are furnished with two hot-dipped galvanized screws.

Without DuxSeal Weatherproof Compound

No.	Fits Cable	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
25230	All Sizes to 3 Cond. No. 4.....	10	100	12
25231	3 Cond. to 2.....	10	100	14

With DuxSeal Weatherproof Compound

25235	All Sizes to 3 Cond. No. 4.....	10	100	13
25236	3 Cond. to 2.....	10	100	15

DuxSeal Weatherproof Compound

No.	Container
25250	1 Pound Package
25251	5 Pound Package

T&B Aluminum Wall Plates

Approved by Underwriters' Laboratories



Accommodates a maximum of three No. 4 wires in the service cable and a maximum of one No. 4 wire for the grounded connection.

Furnished plain or with non-drying Dux Seal caulking compound and with two No. 8 wood screws.

No.	Per 100	Car-ton	Std. Pkg.	Wt. Lb. per 100
5545	\$40.00	10	100	9
*5546	40.00	10	100	11

*With Dux Seal.

No. 2110 T&B Watertight Wall Plates



Makes a watertight job where service entrance cable enters the building. For 2W8 through 3W4.

Malleable iron. Furnished with soft rubber gasket and three screws.

No.	Per 100	Unit Pkg.	Std. Pkg.	Wt. Lb. per 100
2110	\$38.00	10	100	15

T&B Flanged Building Heads

Approved by Underwriters' Laboratories



Used in out-building service entrances in accordance with REA specifications.

Installed by drilling a 1 1/8-inch diameter hole through the building wall to accommodate the hub which has a 1/2-inch female thread.

Composition insulator has five holes, two of which are plugged.

Cap is made of aluminum.

Furnished with two wood screws for mounting.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. per 100
5570	\$50.00	Without Rain-Seal Compound	6	24	78
5571	55.00	With Rain-Seal Compound	6	24	80

Appleton Malleable, Grounding Bushings

Schedule GF
Cadmium Finish



Locking Type



Non-Locking Type

Size In.	No.	Car-ton	Std. Pkg.	Std. Pkg.	Wt., Lb.	Size In.	No.	Car-ton	Std. Pkg.	Std. Pkg.	Wt., Lb.
1/2	9450M	50	100	5	2 1/2	9456M	5	10	4 1/2		
3/4	9451M	50	100	7	3	9457M	5	10	6 1/2		
1	9452M	25	50	5	3 1/2	9458M	1	5	4 1/2		
1 1/4	9453M	25	50	6 1/4	4	9459M	1	5	6		
1 1/2	9454M	25	50	7 3/4	.....	.....	.....	.....	.....
2	9455M	10	25	6	.....	.....	.....	.....	.....

Appleton Grounding Locknuts

Schedule GF

Cadmium Finish



Eliminates the use of grounding bushing and jumper wire. Used in place of ordinary locknut. The set screw wedges its way between the knockout and conduit forming a perfect bond.

No.	Size Inches	Std. Pkg.	Wt., Lb. Std. Pkg.	No.	Size Inches	Std. Pkg.	Wt., Lb. Std. Pkg.
9425	1/2	100	3 1/2	9430	2	25	4
9426	3/4	100	4	9431	2 1/2	10	2
9427	1	50	3	9432	3	10	4
9428	1 1/4	50	3	9433	3 1/2	5	2 1/2
9429	1 1/2	50	4	9434	4	5	2 1/2

T&B Grounding Bushings

PATENTED

Approved by Underwriters' Laboratories



For use with or without jumper wire. The wedge, when screwed into place, cuts into the box, assuring a perfect ground between the conduit and box.

Made of malleable iron castings.

Size Inches	No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. per 100
1/2	3860	\$10.00	50	100	8
3/4	3861	15.00	50	100	9
1	3862	20.00	25	50	12
1 1/2	3863	25.00	25	50	15
1 1/4	3864	35.00	25	50	30
2	3865	50.00	10	25	35
2 1/2	3866	90.00	5	10	40
3	3867	100.00	5	10	45
3 1/2	3868	150.00	1	5	50
4	3869	200.00	1	5	55

T&B Grounding Bushings

Approved by Underwriters' Laboratories

For use with jumper wire.

Made of heavy malleable iron castings with smooth, well-rounded shoulders.

Furnished assembled with two brass screws.

Size In.	No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. per 100
1/2	3850	\$10.00	50	100	8
3/4	3851	15.00	50	100	9
1	3852	20.00	25	50	12
1 1/4	3853	25.00	25	50	15
1 1/2	3854	35.00	25	50	30
2	3855	50.00	10	25	35
2 1/2	3856	90.00	5	10	40
3	3857	100.00	5	10	45
3 1/2	3858	150.00	1	5	50
4	3859	200.00	1	5	55

T&B Grounding Wedges

Approved by Underwriters' Laboratories

For new or old work. Without jumper wires. Wedges clamped between the bushing and box wall, make the box a part of the ground circuit. On old work, loosen the bushing and insert the wedge. The open end slips over the wires without disturbing them.

Made of bronze.



No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
3650	\$12.00	1 1/2	50	100	21 1/2
3651	14.00	3/4	50	100	5 1/2
3652	17.00	1	25	50	6 1/2
3653	19.00	1 1/4	25	50	8
3654	22.00	1 1/2	25	50	10
3655	32.00	2	10	25	12
3656	66.00	2 1/2	5	10	20
3657	80.00	3	5	10	23
3658	144.00	3 1/2	2	5	30
3659	160.00	4	2	5	40
3660	240.00	4 1/2	2	3	100
3661	300.00	5	2	2	100
3662	360.00	6	2	2	100

T & B Solderless Ground Clamps

Approved by Underwriters' Laboratories



No solder is required in installing these clamps. Simply loop the ground wire through the slot, strap the clamp around the water pipe, tighten up the nut and it's on. Approved as solderless.

Made of No. 16 gage copper, tinned finish.

No.	Per 100	Size Inches	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
961	\$21.00	3/8 to 1 Inclusive	100	1000	8
962	27.00	3/8 to 2 Inclusive	100	1000	13
963	33.00	3/8 to 3 Inclusive	100	1000	29

T&B Outdoor Meter Grounding Rings

Used for attaching ground wires to outdoor meter cases.

Installed at either the top hub, where the service comes in, or at the bottom hub, where the service goes out to enter the house. To install, slip the ring over the hub of the watertight connector



before screwing the connector into the hub of the meter case. Ring can be turned at any angle required for the ground wire; No. 8, 6, or 4 size.

If the outdoor service is conduit instead of cable, the meter grounding ring should be installed between the locknut and the meter hub. Made of malleable iron with Tabolite finish. Connector, clip and screw, is made of bronze.

For Cable or Conduit Size Inches	No.	Per 100	Std. Pkg.	Weight Pounds per 100
3/4	595	\$10.00	100	5
1	596	15.00	100	5 1/2

Type GR Appleton Bonding Meter Rings

Schedule GF



Designed for grounding meter box to a driven or artificial ground, when a water pipe or other grounding electrode is not available in building. Meter ring is placed between watertight connector and hub

of meter box, after which ground wire is placed through either vertical or horizontal hole and screw is then tightened. This makes positive bond—no soldering.

No.	Per 100	Size In.	Carton	Std. Pkg.	Wt. Lb. Std. Pkg.
9415	3/4	50	100	8
9416	1	50	100	8 1/4
9417	1 1/4	10	50	9

No. 58 Mueller Radio Ground Clamps

Used to ground a radio set or other apparatus to a water or radiator pipe.



Channeled construction gives a five-point contact with rigidity. Will not spread, bend, or lop over.

The point of the large, case-hardened screw cuts through paint or corrosion into clean metal, insuring a good contact.

The small screw with undercut head, acts as a cupped washer to hold the ground wire.

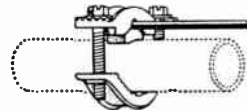
Packed 10 in a box, 100 in a carton.

Shipping weight per 100, 8 pounds.

T&B Ground Clamps

For No. 4 or No. 6 Unarmored Ground Wire

Approved by Underwriters' Laboratories



Nothing to take apart or disassemble when installing this fitting. Just wrap it around the waterpipe and slide the open slot of the crossbar under the head of the bolt.

No.	Per 100	Waterpipe Size, Inches	Carton	Std. Pkg.	Wt., Lb. per 100
2	\$35.00	1/2, 3/4 or 1	5	25	38
3	70.00	1 1/4, 1 1/2 or 2	5	10	55
4	250.00	2 1/2, 3 or 3 1/2	2	4	130
5	350.00	4, 4 1/2 or 5	2	4	175
6	450.00	6	.	1	217

T&B Single-Bolt Ground Clamps

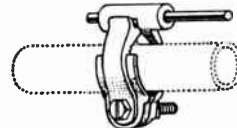
Approved by Underwriters' Laboratories

Easily and quickly installed—only one bolt to tighten. Ground wire locks the jaws together and the bolt fastens them tightly on the waterpipe.

When using 1-inch waterpipe, clamp the ground wire with the end hook. When using 1/2-inch waterpipe, use the lower hook. For 3/4-inch waterpipe, use either hook.

Packed 5 in a carton, 25 in a standard package.

For No. 4 or No. 6 Unarmored Ground Wire



No.	Per 100	Description	Wt., Lb. per 100
3840	\$35.00	For 1/2, 3/4 or 1-Inch Waterpipe.....	38
3842	35.00	With Adapter for Ground Rods from 1/2-Inch Up.....	38

For No. 6 or No. 8 Armored or No. 4 Unarmored Wire

3841	\$35.00	For 1/2, 3/4 or 1-Inch Waterpipe.....	38
3843	35.00	With Adapter for Ground Rods from 1/2-Inch Up.....	48

T&B Waterpipe Ground Clamps

A large size waterpipe clamp that consists of a U-bolt (made of 3/8-inch rod), cross-bar and hex nut.

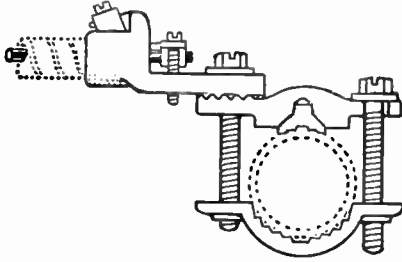
Packed 1 in a standard package.

No.	Per 100	Waterpipe Size Inches	Weight Pounds per 100	
3891	\$500.00	8	380	
3892	550.00	9	340	
3893	600.00	10	355	
No. 3891	3894	720.00	12	365

T & B Ground Fittings

No. 3962 For Armored Ground Wire

Approved by Underwriters' Laboratories



Designed for a neat, quick and reliable connection. The built-in Bite-Tite connector securely holds the armor of the cable in place without injury to the sheath.

The solderless grip takes any size ground wire from No. 4 to No. 8. The projecting tongue extends into the tub portion, providing mechanical protection for the ground wire.

Use No. 3960 armored wire hub for No. 4, No. 6 or No. 8 armored wire.

No.	Per 100	Waterpipe Size Inches	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
3962	\$35.00	1/2, 3/4, or 1	5	25	58

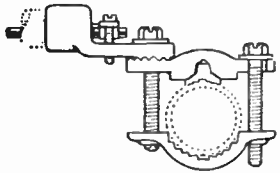
Ground fittings for use with armored wire to fit larger sizes of waterpipe are available.

For Standard Rigid Conduit

With Connection for No. 8 to No. 2 Ground Wire

Approved by Underwriters' Laboratories

Installation is simple and connection is dependable. The conduit hub has a full size bushing and conduit stop. Threads are clean cut.



The solderless grip takes a full range of ground wire. The projecting tongue extends into the hub portion, providing mechanical protection for the ground wire.

No. 3932 and No. 3933 use No. 3930 conduit hub, for

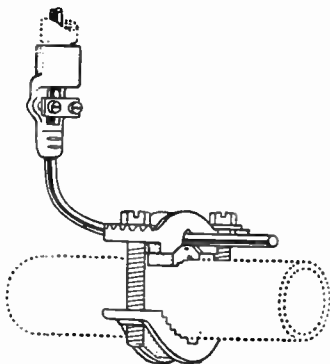
1/2-inch conduit. No. 3942 uses No. 3940 conduit hub, for 3/4-inch conduit.

No.	Per 100	Waterpipe Size Inches	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
3932	\$50.00	1/2, 3/4, or 1	5	25	58
3933	100.00	1 1/4, 1 1/2, or 2	5	10	75
3942	125.00	1/2, 3/4, or 1	5	25	61

No. 3972 T & B Adjustable Length Ground Fittings

With Connection for No. 8 to No. 2 Ground Wire

Approved by Underwriters' Laboratories



An 8-inch length of No. 4 wire is permanently staked in the hub section. Insert the other end of this wire in the solderless grip of the waterpipe clamp.

Easily adjusted in length, it can also be bent or turned into any position desired.

Use No. 3970 conduit hub, adjustable length, for 1/2-inch conduit.

No.	Per 100	Waterpipe Size Inches	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
3972	\$75.00	1/2, 3/4, or 1	5	25	66

Other conduit type ground fittings to fit larger sizes of waterpipe are available.

T & B Ground Fittings

Approved by Underwriters' Laboratories

Simple in design and easy to install. Has interchangeable conduit hubs and waterpipe clamps. Takes care of any of the following grounding jobs:

Bare ground wire (No. 4 or No. 6) to 1/2 inch through 6-inch waterpipe.

Armored ground wire (No. 8 to No. 2) to 1/2 inch through 6-inch waterpipe.

Conduit (1/2, 3/4, or 1 inch) to 1/2 inch through 6-inch waterpipe.

Complete Fitting

Adjustable conduit (1/2 inch) hub to 1/2 inch through 6-inch waterpipe.

Each hub and waterpipe clamp is clearly marked with size range and number for quick identification. Clamps have high reinforcing ribs for extra strength. All bolts have deep screwdriver slots or high hex-heads to help make tightening easy. Hubs designed to meet waterpipe at any angle.

Made of malleable iron, plated with Tabolite galvanizing to resist corrosion.

Conduit Hubs



No.	Per 100	Conduit Size In.	Ground Wire No.	Car-ton	Std. Pkg.	Wt. Lb. per 100
3930	\$25.00	1/2	8-2	5	25	20
3940	100.00	3/4	8-2	5	20	22
3950	150.00	1	8-3/0	5	10	29

No. 3970 Conduit Hubs—Adjustable Length

Conduit size, 1/2 inch. For ground wire, Nos. 8 to 2 inclusive.

Packed 5 in a carton, 25 in a standard package.

Weight per 100, 26 pounds. No. 3970..... per 100 \$30.00

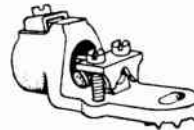


No. 3960 Armored Wire Hubs

For ground wire, Nos. 8 to 2 inclusive.

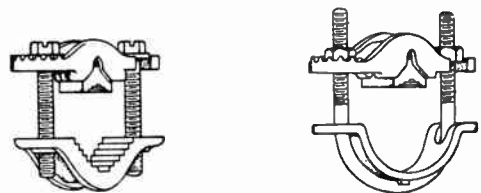
Packed 5 in a carton, 25 in a standard package.

Weight per 100, 20 pounds. No. 3960..... per 100 \$30.00



Waterpipe Clamps

For Use With Conduit Hubs Listed Above



No.	Per 100	Waterpipe Size Inches	Car-ton	Std. Pkg.	Weight Pounds per 100
2	\$35.00	1/2, 3/4 or 1	5	25	38
3	70.00	1 1/4, 1 1/2 or 2	5	10	55
4	250.00	2 1/2, 3 or 3 1/2	2	4	130
5	350.00	4, 4 1/2 or 5	2	4	175
6	450.00	6	.	1	215

Assemblies

Table below shows how to make any type of ground fitting, using T & B interchangeable conduit hubs and waterpipe clamps.


CONDUIT HUB	No.	ASSEMBLY NO.					
		WATERPIPE SIZE, INCHES					
		1/2, 3/4, 1	1 1/4, 1 1/2	2 1/2, 3, 3 1/2	4, 4 1/2, 5		6
Conduit	No.	CLAMP NO.					
1/2	3930	2	3	4	5	6	
3/4	3940	3932	3933	3934	3935	3936	
1	3950	3942	3943	3944	3945	3946	
Arm.	3960	3952	3953	3954	3955	3956	
1/2 Adj.	3970	3962	3963	3964	3965	3966	
Unarm.		3972	3973	3974	3975	3976	
		2	3	4	5	6	

Groundulet Safety Circuit Equipment

Schedule CM
Type GCH


For Threaded Heavy Wall Conduit—With Swivel Feature

For use where conduit is employed to protect the grounding conductor. Grounding conductor is connected to conduit-hub part by swivel bolt. Conduit can be brought in from any angle. Malleable.



SIZE, INCHES		O.D. Grounding Electrode	No.
Conduit	Water Pipe	1/2 to 1	GCH11
1/2	1/2 to 1	1/2 to 1	

Type GCH For Threaded Heavy Wall Conduit Without Swivel Feature




SIZE, INCHES		O.D. Grounding Electrode	No.
Water Pipe		1/2 to 1	GCH13
1/2 to 1		1/2 to 1	

Type GCH With Clamp Connection for Ground Conductor

For Nos. 8, 6, or 4 Armored or Unarmored Ground Conductor

In this type the grounding conductor passes through the bolt and is clamped between the under side of bolthead and the upper face of square cavity. A set screw holds armor in place and effectively grounds it to clamp. Malleable.



SIZE, INCHES		O.D. Grounding Electrode	No.
Water Pipe		1/2 to 1	GCH108
1/2 to 1		1/2 to 1	
For Nos. 8, 6, or 4 Unarmored Ground Conductor or Insulated Building Wire			
1/2 to 1		1/2 to 1	GCH91

Type GCH Clamp Water Meter Shunt



SIZE, INCHES		O.D. Grounding Electrode	No.
Water Pipe		5/8 to 1	GCH191
1/2 to 1		5/8 to 1	

Type GCE Strap Clamp Terminals



SIZE, INCHES		O.D. Grounding Electrode	No.
Water Pipe		5/8 to 1	GCE012
1/2 to 2		5/8 to 1	
1/2 to 4		5/8 to 1	GCE014
1/2 to 6		5/8 to 1	GCE016

For Threaded Heavy Wall Conduit

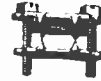


Conduit or Wire	Water Pipe	O.D. Grounding Electrode	Description	No.
1/2	1/2 to 2	5/8 to 1	1 Strap	GCE12
1/2	1/2 to 4	5/8 to 1	1 Strap	GCE14
1/2	1/2 to 6	5/8 to 1	1 Strap	GCE16

*For use also on lead pipe in sizes 1/2 and 3/4-inch Grades AA and AAA, and 1-inch Grades A, AA, and AAA.

Groundulet Safety Circuit Equipment

Schedule CM
Type GC Strap Clamps



For bonding and grounding equipment in interior wiring systems.

No. GC101 is made of steel.
No. GC102 is made of brass.

†No. GC100 Type GC Grounding Straps



Flexible Copper, tinned.
Available in broken coils less than 50 ft.; 1 to 10 coils of 50 ft. each, 11 to 25 coils of 50 ft. each, 26 to 50 coils of 50 ft. each, 51 or more coils of 50 ft. each.

Type GC Groundulet Bushings

Schedule CM



Without Cap-Screw, Lug, or Wire Clip



With Cap-Screw (For use with Pressure Connectors)



With Ground-ing Screw (For Bonding without Jumper Wires)

All conduits entering a service box must be properly bonded to it by bonding jumpers, ground clamps, lugs or devices approved for the purpose.

Type GC Groundulet bushings and jumpers make dependable and approved bonding connections. The bushings provide a means for connecting bonding jumpers to them.

The bonding jumpers being within the cabinet, are protected from mechanical injury and all fire hazard is confined within the cabinet.

Inches	Brass		Malleable	
	Without Cap-Screw No.	With Cap-Screw No.	With Cap-Screw No.	With Ground-ing Screw No.
1/2	GC151	GC515	GC231	GC61
3/4	GC152	GC525	GC232	GC62
1	GC153	GC534	GC233	GC63
1 1/4	GC154	GC544	GC234	GC64
1 1/2	GC155	GC554	GC235	GC65
2	GC156	GC564	.....	GC66
2 1/2	GC167	GC677	.....	GC67
3	GC168	GC687	.....	GC68
3 1/2	GC169	GC697	.....	GC69
4	GC1610	GC607	.....	GC70
4 1/2	GC1611	GC617	.....	GC71
5	GC1612	GC627	.....	GC72
6	GC1614	GC647	.....	GC73

†Suitable for bonding and grounding equipment in interior wiring systems

Type GC Pressure Connectors

For use with Groundulet bushings.



No. GC302, Wire Size, 14 to 4.
No. GC303, Wire Size, 4 to 1.

Type GC Brass Stud



For fastening two or more pressure connectors on one bushing. Wire Size, 1/2 to 6.

Appleton Ground Fittings

Schedule GF

Cadmium Finish

For Grounding Service Wire and Conduit System

No. 9446 Type GCIC

With Tite-Grip Contacts

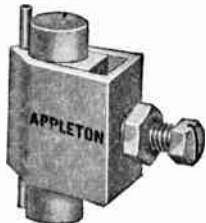


For Nos. 8, 6 or 4 bare or insulated copper wire. Will not injure the copper ground wire. Has a heavy screw through the center of the clamping member that forms a positive contact when tightened.

No.	Size Water Pipe, Inches	Ground Rod, Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9446	1/2, 3/4, 1	1	5	25	13

No. 9447 Type GCRC

For Ground Rod



For bare or insulated copper wire.

Especially designed for ground rods. Makes a neat installation and better bond.

Ground wire is wedged against the rod by tightening the screw and is permanently set by running down the locknut.

No.	Ground Rod, Inches	Takes Wire B&S	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9447	1/2, 3/8	8, 6 or 4	5	25	3 1/2

No. 9402 Type GCH

For Rigid Conduit With Brass Washer



Equipped with flat washer.

Rigid clamp jaws hold securely to water pipe.

No.	Conduit Ground Inches	Size Water Pipe, Inches	Ground Rod, In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9402	1/2	1/2, 3/4, 1	1	5	25	10

No. 9481 Type FGF

Flexible



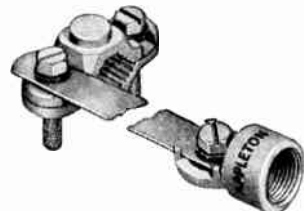
Has an 8-inch flexible copper strip that can be bent, twisted or turned into any position. Very desirable when the water pipe or ground rod is not easily accessible.

Furnished with the Appleton vise-grip clamp.

No.	Ground Rod, Inches	Size Water Pipe, Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9481	1/2	1/2, 3/4 or 1	5	25	18

No. 9494 Type GSFF

Flexible



Furnished with V-shaped clamp. Fits any 1/2-inch ground conduit and takes 1/2 to 1-inch ground rod—solderless type.

Can be bent, twisted or turned into any position.

No.	Conduit Ground Inches	Size Water Pipe, Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9494	1/2	1/2, 3/4, 1	5	25	22

No. 9445 Type GCH Appleton Ground Fittings

Schedule GF
Cadmium Finish



With adjustable top clamp to accommodate No. 8 or No. 6 bare armored ground conductor, and for grounding 1/2, 3/4 or 1-inch water pipe, or 1-inch ground rod. Cadmium Finish. Carton, 5. Standard package, 25.

Weight per standard package, 10 pounds.

No. 9448 Type GCAR Appleton Ground Fittings

Adjustable and Reversible



Swivel type. Adapted for No. 8, 6 or 4 B&S armored ground wire, and for grounding 1/2, 3/4 or 1-inch water pipe, or 1-inch ground rod. Cadmium Finish.

Carton, 5. Standard package, 25. Weight per standard package, 15 pounds.

No. 9489 Type GCWC Appleton Ground Fittings

Schedule GF

Cadmium Finish



Has deck with a hole drilled to accommodate ground wire. The screw, when tightened, wedges the wire into a cup in the center of fitting, making a good bond and positive grip.

Adapted for Nos. 8, 6 or 4 bare or insulated copper wire.

No.	Size Water Pipe, Inches	Ground Rod, Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9489	1/2, 3/4, 1	1	5	25	11

No. 9491 Type GCP Appleton Solderless Ground Fittings

Schedule GF

Cadmium Finish



This malleable clamp will take wires No. 8, 6 or 4 either solid or stranded. Wire fastening device consists of a 3/8-inch bolt with a 1/4-inch hole through it. In connecting wire, end of wire is put through hole in bolt, then nut is tightened and bolt will clamp wire. This method makes a positive and simple connection. Clamp can be used to advantage where it is not necessary to run ground wire in armored or rigid cables.

Size grounding, 1/2, 3/4, or 1-inch water pipe; 1-inch ground rod. Packed 5 in carton; 25 in standard package.

Weight per standard package, 8 pounds.

No. 9493 Type GCNS Appleton Non-Swivel Ground Fittings

Schedule GF



Fits Nos. 8, 6 or 4 B&S armored ground wire and takes 1/2 to 1-inch water pipe or 1-inch ground rod. May also be used with Nos. 8, 6 or 4 bare or insulated copper wire. Cadmium finish.

No.	Size Water Pipe, Inches	Ground Rod, In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9493	1/2, 3/4, 1	1	5	25	7 1/2

Appleton Ground Fittings

Schedule GF

Cadmium Finish

For Grounding Service Wire and Conduit System

No. 9492 Type GCVG

For Rigid Conduit With Soldering Lug



The clamp, with vise-grip, can be attached to pipe that is closely secured to surface.

Adapted for Nos. 8, 6 or 4 B&S armored ground wire.

No.	Conduit Ground, In.	Size Water Pipe, Inches	Ground Rod, Inches	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
9492	1/2	1/2, 3/4, 1	1	5	25	19

Type LGC

Adjustable

For Large Size Water Pipes



The deck has a heavy brass washer and by placing the ground wire under the lug it makes a positive bond.

Adapted for Nos. 8, 6 or 4 B&S armored ground wire.

No.	Conduit Ground Inches	Size Grounding Inches	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
9482	1/2	1 1/4, 1 1/2 and 2	5	25	20
9483	1/2	2 1/2 and 3	5	10	15
9484	1/2	3 1/2 and 4	5	5	9

Type LGCH

For Large Size Water Pipe



Has hole through deck to take Nos. 8, 6 or 4 bare or insulated copper wire which is held in place by the center screw and lock washer.

Has V-shaped clamp.

No.	Size Water Pipe, Inches	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
9497	1 1/4, 1 1/2, 2	5	10	5
9498	2 1/2 and 3	5	10	11
9499	3 1/2 and 4	5	10	15

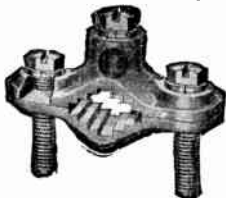
No. 9486 Grounding Water Meter Shunt



Consists of two grounding fittings with screws connected to a 24-inch length of flexible copper strap.

No.	Grounding Size, Inches	Water Pipe	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
9486	1/2, 3/4, 1	1 Water Pipe	5	25	25
	1/2 to 1	Ground Rod	5	25	25

No. GF13A Sherman Heavy Duty Cast Ground Clamps



For copper water pipe connections. Fits 1/4 to 3/4-inch pipe and 1/2 to 1-inch diameter ground rods.

No.	GF13A
Per 100	\$60.00
Carton	10
Standard Package	100
Weight per 1000	340 pounds

Sherman Ground Fittings

For Bare Copper Wire



No. GF2



No. GF3



No. GF7

No. GF2, conduit type, is solderless with lug. Rotating head. Reversible for use on rod also.

Conduit size, 1/2 inch.

No. GF3 with lug is designed expressly for No. 4 bare copper wire; will take to No. 10 B. & S.

No. GF7, armored wire type, is solderless with rotating head, reversible for rod. No. 8 or 6 wire in armor.

No. GF14 is same as No. GF3 except that no soldering lug is provided.

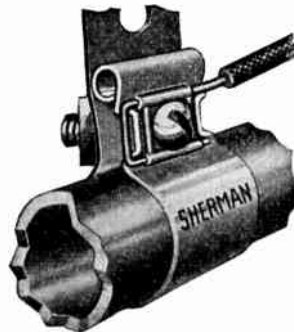
Heavy malleable iron, rustproofed.

Approved by Underwriters' Laboratories.

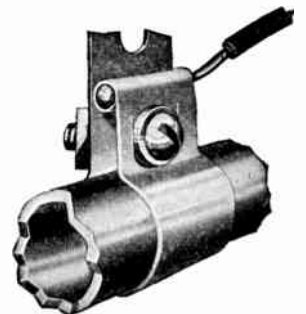
Slotted clamp allows easy installation. Reversible clamp for pipe or rod.

No.	Each	Pipe Size Inches	Carton Quantity	No. in Standard Package	Wt., Lb. per 1000
GF2	\$.73	1/2, 3/4, 1	5	25	650
GF3	.40	1/2, 3/4, 1	5	25	450
GF7	.46	1/2, 3/4, 1	5	25	410
GF14	.36	1/2, 3/4, 1	5	25	440
GF9	.79	1/4, 1 1/2, 2	5	25	560
GF10	3.39	2 1/2, 3	5	25	1125
GF11	4.22	3 1/2, 4	5	25	1500

Sherman Copper Ground Clamps



Solderless Type



Solder Type

For general grounding or bonding of electrical conductors. Heavy copper strap is easy to apply.

Solderless No.	1SL	2SL	3SL	4SL
Solder No.	1	2	3	4
Pipe Size	inches 3/8-1	3/8-2	3/8-3	3/8-4
Carton Quantity	100	100	50	25
Standard Package	1000	1000	500	250
Weight per 1000	pounds 80	130	170	200

Prices upon application.

No. 1 Reliable Station Ground Clamps



For grounding of communication circuits.

For 3/8 to 1 1/4-inch pipe.

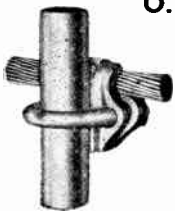
Tinned copper strips, round edge with close fitting threads.

Standard package, 100.

No. 1, Shipping Weight, 6 Pounds per 100. per 100 \$7.00

O.Z. Type AG Ground Connectors

For Cable to Pipe or Rod

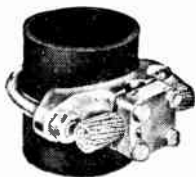


Used for connecting a ground wire at right angles to a driven ground rod or pipe. Everdur U-bolt, nuts and lock washers complete a positive ground fitting combining strength and corrosion resistance.

No.	Each	Rod Inches	IPS Inches	CONDUCTOR RANGE	
				Minimum	Maximum
AG0204	\$.90	1/2	1/4	8 Sol.	4 Str.
AG0222	.95	1/2	1/4	4 Sol.	2/0 Str.
AG0304	.90	5/8 or 3/4	3/8	8 Sol.	4 Str.
AG0322	.95	5/8 or 3/4	3/8	4 Sol.	2/0 Str.
AG0325	1.10	5/8 or 3/4	3/8	2/0 Sol.	250MCM
AG0350	1.70	5/8 or 3/4	3/8	300MCM	500MCM
AG0704	1.20	1	1/2 or 3/4	8 Sol.	4 Str.
AG0722	1.35	1	1/2 or 3/4	4 Sol.	2/0 Str.
AG0725	1.55	1	1/2 or 3/4	2/0 Sol.	250MCM
AG0750	2.55	1	1/2 or 3/4	300MCM	500MCM
AG1104	1.30	....	1	8 Sol.	4 Str.
AG1122	1.40	....	1	4 Sol.	2/0 Str.
AG1125	1.55	....	1	2/0 Sol.	250MCM
AG1150	2.65	....	1	300MCM	500MCM
AG1204	1.35	....	1 1/4	8 Sol.	4 Str.
AG1222	1.60	....	1 1/4	4 Sol.	2/0 Str.
AG1225	1.75	....	1 1/4	2/0 Sol.	250MCM
AG1250	2.85	....	1 1/4	300MCM	500MCM
AG1504	1.45	....	1 1/2	8 Sol.	4 Str.
AG1522	1.70	....	1 1/2	4 Sol.	2/0 Str.
AG1525	1.85	....	1 1/2	2/0 Sol.	250MCM
AG1550	2.95	....	1 1/2	300MCM	500MCM
AG2004	1.60	....	2	8 Sol.	4 Str.
AG2022	1.85	....	2	4 Sol.	2/0 Str.
AG2025	2.05	....	2	2/0 Sol.	250MCM
AG2050	3.25	....	2	300MCM	500MCM
AG2075	3.65	....	2	550MCM	750MCM

O.Z. Type CG Ground Connectors

For Cable to Pipe

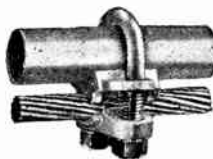


Has reversible contact plate which permits the ground wire to be connected either at right angles or parallel to a ground pipe. The fitting is designed so that the saddle can be installed before the ground connection is made.

No.	Each	IPS Inches	CONDUCTOR RANGE	
			Minimum	Maximum
CG2004	\$1.60	2	8 Sol.	4 Str.
CG2022	1.85	2	4 Sol.	2/0 Str.
CG2025	2.05	2	2/0 Sol.	250MCM
CG2050	3.25	2	300MCM	500MCM
CG2604	1.90	2 1/2	8 Sol.	4 Str.
CG2622	2.10	2 1/2	4 Sol.	2/0 Str.
CG2625	2.20	2 1/2	2/0 Sol.	250MCM
CG2650	3.00	2 1/2	300MCM	500MCM
CG3104	2.30	3	8 Sol.	4 Str.
CG3122	2.60	3	4 Sol.	2/0 Str.
CG3125	2.80	3	2/0 Sol.	250MCM
CG3150	3.60	3	300MCM	500MCM
CG3604	2.60	3 1/2	8 Sol.	4 Str.
CG3622	2.90	3 1/2	4 Sol.	2/0 Str.
CG3625	3.10	3 1/2	2/0 Sol.	250MCM
CG3650	3.95	3 1/2	300MCM	500MCM
CG4104	3.00	4	8 Sol.	4 Str.
CG4122	3.40	4	4 Sol.	2/0 Str.
CG4125	3.70	4	2/0 Sol.	250MCM
CG4150	4.65	4	300MCM	500MCM
CG4622	3.75	4 1/2	4 Sol.	2/0 Str.
CG4625	4.05	4 1/2	2/0 Sol.	250MCM
CG4650	5.05	4 1/2	300MCM	500MCM
CG5122	4.25	5	4 Sol.	2/0 Str.
CG5125	4.65	5	2/0 Sol.	250MCM
CG5150	5.75	5	300MCM	500MCM
CG6122	5.10	6	4 Sol.	2/0 Str.
CG6125	5.60	6	2/0 Sol.	250MCM
CG6150	6.85	6	300MCM	500MCM
CG8125	7.40	8	2/0 Sol.	250MCM
CG8150	9.05	8	300MCM	500MCM

O.Z. Type BG Ground Connectors

For Cable to Pipe or Rod



For connecting a driven ground wire parallel to a ground pipe or rod. Everdur U-bolt, nuts and lock washers permit high clamping pressure to be applied, while the interlocking clamp firmly grips the cable.

No.	Each	Rod Inches	IPS Inches	CONDUCTOR RANGE	
				Minimum	Maximum
BG0204	\$.85	1/2	1/4	8 Sol.	4 Str.
BG0222	.90	1/2	1/4	4 Sol.	2/0 Str.
BG0304	.85	5/8 or 3/4	3/8	8 Sol.	4 Str.
BG0322	.90	5/8 or 3/4	3/8	4 Sol.	2/0 Str.
BG0325	.95	5/8 or 3/4	3/8	2/0 Sol.	250MCM
BG0350	1.45	5/8 or 3/4	3/8	300MCM	500MCM
BG0704	1.20	1	1/2 or 3/4	8 Sol.	4 Str.
BG0722	1.25	1	1/2 or 3/4	4 Sol.	2/0 Str.
BG0725	1.35	1	1/2 or 3/4	2/0 Sol.	250MCM
BG0750	2.00	1	1/2 or 3/4	300MCM	500MCM
BG1104	1.25	....	1	8 Sol.	4 Str.
BG1122	1.30	....	1	4 Sol.	2/0 Str.
BG1125	1.35	....	1	2/0 Sol.	250MCM
BG1150	2.10	....	1	300MCM	500MCM
BG1204	1.25	....	1 1/4	8 Sol.	4 Str.
BG1222	1.35	....	1 1/4	4 Sol.	2/0 Str.
BG1225	1.40	....	1 1/4	2/0 Sol.	250MCM
BG1250	2.40	....	1 1/4	300MCM	500MCM
BG1504	1.35	....	1 1/2	8 Sol.	4 Str.
BG1522	1.40	....	1 1/2	4 Sol.	2/0 Str.
BG1525	1.50	....	1 1/2	2/0 Sol.	250MCM
BG1550	2.40	....	1 1/2	300MCM	500MCM
BG2004	1.55	....	2	8 Sol.	4 Str.
BG2022	1.75	....	2	4 Sol.	2/0 Str.
BG2025	1.95	....	2	2/0 Sol.	250MCM
BG2050	2.70	....	2	300MCM	500MCM
BG2075	2.90	....	2	550MCM	750MCM

O.Z. Type DG Ground Connectors

For Cable to Pipe or Rod



For grounding two parallel ground wires at right angles to a ground rod or pipe.

High pressure interlocking clamp tightly grips the cable. Has copper alloy body; everdur U-bolt, nuts and lock washers.

No.	Each	Rod Inches	IPS Inches	CONDUCTOR RANGE	
				Minimum	Maximum
DG0204	\$.85	1/2	1/4	8 Sol.	4 Str.
DG0222	.90	1/2	1/4	4 Sol.	2/0 Str.
DG0304	.85	5/8 or 3/4	3/8	8 Sol.	4 Str.
DG0322	.90	5/8 or 3/4	3/8	4 Sol.	2/0 Str.
DG0325	1.00	5/8 or 3/4	3/8	2/0 Sol.	250MCM
DG0350	1.60	5/8 or 3/4	3/8	300MCM	500MCM
DG0704	1.15	1	1/2 or 3/4	8 Sol.	4 Str.
DG0722	1.30	1	1/2 or 3/4	4 Sol.	2/0 Str.
DG0725	1.45	1	1/2 or 3/4	2/0 Sol.	250MCM
DG0750	2.50	1	1/2 or 3/4	300MCM	500MCM
DG1104	1.30	....	1	8 Sol.	4 Str.
DG1122	1.45	....	1	4 Sol.	2/0 Str.
DG1125	1.55	....	1	2/0 Sol.	250MCM
DG1150	2.75	....	1	300MCM	500MCM

O.Z. Type KG Ground Connectors

For Cable to Flat Bar

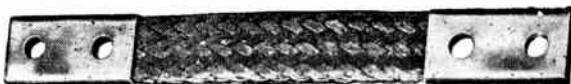
For any flat surface up to 1/4-inch thick.



No.	Each	CONDUCTOR RANGE		DIMENSIONS, IN.		
		Minimum	Maximum	lgth.	Width	Bolt
KG04	\$.50	8 Sol.	4 Str.	1 1/4	1 1/8	3/8
KG22	.55	4 Sol.	2/0 Str.	1 5/8	1 1/4	3/8
KG25	1.10	2/0 Sol.	250MCM	2	1 3/8	7/16
KG50	1.55	300MCM	500MCM	2 3/8	1 1/2	1/2
KG75	2.30	550MCM	750MCM	2 7/8	1 3/4	5/8
KG92	2.70	800MCM	1000MCM	3 3/8	2	5/8

Also available in types EG, FG, HG, LG, MG, and QG. Prices on request.

O.Z. Type BR Flexible Copper Connectors



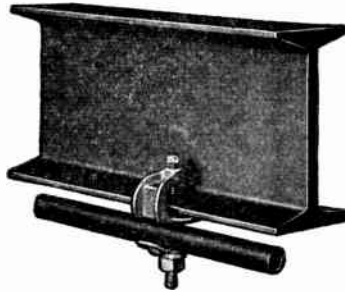
Prices on request.

Appleton Sta-Tite Pipe Hangers

Schedule CFS

Cadmium Finish

For Use With Rigid Conduit (Heavy-Wall) and Threadless Thin-Wall Conduit



Type PHS with Single Conduit Parallel with Structural Shape

Sta-Tite Pipe Hangers are designed to accommodate 1/2, 3/4 and 1-inch rigid conduit (heavy wall) or 1/2, 3/4, 1, 1 1/4, and 1 1/2-inch threadless thin-wall conduit. Types PHS and PHD permit running the conduit parallel with beam, crosswise, or any horizontal angle.

Type PHS—For Single Line Conduit

Run Parallel or at Right Angles

No. 2330

For 1/2 and 3/4-inch rigid conduit (heavy-wall); also 1/2, 3/4 and 1-inch threadless thin-wall conduit.

Carton, 10. Std. pkg. 100; wt. std. pkg., 80 lb.

No. 2331

For 1-inch rigid conduit (heavy-wall); also 1 1/4 and 1 1/2-inch threadless thin-wall conduit.

Carton, 10. Std. pkg. 50; wt. std. pkg., 60 lb.



Type PH—For Suspending Groups of Pipes From Structural Shapes

No. 2342

Type PH is also for use with accessories listed below.

Carton quantity, 100.

Std. pkg. 100.

Wt. std. pkg., 65 lb.



Type PHD—For 2 Lines of Conduit

Run Parallel or at Right Angles

No. 2335

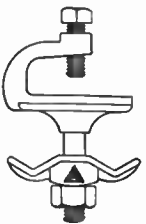
For 1/2 and 3/4-inch rigid conduit (heavy-wall); also 1/2, 3/4 and 1-inch threadless thin-wall conduit.

Carton, 10. Std. pkg. 100; wt. std. pkg., 85 lb.

No. 2336

For 1-inch rigid conduit (heavy-wall); also 1 1/4 and 1 1/2-inch threadless thin-wall conduit.

Carton, 10. Std. pkg. 50; wt. std. pkg., 50 lb.



Accessories for Type PH Pipe Hangers

Single Style—For 1 Pipe

Carton, 10.

Std. pkg. 100; wt. std. pkg., 18 lb.

No. 2345

For 1/2 and 3/4-inch rigid conduit (heavy-wall); also 1/2, 3/4 and 1-inch threadless thin wall conduit.

No. 2346

For 1-inch rigid conduit (heavy-wall); 1 1/4 and 1 1/2-inch threadless thin-wall conduit.

Double Style—For 2 Pipes

Carton, 10.

Std. pkg. 100; wt. std. pkg., 20 lb.



Type PHK-2—For Carrying Open Wires on Structural Steel Work

No. 2340

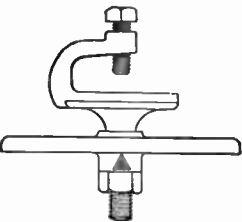
For 2 Porcelain Knobs

Porcelain knobs and screws not furnished.

Carton quantity, 10.

Std. pkg., 100.

Wt. std. pkg., 115 lb.



Type PK-3—For Carrying Open Wires on Structural Steel Work

No. 2341

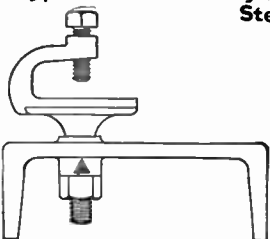
For 3 Porcelain Knobs

Porcelain knobs and screws not furnished.

Carton quantity, 10.

Std. pkg., 100.

Wt. std. pkg., 170 lb.



No. 2350

For 1/2 and 3/4-inch rigid conduit (heavy-wall); 1/2, 3/4 and 1-inch threadless thin-wall conduit.

No. 2351

For 1-inch rigid conduit (heavy-wall); 1 1/4 and 1 1/2-inch thin-wall threadless conduit.

For Carrying Open Wires on Structural Steel Work
*No. 2355, With Holes for Attaching 2 Porcelain Knobs

Carton, 10.

Standard package, 100.

Wt. std. pkg., 50 lb.

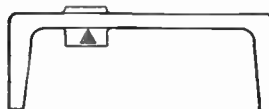


*No. 2356, With Holes for Attaching 3 Porcelain Knobs

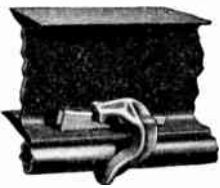
Carton 10. Std. pkg. 100.

Wt. std. pkg., 100 lb.

*Holes tapped 10-24, 5/16-inch-18, and 3/8-inch-16, respectively. Porcelain knobs and screws not furnished.



Wedgtite Hangers and Wire Supports



Type CHRP Installed Pipe Parallel with a Structural Shape

Used for attaching conduit or wire hangers to structural steel members.

Can be installed without drilling or in any way preparing the member to which attached.

A few blows of the hammer makes the attachment secure.

Type CHRP

For pipe running at right angle to support.



No. For Flange	Conduit Size Inches	Each
1/8"-1/2"	1/2	\$.40
1/4"	3/4	.45
5/8"	1	.50
1"	1 1/4	.55
1 1/4"	1 1/2	.60
1 1/2"	2	.65

Type CHU

For suspending a pipe or group of pipes from a structural steel support. Takes 1/2-inch hanger bolt.



*Thick. Flange Inches	No.	Each
1/8 to 1/2	CHU1	\$.50
1/4 to 5/8	CHU21	.50
5/8 to 1	CHU2	.60
3/4 to 1 1/8	CHU22	.60

Type CHA



CHA2



CHA3

For suspending open wire from a structural steel support.

*Thickness of Flange Inches	Takes Two Porcelain Knobs		Takes Three Porcelain Knobs	
	No.	Each	No.	Each
1/8 to 1/2	CHA2	\$1.10	CHA3	\$1.50
1/4 to 5/8	CHA4	1.10	CHA6	1.50
5/8 to 1	CHA22	1.20	CHA23	1.60
3/4 to 1 1/8	CHA24	1.20	CHA26	1.60

Type CHB



For One Pipe



For Two Pipes

For supporting pipes on structural steel supports.

*Thick. Flange Inches	SIZE PIPE, INCHES		For One Pipe		For Two Pipes	
	Thick Wall	Thin Wall	No.	Each	No.	Each
1/8 to 1/2	1 1/2, 3/4	1 1/2, 3/4, 1	CHB1112	\$.65	CHB1122	\$.75
	1	1 1/4, 1 1/2	CHB1113	.65	CHB1123	.75
1/4 to 5/8	1 1/2, 3/4	1 1/2, 3/4, 1	CHB1212	.65	CHB1222	.75
	1	1 1/4, 1 1/2	CHB1213	.65	CHB1223	.75
5/8 to 1	1 1/2, 3/4	1 1/2, 3/4, 1	CHB2112	.75	CHB2122	.85
	1	1 1/4, 1 1/2	CHB2113	.75	CHB2123	.85
3/4 to 1 1/8	1 1/2, 3/4	1 1/2, 3/4, 1	CHB2212	.75	CHB2222	.85
	1	1 1/4, 1 1/2	CHB2213	.75	CHB2223	.85



Type CHW Wedgtite Wedges

No.	*Thickness of Flange, Inches	Each
CHW1	1/8 to 1/2, 5/8 to 1	\$.20
CHW2	1/4 to 5/8, 3/4 to 1 1/8	.20

*Thickness of flange at a point 3/4 to 1-inch from the edge, where wedge engages with it. With Type CHRP hangers, the thickness of couplings which hold pipe away from flange should be subtracted from maximum thickness given.

T&B Cable Straps
For Use with Service Entrance Cable



No. 1341



Nos. 1344 and 1345

Bolt hole is high. Takes any type of 1/4-inch screw. Available in either malleable iron hot dip galvanized or rust proof aluminum.

Carton, 50. Standard package, 100.

Cable Size	Malleable Iron			Aluminum		
	No.	Per 100 Wt., Lb. per 100		No.	Per 100 Wt., Lb. per 100	
2w12, 2w10, 2w8, 2w6, 3w12	1341	\$3.00	3	1391	\$6.00	2
2w4, 3w10, 3w8, 3w6	1344	4.00	4 1/2	1394	7.00	2
2w2, 3w4, 3w2	1345	5.00	6	1395	8.00	3

Appleton Universal Cable Clamps



No. 15275 Malleable Iron Cadmium Finish

Schedule OF

Fits service entrance cable: 2 No. 12, 2 No. 10, 2 No. 8, 2 No. 6, 1 No. 8 and 1 No. 10, 1 No. 6, 1 No. 8, 3 No. 12.

No.	Malleable Iron		Aluminum		Carton	Std. Pkg.
	Wt. Lb. Std. Pkg.		Wt. Lb. Std. Pkg.			
15275	3		2		100	100

Fits service entrance cable: 2 No. 4, 1 No. 4 and 1 No. 6, 3 No. 10, 2 No. 10 and 1 No. 12, 3 No. 8, 2 No. 8 and 1 No. 10, 3 No. 6, 2 No. 6 and 1 No. 8.

15276	4 1/2	2	100	100
15277	6	3	100	100

Appleton One-Screw Cable Clamps

Schedule OF Cadmium Finish For Concentric Service Entrance Cable



For Round Shaped Cable



For Oval Shaped Cable

Malleable iron. Carton quantity, 100. Standard package, 100.

No.	For Round Shaped Cable		Wt., Lb. Per 100
	For Type SE Cable	For No. SD Cable	
15290	{ 2 No. 12, 2 No. 10 } 1 No. 10, 1 No. 12	2 No. 10, 2 No. 8	3
15291	{ 2 No. 8, 1 No. 8, } 1 No. 10, 1 No. 6	2 No. 6, 2 No. 4	3
15242	1 No. 8, 2 No. 6		
15243	2 No. 4, 2 No. 2	2 No. 2	3
15293	5 No. 6 (4 Insulated, 1 Bare) Style ABN		4
15240	{ 3 No. 12, 3 No. 10 } 2 No. 10, 1 No. 12	{ 3 No. 8, 2 No. 8, } and 1 No. 12	2 1/2
15241	{ 3 No. 8, 2 No. 8 } 1 No. 10	{ 3 No. 6, 2 No. 6 } and 1 No. 8	3
15242	{ 3 No. 6, 3 No. 4, } 2 No. 6, 1 No. 8	2 No. 4, 1 No. 6	7
15295	3 No. 2	3 No. 2	7

Galvanized Conduit Straps



*Armored cable.

No.	Per 100 Pounds	Size to In. Lb.	No.		Per 100 Pounds	Size to In. Lb.
			No.	Per 100 Pounds		
208	\$31.80	* 68	214	\$31.80	1 1/2	1
209	31.80	3/8 50	215	31.80	2	2
210	29.40	1/2 45	216	31.80	2 1/2	2 1/2
211	29.40	3/4 30	230	31.80	3	3
212	29.40	1 17	231	31.80	3 1/2	3 1/2
213	29.40	1 1/4 13				

No. 7145 Appleton One-Screw Straps



Schedule CF

Cadmium Finish

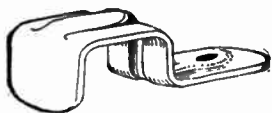
For 1/4-inch pipe and 3/8-inch armored conductor.

No.	Size Inches	Std. Pkg.	Wt. Lb. Std. Pkg.
7145	1/4	500	9

No. 7146 Appleton 1-Hole Straps

Schedule CF

Cadmium Finish
For Non-Metallic Sheathed Cable



Fits Nos. 14W2, 12W2 and 10W2 cable. Made of lead-coated, Terne plate steel.

Packed in 5, 10, 25-pound cartons; bulk in 50-pound bags.

No. 8066 Appleton Cable Clips

Schedule CF

Cadmium Finish

For Armored, Non-Metallic Sheathed and CNX Cable

Fits Nos. 14W2, 12W2, 10W2, 14W3, and 12W3 cable. Made of Terne plate steel; rust-resisting. Fastening hole in clip is 3/16 inch diameter.

Qty. lots: 10,000, 5,000, 2500 and less than 2500. Wt. per 1000, 9 lb.



No. 8067 Appleton 2-Hole Straps

Schedule CF

Cadmium Finish

For Non-Metallic Sheathed Cable



Fits Nos. 14W2, 12W2 and 10W2 cable. Made of steel.

Packed in 5, 10 or 25-pound cartons; or bulk in 50-pound bags. Average, 77 straps to a pound.

Appleton E-Z-In Armored Cable Staples

Schedule CF



No. 8065 staple will take Nos. 14W2, 14W3, 12W2, 12W3, 10W2 and 10W3 armored cable.

No. 8064 staple will take armored cable on non-metallic sheathed cable in sizes No. 14-2, 14-3, 12-2, 12-3, 10-2 and 10-3.

Plain finish only.

Packed in cases of 5,000.

Quantity lots: 30,000, 10,000, 5,000.

No.	8064	8065
Length..... inches	1 1/2	1 3/8
Weight per 5,000..... pounds	54	65

T&B 3/8-Inch Cable Clips

No. 90 For Armored Cable



The pitch of the clip legs is counter clockwise to the spiral of cable and holds the flat top of clip from following the convolutions and cannot enter between them. Dent in top of clip settles between rounds of cable convolutions. Cable cannot slip or pull out.

Packed in unit package, 100, 500, or bulk; 10,000 in standard package.

No. 90, Wt., per 1000, 14 Pounds... per 100 \$4.00

No. 91 For Non-Metallic Sheathed Cable

This clip is the same as the No. 90 except that it has no dent in the top. The legs are also shorter because the clips do not have to be driven into the wood as far as the No. 90.

Packed in unit package, 100, 500, or bulk; 10,000 in standard package. Weight per 1000, 11 pounds.

No. 91..... per 100 \$3.35

Diamond One-Hole Malleable Clamps



Hot galvanized. Annealed twice before galvanizing to assure ductility. Will not crack in installation.

Has but one screw hole and cuts in half the expense of screws or expansion bolts and the labor of installing as compared to the two-hole strap.

For Standard Conduit

Pipe Size Inches	No.	Per 100	Cable Size Inches	Capacity Inches	Length Inches	Diam. Screw Hole Inches	Std. Pkg. per 100	Approx. Ship. Wt. Lb. per 100
1/4	MC-25	\$2.15	.50	1/2	1 3/8	3/16	100	3
3/8	MC-38	2.90	.67	9/16	1 5/8	3/16	100	4
1/2	MC-50	3.50	.84	3/4	2 1/8	3/16	100	6
3/4	MC-75	4.55	1.05	1	2 3/8	3/16	100	6
1	MC-100	5.70	1.31	1 1/8	2 7/8	5/16	100	11
1 1/4	MC-125	9.80	1.66	1 5/8	3 1/2	3/8	50	16
1 1/2	MC-150	13.60	1.90	1 7/8	4	7/16	50	23
2	MC-200	30.15	2.37	2 1/4	5 1/4	1/2	50	45
2 1/2	MC-250	53.30	2.87	2 3/4	6 3/8	5/8	50	100
3	MC-300	74.05	3.50	3 1/8	7 1/2	5/8	35	141
3 1/2	MC-350	110.80	4.00	4	8 1/8	11/16	25	200
4	MC-400	162.20	4.50	4 9/16	9 1/4	1 1/16	25	245

For Thinwall Conduit

Specify (Type S) when ordering.

1/2	MC-50S	\$3.50	706	5/8	2	1/4	100	5
3/4	MC-75S	4.55	922	1 1/16	2 1/4	3/16	100	6
1	MC-100S	5.70	1 163	1 1/16	2 11/16	5/16	100	10
1 1/4	MC-125S	9.80	1 508	1 3/8	3 1/2	3/8	50	16
1 1/2	MC-150S	13.60	1 738	1 5/8	3 7/8	7/16	50	23
2	MC-200S	30.15	2 195	2 1/16	5	1/2	50	42

T&B One-Hole Malleable Iron Pipe Straps

For Heavywall Conduit

Approved by Underwriters' Laboratories

No sagging conduit in a run supported by T&B malleable iron conduit straps. The lip on the end prevents the sag.

The reinforcing ribs on the straps give great strength with less weight.

Each strap has been especially designed to fit the conduit snugly. Standard finish is hot dip galvanized.

Size In.	No.	Per 100	Bolt Hole Size, In.	Car- ton	Std. Pkg.	Wt., Lb. per 100
3/8	1275	\$4.00	No. 12	50	100	4
1/2	1276	5.00	1/4	50	100	6
3/4	1277	6.00	1/4	50	100	9
1	1278	8.00	1/4	50	100	13
1 1/4	1279	14.00	3/8	25	50	32
1 1/2	1280	20.00	3/8	25	50	32
2	1281	40.00	7/16	10	25	68
2 1/2	1282	60.00	5/8	10	25	104
3	1283	80.00	5/8	10	25	148
3 1/2	1284	120.00	5/8	5	10	200
4	1285	180.00	5/8	5	10	260
4 1/2	1286	260.00	5/8	2	5	360
5	1287	350.00	5/8	2	5	460



T&B One-Hole Steel Pipe Straps



No. 65 has projection on inside to fit the groove in the spiral and prevent slipping of conduit or conductor after the strap is in place.

Size In.	No.	Per 100	Bolt Hole Size, In.	Car- ton	Std. Pkg.	Wt., Lb. per 100
1/4	*65	\$2.00	No. 12	50	100	3
3/8	64	3.00	No. 12	50	100	3
1/2	66	3.50	1/4	50	100	4
3/4	69	4.00	1/4	50	100	7

*Designed for armored conductors.

Appleton 1-Screw Conduit Clamps

Schedule CF

**Cadmium Finish
For Rigid Conduit (Heavy-Wall)**

Only one screw or bolt is required to fasten the clamp and hold same securely to the conduit. The sharp edges on that part of the clamp which fits over the conduit serve to hold the conduit rigid.

Steel



No.	Size In.	Car- ton	Std. Pkg.	Wt., Lb. Std. Pkg.	No.	Size In.	Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
7148	1/4	100	100	3	7151	3/4	100	100	8
7149	3/8	100	100	3	7152	1	100	100	9
7150	1/2	100	100	5	7153	1 1/4	25	50	8

Malleable



No.	Size In.	Car- ton	Std. Pkg.	Wt., Lb. Std. Pkg.	No.	Size In.	Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
17147	1/8	100	100	2	17154	1 1/2	25	50	19
17148	1/4	100	100	3	17155	2	10	25	16
17149	3/8	100	100	3	17156	2 1/2	10	25	29
17150	1/2	100	100	11	17157	3	10	25	43
17151	3/4	100	100	13	17158	3 1/2	5	10	24
17152	1	100	100	21	17159	1	5	10	29
17153	1 1/4	25	50	17					

Appleton One-Screw Heavy Stamped Steel Clamps

Schedule CF

**Cadmium Finish
For Rigid Conduit (Heavy Wall)**



No.	Size In.	Car- ton	Std. Pkg.	Wt., Lb. Std. Pkg.
17248	1/4	100	500	9
17249	3/8	100	500	9
17250	1/2	100	100	11
17251	3/4	100	100	12
17252	1	100	100	23
17253	1 1/4	25	50	17
17254	1 1/2	25	50	25
17255	2	10	25	20
17256	2 1/2	10	25	20
17257	3	5	10	14
17258	3 1/2	5	10	18
17259	4	5	10	22

Appleton One-Screw Malleable Clamps

Schedule TW

For Electrical Metallic Tubing (Threadless Thin-Wall Conduit)

Malleable

Cadmium Finish



No.	Size Inches	Car- ton	Std. Pkg.	Wt. Lb. per 100
171T49	3/8	200	2000	4
171T50	1/2	200	2000	5
171T51	3/4	200	1000	6
171T52	1	100	1000	9
171T53	1 1/4	100	500	10
171T54	1 1/2	100	500	16
171T55	2	50	500	17

Steel



No.	Size Inches	Car- ton	Std. Pkg.	Wt. Lb. per 100
172T50	1/2	500	2000	57
172T51	3/4	200	2000	65
172T52	1	100	1000	10

**T & B Malleable Pipe Straps
For Thinwall Conduit**



Cat. No.	Per 100	Size Inches	Std. Pkg.	Wt., Lb. Per 100
4175	\$4.00	3/8	100	4
4176	5.00	1/2	100	5
4177	6.00	3/4	100	6
4178	8.00	1	100	9
4179	14.00	1 1/4	50	18
4180	30.00	1 1/2	50	26
4181	40.00	2	25	48

Diamond 1-Hole Steel Clamps

Standard



A very efficient fastening where light construction is to be used.

Made of cold rolled steel. Diamond hot dip galvanized after fabrication.

For telephone work, made in brown or ivory enamel. Can also be supplied in other finishes and metals.

No.	Per 100	Cable Size Inches	Pipe Size Inches	*Thinwall Conduit Inches	Stock Size Inches	Std. Pkg.	Shipping Wt., Lb. per 100
L-3	\$.60	3/16	...	...	1/2x.072	500	1
L-4	.75	1/4	...	...	1/2x.062	500	1
L-5	.85	5/16	...	...	1/2x.062	500	1
L-6	.95	3/8	1/8	...	1/2x.048	500	1
L-7	1.05	7/16	...	...	1/2x.048	500	1.1
L-8	1.15	1/2	...	...	1/2x.048	500	1.2
L-9	1.20	9/16	...	...	1/2x.048	500	1.2
L-10	1.25	5/8	1/4	3/4	1/2x.048	500	1.3
L-11	2.25	11/16	3/4	1 1/2	3/8x.062	500	4
L-12	2.85	3/4	1/2	...	11/16x.062	500	4.5
L-14	3.00	7/8	...	3/4	11/16x.062	500	5
L-16	3.45	1	3/4	...	3/4x.080	250	7
L-18	3.60	1 1/8	...	1	3/4x.080	250	7.5
L-20	4.95	1 1/4	1	...	7/8x.115	100	15
L-24	6.65	1 1/2	...	1 1/4	7/8x.115	100	16
L-26	7.10	1 5/8	1 1/4	...	7/8x.115	100	17
L-28	7.30	1 3/4	...	1 1/2	7/8x.115	100	19
L-30	7.45	1 7/8	...	...	7/8x.115	100	20

*E.N.T.

Diamond 1-Hole Steel Conduit and Cable Clamps

Offset Type



Made of rolled steel and Diamond process hot dip galvanized after fabrication.

Also available in other regular finishes and metals.

No.	Per 100	Min.	Max.	Pipe Size In.	Stock Size In.	Ship. Wt. Lb. per 100
403	\$.35	5/32	7/32	...	5/16x.048	.40
405	.40	1/4	5/16	...	5/16x.048	.50
406	.60	3/16	3/8	...	1/2x.048	1.00
407	.65	3/8	1/2	1/8	1/2x.048	1.10
408	.70	1/2	9/16	1/4	1/2x.050	1.20
409	1.25	5/8	5/8	...	3/4x.060	2.50
411	1.50	5/8	11/16	3/8	3/4x.060	2.87
413	2.50	3/4	7/8	1/2	3/4x.078	4.12
417	2.90	1	1 1/16	3/4	3/4x.078	5.31
421	4.30	1 1/8	1 1/2	1	3/4x.115	9.77
425	5.00	1 1/2	1 3/4	1 1/4	3/4x.115	10.62
430	5.50	1 5/8	2	1 1/2	3/4x.115	12.42
435	7.50	2 1/8	2 3/8	2	3/4x.130	16.00
442	8.50	2 1/2	2 7/8	2 1/2	3/4x.130	18.42

Diamond 2-Hole Steel Conduit and Cable Straps Standard



Designed to withstand strains and vibrations. Because of its great strength, fewer straps need be used in conduit or cable runs.

Made of steel. Diamond hot dip galvanized after fabrication.

No.	Per 100	Cable Size In.	Pipe Size In.	Stock Size In.	Shp. Wt. Lb. per 100	No.	Per 100	Cable Size In.	Pipe Size In.	Stock Size In.	Shp. Wt. Lb. per 100
T7	\$1.50	7/16	1	1 1/8	0.48	T24	\$9.00	1 1/2	2 1/2	3 1/8	15.25
T10	1.65	1/2	1 1/4	1 3/8	0.18	T26	9.60	1 3/4	2 3/4	3 3/8	16.50
T11	3.00	5/8	1 1/2	1 5/8	0.62	T28	10.20	1 3/4	2 3/4	3 3/8	17.00
T12	3.15	5/8	1 1/2	1 5/8	0.62	T30	10.80	1 3/4	2 3/4	3 3/8	19.00
T14	3.75	3/4	1 3/4	1 7/8	0.62	T40	17.30	2 1/2	3 1/2	4 1/8	26.00
T16	4.65	1	2	2 1/8	0.80	T46	20.40	2 3/4	3 3/4	4 3/8	31.00
T18	5.10	1 1/8	2 1/4	2 3/8	0.80	T56	23.50	3 1/2	4 1/2	5 1/8	35.00
T20	7.50	1 1/2	2 3/4	3 1/8	1.35						

Appleton 1-Screw Clamp Backs

Schedule CFS

Cadmium Finish

For Rigid Conduit (Heavy Wall) and Electrical Metallic Tubing



Used under pipe clamps to raise the conduit from surface and prevent moisture accumulation around pipe.

Also allow conduits to run into hubs and knockouts of boxes in straight line.

Diamond 2-Hole Steel Conduit and Cable Straps Extra Heavy

Extra Heavy



Designed to withstand heavy strains and vibration. Because of its great strength, fewer straps need be used in conduit or cable runs.

Made of steel. Diamond hot dip galvanized after fabrication.

No.	Per 100	Cable Size In.	Pipe Size In.	Stock Size In.	Shipping Wt. Lb. per 100	No.	Per 100	Cable Size In.	Pipe Size In.	Stock Size In.	Shp. Wt. Lb. per 100
N1	\$2.60	7/16	1	1 1/8	4.5	N8	\$8.35	1 1/4	2 1/4	3 1/8	19.2
N2	3.00	5/8	1 1/4	1 3/8	5.5	N9	9.50	1 1/2	2 1/2	3 3/8	21.5
N3	3.50	11/16	3/8	1 1/2	6.7	N10	10.65	1 3/4	2 3/4	3 3/8	23.5
N4	3.70	3/4	1	1 1/2	7.1	N11	11.25	1 7/8	2 3/4	3 3/8	24.7
N5	3.90	7/8	1 1/2	1 3/4	7.7	N12	11.80	2	3	3 3/8	26.0
N6	4.75	1	1 3/4	2	8.3	N13	12.40	2 1/8	3 1/4	3 3/8	27.2
N7	7.20	1 1/8	2	2 1/4	17.9	N14	13.00	2 1/4	3 1/4	3 3/8	28.5

(WILL TAKE CLAMP)

No.	For Rigid Conduit	For E.M.T.	Size In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
27148	{ 17148 17149 }	171T49	3/8	100	100	6
27150	17150	{ 171T50 171T51 }	1/2	100	100	10
27151	17151	171T52	3/4	100	100	10
27152	17152	171T53	1	100	100	15
27153	17153	171T54	1 1/4	25	50	12
27154	17154	171T55	1 1/2	25	50	14
27155	17155	.....	2	10	25	10
27156	17156	.....	2 1/2	10	25	12
27157	17157	.....	3	10	25	20
27158	17158	.....	3 1/2	5	10	..
27159	17159	.....	4	5	10	..

Di-Stamp Conduit Clamps

Pressed Steel—Hot Galvanized

Hot dipped galvanized by the Diamond process. The hollow or arched section of this clamp gives maximum strength with minimum weight.



Conduit Size In.	Per 100	No. Wood Screws	Std. Pkg.	Wt. Lb. per 100
* 1/4	\$2.69	10	100	3
* 3/8	2.69	10	100	3
1/2	3.34	10	100	5
3/4	4.30	14	100	8
1	6.69	14	100	9
1 1/4	11.16	18	50	20
1 1/2	17.85	18	50	36

*These sizes are made of flat stock.

Appleton Conduit Hangers

Schedule CFS
Cadmium Finish



Consists of two parts—a base and clip. Clip is snapped on over the conduit, slipped into the base, after which the screw on the side is tightened and a firm grip made on the conduit. Cadmium finish.

No.	Size In.	Std. Pkg.	Wt. Lb. Std. Pkg.
7110	1 1/2	100	7
7111	3/4	100	8
7112	1	100	10

O.Z. Type U U-Bolts

For Clamping Conduit

Furnished with Nuts and Flat Washers.

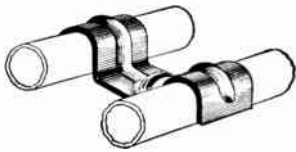
Made of steel, cadmium plated or hot-dip galvanized; or Everdur alloy.

Standard length provides for clamping the conduit to a 3/8 inch thick plate.



Conduit Size Inches	Stock Size Inches	Steel	
		Cadmium Plate No.	Hot-Dip Galvanized No.
1/2	1/4	MU054 \$.12	HU054 \$.15
3/4	1/4	MU074 .12	HU074 .15
3/4	5/16	MU075 .15	HU075 .18
1	1/4	MU114 .13	HU114 .16
1	5/16	MU115 .16	HU115 .19
1	3/8	MU116 .19	HU116 .22
1 1/4	1/4	MU124 .14	HU124 .17
1 1/4	5/16	MU125 .17	HU125 .20
1 1/4	3/8	MU126 .20	HU126 .23
1 1/2	1/4	MU154 .15	HU154 .18
1 1/2	5/16	MU155 .18	HU155 .21
1 1/2	3/8	MU156 .21	HU156 .24
2	5/16	MU205 .20	HU205 .23
2	3/8	MU206 .23	HU206 .26
2 1/2	3/8	MU266 .26	HU266 .29
2 1/2	1/2	MU268 .36	HU268 .40
3	3/8	MU316 .29	HU316 .32
3	1/2	MU318 .40	HU318 .44
3 1/2	3/8	MU366 .32	HU366 .35
3 1/2	1/2	MU368 .44	HU368 .48
4	3/8	MU416 .35	HU416 .38
4	1/2	MU418 .48	HU418 .52
4 1/2	3/8	MU466 .40	HU466 .45
4 1/2	1/2	MU468 .55	HU468 .60
5	3/8	MU516 .45	HU516 .50
5	1/2	MU518 .70	HU518 .75

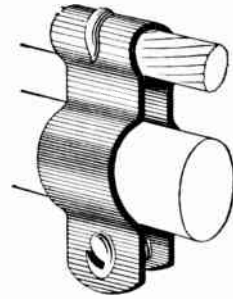
Minerallac Duplex Jiffy Clips
For Tubing and Cable



An efficient fastening where parallel runs of tubing or cable are used. Only one bolt or screw is required to hold clip in place. Made in plated steel or Everdur.

No.	Steel		Everdur		Size Cable or Tube, In.	Standard Package
	Per Std. Pkg.	Wt. Lb.	Per Std. Pkg.	Wt. Lb.		
300	\$1.05	3	\$3.15	9	1/4x1/4	500
301	1.35	3	4.00	9	3/8x3/8	500
302	1.45	3	4.35	9	1/4x3/8	500
303	1.60	3	4.80	9	1/4x1/2	500
304	1.75	3	5.25	9	3/8x5/8	500

Minerallac Messenger Hangers
For Conduit and Cable



Made of cadmium-plated steel or Everdur alloy. The top loop holds the cable in place while the conduit is being installed.

Recommended stove bolt size: No. M-0, 3/16x1 inch; No. M-1, 1/4x1 1/4 inches; No. M-2, 1/4x1 1/4 inches.

No.	Steel		Everdur		For Rigid Conduit Size, In.	For Thin Wall Conduit Size, In.	Std. Pkg.
	*Per Std. Pkg.	Wt. Lb.	*Per Std. Pkg.	Wt. Lb.			
M-0	\$4.00	5 1/2	\$9.00	6	3/8	1/2	100
M-1	4.45	6	9.45	8	1/2	3/4	100
M-2	5.90	7	15.50	10	3/4	1	100

*Prices do not include stove bolts.

Minerallac Jiffy Clips



Made in cadmium plated steel and Everdur, for hanging pipe, conduit, and BX cable; also for mounting coils, etc., in radios and vending machines. Only one screw or bolt is required to hold the clip and the article which it is supporting firmly in place.

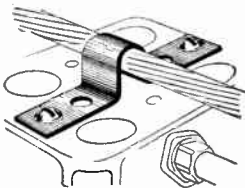
No. or Size, In.	Steel		Everdur		For Tube Size, In.	For Cable O.D. Size, In.	Std. Pkg.
	Per Std. Pkg.	Wt. Lb.	Per Std. Pkg.	Wt. Lb.			
105	\$0.80	3	\$2.55	3 1/2	1/4	.250	500
110	.90	3	2.65	3 1/2	3/16	.312	500
115	1.05	6 3/8	2.75	6 3/4	3/8	.375	500
135	1.55	3	6.00	3 1/2	3/4	.750	100

For Iron Pipe and Conduit

No. or Size, In.	Steel		Everdur		For Rigid Conduit Size, In.	For Thin Wall Conduit Size, In.	For Cable O.D. Size, In.	Std. Pkg.
	Per Std. Pkg.	Wt. Lb.	Per Std. Pkg.	Wt. Lb.				
120	\$1.15	6 1/2	\$2.95	7	1/8	...	.405	500
125	1.25	7 1/2	3.45	8 1/4	1/4	...	.540	500
130	1.50	2 3/4	5.45	3 1/4	3/8	1/2	.706	100
140	1.60	4	6.90	4 1/4	1/2	...	.840	100
145	2.00	4 1/4	7.90	4 1/2	...	3/4	.922	100
150	2.30	4 1/2	8.90	5	3/4	...	1.050	100
155	2.80	5	11.90	5 1/4	...	1	1.165	100
160	3.40	8 1/4	14.80	9	1	...	1.315	100
165	3.90	10	17.30	11	1 1/4	...	1.50	100
170	4.50	12 1/4	19.80	13 1/2	1 1/2	...	1.660	100

Minerallac Messenger Straps

For Outlet Boxes



Designed for messenger cable service and should be used in conjunction with the messenger hanger.

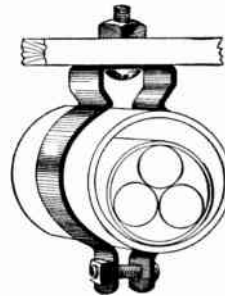
Made of cadmium-plated steel or Everdur alloy. Fits all standard outlet boxes and 3/8-inch messenger cable. Recommended stove bolt size, 1/4x1 1/2 inches. Standard package, 100.

Size Cable.....	inches	3/8
*Steel.....	per std. pkg.	\$3.00
*Everdur.....	per std. pkg.	6.30
Approximate Weight per Standard Package.....	pounds	3 1/4

*Prices do not include stove bolts.

Minerallac Cable and Conduit Hangers

Listed by Underwriters' Laboratories, Inc.



Made of cadmium-plated steel or Everdur alloy.

Quickly installed to run open wiring, cable and conduit with a more compact arrangement.

For voltages above 550 volts, the hanger should be used with insulated bushings.

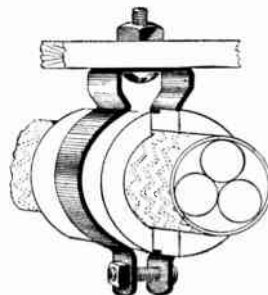
No.	Steel		Everdur		For Rigid Conduit Size, In.	For Thin Wall Conduit Size, In.	FOR CABLE OR CONDUIT, O.D. — INCHES —		Std. Pkg.
	Per Std. Pkg.	Wt. Lb.	Per Std. Pkg.	Wt. Lb.			Min.	Max.	
0	\$3.90	5	\$8.90	5 1/4	1/2, 3/8	1/2	.625	.844	100
1	4.30	6 1/2	10.90	7 1/4	3/4	3/4	.812	1.062	100
2	5.70	8	15.60	8 3/4	1	1	1.062	1.344	100
2 1/2	6.00	8 3/4	16.30	9 1/2	...	1 1/4	1.281	1.50	100
3	6.20	10	17.55	11	1 1/4	1 1/2	1.50	1.688	100
4	7.70	16	24.95	17 3/4	1 1/2	...	1.688	1.969	100
5	8.30	11 3/4	36.60	12 1/2	2	2	2.219	2.469	50
6	9.20	13 1/4	44.50	14 3/4	2 1/2	...	2.688	3.00	50

Minerallac Porcelain Bushings

For Cable Hangers

Used on cable hangers when working with voltages of 550 volts and above.

Provides the requisite dielectric and structural strength.



No.	Per Std. Pkg.	FOR CABLE O.D. INCHES		Std. Pkg.	Wt. Lb.
		Min.	Max.		
1	\$8.40	3/16	1/2	100	8
2	9.05	5/8	27/32	100	9 1/2
3	12.90	7/8	1 1/16	100	15
4	14.50	1 1/8	1 13/32	100	22
5	18.05	1 11/32	1 19/32	100	49
5	19.70	1 13/16	2 1/8	100	60

T&B Adjustable Conduit Hangers

Approved by Underwriters' Laboratories

Will fit any flange from 2 3/4 to 12 inches. Universal in the range of beam flanges to be fit, the number of pipes to be accommodated, and the various angles at which the pipe may be run. Adjustable for varying plaster lines; will support any number of conduits from one to eight. Clamps made of stamped steel.

No. 700 Type A Clamps



Fits flanges from 2 3/4 to 7 3/8 inches, including bolts.

Packed 100 in a standard package; weight, 33 pounds.

No. 700.....per 100 **\$60.00**
 No. 703, Special Bolts, Wt. per 100, 6 Lb.....per 100 **\$10.00**

Conduit Size Inches	No.	Complete With Supports per 100	No. of Conduits	Std. Pkg.	Wt. Lb. per 100
1/2	710	\$60.00	1	100	45
3/4	711	70.00	1	100	46
1	712	80.00	1	50	48
1 1/4	713	90.00	1	50	51
1 1/2	714	100.00	1	25	52
2	715	110.00	1	25	56
2 1/2	716	125.00	1	25	59
3	717	140.00	1	25	63
1/2	718	65.00	2	100	58
3/4	719	75.00	2	100	65
1/2	720	80.00	4	50	72
3/4	721	90.00	4	50	80
1/2	722	100.00	6	25	97
3/4	723	120.00	6	25	112
1/2	724	120.00	8	25	111
3/4	725	140.00	8	25	127
1/2 and 3/4	726	85.00	2 and 2	25	90
1/2 and 3/4	727	100.00	2 and 4	25	105
1/2 and 3/4	728	100.00	4 and 2	25	104
1/2 and 3/4	729	110.00	4 and 4	25	119
1	730	75.00	2	25	73
1 1/4	731	90.00	2	25	85
1 1/2	732	100.00	2	25	95

T&B Malleable Iron Supports

Conduit Size Inches	No.	Per 100	No. of Conduits	Std. Pkg.	Wt. Lb. per 100
1/2	741	\$25.00	2	100	25
3/4	743	35.00	2	50	32
1	745	45.00	2	25	40
1 1/4	746	50.00	2	25	52
1 1/2	747	55.00	2	25	62
1/2	742	50.00	4	100	39
3/4	744	60.00	4	50	47

T&B Steel Supports

Conduit Size Inches	No.	Per 100	No. of Conduits	Std. Pkg.	Wt. Lb. per 100
1/2	733	\$15.00	1	100	12
3/4	734	20.00	1	100	13
1	735	30.00	1	50	15
1 1/4	736	40.00	1	50	18
1 1/2	737	50.00	1	25	19
2	738	60.00	1	25	23
2 1/2	739	70.00	1	25	26
3	740	80.00	1	25	30

T&B Adjustable Conduit Hangers

Approved by Underwriters' Laboratories

Will fit any flange from 2 3/4 to 12 inches. Universal in the range of beam flanges to be fit, the number of pipes to be accommodated, and the various angles at which the pipe may be run. Adjustable for varying plaster lines; will support any number of conduits from one to eight. Clamps made of stamped steel.

No. 701 Type B Clamps

Fits flanges from 7 to 12 inches, including bolts.

Packed 100 to a standard package; weight, 62 pounds.

No. 701.....per 100 **\$80.00**
 No. 703, Special Bolts, Wt. per 100, 6 Lb.....per 100 **10.00**

Conduit Size Inches	No.	Complete With Supports per 100	No. of Conduits	Std. Pkg.	Wt. Lb. per 100
1/2	760	\$90.00	1	100	74
3/4	761	100.00	1	100	75
1	762	110.00	1	50	77
1 1/4	763	115.00	1	50	80
1 1/2	764	125.00	1	25	81
2	765	140.00	1	25	85
2 1/2	766	150.00	1	25	88
3	767	175.00	1	25	92
1/2	768	90.00	2	100	87
3/4	769	100.00	2	100	94
1/2	770	100.00	4	50	101
3/4	771	110.00	4	50	109
1/2	772	125.00	6	25	126
3/4	773	150.00	6	25	141
1/2	774	150.00	8	25	140
3/4	775	170.00	8	25	160
1/2 and 3/4	776	125.00	2 and 2	25	119
1/2 and 3/4	777	140.00	2 and 4	25	134
1/2 and 3/4	778	125.00	4 and 2	25	133
1/2 and 3/4	779	140.00	4 and 4	25	148
1	780	100.00	2	25	102
1 1/4	781	110.00	2	25	114
1 1/2	782	120.00	2	25	124

T&B Conduit Supports



Will fit any beam flange up to 5/8-inch thick. Can be used on all popular sizes and types of beams. The pointed set-screw bites into the beam, insuring permanent tightness and a good electrical ground.

Size Conduit Inches	No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. per 100
1/2	690	\$50.00	10	100	40
3/4	691	55.00	10	100	43
1	692	60.00	10	50	55
1 1/4	693	70.00	10	50	60

T&B Box Hangers or Loops



For supporting heavy fixtures or devices. Slot on inside for nail to prevent loop or nipple turning after fitting is installed.

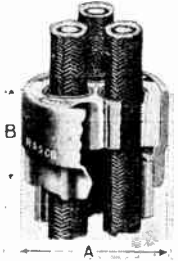
Malleable iron. For 3/8 or 1/2-inch drop; 1/2 or 3/4-inch run.

Drop In.	Run In.	No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. per 100
3/8	1/2	791	\$10.00	25	100	9
1/2	1/2	792	15.00	25	100	11
1/2	3/4	793	20.00	25	100	15

**R & S Cable Supports
Standard Conduit Type**

A compact, strong and easily installed device for supporting cables in conduit risers.

Support consists of a threaded collar, not much larger in diameter than the outlet bushing which it replaces at the end of the conduit inside of the pull box. It has a set of inserts for one or more cables as required and individual tapered cable grips. They are suitable alike for lead, paper or braid-covered cables.



In installing, the collar is screwed on to end of riser, in lieu of a bushing, the cables are then pulled, the inserts dropped into socket of collar and the split, tapered grip bushings placed over the individual cables, which are now allowed to pull the grips into place by their

own weight. A perceptible slack of cable should be provided between supports to allow for expansion and contraction.

Made of galvanized iron, with hard fiber cable grips.

When ordering, be sure to state exact outside diameter of cable over insulation. Size of conductor is not sufficient information.

No.	Each	Size Conduit Inches	No. of Cables	DIMENSIONS INCHES		*Max. Cable Inches
				A	B	
1801	\$1.80	1	1	1 11/16	1 5/8	7/8
1802	1.80	1	2	1 11/16	1 5/8	3/8
1803	1.80	1	3	1 11/16	1 5/8	3/8
1804	1.80	1	4	1 11/16	1 5/8	5/16
1811	1.80	1 1/4	1	2 1/4	1 21/32	1
1812	1.80	1 1/4	2	2 1/4	1 21/32	1 13/32
1813	1.80	1 1/4	3	2 1/4	1 21/32	1 13/32
1814	1.80	1 1/4	4	2 1/4	1 21/32	1 11/32
1821	2.20	1 1/2	1	2 9/16	1 11/16	1 1/4
1822	2.20	1 1/2	2	2 9/16	1 11/16	1 1/2
1823	2.20	1 1/2	3	2 9/16	1 11/16	1 1/2
1824	2.20	1 1/2	4	2 9/16	1 11/16	3/8
1831	3.25	2	1	3 9/16	2 7/16	1 3/4
1832	3.25	2	2	3 9/16	2 7/16	2 1/32
1833	3.25	2	3	3 9/16	2 7/16	2 1/32
1834	3.25	2	4	3 9/16	2 7/16	9/16
1841	3.65	2 1/2	1	3 3/4	2 1/16	2
1842	3.65	2 1/2	2	3 3/4	2 1/16	7/8
1843	3.65	2 1/2	3	3 3/4	2 1/16	2 1/32
1844	3.65	2 1/2	4	3 3/4	2 1/16	2 3/32
1851	4.80	3	1	4 9/16	3	2 1/4
1852	4.80	3	2	4 9/16	3	1 1/16
1853	4.80	3	3	4 9/16	3	1
1854	4.80	3	4	4 9/16	3	1 5/16
1862	6.50	3 1/2	2	5 1/16	3 7/32	1 7/32
1863	6.50	3 1/2	3	5 1/16	3 7/32	1 3/16
1864	6.50	3 1/2	4	5 1/16	3 7/32	1 1/32
1872	8.10	4	2	5 5/8	3 3/16	1 1/2
1873	8.10	4	3	5 5/8	3 3/16	1 1/16
1874	8.10	4	4	5 5/8	3 3/16	1 1/16
1887	15.00	5	2	7 1/4	4 1/8	1 7/8
1888	15.00	5	3	7 1/4	4 1/8	1 5/8
1889	15.00	5	4	7 1/4	4 1/8	1 1/2
1897	45.00	6	2	8 1/4	4 1/2	2 1/4
1898	45.00	6	3	8 1/4	4 1/2	2
1899	45.00	6	4	8 1/4	4 1/2	1 13/16

*Maximum diameter of cable over insulation.

Special Tile Duct Type

Made on special order only. Used to support risers run through tile duct. Can be furnished in any number of gangs. Prices and full information upon application.

Split Type

Where installations are already in use, and the necessity of a support for the cables occurs, it is possible to utilize this type of support without the necessity of disconnecting and pulling out the cable risers. This split type can be installed around the cable and the necessary inserts and bushings as used on the conduit type inserted. The range of sizes is the same as on the conduit type.

Prices and full information upon application.

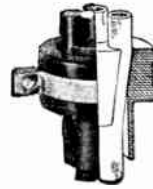
O.Z. Split Type Cable Supports

Two-Piece—For 2 or More Wires

Used where cables are already installed in conduit.

Consists of two parts held together by a cadmium-plated heavy band.

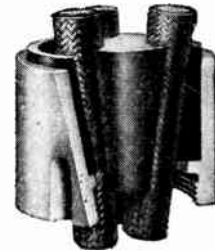
Cable Supports available in lock-type, compound type, and ventilated compound type. Prices on request.



No.	Each	Conduit Size, Inches	Dia. Over Body Inches
S 502	\$1.50	1/2	1 1/4
S 752	1.50	3/4	1 3/4
S1002	1.75	1	2
S1252	1.80	1 1/4	2 3/8
S1502	2.20	1 1/2	2 3/4
S2002	3.25	2	3 3/8
S2502	3.65	2 1/2	3 7/8
S3002	4.80	3	4 1/2
S3502	6.50	3 1/2	5 3/4
S4002	8.10	4	5 3/4
S4502	12.00	4 1/2	6 3/4
S5002	15.00	5	7 3/8
S6002	25.00	6	9

O.Z. Conduit Type Cable Supports

Two-Piece—For 2 or More Wires

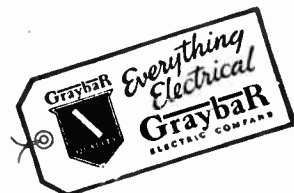


Fitting is comprised of two pieces and requires only standard knockout spacing. Body made of cadmium plated malleable iron. Before wires are dropped, body should be installed on the end of the conduit, instead of the conventional iron bushing. After wires are installed, treated maple wood plug is wedged between conductors.

When ordering, specify type of conductor, number of conductors in the conduit and outside diameter of each.

No.	Complete Each	Body Only Each	Plug Only Each	Conduit Size In.	Outside Diam. In.	Height Overall In.	Approx. Wt., Lb. per 100
S 500	\$1.50	\$1.20	\$.30	1/2	1 1/4	1 5/8	25
S 750	1.50	1.20	.30	3/4	1 1/2	1 5/8	30
S1000	1.75	1.35	.40	1	1 3/4	1 3/4	60
S1250	1.80	1.40	.40	1 1/4	2 1/8	1 3/4	70
S1500	2.20	1.70	.50	1 1/2	2 3/8	2 1/8	90
S2000	3.25	2.70	.55	2	3	2 3/8	140
S2500	3.65	3.05	.60	2 1/2	3 5/8	2 5/8	260
S3000	4.80	4.00	.80	3	4 3/8	2 7/8	365
S3500	6.50	5.50	1.00	3 1/2	5	3 1/4	520
S4000	8.10	6.60	1.50	4	5 1/2	3 1/2	650
S4500	12.00	9.75	2.25	4 1/2	6 1/4	3 3/4	800
S5000	15.00	12.00	3.00	5	6 7/8	4 1/8	900
S6000	25.00	20.00	5.00	6	8 3/8	5 3/8	1400

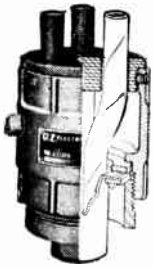
For hot-dip galvanized body, add 20 per cent to price. Can be supplied for thin wall conduit (E.M.T.) and fiber conduit on request at additional cost.



O.Z. Type CLC Terminators

For Lead Covered Cable

With Top Cover
750 Volts A.C. or D.C.



Used with a multiple or a single conductor cable up to 750 volts.

Seals the cable and grounds the lead sheath. The body of the fitting screws directly on the conduit, clamping the lead sheath to a bronze bell ring, which has been previously set into the end of the conduit.

Available in type CLH for horizontal installations, and types DSC and DLC for higher voltages. Prices on request.

No.	Each	Conduit Size Inches	Maximum Diameter of Cable Permitted Inches	Diameter Inches	Overall Height Inches	Approximate Compound Required, Pints
CLC 50	\$2.65	1/2	.46	1 1/2	2 5/8	1/20
CLC 75	2.65	3/4	.61	1 1/2	2 5/8	1/20
CLC100	3.05	1	.78	1 7/8	3	1/8
CLC125	3.45	1 1/4	1.02	2 1/4	3 1/8	1/8
CLC150	4.00	1 1/2	1.20	2 3/8	3 1/4	1/8
CLC200	4.80	2	1.53	3	3 3/4	1/4
CLC250	5.80	2 1/2	1.83	3 1/2	4 1/4	1/2
CLC300	6.95	3	2.28	4 1/2	4 3/4	3/4
CLC350	8.40	3 1/2	2.70	4 3/4	5 1/8	1
CLC400	10.30	4	3.00	5 3/8	5 7/8	1 1/2
CLC450	12.40	4 1/2	3.35	5 7/8	6 1/8	2
CLC500	14.80	5	3.75	6 1/2	6 1/2	2 3/4
CLC600	20.00	6	4.50	7 5/8	6 7/8	4

O.Z. Type CRC Terminators

For Rubber Covered and Other Braided Cable

With Top Cover

750 Volts, A.C. or D.C.



For one or more cables.

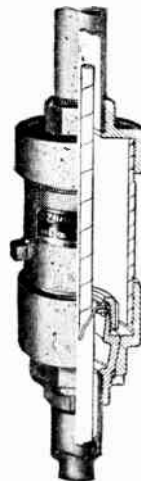
Conductors are sealed by split rubber rings placed around the cable, set into a canvas bakelite seating disc and compressed by a pressure disc.

Available in type CRH for horizontal installations and types DTC and DRC for higher voltages. Prices on request.

No.	Each	Conduit Size Inches	MAXIMUM DIAMETER OF WIRE PERMITTED, INCHES				Approximate Compound Required Pints
			1 Wire	2 Wire	3 Wire	4 Wire	
CRC 50	\$2.95	1/2	.46	....	....	....	1/20
CRC 75	2.95	3/4	.61	.31	.28	.25	1/20
CRC100	3.40	1	.78	.38	.33	.31	1/8
CRC125	3.50	1 1/4	1.02	.51	.51	.42	1/8
CRC150	4.55	1 1/2	1.20	.63	.59	.51	1/8
CRC200	5.50	2	1.53	.78	.78	.63	1/4
CRC250	6.65	2 1/2	1.83	.97	.92	.78	1/2
CRC300	8.00	3	2.28	1.21	1.10	.92	3/4
CRC350	9.65	3 1/2	2.70	1.41	1.32	1.10	1
CRC400	11.75	4	3.00	1.55	1.47	1.24	1 1/2
CRC450	14.05	4 1/2	3.35	1.76	1.64	1.41	2
CRC500	16.65	5	3.75	1.98	1.88	1.47	2 3/4
CRC600	22.15	6	4.50	2.37	1.98	1.88	4

O.Z. Type J Terminators

For 1 or More Lead or Rubber Covered Cables



Permits sealing and terminating conduit and cables outside of cabinets without disturbing electrical installations, thus permitting conduit work to be tied into cabinets and other devices, or permitting conduit runs to be tied together, without disturbing the existing equipment.

When Installing with Cabinets, the conduit work is terminated at the proper height below the box. The device is dismantled and properly assembled on the end of the conduit, then tied into the box with a chase nipple that is furnished with the fitting. When ready for installation of wiring, disassemble unit on the conduit, seal wires, then reassemble complete, making a mechanical bond between the conduit raceway system and the box. The Oversize sleeve is of sufficient dimensions to provide ample room for pulling-in, belling, splicing, and any other necessary process.

When Installing Straight Line Conduit

Runs, the chase nipple at the top is eliminated and conduit work extended from the top adapter. The same procedure follows as above.

Conduit or Single Lead Size Inches	For a Multiple Covered Cable		For 2 or More Single Conductor Lead Cables		For 1 or More Rubber Covered Cables		Maximum Diameter Inches	Sleeve Length (IFS) Inches	Sleeve Size Inches
	No.	Each	No.	Each	No.	Each			
1	JL100	\$8.95	JU100	\$9.00	JR100	\$9.20	3 3/8	6 3/4	2 1/2
1 1/4	JL125	10.90	JU125	11.00	JR125	11.20	4 1/8	6 3/4	3
1 1/2	JL150	13.90	JU150	14.00	JR150	14.30	4 5/8	6 3/4	3 1/2
2	JL200	17.85	JU200	18.00	JR200	18.35	5 3/8	8	4
2 1/2	JL250	23.80	JU250	24.00	JR250	24.40	5 7/8	10 1/4	4 1/2
3	JL300	29.80	JU300	30.00	JR300	30.50	6 3/8	12 1/4	5
3 1/2	JL350	35.80	JU350	36.00	JR350	36.60	7 3/8	14 1/4	6
4	JL400	38.75	JU400	44.00	JR400	44.70	8 1/2	14 1/2	7

Prices and Ordering

Prices on Terminators, Sealing Bushings, and Compound Bushings apply to malleable iron bodies, cadmium plated. For hot-dip galvanized finish add 20 per cent to prices; for fittings of bronze or aluminum, add 50 per cent to prices; and for filling compound, add 5 per cent to prices.

In ordering specify, (1) size of conduit, (2) diameter over lead, (3) number of conductors, and (4) diameter over insulation of individual conductors.

O.Z. Types CUC and CAC Terminators

For Lead Covered Cable

With Top Cover
750 Volts, A.C. or D.C.



For two or more single conductor cables. Made of malleable iron, cadmium plated.

Type CUC is used where the wires installed in a conduit are small enough to allow enough space for belling purposes in a pothead the same size as the conduit.

Type CAC is used where larger wires are installed in the same size conduit according to standard code requirements. The additional belling area required is provided for by the use of a special adapter and a larger body.

Specially drilled, non-ferrous belling and pressure rings are provided for the individual lead covered cables according to cable requirements.

Available in types CUH and CAH for horizontal installations, and types DUC and DAC for higher voltages. Prices on request.

No.	Each	Conduit Size Inches	MAXIMUM DIAMETER OF WIRE PERMITTED, INCHES			Approx. Compound Required, Pints
			2 Wire	3 Wire	4 Wire	
CUC 75	\$2.75	3/4	.24	....	....	1/20
CAC 75	3.95	3/4	.32	.27	....	1/8
CUC100	3.20	1	.32	.27	....	1/8
CAC100	4.55	1	.38	.32	.32	1/8
CUC125	3.65	1 1/4	.38	.32	.32	1/8
CAC125	5.35	1 1/4	.58	.38	.35	1/8
CUC150	4.25	1 1/2	.58	.38	.35	1/8
CAC150	6.40	1 1/2	.64	.58	.52	1/4
CUC200	5.10	2	.64	.58	.52	1/4
CAC200	7.75	2	.78	.73	.64	1/2
CUC250	6.15	2 1/2	.78	.73	.64	1/2
CAC250	9.35	2 1/2	.95	.84	.78	3/4
CUC300	7.40	3	1.00	.90	.78	3/4
CAC300	11.35	3	1.19	1.10	.95	1
CUC350	8.95	3 1/2	1.19	1.10	.95	1
CAC350	13.85	3 1/2	1.33	1.19	1.10	1 1/2
CUC400	10.95	4	1.35	1.22	1.10	1 1/2
CAC400	16.60	4	1.53	1.43	1.19	2
CUC450	13.15	4 1/2	1.55	1.43	1.22	2
CAC450	19.70	4 1/2	1.68	1.59	1.33	2 3/4
CUC500	15.65	5	1.68	1.59	1.33	2 3/4
CAC500	25.75	5	1.91	1.79	1.53	4
CUC600	21.05	6	1.91	1.79	1.53	4

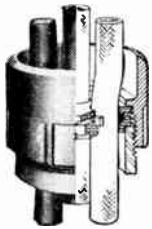
O.Z. Type FR Compound Bushings

For Rubber Covered and Braided Cable

A.C. or D.C.

For one or more cables.

Available in types FA, FL, and FU for lead covered cable. Prices on request.



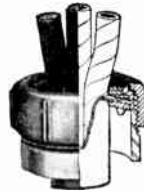
No.	Each	Conduit Size Inches	MAXIMUM DIAMETER OF WIRE PERMITTED, INCHES				Max. O.D. In.	Ht. In.	Approx. Cmpd. Req'd. Pints
			1 Wire	2 Wire	3 Wire	4 Wire			
FR 75	\$1.30	3/4	.61	.31	.28	.25	1 3/8	1 5/8	1/40
FR100	1.55	1	.78	.38	.33	.31	1 3/4	1 5/8	1/20
FR125	1.90	1 1/4	1.02	.51	.51	.42	2 1/8	1 3/4	1/20
FR150	2.35	1 1/2	1.20	.63	.59	.51	2 3/8	1 3/4	1/8
FR200	2.95	2	1.53	.78	.78	.63	3	2	1/6
FR250	3.65	2 1/2	1.83	.97	.92	.78	3 5/8	2 1/2	1/8
FR300	4.50	3	2.28	1.21	1.10	.92	4 1/8	2 5/8	1/2
FR350	5.50	3 1/2	2.70	1.41	1.32	1.10	4 5/8	2 5/8	1/2
FR400	6.65	4	3.00	1.55	1.47	1.24	5 1/8	2 5/8	2/3
FR450	7.95	4 1/2	3.35	1.76	1.64	1.41	5 5/8	2 5/4	1
FR500	9.40	5	3.75	1.98	1.88	1.47	6 3/4	3 1/8	1

O.Z. Type KL Sealing Bushings

For Lead Covered Cable

For a multiple or a single conductor cable.

Available in type KR for rubber covered and braided cable. Prices on request.



No.	Each	Conduit Size Inches	Maximum Diameter Cable Inches	Maximum Outside Diameter Inches	Overall Height Inches
KL100	1.05	1	.78	1 5/8	1
KL125	1.30	1 1/4	1.02	2 1/8	1 1/8
KL150	1.60	1 1/2	1.20	2 3/8	1 1/8
KL200	2.00	2	1.53	2 3/4	1 1/8
KL250	2.55	2 1/2	1.83	3 3/8	1 3/8
KL300	3.25	3	2.28	4	1 1/2
KL350	4.10	3 1/2	2.70	4 1/2	1 1/2
KL400	5.10	4	3.00	5 1/8	1 5/8
KL450	6.25	4 1/2	3.35	5 7/8	1 3/4
KL500	7.55	5	3.75	6 1/2	1 3/4

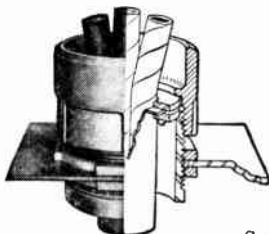
O.Z. Type HLK Compound Bushings

For Lead Covered Cable in Conduit Entering Cabinets

For a multiple or a single conductor cable.

Available in type HRK for rubber covered and braided cable. Prices on request.

Furnished complete with locknuts.



No.	Each	Conduit Size Inches	Maximum Diameter Cable Inches	Maximum Outside Diameter Inches	Approximate Compound Required, Pints
HLK100	1.30	1	.78	1 3/4	1/20
HLK125	1.55	1 1/4	1.02	2 3/8	1/20
HLK150	1.95	1 1/2	1.20	2 5/8	1/8
HLK200	2.40	2	1.53	3 1/8	1/6
HLK250	3.15	2 1/2	1.83	3 5/8	1/8
HLK300	4.00	3	2.28	4 3/8	1/2
HLK350	5.10	3 1/2	2.70	5	1/2
HLK400	6.20	4	3.00	5 1/2	2/3
HLK450	8.30	4 1/2	3.35	6 1/4	1
HLK500	9.55	5	3.75	6 7/8	1

O.Z. Type GRK Sealing Bushings

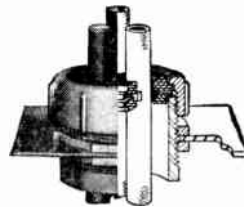
For Rubber Covered and Braided Cable in Conduit Entering Cabinets

A.C. or D.C.

For one or more cables.

Available in types GLK, GUK, and GAK for lead covered cable. Prices on request.

Furnished complete with locknuts.



No.	Each	Conduit Size Inches	MAXIMUM DIAMETER OF WIRE PERMITTED, INCHES				Maximum Outside Diameter Inches
			1 Wire	2 Wire	3 Wire	4 Wire	
GRK 75	\$1.10	3/4	.61	.31	.28	.25	1 1/2
GRK100	1.40	1	.78	.38	.33	.31	1 3/4
GRK125	1.70	1 1/4	1.02	.51	.51	.42	2 3/8
GRK150	2.15	1 1/2	1.20	.63	.59	.51	2 5/8
GRK200	2.65	2	1.53	.78	.78	.63	3 1/8
GRK250	3.50	2 1/2	1.83	.97	.92	.78	3 5/8
GRK300	4.50	3	2.28	1.21	1.10	.92	4 3/8
GRK350	5.75	3 1/2	2.70	1.41	1.32	1.10	5
GRK400	7.05	4	3.00	1.55	1.47	1.24	5 1/2
GRK450	9.35	4 1/2	3.35	1.76	1.64	1.41	6 1/4
GRK500	11.20	5	3.75	1.98	1.88	1.47	6 7/8

O.Z. Type HUE Compound Bushings

For Lead Covered Cables For Exposed Wires Entering Cabinets

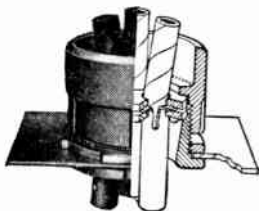
A.C. or D.C.

For two or more single conductor cables.

Available in type HRE for rubber covered and braided cable.

Prices on request.

Furnished complete with locknut.



No.	Each	Conduit Size Inches	MAXIMUM DIAMETER OF WIRE PERMITTED, IN.				Max. O.D. In.	Ht. Box In.	Approx. Req'd. Pints
			2 Wire	3 Wire	4 Wire	4 Wire			
HUE100	\$2.05	1	.32	.27	...	1 3/4	2 1/8	1/20	
HUE125	2.50	1 1/4	.38	.32	.32	2 3/8	2 1/4	1/20	
HUE150	3.10	1 1/2	.58	.38	.35	2 5/8	2 1/4	1/8	
HUE200	3.85	2	.64	.58	.52	3 1/8	2 5/8	1/6	
HUE250	4.80	2 1/2	.78	.73	.64	3 5/8	3 1/8	1/3	
HUE300	5.95	3	1.00	.90	.78	4 3/8	3 3/8	1/2	
HUE350	7.30	3 1/2	1.19	1.10	.95	5	3 3/8	1/2	
HUE400	8.85	4	1.35	1.22	1.10	5 1/2	3 3/8	2/3	
HUE450	11.00	4 1/2	1.55	1.43	1.22	6 1/4	3 5/8	1	
HUE500	13.05	5	1.68	1.59	1.33	6 7/8	4	1	

O.Z. Type GRE Sealing Bushings

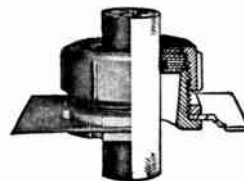
For Rubber Covered and Braided Cable

With Rubber Ring Seals

For one or more cables.

Available in types GLE and GUE for lead covered cable.

Furnished complete with locknut.



No.	Each	Conduit Size Inches	MAXIMUM DIAMETER OF WIRE PERMITTED, INCHES				Maximum Outside Diameter Inches	Maximum Inside Diameter Inches
			1 Wire	2 Wire	3 Wire	4 Wire		
GRE100	\$2.00	1	.78	.38	.33	.31	1 3/4	1 1/2
GRE125	2.45	1 1/4	1.02	.51	.51	.42	2 3/8	1 5/8
GRE150	3.05	1 1/2	1.20	.63	.59	.51	2 5/8	1 5/8
GRE200	3.80	2	1.53	.78	.78	.63	3 1/8	1 5/8
GRE250	4.80	2 1/2	1.83	.97	.92	.78	3 5/8	2
GRE300	6.00	3	2.28	1.21	1.10	.92	4 3/8	2 1/8
GRE350	7.40	3 1/2	2.70	1.41	1.32	1.10	5	2 1/4
GRE400	9.05	4	3.00	1.55	1.47	1.24	5 1/2	2 3/8
GRE450	11.30	4 1/2	3.35	1.76	1.64	1.41	6 1/4	2 5/8
GRE500	13.45	5	3.75	1.98	1.88	1.47	6 7/8	2 5/8

National 90° Angle Box Connectors

For Armored Cable and Flexible Conduit

Open back is separate from the cable clamp proper.

Rustproofed finish.

Furnished with bondnuts.



No.	Per 100	I.D., In. Open	I.D., In. Closed	Wire In. In.	Knock-out In. In.	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
2210-EZ	\$18.24	4 1/4	1 1/2	1 1/2	1 1/2	20	100	18	
Holds 14-2, 14-3, 12-2, 4-1 armored cable; 6-1 armored lead cable; 14-2, 14-3 plain lamp cord; 3/8-inch flexible conduit.									
2210X-EZ	\$18.24	1 1/4	3 5/8	1 1/2	1 1/2	20	100	20	
Holds 14-4, 12-3, 10-2, 10-3 armored cable; 14-2, 14-3, 4-1 armored lead cable.									
2213X-EZ	\$25.46	7/8	1 1/8	3 9/16	1 1/2	20	100	23	
Holds 12-4, 10-4, 8-2 armored cable; 14-4, 12-3, 10-2, 10-3 armored lead cable.									
2211-EZ	\$25.46	1 5/16	4 7/16	4 1/8	1 1/2	20	100	24	
Holds 8-3 armored cable; 12-4, 10-3, 10-4, 8-2 armored lead cable; 1/2-inch flexible conduit.									
2214-EZ	\$43.14	1 1/8	7/8	2 7/16	3/4	10	50	16	
Holds 6-3, 6-4, 4-2, 4-3 armored cable; 8-4, 6-2, 6-3 armored lead cable; 3/4-inch flexible conduit.									
2216-EZ	\$65.36	1 1/2	1 1/4	1	1	..	20	12	
Holds 2-3 armored cable; 4-4 armored lead cable; 1-inch flexible conduit.									
2218-EZ	\$74.80	1 7/16	1 1/8	1 1/2	1 1/4	..	10	12	
Holds 1 1/4-inch flexible conduit.									
2234-EZ	\$108.70	2 3/4	1 3/4	1 1/2	1 1/2	10	10	17	
Holds 1 1/2-inch flexible conduit.									
2236-EZ	\$158.96	2 3 9/16	2 1/4	2	2	5	5	15	
Holds 2-inch flexible conduit.									
2238-EZ	\$440.00	3 1/16	2 3/4	2 1/2	2 1/2	5	5	23	
Holds 2 1/2-inch flexible conduit.									
2240-EZ	\$585.74	3 3/16	3 1/4	3	3	5	5	34	
Holds 3-inch flexible conduit.									

No. 2208-EZ National 45° Angle Box Connectors

Open Back Type



An open back connector at 45° angle allowing for easy fishing with separate cable clamps.

Fits 14-2, 14-3, 12-2, and 4-1 armored cable; 6-1 armored lead cable; 14-2 and 14-3 plain lampcord; and 3/8-inch flexible conduit.

With Bondnuts. Hinged strap fitting.

Galvanized finish.

Open i.d., 4 1/4-inch; closed i.d., 1 1/2-inch; wire throat, 1 1/2-inch; k.o. size, 1 1/2-inch.

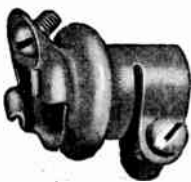
Packed 100 in standard package; 20 in carton.

Weight per standard package, 14 pounds.

No. 2208-EZ..... per 100 \$18.20

No. 163 National Peepole Box Connectors

Pitcher Lip Type



Fits 14-2, 14-3, 14-4, 12-2, 12-3, 10-2, and 4-1 armored cable; 6-1 armored lead cable; 14-2 and 14-3 plain lampcord; and 3/8-inch flexible conduit.

With Peepole. No locknut; a simple angle lip inserted in knockout. By tightening screw, strong, firm box connection is formed; perfect ground. Firm holding clamp for cable.

Sherardized finish.

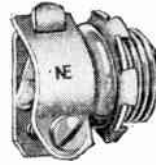
Made from best grade cold rolled open hearth steel.

Open I.D., 4 3/4 inch; closed I.D., 1 1/2 inch; wire throat, 1 1/2 inch; K.O. size, 1/2 inch.

Weight per standard package, 48 pounds.

No. 163..... per 100 \$3.60

National Box Connectors EZ Hinged Strap Type



With Bondnut. Galvanized finish.

No. 2163-EZ fits 14-2, 14-3, 14-4, 12-2, 12-3, 10-2, 4-1 armored cable; 14-1, 12-1, 10-1, 8-1 armored lead cable; 14-2, 14-3 plain lampcord; 5/16-inch flexible conduit. Also fits 14-2, 14-3, 12-2, 12-3, and 10-2 loom wire; 14-2 and 12-2 Ovalflex; 6-1 and

4-1 bare armored ground wire.

No. 2164-EZ fits 14-4, 12-3, 10-2, 4-1, 2-1 armored cable; 8-1, 6-1, 4-1 armored lead cable.

No.	Per 100	Open I.D. inches	Closed I.D. inches	Wire Throat inches	K. O. Size inches	Wt. per Std. Pkg. pounds	2163-EZ	2164-EZ
							\$4.60	4.60
		4 1/4	1 1/2	1 1/2	1 1/2			
		1 1/2	3 5/8	1 1/2	1 1/2			
		1 1/2	1 1/4	1	1			
		1 1/2	1 1/8	1	1			
		1 1/2	1 1/4	1	1			
		1 1/2	1 1/4	1	1			
		1 1/2	1 1/4	1	1			

National Box Connectors EZ Hinged Strap Type

EZ Strap is wide, strong and clamps cable more securely and strongly without contortion of cable. This point is particularly advantageous in use with flexible steel conduit.



Galvanized finish.

Furnished with bondnuts.

No.	Per 100	Open I.D. In.	Closed I.D. In.	Wire Throat In.	K.O. Size In.	Std. Pkg.	Car-ton	Std. Pkg.	Wt. Lb. Pkg.
2165-EZ	\$10.54	3/4	3 7/16	1 7/16	1/2	100	50	13	

Fits 14-4, 12-3, 12-4, 10-2, 10-3 armored cable; 14-2 14-3, 14-4, 12-3, 12-4, 10-2 armored lead cable.

2166-EZ \$10.54 1 5/16 4 7/16 4 1/4 1/2 100 25 15
Armored Lead Cable 12-4, 10-3, 10-4, 8-2; and 1/2-inch flexible conduit.

2166-EZ \$15.22 1 1/4 3 1/4 4 7/16 1/2 100 25 19

Fits 10-4, 8-2, 8-3, 8-4, 6-2 armored cable; 10-4, 8-2, and 8-3 armored lead cable.

2167-EZ \$15.22 1 1/8 7/8 2 7/16 3/4 100 25 20

Fits 14-10, 6-3, 6-4, 4-2, and 4-3 armored cable; 14-4, 12-3, 12-4, 10-2, 10-3, 10-4, 8-2, 8-3 armored lead cable; and 3/4-inch flexible conduit.

2169-EZ \$24.56 1 7/16 1 1/8 1 1 25 5 10

Fits 1-inch flexible conduit.

No. 2175-EZ National Box Connectors Duplex Type



Fits 14-2, 14-3, 12-2, and 4-1 armored cable; and 3/8-inch flexible conduit. For use in taking two armored cables into one 1/2-inch knockout; simply tightening two screws holds the cables firmly and securely in place.

With Bondnut; hinged strap fitting.

Galvanized finish.

Open i.d., 4 1/4-inch; closed i.d., 1 1/2-inch; wire throat, 1 1/2-inch; k.o. size, 1/2-inch.

Packed 100 in a standard package; 20 in carton.

Weight per standard package, 17 pounds.

No. 2175-EZ..... per 100 \$13.00

Appleton Box Connectors

Schedule BC

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation
Cadmium Finish



No. 7285-V



No. 7315-V



No. 7265-V



No. 7225-V



No. 7287-V

For use with: **Armored Cable 1947 Code:** 14-2, 14-3, 14-4, 12-2, 12-3, 12-4, 10-2, 10-3, 10-4, 8-2, 8-3, 8-4, 6-2. **Armored Cable 1940 Code:** 14-2, 14-3, 14-4, 12-2, 12-3, 12-4. **Flexible Steel Conduit:** 3/8-inch.

No.	Size In.	Size K.O. In.	Approx. Opening In.	Approx. Closed In.	Diam. Bushed Hole In.	Car-ton	Std. Pkg.	Wt. Lb. per 1000
7285-V	3/8	1/2	.625	.250	13/32	100	1000	75
7315-V	3/8	1/2	.531	.250	13/32	100	1000	87
7265-V	3/8	1/2	.531	.373	13/32	100	1000	83
7225-V	3/8	1/2	.375	.375	13/32	100	1000	76

For use with: **Armored Cable 1940 Code:** 6-3, 6-4, 8-2L, 8-3L.

Flexible Steel Conduit: 1/2 inch.

7287-V 1/2 1/2 .937 .500 7/16 25 100 120

For use with: **Armored Cable 1940 Code:** 6-3, 6-4, 8-2L, 8-3L.

Flexible Steel Conduit: 1 inch.

7288-V 1/2 3/4 .937 .500 3/4 25 100 200

For use with: **Armored Cable 1940 Code:** 6-3, 6-4, 6-3L, 6-4L.

Flexible Steel Conduit: 3/4 inch.

7289-V 3/4 3/4 1.062 .875 3/4 25 100 220

No. 7260-V Appleton Box Connectors

Schedule BC

With Reversible Steel Clamp
Malleable Iron—Cadmium Finish



For No. 14-2, 14-3, 12-2 Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing, also No. 14-2 Standard Non-Metallic Sheathed Cable. Will also take rubber jacketed portable cords having an outside diameter of from 3/32 to 21/32 inch.

Reverse clamp for 3/16-inch diameter ground wire.

No.	Size Inches	Opening for Cable Inches	Diam. Bushed Hole Inches	Size K.O. Inches	Car-ton	Std. Pkg.	Wt. Lb. per 1000
7260-V	3/8	.500	13/32	1/2	100	1000	98

Appleton Box Connectors

Schedule BC

For Larger Sizes of Non-Metallic Sheathed Cable
Cadmium Finish



No. 15233

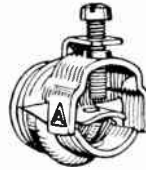
This connector will also take service entrance cable.

No.	Size K.O. In.	Approx. Opening In.	Approx. Closed In.	Wire Throat In.	Car-ton	Std. Pkg.	Wt., Lb. per 1000
15233	3/4	.750	.500	3/4	25	50	200
15234	1	.937	.750	13/16	10	20	300
15235	1 1/4	1.375	.937	1 3/8	10	20	270

Appleton Box Connectors

Schedule BC

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing
Cadmium Finish



No. 7300 Loxbox Type without Locknut



No. 7275 Regular Type with Locknut

For use with: **1947 Code Non-Metallic Sheathed Cable:** 14-2, 14-3, 12-3, 12-3, 10-2, 10-3. **Standard Non-Metallic Sheathed Cable:** 14-2, 14-3.

No.	Size In.	Size K.O. In.	Approx. Opening In.	Approx. Closed In.	Wire Throat In.	Car-ton	Std. Pkg.	Wt., Lb. per 1000
7300	3/8	1/2	.656	.375	13/32	100	1000	62
7275	3/8	1/2	.656	.375	13/32	100	1000	73

No. 7286 Appleton Cord and Bare Armored Ground Wire Connectors

Schedule BC

Cadmium Finish



Designed to take rubber jacketed portable cords or any type of cable having an outside diameter of 3/16 to 1/2 inch. An ideal connector for use with bare armored ground wire. By removing the locknut it can be screwed into any 1/2-inch conduit ground fitting.

No.	Size Inches	Approx. Opening Inches	Approx. Closed Inches	Car-ton	Std. Pkg.	Wt., Lb. per 1000
7286	1/2	.500	.187	50	1000	83

Appleton 45 and 90-Degree Angle Box Connectors

Schedule BC

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation and 1947 Code Rubber Insulation

Cadmium Finish



45-Degree Connector



90-Degree Connector



No. 7240-V

For use with: **Armored Cable 1947 Code:** 14-2, 14-3, 14-4, 12-2, 12-3, 12-4, 10-2, 10-3, 10-4, 8-2, 8-3, 8-4, 6-2. **Armored Cable 1940 Code:** 14-2, 14-3, 14-4, 12-2, 12-3, 12-4. **Flexible Steel Conduit:** 3/8 inch.

No.	Size In.	Size K.O. In.	Approx. Opening In.	Approx. Closed In.	Diam. Bushed Hole In.	Car-ton	Std. Pkg.	Wt. Lb. per 1000
7233-V	3/8	1/2	.625	.375	13/32	50	100	100

For use with: **Armored Cable 1940 Code:** 6-3, 6-4, 8-2L, 8-3L. **Flexible Steel Conduit:** 1/2 inch.

7234-V	1/2	1/2	.937	.500	13/32	50	100	100
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90-Degree

For use with: **Armored Cable 1947 Code:** 14-2, 14-3, 14-4, 12-2, 12-3, 12-4, 10-3, 10-2, 10-4, 8-3, 8-4, 6-2. **Armored Cable 1940 Code:** 14-3, 14-4, 12-2, 12-3, 12-4. **Flexible Steel Conduit:** 3/8 inch.

7235-V	3/8	1/2	.625	.375	13/32	50	100	100
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For use with: **Armored Cable 1940 Code:** 6-3, 6-4, 8-2L, 8-3L. **Flexible Steel Conduit:** 1/2 inch.

7236-V	1/2	1/2	.937	.500	13/32	25	100	200
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For use with: 6-3, 6-4, 6-3L, 6-4L. **Flexible Steel Conduit:** 3/4 inch.

7237-V	3/4	3/4	1.062	.875	3/4	25	50	100
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Duplex Connector—With Clamp

For use with: **Armored Cable 1947 Code:** 14-2, 14-3, 14-4, 12-2, 12-3, 12-4, 10-2, 10-3, 10-4, 8-2, 8-3, 8-4, 6-2. **Armored Cable 1940 Code:** 14-2, 14-3, 14-4, 12-2, 12-3, 12-4. **Flexible Steel Conduit:** 3/8 inch.

7240-V	3/8	1/2	.625	.375	13/32	50	100	100
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Appleton 90-Degree Angle Box Connectors

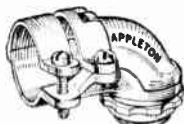
Schedule BC

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation and 1947 Code Rubber Insulation

Cadmium Finish



No. 7380-V



Nos. 7381-V to 7386

For use with: Armored Cable 1947 Code: 14-2, 14-3, 14-4, 12-2, 12-3, 12-4, 10-2, 10-3, 10-4, 8-2, 8-3, 8-4, 6-2. Armored Cable 1940 Code: 14-2, 14-3, 14-4, 12-2, 12-3, 12-4. Flexible Steel Conduit: 1/2 inch.

No.	Size In.	Size K.O. In.	Approx. Opening In.	Approx. Closed In.	Diam. Bushed Hole In.	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7380-V	3/8	1/2	.656	.460	17/32	50	100	16
For use with: Armored Cable 1940 Code: 6-3, 6-4, 8-2L, 8-3L.								
Flexible Steel Conduit: 1/2 inch.								
7381-V	1/2	1/2	.937	.813	9/16	25	100	26
For use with: Armored Cable 1940 Code: 6-3, 6-4, 6-3L, 6-4L.								
Flexible Steel Conduit: 3/4 inch.								
7382-V	3/4	3/4	1.125	.955	13/16	25	100	26
For use with: Flexible Steel Conduit: 1 inch.								
7383	1	1	1.406	1.250	1	5	25	25
For use with: Flexible Steel Conduit: 1 1/4 inch.								
7384	1 1/4	1 1/4	1.656	1.500	1 1/4	5	10	11
For use with: Flexible Steel Conduit: 1 1/2 inch.								
7385	1 1/2	1 1/2	1.875	1.688	1 1/2	5	10	17
For use with: Flexible Steel Conduit: 2 inch.								
7386	2	2	2.500	2.313	2	5	5	15

Appleton 2-Piece 45-Degree Angle Box Connectors

Schedule BC

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation and 1947 Code Rubber Insulation

Cadmium Finish



No. 7245-V



Nos. 7246-V and 7247-V

For use with: Armored Cable 1947 Code: 14-2, 14-3, 14-4, 12-2, 12-3, 12-4, 10-2, 10-3, 10-4, 8-2, 8-3, 8-4, 6-2. Armored Cable 1940 Code: 14-2, 14-3, 10-4, 12-2, 12-3, 12-4. Flexible Steel Conduit: 3/8 inch.

No.	Size In.	Size K.O. In.	Approx. Opening In.	Approx. Closed In.	Diam. Bushed Hole In.	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7245-V	3/8	1/2	.656	.400	17/32	50	100	16
For use with: Armored Cable 1940 Code: 6-3, 6-4, 8-2L, 8-3L.								
Flexible Steel Conduit: 1/2 inch.								
7246-V	1/2	1/2	.938	.813	9/16	25	100	24
For use with: Armored Cable 1940 Code: 6-3, 6-4, 6-3L, 6-4L.								
Flexible Steel Conduit: 3/4 inch.								
7247-V	3/4	3/4	1.125	.955	13/16	10	50	22

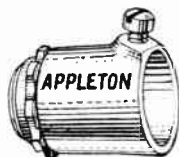
Appleton Set Screw Connectors

Schedule BC

For Flexible Steel Conduit

Cadmium Finish

Made in 1/2 to 2-inch sizes. Set screw holds the flexible steel conduit very securely.



No. 7251



No. 7252

No.	Size In.	Size K.O. In.	Approx. Opening In.	Approx. Closed In.	Diam. Bushed Hole In.	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7251	1/2	1/2	.938	.750	5/8	20	100	27
7252	3/4	3/4	1.125	1.000	3/4	25	100	18
7253	1	1	1.406	1.250	1	5	25	11
7254	1 1/4	1 1/4	1.687	1.500	1 1/4	5	10	6
7255	1 1/2	1 1/2	2.000	1.750	1 1/2	5	10	8
7256	2	2	2.437	2.187	2	5	10	11

Appleton Straight Box Connectors with Clamp

Schedule BC

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation

Cadmium Finish



No. 7301 Loxbox Type without Locknut



No. 7230-V Regular Type with Locknut

For use with: Armored Cable 1947 Code: 14-2, 14-3, 14-4, 12-2, 12-3, 12-4, 10-2, 10-3, 10-4, 8-2, 8-3, 8-4, 6-2. Armored Cable 1940 Code: 14-2, 14-3, 14-4, 12-2, 12-3, 12-4. Flexible Steel Conduit: 3/8 inch.

No.	Size In.	Size K.O. In.	Approx. Opening In.	Approx. Closed In.	Diam. Bushed Hole In.	Car-ton	Std. Pkg.	Wt. per Pkg. Lb.
7301	3/8	1/2	.656	.375	13/32	100	1000	62
7230-V	3/8	1/2	.656	.375	13/32	100	1000	86
For use with Armored Cable 1940 Code: 6-3, 6-4, 8-2L, 8-3L. Flexible Steel Conduit: 1/2 inch.								
7231-V	1/2	1/2	.938	.687	9/16	20	100	140
For use with Armored Cable 1940 Code: 6-3, 6-4, 6-3L, 6-4L. Flexible Steel Conduit: 3/4 inch.								
7312-V	3/4	3/4	1.062	.750	11/16	5	25	210
For use with: Flexible Steel Conduit: 1 inch.								
7313-V	1	1	1.312	1.000	1	5	25	320

Appleton Large Size Squeeze Box Connectors

Schedule BC

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation and 1947 Code Rubber Insulation

Cadmium Finish



Nos. 7480-V to 7484 With One Screw



Nos. 7485 to 7488 With Two Screws

Made of heavy malleable iron, in sizes from 3/8 to 3 inches. to take all sizes of armored cable, flexible metallic conduit and armored service entrance cable. Sizes 1 1/2 to 3 inches are furnished with two screws, providing a double grip on the cable that eliminates any danger of the cable slipping out on short bends. Provided with E-Z-On locknuts.

For use with Armored Cable 1947 Code: Nos. 14-2, 14-3, 14-4, 12-2, 12-3, 12-4, 10-2, 10-3, 10-4, 8-2, 8-3, 8-4, 6-2. Armored Cable 1940 Code: Nos. 14-2, 14-3, 14-4, 12-2, 12-3, 12-4. Flexible Steel Conduit: 3/8 inch.

No.	Size In.	Size K.O. In.	Approx. Opening In.	Approx. Closed In.	Diam. Bushed Hole In.	Car-ton	Std. Pkg.	Wt. per Pkg. Lb.
*7480-V	3/8	1/2	.656	.563	17/32	20	100	11
For use with: Armored Cable 1940 Code: Nos. 6-3, 6-4, 8-2L, 8-3L. Flexible Steel Conduit: 1/2 inch.								
*7481-V	1/2	1/2	.938	.813	9/16	25	100	15
For use with: Armored Cable 1940 Code: Nos. 6-3, 6-4, 6-3L, 6-4L. Flexible Steel Conduit: 3/4 inch.								
*7482-V	3/4	3/4	1.125	.995	13/16	21	100	21
For use with: Flexible Steel Conduit: 1 inch.								
7483	1	1	1.406	1.250	1	5	25	8
For use with: Flexible Steel Conduit: 1 1/4 inch.								
7484	1 1/4	1 1/4	1.656	1.500	1 1/4	5	10	5
For use with: Flexible Steel Conduit: 1 1/2 inch.								
7485	1 1/2	1 1/2	1.875	1.688	1 1/2	5	10	7
For use with: Flexible Steel Conduit: 2 inch.								
7486	2	2	2.500	2.313	2	5	10	11
For use with: Flexible Steel Conduit: 2 1/2 inch.								
7487	2 1/2	2 1/2	3.000	2.813	2 1/2	5	5	9
For use with: Flexible Steel Conduit: 3 inch.								
7488	3	3	3.563	3.313	3	5	5	11

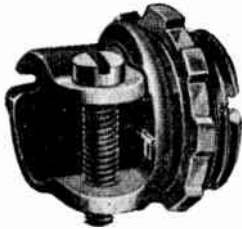
*With peek-holes for anti-short bushing.

T & B Squeeze Connectors

Malleable Iron—Galvanized

For Flexible Steel Conduit and Armored Conductors

Approved by Underwriters' Laboratories



Locknuts are furnished with connectors without charge. Nos. 250 and 252 have 3/8-inch (pipe size) threaded ends to fit standard sockets.

Nos. 250 and 250A hold 11D solid, 12D solid, 10D solid, 8D solid, 14D solid, 8D solid, 16E and 18E conductors.

No.	Per 100	Size In.	Size K.O. In.	Open L.D. In.	Closed L.D. In.	Throat Bushed Diam., In.	Unit Pkg.	Std. Pkg.	Wt. per 100 Lb.
250	\$11.00	1/4	3/8	1 1/2	1 1/2	3/8	100	100	4
*250A	12.50	1/4	1/2	1 1/2	1 1/2	3/8	50	100	6
Nos. 252 and 252A hold 5/16-inch flexible conduit.									
252	\$11.00	3/16	3/8	1 1/2	1 1/2	3/8	100	100	4
*252A	12.50	3/16	1/2	1 1/2	1 1/2	3/8	50	100	6
*Have No. 400 adapter to fit standard 1/2-inch knockout.									
No. 253 holds 14W2, 12W2, 14W3, 6D solid, 14E, 14W2L., 18EM, 16EM; 3/8-inch conduit.									
253	\$7.50	3/8	1/2	1 1/2	1 1/2	7/16	50	1000	8
No. 248V holds 10W2, 12W3, 10W3.									
248V	\$7.50	3/4	1/2	2 1/2	2 1/2	1/2	50	1000	8
Nos. 260V holds 8W2, 8W3, 10W2, 10W3.									
260V	\$9.00	3/4	1/2	1 3/4	1 3/4	3/8	50	100	12
No. 254V holds 8W3, 1/2-inch flexible conduit.									
254V	\$9.00	1/2	1/2	1 5/8	1 5/8	1 3/8	50	100	13
No. 278V holds armored conductors 6W2, 6W3.									
278V	\$15.00	3/4	3/4	1	1	3/8	25	100	20
No. 255V holds 4W2, 6W3, 3/4-inch conduit.									
255V	\$15.00	3/4	3/4	1 3/8	1 3/8	3/4	25	100	21
No. 256V holds 1-inch conduit.									
256V	\$25.00	1	1	1 3/8	1 1/4	1	25	25	25
No. 261V holds 1-inch conduit.									
261V	\$25.00	1	1	1 1/2	1 3/8	1	25	25	30
No. 264V holds 4W3, 2W2, 6W2L, 6W3L, 4W2L., 4W3L.									
264V	\$25.00	1 1/8	1	1 1/4	1 1/2	1	25	25	26
No. 257 holds 1 1/4-inch conduit.									
257	\$35.00	1 1/4	1 1/4	1 3/4	1 1/2	1 5/16	10	10	40
No. 258 holds 1 1/2-inch conduit.									
258	\$50.00	1 1/2	1 1/2	1 7/8	1 1/2	1 1/2	10	10	65
No. 259 holds 2-inch conduit.									
259	\$75.00	2	2	2 1/2	2 5/16	2	10	10	90
No. 249 holds 2 1/2-inch conduit.									
249	\$100.00	2 1/2	2 1/2	3	2 3/16	2 3/8	5	5	148
No. 277 holds 3-inch conduit.									
277	\$125.00	3	3	3 3/16	3 3/16	3	5	5	180

No. 239 T&B Duplex Connectors

Approved by Underwriters' Laboratories



Designed to accommodate two armored cables in the same knockout to save labor, time, and materials. The fitting has a single opening. Both cables are securely wedged in place by a single screw.

Will hold 14-2, 14-3, 12-2, and 3/8-inch flexible conduit.

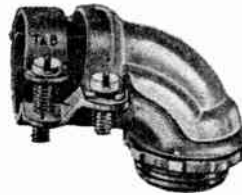
Made of malleable iron, Tabolite plated.

Trade Size Inches	No.	Per 100	Approx. Open. Inches	Approx. Closed Inches	Throat Bushed Diam. Inches	Car-ton	Std. Pkg.	Wt., Lb. per 100
3/8	239V	\$10.00	.594	.468	1 3/32	25	100	15

T & B 45° and 90° Squeeze Connectors

Approved by Underwriters' Laboratories

Malleable Iron—Galvanized For Flexible Steel Conduit and Armored Conductors



Removable cap eliminates fishing wires and enables one to make a quick and sure connection.

Locknuts are furnished.

Nos. 265, 4466, and 266 hold 14-2, 14-3, 12-2; lead 14-2; 3/8-inch flexible conduit and others.

No.	Per 100	Trade Size Inches	Size K.O. Inches	Approx. Open. Inches	Approx. Closed Inches	Throat Bushed Diam. Inches	Car-ton	Std. Wt., Lbs. per 100 Pkg.	
265	\$16.00	3/8-45°	1/2	.625	.500	5/16	25	100 14	
4466	16.00	3/8-90°	3/8	.625	.500	5/16	50	100 16	
266	16.00	3/8-90°	1/2	.625	.500	5/16	50	100 16	
No. 272V holds 12-4, 10-2, 10-3; lead 12-2, 12-3, 10-2; and others.									
272V	20.00	3/8A-90°	1/2	.813	.688	5/16	25	100 15	
Nos. 267V and 268V 10-4, 8-2; lead 10-3; 1/2-inch flexible conduit; and others.									
267V	20.00	1/2-45°	1/2	.938	.813	5/16	25	100 22	
268V	20.00	1/2-90°	1/2	.938	.813	5/16	25	100 22	
No. 268V8 holds 8-2, 8-3; lead 10-3; 1/2-inch flexible conduit; and others.									
268V8	20.00	1/2-90°	1/2	.938	.813	2 1/32	25	100 21	
No. 279V holds 8-2, 8-3, 6-2; lead 8-2, 8-3; and others.									
279V	40.00	3/4S-90°	3/4	1.000	.875	3/4	25	50 25	
Nos. 269V and 270V hold 6-2, 6-3, 4-2; lead 6-2, 6-3; 3/4-inch flexible conduit; and others.									
269V	40.00	3/4-45°	3/4	1.125	1.000	2 3/32	25	50 25	
270V	40.00	3/4-90°	3/4	1.125	1.000	2 3/32	25	50 25	
No. 273V holds 1-inch flexible conduit.									
273V	60.00	1-90°	1	1.406	1.187	1	10	25 50	
No. 274 holds 1 1/4-inch flexible conduit.									
274	75.00	1 1/4-90°	1 1/4	1.656	1.375	1 1/4	5	10 100	
No. 275 holds 1 1/2-inch flexible conduit.									
275	100.00	1 1/2-90°	1 1/2	1.875	1.625	1 1/2	5	10 165	
No. 276 holds 2-inch flexible conduit.									
276	150.00	2-90°	2	2.500	2.125	2	2	5 250	

T&B Squeeze Type Non-Watertight Connectors

For Non-Metallic Sheathed Cable and Flexible Tubing

Approved by Underwriters' Laboratories



PATENTED

Has an insert so held in place that it cannot accidentally be displaced but it can readily be removed without taking out the screw. The insert is so designed that the non-metallic flexible cable is held in the center of the connector so that when the strap is tightened down no sharp curve or bend is put in the conductor.

The insert presents a long bearing surface to the conductor. Connectors have threaded ends and are supplied with locknuts.

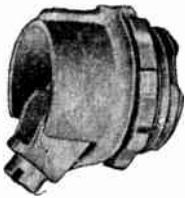
Connector is made of malleable iron, insert of steel, plated with Tabolite galvanizing.

No.	Per 100	K.O. Inches	With Insert	MADE TO HOLD Insert Removed	Unit Quan.	Std. Wt., Lb. per 100 Pkg.
2005	\$8.50	1/2	{14W2 12W2}	{14W3 12W3}	100	1000 8
2006	20.00	1/2	10W2	10W3	50	100 13
2007	30.00	3/4	10W2	10W3	25	50 15
2008	30.00	3/4	8W2	8W3	25	50 15
2009	45.00	1	6W2	6W3	10	20 20

T&B Straight Tite-Bite Connectors

PATENTED

For Armored Cable and Flexible Conduit
Approved by Underwriters' Laboratories



Made of malleable iron, Tabolite plated.

No. 300V holds 14-2, 14-3, 14-4, 12-2, 12-3, 10-2, 4-1, 6-1; lead 14-2, 14-3, 6-1; 3/8-inch flexible conduit; and others.

No.	Per 100	Trade Size Inches	Size K.O. Inches	Approx. Open. Inches	Approx. Closed Inches	Throat Bushed Diam. Inches	Car-ton	Std. Pkg.	Wt. per 100 Lb.
300V	\$7.50	3/8	1/2	.656	.437	1/2	100	1000	8
No. 301V holds 14-4, 12-2, 12-3, 12-4, 10-2, 10-3; lead 12-2, 12-3, 10-2, 4-1; and others.									
301V	9.00	3/4	1/2	.781	.625	19/32	50	100	15
No. 302V holds 10-4, 8-2; lead 10-3; 1/2-inch flexible conduit; and others.									
302V	9.00	1/2	1/2	.937	.750	19/32	50	100	15
No. 302V8 holds 10-4, 8-2, 8-3; lead 10-3; 1/2-inch flexible conduit; and others.									
302V8	9.00	1/2	1/2	.937	.750	21/32	50	100	15
No. 303V holds 8-2, 8-3, 6-2; lead 8-2, 8-3; and others.									
303V	15.00	3/4	3/4	1.000	.812	49/64	25	100	18
No. 304V holds 6-2, 6-3, 4-2; lead 6-2, 6-3; 3/4-inch flexible conduit; and others.									
304V	15.00	3/4	3/4	1.093	.906	49/64	25	100	20
No. 305V holds 6-2, 6-3, 4-2, 4-3; lead 6-2, 6-3, 4-2; and others.									
305V	25.00	1S	1	1.063	.875	7/8	5	25	17
No. 306V holds 2-2; lead 4-3; 1-inch flexible conduit; and others.									
306V	25.00	1	1	1.468	1.250	1	5	25	40
No. 308 holds 1 1/4-inch flexible conduit.									
308	35.00	1 1/4	1 1/4	1.750	1.562	1 1/4	5	10	60
No. 310 holds 1 1/2-inch flexible conduit.									
310	50.00	1 1/2	1 1/2	2.031	1.812	1 1/2	5	10	100
No. 312 holds 2-inch flexible conduit.									
312	75.00	2	2	2.500	2.312	2	5	10	130
No. 314 holds 2 1/2-inch flexible conduit.									
314	100.00	2 1/2	2 1/2	3.000	2.812	2 1/2	2	5	220
No. 316 holds 3-inch flexible conduit.									
316	150.00	3	3	3.562	3.312	3	2	5	260

T&B 90° Angle Tite-Bite Connectors

PATENTED

For Armored Cable and Flexible Conduit

Approved by Underwriters' Laboratories



No.	Per 100	Trade Size Inches	Size K.O. Inches	Approx. Open. Inches	Approx. Closed Inches	Throat Bushed Diam. Inches	Car-ton	Std. Pkg.	Wt. per 100 Lb.
No. 321V holds 14-2, 14-3, 14-4, 12-2, 12-3, 10-2, 4-1, 6-1; lead 14-2, 14-3, 6-1; 3/8-inch flexible conduit; and others.									
321V	\$16.00	3/8	-90° 1/2	.656	.437	1/2	50	100	20
No. 321V holds 14-2, 14-3, 14-4, 12-2, 12-3, 10-2, 4-1, 6-1; lead 14-2, 14-3, 6-1; 3/8-inch flexible conduit; and others.									
321V	16.00	3/8	-90° 1/2	.656	.437	1/2	50	100	20
No. 322V holds 14-4, 12-2, 12-3, 12-4, 10-2, 10-3; lead 12-2, 12-3, 10-2, 4-1; and others.									
322V	20.00	3/4	-90° 1/2	.781	.625	17/32	50	100	25
No. 323V holds 10-4, 8-2; lead 10-3; 1/2-inch flexible conduit; and others.									
323V	20.00	1/2	-90° 1/2	.937	.750	19/32	25	100	27
No. 323V8 holds 10-4, 8-2, 8-3; lead 10-3; 1/2-inch flexible conduit; and others.									
323V8	20.00	1/2	-90° 1/2	.937	.750	21/32	25	100	26
No. 324V holds 8-2, 8-3, 6-2; lead 8-2, 8-3; and others.									
324V	40.00	3/4	-90° 3/4	1.000	.812	49/64	25	50	32
No. 325V holds 6-2, 6-3, 4-2; lead 6-2, 6-3; 3/4-inch flexible conduit; and others.									
325V	40.00	3/4	-90° 3/4	1.093	.906	49/64	25	50	34
No. 326 1/2V holds 6-2, 6-3, 4-2, 4-3; lead 6-2, 6-3, 4-2; and others.									
326 1/2V	40.00	1S	-90° 1	1.063	.875	7/8	5	25	60
No. 326V holds 2-2; lead 4-3; 1-inch flexible conduit; and others.									
326V	60.00	1	-90° 1	1.468	1.250	1	5	25	60
No. 327 holds 1 1/4-inch flexible conduit.									
327	75.00	1 1/4	-90° 1 1/4	1.750	1.562	1 1/4	5	10	120
No. 328 holds 1 1/2-inch flexible conduit.									
328	100.00	1 1/2	-90° 1 1/2	2.031	1.812	1 1/2	5	10	165
No. 329 holds 2-inch flexible conduit.									
329	150.00	2	-90° 2	2.500	2.312	2	2	5	250
No. 330 holds 2 1/2-inch flexible conduit.									
330	225.00	2 1/2	-90° 2 1/2	3.000	2.812	2 1/2	2	5	500
No. 331 holds 3-inch flexible conduit.									
331	300.00	3	-90° 3	3.562	3.312	3	2	5	650

T&B Tite-Bite Connectors

PATENTED

For Armored and Non-Metallic Sheathed Cable
Approved by Underwriters' Laboratories



Designed to hold non-metallic sheathed cable without cutting the fabric of the cable sheath.

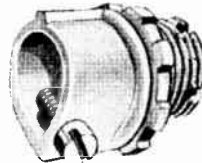
No. 3100 takes non-metallic sheathed cable sizes 14W2, 14W3, 12W2, 12W3, and 10W2.

No. 3101 takes non-metallic sheathed cable sizes 14W2, 14W3, 12W2, 12W3, and 10W2; also all 3/8-inch sizes of armored cable, 14-2, 14-3, 14-4, 12-2, 12-3, 10-2, 8-1, 6-1, 4-1; lead 14-2, 14-3, 6-1; 3/8-inch flexible conduit; and others.

No.	Per 100	Size K.O. Inches	Approx. Open. Inches	Approx. Closed Inches	Throat Bushed Diam. Inches	Car-ton	Std. Pkg.	Wt. per 100 Lb.
3100	\$7.50	1/2	.656	.300	19/32	100 or 500	1000	9
3101	7.50	1/2	.656	.188	1/2	100 or 500	1000	9

T&B Inclined Set-Screw Connectors

Approved by Underwriters' Laboratories



The screw is on the right-hand side making it easy to tighten.

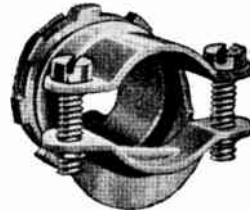
No. 240V is made of steel and holds 14-2, 14-3, 14-4, 12-2, 12-3, 10-2; lead 14-2, 14-3; 3/8-inch flexible conduit; and others.

No. 241V is made of malleable iron and takes 8-2; lead 10-3; 1/2-inch flexible conduit; and others.

No.	Per 100	Trade Size Inches	Size K.O. Inches	Approx. Open. Inches	Approx. Closed Inches	Throat Bushed Diam. Inches	Car-ton	Std. Pkg.	Wt. per 100 Lb.
240V	\$7.50	3/8	1/2	.594	.500	7/16	100	1000	6
241V	9.00	1/2	1/2	.920	.750	1/2	50	100	15

T&B 2-Screw Connectors

Approved by Underwriters' Laboratories



Precision made. All edges are rounded. No sharp burrs to harm conductors. The screws thread into the saddle, not the body. Made of steel, protected from corrosion with silvery Tabolite galvanizing.

No. 3301V fits any type cable: Armored Cable 14-2, 14-3, 14-4, 12-2, 12-3, 10-2, 8-1, (insul.) 6-1, 4-1; Flexible Conduit 3/8-inch, 3/16-inch; Non-Metallic Cable 14-2, 14-3, 12-2, 12-3, 10-2; Service Entrance Cable 12-2, 12-3, 10-2, 8-2, 4-2; or any cable .310 to .650-inch diameter.

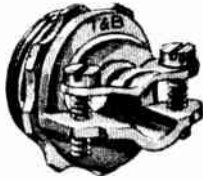
No. 3302 fits non-metallic sheathed cables: Non-Metallic Cable 14-2, 14-3, 12-2, 12-3, 10-2; Service Entrance Cable 12-2, 12-3, 10-2, 8-2, 6-2, 4-2; or any non-metallic cable .310 to .650-inch diameter.

No. 3303 fits non-metallic sheathed cables: Non-Metallic Cable 12-3, 12-3, 10-3, 8-2; Service Entrance Cable 10-3, 8-3, 6-2, 6-3, 4-2, 2-2; or any non-metallic cable .450 to .760-inch diameter.

No. 3304 fits non-metallic sheathed cables: Non-Metallic Cable 6-2, 4-2; Service Entrance Cable 8-3, 6-3, 4-3; or any non-metallic cable .530 to .950-inch diameter.

No.	Per 100	Size In.	INSIDE DIAM. INCHES		Throat Bushed Diam. Inches	K.O. Inches	Std. Pkg.	Wt. per 100 Lb.
			Open	Closed				
3301V	\$7.50	3/8	.650	.310	.440	1/2	1000	6
3302	7.50	3/8	.650	.310	.650	1/2	1000	6
3303	15.00	3/4	.760	.450	.719	3/4	100	20
3304	25.00	1	.950	.530	.970	1	25	34

No. 3300 T&B 2-Screw Connectors



This small, compact connector is suited for use with bare armored ground wire (8-1, 6-1 or 4-1). It will also take rubber jacketed portable cords or any type of cable having an outside diameter of $\frac{3}{16}$ to $\frac{1}{2}$ inch.

No.	Per 100	K.O. In.	Approx. Opening Inches	Approx. Closed Inches	Unit Quan.	Std. Pkg.	Wt. Lb. per 100
3300	\$7.50	$\frac{1}{2}$	.500	.188	100	1000	8

T&B Watertight Box Connectors

Hex Gland Type

Approved by Underwriters' Laboratories

For Use with Service Entrance Cable



Malleable iron, Tabolite finish.

T&B Watertight Box Connectors

Two-Screw Type

Approved by Underwriters' Laboratories



Easily tightened on the cable by the two screws.

Cap gives maximum protection to the rubber bushing.

Made of malleable iron. Cap is hot dip galvanized finish; body Tabolite finish.

Carton, 10.

Standard package, 100.

CONNECTOR No. — $\frac{3}{4}$ -Inch Thread —		CABLE SIZES	
1-Inch Thread	1-Inch Thread	Armored	Unarmored
2401A	2402A	2W8, 2W6	2W8, 2W6
2401B	2402B	3W8	3W8
.....	2402C	3W6	3W6
.....	2402D	3W4	3W4
			Drop 3W8 or 2W6 3W8 or 3W6 3W4

CABLE SIZE, INCHES		Conduit Size Inches	No.	Per 100	Wt. Lb. per 100
Maximum O.D.	Minimum O.D.				
.525	.430	$\frac{3}{4}$	2401A	\$28.00	22
		1	2402A	40.00	27
.580	.760	$\frac{3}{4}$	2401B	28.00	22
		1	2402B	40.00	27
.640	.880	1	2402C	40.00	27
.705	.960	...	2402D	40.00	27

No. 2020 T&B Connectors

PATENT PENDING

Approved by Underwriters' Laboratories



Pinch sides of connector and it will snap into the knockout hole—inside or outside the box. Grooves hold it in place.

To fasten the cable turn down the screw. Clamp forces cable against walls of connector and they expand, tightly gripping knockout so that connector cannot pull out. Screw cannot touch the cable.

No rough edges or projections to cut into fiber armor, and connector protects fiber from the rough edges of the knockout opening. Long, rounded bearing surfaces eliminate possibility of injury to cable. Rounded shoulders are presented to conductors as they are bent up to the outlet.

Made to hold non-metallic cable 14-2, 14-3, 12-2, 12-3, 10-2, 10-3; and others.

No.	Per 100	Size K.O. Inches	Approx. Open Inches	Approx. Closed Inches	Carton	Std. Pkg.	Wt. Lb. per 100
2020	\$7.50	$\frac{1}{2}$	.625	.310	100	1000	3

For Round Cable

CABLE SIZE, INCHES	Hub Thread	Malleable Iron		Aluminum		Car. Per 100 ton	Std. Pkg.
		No.	Per 100	No.	Per 100		
.315	$\frac{1}{2}$	2100	\$28.00	18	2150	\$75.00	13 10 100
		2200	28.00	20	2250	75.00	15 10 100
		2300	40.00	22	2350	90.00	17 10 100
.360	$\frac{1}{2}$	2101	28.00	18	2151	75.00	13 10 100
		2201	28.00	20	2251	75.00	15 10 100
		2301	40.00	22	2351	90.00	17 10 100
.405	$\frac{1}{2}$	2102	28.00	18	2152	75.00	13 10 100
		2202	28.00	20	2252	75.00	15 10 100
		2302	40.00	22	2352	90.00	17 10 100
.455	$\frac{1}{2}$	2103	28.00	18	2153	75.00	13 10 100
		2203	28.00	20	2253	75.00	15 10 100
		2303	40.00	22	2353	90.00	17 10 100
.505	$\frac{1}{2}$	2104	28.00	18	2154	75.00	13 10 100
		2204	28.00	20	2254	75.00	15 10 100
		2304	40.00	22	2354	90.00	17 10 100
.560	$\frac{1}{2}$	2105	28.00	18	2155	75.00	13 10 100
		2205	28.00	20	2255	75.00	15 10 100
		2305	40.00	22	2355	90.00	17 10 100
.625	$\frac{3}{4}$	2206	28.00	20	2256	75.00	15 10 100
		2306	40.00	22	2356	90.00	17 10 100
		2207	28.00	20	2257	75.00	15 10 100
.685	$\frac{3}{4}$	2307	40.00	22	2357	90.00	17 10 100
		2208	28.00	20	2258	75.00	15 10 100
		2308	40.00	22	2358	90.00	17 10 100
.820	1	2320	40.00	22	2370	90.00	17 10 100
		2321	40.00	22	2371	90.00	17 10 100
		2322	40.00	22	2372	90.00	17 10 100
.960	$1\frac{1}{4}$	2346	110.00	27	2396	130.00	22 5 50
		2323	40.00	22	2373	90.00	17 10 100
		2340	110.00	27	2390	130.00	22 5 50
1.125	$1\frac{1}{4}$	2347	110.00	27	2397	130.00	22 5 50
		2341	110.00	27	2391	130.00	22 5 50
		2348	110.00	27	2398	130.00	22 5 50

For Oval Cable

CABLE SIZE, INCHES	Hub Thread	Malleable Iron		Aluminum		Car. Per 100 ton	Std. Pkg.
		No.	Per 100	No.	Per 100		
.250x.440	$\frac{1}{2}$	2216	28.00	18	2166	\$75.00	13 10 100
		2316	40.00	22	2366	90.00	17 10 100
		2211	28.00	18	2161	75.00	13 10 100
.420x.560	$\frac{1}{2}$	2211	28.00	18	2161	75.00	13 10 100
		2311	40.00	22	2361	90.00	17 10 100
		2212	28.00	20	2262	75.00	15 10 100
.470x.620	$\frac{3}{4}$	2312	40.00	22	2362	90.00	17 10 100
		2213	28.00	20	2263	75.00	15 10 100
		2313	40.00	22	2363	90.00	17 10 100
.530x.730	1	2214	28.00	20	2264	75.00	15 10 100
		2314	40.00	22	2364	90.00	17 10 100
		2215	28.00	20	2265	75.00	15 10 100
.580x.800	$1\frac{1}{4}$	2315	40.00	22	2365	90.00	17 10 100
		2325	40.00	22	2375	90.00	17 10 100
		2326	40.00	22	2376	90.00	17 10 100
.670x.970	$1\frac{1}{4}$	2327	40.00	22	2377	90.00	17 10 100
		2342	110.00	27	2392	130.00	22 5 50
		2343	110.00	27	2393	130.00	22 5 50

Appleton Watertight Connectors

Schedule OF

Two-Screw Type

Nut Types



Round



Oval



2-Hole



Round



Oval



2-Hole

The 2-screw type connectors are made from non-ferrous metal; will not rust. The nut type connectors are of malleable iron, cadmium finish.

2-Screw Type		Nut Type			SIZE OF CABLE		Underwriters' Cable Type	Carton	Standard Package	
No.	Wt., Lb. Std. Pkg.	No.	Wt., Lb. Std. Pkg.	Size Inches	Size of Opening for Cable	Insulated Con.				Bare Neutral
25501	26	25278	..	3/4	Round 3/8"	1-14	1-14	SD	50	100
25502	26	25279	..	1	Round 3/8"	1-12	1-12	SD	50	100
						1-10	1-10	SD		
						1-12	1-12	SE		
						1-10	1-10	SE	50	100
						1-8	1-10	SD	50	100
						1-8	1-8	SD		
						1-8	1-10	SE		
						1-8	1-8	SE	50	100
						1-6	1-8	SD	50	100
						1-6	1-6	SD		
						1-6	1-8	SE	50	100
						1-6	1-6	SD	50	100
						1-4	1-6	SD		
						1-4	1-6	SE		
						1-4	1-4	SE	50	100
						1-2	1-4	SD	50	100
						1-2	1-2	SD		
						1-2	1-4	SE		
						1-2	1-2	SE		
						1-1	1-1	SE	50	100
						2-12	1-12	ASE	50	100
						2-14	....	USE		
						3-14	....	USE		
						2-8	1-8	ASE	5	50
						2-6	1-8	ASE	5	50
						2-6	1-6	ASE		
						2-4	1-6	ASE	5	50
						2-4	1-4	ASE		
						2-2	1-4	ASE	5	50
						2-2	1-2	ASE		
						2-12	1-12	SE & SD	50	100
						2-10	1-12	SE & SD	50	100
						2-10	1-10	SD		
						2-10	1-10	SE	50	100
						2-8	1-10	SE & SD	50	100
						2-8	1-8	SD		
						2-8	1-8	SE		
						2-6	1-8	SE & SD	50	100
						2-6	1-6	SE & SD		
						2-4	1-6	SE & SD	50	100
						2-4	1-4	SE & SD		
						1-12	1-12	SE		
						1-10	1-10	SE	50	100
						1-8	1-10	SD		
						1-8	1-8	SD		
						2-2	1-4	SE & SD	5	50
						2-2	1-2	SE & SD		
						2-1	1-3	SE & SD	5	50
						2-1	1-1	SE & SD		
						1-10	1-10	SE & SD		
						1-8	1-10	SE & SD	5	50
						1-8	1-8	SE & SD		

For Nos. 10 and 8, 5-Conductor, 4 Insulated and 1 Bare, Entrance Cable

No.	Bushings, Inches		Size Inches	Car-ton	Std. Pkg.
	Maximum	Minimum			
25226	61/64	53/64	1	10	100
25229	3/64	57/64	1	10	100
25271	17/32	7/16	1	10	100

For No. 6, 5-Conductor, 4 Insulated and 1 Bare, Entrance Cable

With 2-Hole Bushing for Round Cable

For Round Armored Service Entrance Cable

Used where it is necessary to ground the armored sheathing of the cable.



No. 25226

No.	Fits Cables	Size Inches	Car-ton	Std. Pkg.
15258	2 or 3 Cond. No. 8	3/4	10	100
15221	2 or 3 Cond. No. 6	1	5	50
15222	2 or 3 Cond. No. 4	1	5	50



No. 25271

Ideal Fish Tape, Reels and Pullers



Three tools in one: a reel, a puller and a tape. Tape is pulled through the conduit and reeled in one operation; reel automatically locks tape in place. By keeping the tape reeled up, it is prevented from spreading all over the job, avoiding breakage and possibility of tape contacting live parts.

No.	Each	Tape Length Feet	Tape Size Inches
31-007	\$1.91	50	1/8x.045 (3/64)
31-008	3.18	50	1/8x.060 (1/16)
31-009	6.22	100	1/8x.060 (1/16)
31-010	6.85	100	3/16x.060 (1/16)
31-011	7.49	100	1/4x.060 (1/16)
31-012	6.22	100	1/8x.030 (1/32)
31-013	6.22	100	3/16x.030 (1/32)
31-014	6.22	100	1/4x.030 (1/32)
31-016	9.18	200	1/8x.060 (1/16)

Ideal Fish Tapes

Ideal Fish Tape is made of the highest grade of tempered spring steel wire—no curling. Tape is flexible and easy to use on long runs of conduit having several bends.

All sizes are available in any length, multiples of 50 feet. Packed in individual cartons.



No.	Per 100 Ft.	Tape Size Inches
31-057	\$1.60	1/8x.030 (1/32)
31-064	2.19	3/16x.030 (1/32)
31-071	2.39	1/4x.030 (1/32)
31-036	2.19	1/8x.060 (1/16)
31-043	2.88	3/16x.060 (1/16)
31-050	3.53	1/4x.060 (1/16)

Steel City Superior Fish Wire

Flat shape of this wire makes it flexible, suitable for long runs of conduit having several bends. Tempering prevents the wire from curling after constant use.

Heavy.—For hand fishing.

Light.—For conduit fishing machines. Can also be used by hand for short runs of conduit where a stiff wire is not essential.

Extra Heavy.—Adapted for fishing heavy wire and cable. Used by plumbers for soil pipe cleaning and where a strong wire is necessary.

Furnished in an assortment of cut lengths in coils of 100 feet or more, or in reels holding from 2000 to 4000 feet according to size of wire. Heavy type is packed in individual cartons.



No.	Per 100 Feet	Size Inches	Approx. Weight Lb. per 1000 Ft.
1000	\$4.86	1/8x.060	24
1001	6.00	3/16x.060	35
1002	7.50	1/4x.060	46
1009	13.00	3/8x.060	55
Light			
1003	\$3.36	1/8x.030	13
1004	4.86	3/16x.030	19
1005	5.06	1/4x.030	25
Extra Heavy			
1006	\$15.00	1/2x.090	65
1007	20.80	5/8x.090	75
1008	27.00	3/4x.090	85

Appleton Fish Tape Schedule CF

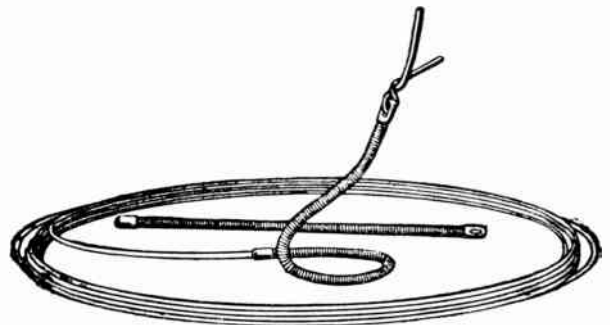
Furnished in stock lengths of 100, 150, 200, 250 and 300 ft. Longer lengths are available if desired. Unless otherwise specified, 100-ft. lengths furnished.



No.	Size, In.	No.	Size, In.
7130	1/8x.030	7133	1/8x.060
7131	3/16x.030	7134	3/16x.060
7132	1/4x.030	7135	1/4x.060

No. 101 N-E-Bend Snake Leaders

For .060x1/8-Inch Fish Tape



Designed to permanently attach to the electrician's fish tape. A flexible end to aid in leading the fish tape around difficult bends in both rigid and flexible conduit.

Pulling test over 750 pounds.

Inner assembly consists of the nose end and tail cap attached by a strong aircraft cable, assuring strength required to pull the wire through the conduit.

The coiled music wire spring gives flexibility and long life. Plated to avoid rusting. Packed 10 in a box.

No. 101.....each \$2.75

No. 1629 Klein Pullers



A lightweight strong puller which can be carried in the vest pocket.

Weight each, 3 1/2 ounces.

For Fish Tape

No. 1629.....each \$3.00

No. 12 Iron Wire

No. 1629A.....each 3.00

T&B Fish Wire



Furnished with patented ball-points which enables the wire to run sharpest bends with ease. Tempered steel wire, with rounded edges. Strong and flexible.

Furnished in 50, 100, 150, or 200-foot coils.

Packed 1000 feet in a standard package.

No.	Per 100 Ft.	Wire Size In.	—APPROX. WT., LB. PER 1000 FT.—			
			50-Ft. Coils	100-Ft. Coils	150-Ft. Coils	200-Ft. Coils
3599	\$2.25	3/16x.030	30	24	22	21
3600	1.75	1/8x.030	25	20	18	17
3601	2.00	1/8x.060	46	35	31	30
*3602	3.00	3/16x.060	58	47	42	41
*3603	4.00	1/4x.060	72	62	58	56
*3604	2.50	1/4x.030	48	37	34	32

Size listed above furnished without balls when specified.

Separate Fish Tape Balls

Fit any standard make of fish wire. To assemble, put end of fish wire in a vise. Tap lightly with hammer until flattened. Then slip end of fish wire into slot in threaded insert and screw ball on to insert.



Packed 10 in a unit quantity, 100 in a standard package.

No.	Per 100	For Wire Size, In.	Wt., Lb. Per 100
3615	\$48.00	1/8x.060	2 1/2
3616	54.00	3/16x.060	9
3617	54.00	1/4x.060	9
3618	54.00	1/4x.030	9

*Cannot be fished through 1/2-inch conduit.

E.M.T. Hickeys
For Thin Wall Conduit



An excellent tool for stubbing-up in concrete work and for making short or close bends.

Makes bends of any desired radius. To insure against kinking, the tube should be inched through, not more than 10 degrees being pulled at a time.

Standard package, 1.

No.	2195	2196	2197	2198	2199	2200
Each.	\$2.11	2.64	5.27	7.03	8.43	10.54
Size. inches	1/2	3/4	1	1 1/4	1 1/2	2
Size Pipe Handle to Use. inches	3/4	1	1	1 1/4	1 1/4	1 1/2
Weight Each. pounds	1 3/4	2 3/4	4	10	12 1/2	15

Electrunite Benders

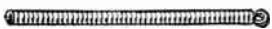
For Use with Inch Marked Electrunite Steeltubes



A one-piece malleable iron casting. Instructions and markings for making stubs, back-to-back bends, and offsets are built into side of bender.

No.	1472	1473	1474
Each.	\$3.23	4.78	7.25
Size. inches	1/2	3/4	1
Pipe Handle Size. inches	3/4	3/4	1
Standard Package.	10	10	2
Weight per 100. pounds	250	420	800

Mandrel Springs



Used in Electrunite E.M.T. for making short radius bends with Hickey type bender in one full sweep. Spring acts as mandrel, supports wall, eliminates kinking. Easily removed by backing up slightly on bend or twisting the spring.

No.	50	75
Each.	\$3.35	.50
Size. inches	1/2	3/4
Weight. pounds	1/2	1

End Caps

For Use With Electrunite E.M.T.



Used for protecting stubs against possibility of getting concrete or other foreign matter in the ends of Electrunite E.M.T.

No.	500	750	1000
Per 1000.	\$5.00	7.80	11.25
Size. inches	1/2	3/4	1
Weight per 1000. pounds	12 1/2	20	30

Appleton Bending Hickeys

Schedule TW

For Electrical Metallic Tubing



This hickey is of special design for making short bends, tight corners and for stubbing up in concrete work.

Cat. No.	Size Inches	Size Pipe Handle, Inches	Std. Pkg.	Wt., Lb. Std. Pkg.
12195	1/2	3/4	1	13 3/4
12196	3/4	1	1	23 3/4
12197	1	1	1	4
12198	1 1/4	1 1/4	1	10
12199	1 1/2	1 1/4	1	12 1/2
12200	2	1 1/2	1	15

Appleton Tiger-Grip Hickeys and Couplings

Schedule CF
Cadmium Finish



No. 7290 Hickey



No. 7295 Coupling



No. 7291 Hickey

The jaws grip with a set of sharp steel teeth in the lower jaw and do not slip. The coupling attachment strengthens the hold on the handle and prevents breakage. One tool takes care of all sizes of conduit up to and including 3/4-inch, and for the 1-inch conduit the hickey and sleeve coupling have been combined in one casting.

No. 7290 Hickeys

No.	For Conduit Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
7290	1/2 and 3/4	1	10	19

No. 7291 Hickeys with Couplings

7291	1	1	10	55
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No. 7295 Sleeve Couplings

7295	1/2 and 3/4	1	10	16
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No. 7296 jaws are available for Tiger-Grip Hickeys.

T&B Lakin Conduit Hickeys



Shank has a bushed hole into which end of conduit enters when a short bend is made at its end or a bend is to be worked down. Bushed opening in shank fits snugly over end of conduit and protects threads.

Will not slip on conduit while a bend is being made.

It enables a workman to make bends having different curvatures. It will not kink pipe when making shortest practical bends. Made of malleable iron. Galvanized finish.

No.	Each	Size In.	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
335	\$1.75	1/2	1	10	190
*336	2.25	3/4	1	10	220
337	3.25	1	1	2	520

*Can be used to bend 1/2-inch pipe.

T&B Reinforced Lakin Hickeys

For Standard Rigid Conduit

Has a solid steel bar running through the shank and into the pipe handle, which strengthens the threaded section.

No.	Per 100	Size In.	Unit Quan.	Std. Pkg.	Wt., Lb. per 100
360	\$2.50	1/2	1	10	250
*361	3.50	3/4	1	10	300
362	6.00	1	1	2	600

*Can be used to bend 1/2-inch pipe.

T&B Hickey Type Benders

For Thinwall Conduit (E.M.T.)

Makes bends of any desired radius. To insure against kinking tubing, not more than 10° should be pulled at a time.



No.	Each	Size In.	Std. Pkg.	Wt., Lb. per 100
4185	\$2.50	1/2	1	2
4186	3.90	3/4	1	3.5
4187	5.00	1	1	5

Appleton Bending Tools

Schedule TW

Especially designed for bending electrical metallic tubing. Makes bends in exactly the right place and with very little effort.

No.	14195	14196	14197
Size. inches	1/2	3/4	1
Standard Package.	1	1	1
Wt. Std. Pkg. lb.	2 1/2	4 1/2	7

T & B Benders
For Thinwall Conduit

PATENTED



No. 4165

Makes all bends either by a sweep of the handle or with bender reversed, no hickying necessary. Forms a perfectly smooth, round race-way, in any type of curve.

No.	*4165	4195	4196	4197
Each	\$2.50	2.50	3.90	5.95
Size.....inches	1/2, 3/8	1/2, 3/8	3/4	1
Standard Package.....	1	1	1	1
Weight, Each.....pounds	1 1/2	2 1/2	4	7

*Blue Mark Bender.

Steel City-Allen Heavy Wall Conduit Benders



This bender is made of high test steel. Has tempered case hardened teeth which grip in all positions.

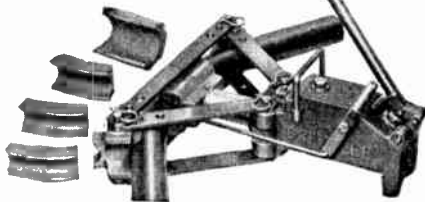
Solid jaws, no adjustments; 2-in-1 design with V receiving groove to prevent any contact on inner part of curve, thus preventing mashing, crushing or deforming the pipe.

No.	Per 100	Description	Size Conduit Inches	Approx. Std. Weight Pkg. Pounds
1	\$7.90	End Tapped 1" Female	1/4 - 3/4	10 2 1/2
2	9.90	End Tapped 1 1/4" Female	1/4 - 3/4	10 2 1/2
6	11.10	End Threaded 1 1/2" Male	3/4 - 1 1/4	5 3 3/4
7	14.10	End Tapped 1 1/2" Female	3/4 - 1 1/4	5 3 3/4

Greenlee Hydraulic Benders

For Rigid Conduit, Pipe and Thin-Wall Steel Tubing

No. 770 will bend 1 1/4, 1 1/2, 2, 2 1/2 and 3-inch conduit and pipe. No. 775 with standard equipment will bend 3, 3 1/2, 4 and 4 1/2-inch conduit and double extra strong pipe can bend what smaller sizes, and special attachments can be furnished for bending boiler tubes and heavy-wall tubing of various materials and in various sizes.



Maximum piston pressure of No. 770 is 50,000 pounds and of No. 775, 80,000 pounds. Each bender has a safety valve to blow out at pressures exceeding capacity of power unit. All sizes of conduit within range of each machine can be bent cold, without use of heat or filler. Machine operates horizontally on the floor.

No. 770-T bends thin-wall electric metallic tubing quickly and without crushing. It is so designed that a full 90° bend can be made with one complete forward movement of the ram.

No. 770 Rigid Conduit Bender for 1 1/4 to 3-Inch, Shipping Weight, 198 Pounds.....	each	\$170.00
No. 775 Rigid Conduit Bender for 3 to 4 1/2-Inch, Shipping Weight, 370 Pounds.....	each	235.00
No. 775, Conduit Bender with Attachment for 1 1/4 to 4 1/2-Inch, Shipping Weight, 420 Pounds.....	each	272.00
No. 770-T Thin-Wall Conduit Bender for 1 1/4 to 2-Inch, Shipping Weight, 266 Pounds.....	each	230.00
Set of Standard Attachments for Thin Wall Conduit, Shipping Weight, 190 Pounds.....	each	120.00

No. 763 Greenlee Steel Tubing Benders



Developed to bend steel tubing without kinking and flattening the tube. Will make smooth, even bends to a center-line radius of two and one-half times the outside diameters.

The follow bar, connecting bars, roller, clamp, shafts and eccentric lever are of high-grade steel, heat treated. Head or bending die milled to correct radius with accurately shaped groove for bending up to and including 180°.

O.D. Tubing Inches	Each	Radius Inches	Wt. Lb.	O.D. Tubing Inches	Each	Radius Inches	Wt. Lb.
1/4	\$10.00	5/8	3 1/4	5/8	\$14.00	1 1/16	6 1/2
5/16	10.00	25/32	4	3/4	17.50	1 1/8	10 1/2
3/8	11.00	15/16	4 1/2	7/8	21.50	2 3/16	22
1/2	12.00	1 1/4	5 1/4	1	25.00	2 1/2	26

Greenlee Knockout Punches

For cutting holes in metal having a thickness up to 1/8 inch or 10 gage. Ordinary wrench will drive all units.

No. 735 consists of 4 punches for cutting 7/8, 1 1/32, 1 1/32 and 1 1/16-inch holes for 1/2, 3/4, 1, and 1 1/4-inch conduit.

No. 737 consists of 2 punches for cutting 1 1/16 and 2 3/8-inch holes to take 1 1/2 and 2-inch conduit.

No. 738 cuts a 2 7/8-inch hole for 2 1/2-inch conduit. Drive is by a double diameter screw and nut.

No. 739 cuts a 3 1/2-inch hole for 3-inch conduit. Drive is by a double diameter screw and nut.

No.	735	737	738	739
Each.....	\$10.00	10.00	14.00	19.00
Weight.....pounds	2 3/4	4 1/4	5 3/4	7 1/4

No. 740 Greenlee Knockout Cutters

Will handle the enlargement of knockouts to accommodate 1 1/2, 2, 2 1/2, and 3-inch conduit. It will cut material up to 1/8-inch or 10-gage thickness, and the operation can be performed in about 1 1/2 minutes.

Tool is hand driven; any ordinary wrench can be used.

The cutting is done by the drive action of two wheel cutters, mounted on a horizontal shaft in the body.

The center shaft of the tool is 3/4-inch diameter for passing through standard knockouts.

Packed in leather case.

Weight, 4 1/2 pounds.

No. 740.....each \$15.00

Nye Spiral Fluted Bit Brace Reamers

Taper Shank



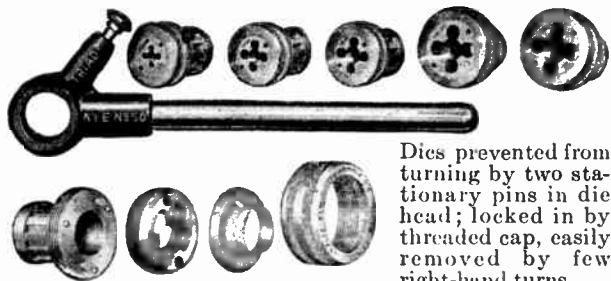
Made of high grade tool steel, drop forged.

This reamer is made with a tapered shank to fit any standard bit brace. Spiral flutes give a shearing action, assuring operator of a clean and satisfactory job.

No.	42	42 1/2	44
Each.....	\$1.35	1.65	3.25
Capacity.....inches	1/8 to 1	1/8 to 1 1/4	1/4 to 2
Shipping Weight.....pounds	3/4	3/4	1 1/4

Nye Triad Ratchet Die Stocks

No. 50 Capacity, 1/8 to 3/4-Inch Pipe
No. 60 Capacity, 1/8 to 1 1/4-Inch Pipe
With Reversible Die Feature

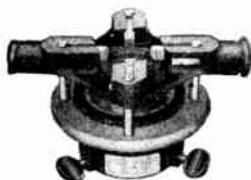


Dies prevented from turning by two stationary pins in die head; locked in by threaded cap, easily removed by few right-hand turns.

Description	No. 50		No. 60	
	Size Inches	Approx. Each Wt. Lb.	Size Inches	Approx. Each Wt. Lb.
Stock With Dies.....	1/8 to 3/4	\$17.50 9 1/2	1/8 to 1 1/4	\$26.60 21 1/2
	1/4 to 3/4	14.50 8 1/4	1/4 to 1 1/4	23.35 19 3/4
	3/8 to 3/4	11.50 7 1/4	3/8 to 1 1/4	20.10 17 3/4
			1/2 to 1 1/4	16.85 15 3/4
			3/8 to 1	16.60 14 1/4
			1/2 to 1	13.35 12 1/2
Stock with Dies (without Ceiling Bushings).....	1/2, 3/4	8.50 6		
Ratchet with Handle.....		2.50 2 3/4		3.35 4 1/4
Die Head Complete.....	1/8 to 3/4	3.00 1 1/4	1/8 to 3/4	3.25 2 1/2
			1 to 1 1/4	3.50 2 1/2
Dies Only.....	1/8, 3/4, 3/8	1.95 1 1/4	1/8, 1/4, 3/8	1.95 1 1/4
Dies Only, Each (Pipe or Conduit).....	1/2, 3/4	2.30 1 1/2	1/2, 3/4	2.30 1 1/2
			1, 1 1/4	2.45 1 1/2
Extra Ceiling Bushings.....	1/8 to 3/4	.20 1/4	1/8 to 1	.20 1/4
			1 1/4	.30 1/4
Handy Carrying Rack.....		.65 2		1.15 4
Pawl and Spring.....		.75 1/4		.75 1/4
1/8-Inch Ceiling Bushings; Wt., 1/4 Lb., Extra.....				each \$2.00
1 1/4-Inch Ceiling Bushings; Wt., 1/4 Lb., Extra.....				each .30

Nye Receding Die Stocks

Capacity, 1 to 2-Inch Pipe



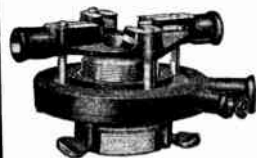
Constructed on the receding die principle, therefore threads pipe very easily.

Set consists of stock handles, guides and set of 1 to 2-inch dies. Stock of malleable iron; dies of finest grade tool steel.

Furnished in Briggs (American) and Whitworth (English) standards, right hand. American Standard furnished unless otherwise specified.

standards, right hand. American Standard furnished unless otherwise specified.

- No. 1**
- No. 1, Stock Complete with Bushings, Handles and 1, 1 1/4, 1 1/2, and 2-Inch Dies, Approximate Shipping Weight 21 Pounds..... each \$17.50
 - No. 1, Stock Only, With Bushings, Without Dies and Handles, Approximate Shipping Weight, 14 3/4 Pounds..... each 11.70



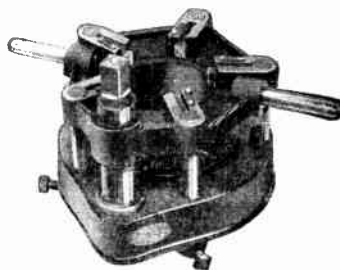
No. 1A
Same basic construction as No. 1, but equipped with a ratchet. Can be used as an ordinary stock with two handles when desired.

Ratchet feature makes tool desirable for threading pipe where space is limited.

- No. 1-A, Ratchet Stock Complete with Bushings, Handles and 1, 1 1/4, 1 1/2 and 2-Inch Dies, Approximate Shipping Weight, 25 3/4 Pounds..... each \$21.00
- No. 1-A, Ratchet Stock Only, With Bushings, Without Dies and Handles, Approximate Shipping Weight, 18 3/4 Pounds..... each 14.60
- Bushings (Guides), Sizes, 1, 1 1/4, 1 1/2 or 2 Inches, Approximate Shipping Weight, 3/4 Pound..... each .30
- Thumb Screws, Approx. Ship. Weight, 1/8 Pound each .15
- Nail, Spring and Pin, Approximate Shipping Weight per Set, 1/4 Pound..... per set .15

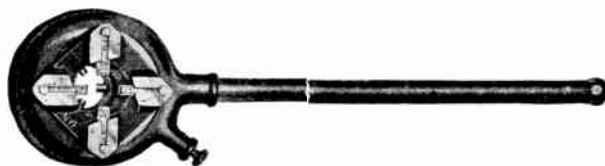
No. 2 Nye Receding Stocks

With Separate Guides
Capacity, 2 1/2 to 4-Inch Pipe Inclusive



Fits Federal Specification GGG-T-581, Fig. 12, Type I. No. 2, Complete with Ratchet Handle. Guides and Dies, 2 1/2, 3, 3 1/2, and 4 Inches. Weight 100 pounds. each \$75.00
No. 2, Stock Only without Ratchet Handle, Hub, Guides and Dies. Weight, 67 1/2 Pounds..... each 52.00
Bushings (Guides) 2 1/2, 3, 3 1/2 and 4 Inches. Weight, 2 3/4 Pounds..... each size 1.65
Set-Screw, Weight, 1/4 Pound..... each .20

No. 1R Nye Ratchet Receding Die Stocks



A light, one-man stock.

Furnished with bushings and 1, 1 1/4, 1 1/2 and 2-inch dies.

Shipping weight, 23 pounds.

- No. 1R, Complete..... each \$19.50
- 1, 1 1/4, 1 1/2-Inch Chasers, 4 Segments to a Set of Each Size..... per set 2.00
- 2-Inch Chasers, 4 Segments to a Set..... per set 2.50

Nye Thread Chasers



For Receding Die Stocks

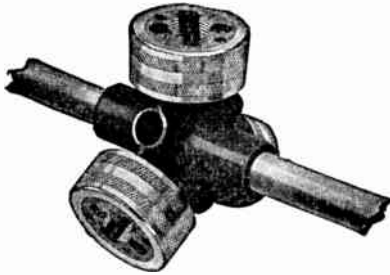
Made from either high grade alloy or high speed steel, hardened and tempered in oil.

Cutting teeth milled, not tapped.

Set consists of one size only.

- Sets for Nos. 1, 1-A, 1-R, 101 and 101-A Stocks**
Consists of regular alloy steel segments, 4 of each of the following sizes: 1, 1 1/4 and 1 1/2 inches. Approximate shipping weight, 1 pound..... per set \$2.00
Consists of high speed steel segments, 4 of the 2-inch size. Approximate shipping weight, 3/4 pound..... per set 2.50
Consists of high speed steel segments, 4 of each of the following sizes: 1, 1 1/4 and 1 1/2 inches. Approximate shipping weight, 1 pound..... per set 2.50
- Sets for No. 2 Stocks**
Consists of regular alloy steel segments, 5 of each of the following sizes: 2 1/2, 3, 3 1/2 and 4 inches. Approximate shipping weight, 2 pounds..... per set \$5.00

**Nye Triad 3-Way Stocks
With Reversible Die**



Dies may be reversed in holder to thread close nipples.
 Stock Complete with 3/8, 1/2, and 3/4-Inch Dies. Weight, 7 1/2 Pounds. each **\$9.65**
 Stock Complete with 1/2, 3/4, and 1-Inch Dies. Weight, 11 1/4 Pounds. each **10.30**
 Triad Dies Only, 3/8 Inch. Weight, 1/4 Lb. each **1.95**
 Triad Dies Only, 1/2 and 3/4 Inch. Weight, 1/2 Pound, (Pipe or Conduit). each **2.30**
 Triad Dies Only, 1 Inch. Weight, 1/2 Pound, (Pipe or Conduit). each **2.45**
 Ceiling Bushings (Extra), 3/8, 1/2, 3/4 and 1 Inch, Weight, 1/4 Pound. each **.20**

Nye Triplex Solid Die Stocks



A lightweight, sturdy one-piece combination 3-way stock, made of malleable iron. Has large openings in body, which allows amply for oiling and for chip clearance.

Supplied in two combinations: 3/8, 1/2, 3/4-inch; and 1/2, 3/4, 1-inch.

Description	Per Set	Ship. Wt. Lb.
Stock and Skip-Tooth Dies, 3/8, 1/2, 3/4-Inch, or 1/2, 3/4, 1-Inch.	\$12.30	11 1/4
Stock Complete with Handles, but without Dies.	6.00	8 1/4
Extra Dies.	2.45	1

Nye Conduit Solid Dies



Square

Skip-tooth dies made especially for threading conduit pipe.

Produces the proper thread adopted and standardized by the Conduit Manufacturers Association.



Round

Square Dies

Die block, 2 1/2 x 2 1/2 inches.
 1/8, 1/4 and 3/8 Inch Size. each **\$1.95**
 1/2, 3/4 and 1-Inch Size. each **2.45**

Round Dies

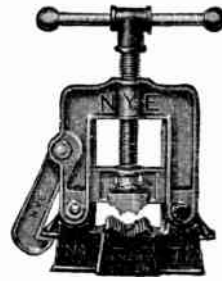
For Triad stocks.
 1/2 and 3/4-Inch Size. each **\$2.30**
 1 and 1 1/4-Inch Size. each **2.45**

Nye Pipe Threading Oil



Has a sulphur base. Furnished in regular dark, unless otherwise specified. Clear is available if relatively transparent oil is preferred.

	Dark	Clear	Wt., Lb.
1-Gal. Cans. per gal.	\$1.00	\$1.20	11
5-Gal. Cans. per gal.	.90	1.10	45
55-Gal. Drums. per gal.	.75	.90	470



**Nye Standard Self-Locking
Pipe Vises**

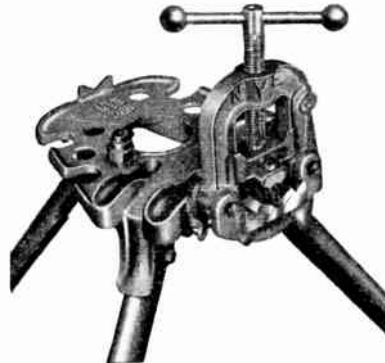
Capacity, 1/8 to 4 1/2 Inches

Large thread screw, either side opens, hardened tool steel jaws.

No.	700	70	71	72	73
Complete. each	\$4.60	\$5.40	\$6.35	\$9.55	\$13.35
Extra Jaws, Set of 2. each	1.65	1.95	1.95	2.75	3.75
Takes Pipe. inches	1/8-1 1/2	1/8-2	1/8-2 1/2	1/2-3 1/2	1/2-4 1/2
Weight. pounds	6	8 3/4	12	21 1/2	27 1/2

**No. 88 Nye Convertible Combination
Vises and Stands**

Capacity, Up to 4 Inch Pipe



No. 88-A With Yoke Vise

Made of malleable iron.

Base designed so yoke vise parts, 1/2 to 2 1/2 inches can be replaced by chain vise parts, 1 to 4 inches, or vice versa.

Base has lip and slots for hanging tools, pipe rest and provision for oil can in handy position.

Hole in rear of base tapped for standard 1-inch pipe threads, to

accommodate extension pipe rest arrangement.

Can also be used for bending 1/2 and 3/4-inch pipe. Locking arrangement for each leg for both open and closed positions, no chain required.

No. 88-A, With Yoke Vise, 1/8 to 2 1/2 Inches, Approx. Shipping Weight, 45 Pounds.	each	\$17.70
Extension Pipe Rest Yoke, Approximate Shipping Weight, 1 1/2 Pounds.	each	.95
Parts Necessary to Convert No. 88-A to No. 88-B (Jaws, Chain, Handle, Screws, Extension Pipe Rest Yoke), Approx. Shipping Weight, 2 1/2 Lb.	each	5.00
No. 88-B, With Chain Vise, 1 to 4 Inches, Plus Extension Pipe Rest Yoke, Approx. Shipping Weight, 43 Pounds.	each	19.25
Parts Necessary to Convert No. 88-B to No. 88-A (Yoke Assembly, Lower Jaws and Screws), Approx. Shipping Weight, 4 1/2 Pounds.	each	3.45
No. 88-C, Stand With All Parts for No. 88-A and B, Approximate Shipping Weight, 47 Pounds.	each	22.70

Nye Tube Cutters with Rollers



No. 20

Used by plumbers, electricians, refrigerator repair men, and automobile mechanics for cutting copper, brass and lead tubing.

Roller reduces friction to the extent that tubing is not marred or torn during cutting operation. Wheel with finely

ground edge leaves a slight burr, easily removed by reamer. No. 30 is equipped with burr scraper instead of reamer.

No.	10	20	30
Each.	\$1.75	\$2.45	\$3.25
*Wheel or Roller Pins. each	.10	.10	.10
Cutter Rollers. each	.10	.10	.15
O.D. inches	3/16-3/4	1/2-1 3/8	1-2 1/4
Extra Wheels, All Cutters. each			\$3.30

*Specify when ordering.

Nye Drop-Forged Steel Pipe Cutters

Trimmo Type



Can be used as a one or three-wheel pipe cutter. Furnished with two rollers and one Nye Thin Blade Smooth Cutter Wheel. No thread in frame to wear out.

Adjustment of the handle screw is made through a case-hardened nut which can easily be replaced when worn.

Size No.	1T	2T	3T
Each	\$4.70	6.30	10.50
Pipe Capacity	1/8-1 1/4	1/8-2	3/8-3
Shipping Weight	5 3/4	6 1/4	10 1/2

Description	No. 1T		No. 2T		No. 3T	
	Each	Ship. Wt., Lb.	Each	Ship. Wt., Lb.	Each	Ship. Wt., Lb.
Knife-Edge Wheels	.50	3/4	.50	3/4	.75	1 1/4
Knurled-Edge Wheels	.50	3/4	.50	3/4	.75	1 1/4
Rollers	.20		.20		.40	
Pins	.10		.10		.10	

Beaver Square-End Knife Pipe Cutters

No. 1, 1/8 to 1 Inch

No. 5, 1/2 to 2 Inch



For cutting, grooving or beveling pipe.

This pipe cutter cuts like a lathe tool, each turn removing a thin shaving until the pipe is severed. Leaves no burr to be reamed or filed, or to reduce the capacity of the pipe, and threading dies start easily and with less wear.

No.	1	5
Complete	each	\$16.50 \$17.50
Extra Cutting Knives	per set	1.00 1.50
Grooving Knives	per set	2.50
Beveling Knives	per set	3.50
Shipping Weight	pounds	8 14
Cuts Pipe	inches	1/8-1 1/2-2

No. 2 Beaver Open Ratchet Die Stocks

For 1/8 to 3/4-Inch Pipe—1/4 to 1-Inch Bolts

Openings between dies for easy oiling and chip clearance.

Square dies, no weak offset to break. Die segments interchangeable, easily re-sharpened, reversible for threading pipe too short to pass through die head. Right or left hand.

No. 2 Complete, for Pipe Only

Size	inches	1/2-3/4	3/8-3/4	1/4-3/4	1/8-3/4
Each		\$8.50	11.50	14.50	17.50
Shipping Weight	pounds	7	8	9	10

Pipe Die Heads with Dies

Size	inches	1/8	1/4	3/8	1/2	3/4
Each		\$3.00	3.00	3.00	3.00	3.00
Shipping Weight	lb.	1	1	1	1	1
3/4-In. 20-Thrd. Brass Die Head with Dies	ea.					\$3.50
5/8 or 3/4-In. 27-Thrd. Die Head with Dies	ea.					3.50

Beaver Threading Oil

For Hand Tools and Threading Machines

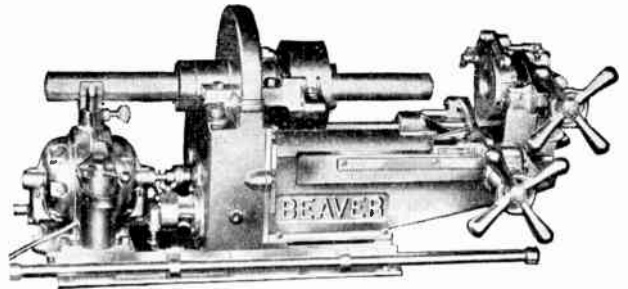
A sulphur-base threading oil (high in heat-absorbing properties) that both cools and lubricates. Improper oil causes overheating, chipped dies and bad threads.

Size Can	gal.	1	5	15	30	55
Each		\$1.50	7.50	19.50	37.50	66.00
Ship. Wt.	lb.	8	11	125	250	500

Beaver Pipe and Bolt Machines

Capacity: 1/8 to 2-Inch Pipe; 1/4 to 2-Inch Bolts

2 1/2 to 12-Inch Pipe with Shaft and Geared Tools



Model A

A heavy duty, portable machine for right hand operation. Has 12-inch free working space and a 3-jaw universal chuck which is used with an automatic chuck wrench ejector. Dieheads are of the solid ring type.

Model B

A light, compact unit for field use by plumbing, heating electrical, and sprinkler contractors.

For right hand operation.

Has 13-inch open working space and a full-range universal chuck with automatic safety chuck wrench ejector.

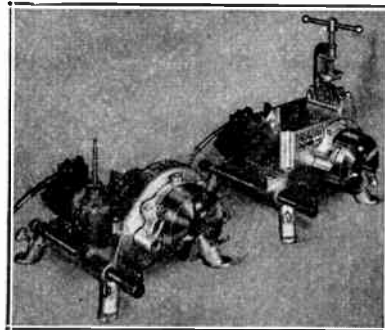
Furnished with ring type dieheads.

Both Models are furnished complete with 110 or 220-volt universal reversible motor for light line service, a.c. or d.c., 25 to 60 cycles; reversing switch; reversible oil pump; 1/8 to 2-inch hinged cone-type reamer; ball bearing self-centering wheel and roller cutoff suitable for pipe or bolts; and one gallon of threading oil.

Prices upon application.

Model C Beaver Power Unit

Capacity: 1/8 to 2-Inch Pipe; 1/4 to 1 1/2-Inch Bolts; 2 1/2 to 8-Inch Pipe with Drive Shaft and Geared Tools



Model C-1

Model C-2 with Vise

A sturdy power unit for bench use; makes machines of hand tools. Model C-2 is recommended if a pipe vise is required. Where a pipe vise is unnecessary, Model C-1 is more convenient to use.

Cushman all-steel universal geared chuck. Machine is equipped with an automatic safety chuck wrench ejector.

chuck wrench holder, and a safety latch. Gears are fully enclosed; the main driving gear revolves through an oil bath. Chuck is opened and closed by turning a chuck wrench, and chuck remains stationary.

Black & Decker universal motor, 1/2 hp. nominal rating (actual developed power, 1.59 hp.). Motor will operate on either a.c. or d.c., 25 to 60 cycles. Choice of 110 or 220-volt motor; specify when ordering.

Base, 18x18 inches; height, 12 1/2 inches. Base dimensions, mounted on legs, 42x46 inches.

Model C-1, No Provision for Vise; Net Weight 140 Pounds; Shipping Weight, 167 Pounds. . . . each \$185.00

Model C-2, without Vise; Net Weight, 166 Pounds; Shipping Weight, 193 Pounds. . . . each 200.00

Model C-2, with Vise and Pipe Rest; Shipping Weight, 204 Pounds. . . . each 210.00

Accessories

Galvanized Legs, Front Feet, Rear Spikes; Shipping Weight, 32 Pounds. . . . per set \$6.60

Pipe Bender, 1/8 to 3/4-In.; Ship. Wt., 4 Lb. . . . each 1.80



No. 888 National La-In Metal Molding

Approved by Underwriters' Laboratories, Inc.



For main runs branching into No. 333 molding or No. 111 Xtensionduct.

Made in two pieces, base and capping, so formed as to snap together, capping snapping over base.

Wires are laid-in, not fished.

Designed to hold wires in place and allow capping to be snapped on easily and securely.

Capacity: 10 No. 14, 10 No. 12, 10 No. 10, 7 No. 8 or 3 No. 6 wires.

For 10 wires; 1 3/4 inches wide, 1/16 inches high, and 100 inches long.

Has mounting holes in base for No. 8 screws or toggles on 12-inch centers.

Furnished with 3 wire retaining clips for each length.

Neutral gray finish. May be painted to match walls or ceiling, or grained to match woodwork.

Packed 12 lengths (100 feet) in a sealed container.

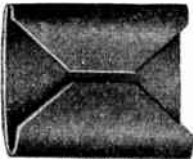
Carton, 100 feet. Standard package, 1000 feet.

Weight per standard package, 616 pounds.

No. 888.....per 100 feet **\$28.00**

No. 888 National Metal Molding Fittings

No. 841 Wire Retaining Clips



Holds wires in place until capping is installed.

Three clips are furnished without charge with each length.

No. 854 Couplings



Carton, 10.

Standard package, 100.

Weight per standard package, 5 pounds.

No. 854.....per 100 **\$5.50**

No. 836 90° Flat Elbows



Has push fit base.

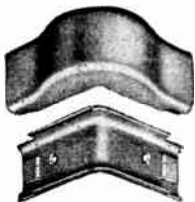
Carton, 1.

Standard package, 10.

Weight per standard package, 4 pounds.

No. 836.....per 100 **\$46.50**

No. 837 90° External Elbows



Has push fit base.

Carton, 1.

Standard package, 10.

Weight per standard package, 4 pounds.

No. 837.....per 100 **\$66.00**

No. 838 90° Internal Elbow



Has push fit base.

Carton, 1.

Standard package, 10.

Weight per standard package, 4 pounds.

No. 838.....per 100 **\$66.00**

Continued

No. 888 National La-In Metal Molding Fittings

Concluded

No. 876 Combination Fittings



Has double twistouts for Nos. 888 and 333 metal molding at each side and one at each end; 1/2-inch knockout in one arm of base and combination 1/2-inch and 1-inch knockout in other arm.

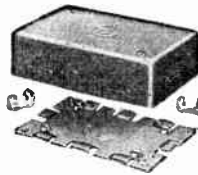
Carton, 1.

Standard package, 10.

Weight per standard package, 5 pounds.

No. 876.....per 100 **\$36.00**

No. 839 Utility Boxes



Dimensions: 4 7/8 x 3 1/8 x 1 3/8 inches deep.

Long side; 3 double twistouts; two for Nos. 333 metal molding and 111 xtensionduct, one for Nos. 888 and 333 metal molding.

Short side; one double twistout for Nos. 888 metal molding and 333 xtensionduct.

Top has combination 1/2-inch conduit knockout and drop cord eyelet.

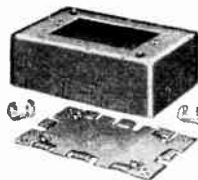
Base has combination 1/2 and 1-inch conduit knockouts.

Carton, 1. Standard package, 10.

Weight per standard package, 10 pounds.

No. 839.....per 100 **\$84.00**

No. 839-S Single-Gang Surface Switch and Receptacle Boxes



Dimensions: 4 7/8 x 3 1/8 x 1 3/4 inches.

Has three double twistouts; two for Nos. 333 and 111 metal molding, one for Nos. 888 metal molding and 333 xtensionduct in sides, and one for Nos. 888 metal molding and 333 xtensionduct in ends.

Also has combination 1/2 and 1-inch conduit knockouts in base.

Carton, 1. Standard package, 10.

Weight per standard package, 10 pounds.

No. 839-S.....per 100 **\$126.50**

No. 826 6 1/2-Inch Canopy Base Plate and Cover



Has two pairs 8-32 tapped holes on 2 3/4-inch centers and one pair on 3 1/2-inch centers.

Also has six double twistouts for Nos. 888 and 333 metal molding and 5 1/2-inch knockouts in base.

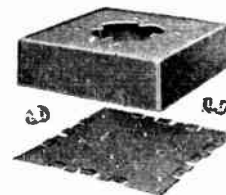
Carton, 1.

Standard package, 10.

Weight per standard package, 25 pounds.

No. 826.....per 100 **\$111.50**

No. 840 Distribution Boxes



Dimensions: 6 3/8 x 6 3/8 x 1 3/4 inches deep.

All cover sides.

Has three double twistouts; two for Nos. 333 metal molding and 111 xtensionduct, one for Nos. 888 and 333 metal molding.

Cover top has two pairs No. 8-32 tapped holes on 2 3/4-inch centers

and one pair on 3 1/2-inch centers.

Base has five 1/2-inch knockouts.

Carton, 1. Standard package, 10.

Weight per standard package, 20 pounds.

No. 840.....per 100 **\$136.50**

No. 333 National La-In Metal Molding

Listed and Approved by Underwriters' Laboratories, Inc.



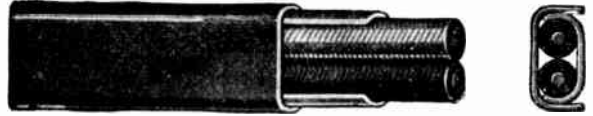
Consists of two pieces, base and capping, so formed as to snap together, capping snapping over base. Wires laid-in, not fished. For 2 to 4 wires; 1 inch wide, 3/16 inch high, 8 1/2 feet long. Capacity, 4 No. 12 or No. 14 wires or 3 No. 8 or No. 10 wires.

Neutral gray finish. May be painted to match walls or grained to match woodwork, taking oil or water paints.

Packed 12 lengths, 8 1/2 ft. long; 100 ft. in corrugated container; 100 ft. in unit package; 1000 ft. in std. pkg. No. 333, Wt., per Std. Pkg., 410 pounds. Per 100 feet \$11.20

No. 111 National La-In Xtensionduct Molding

Listed and Approved by Underwriters' Laboratories

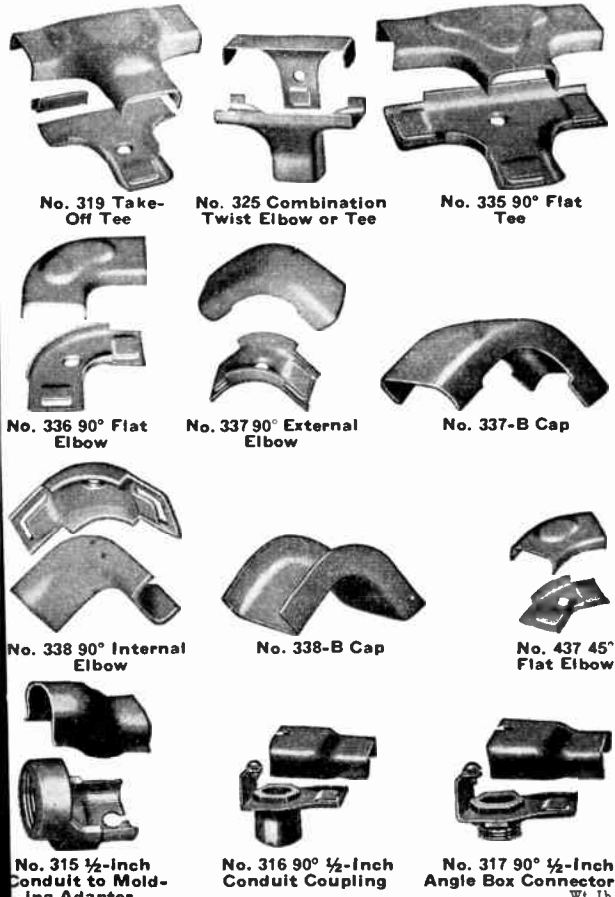


For extension wiring from existing convenience outlet. Takes two No. 14 wires. Furnished in 5-foot lengths.

Molding, fittings, plates and bakelite receptacles finished in neutral gray. Wires laid-in, cover snaps on. Packed 100 in unit package; 1000 in standard package.

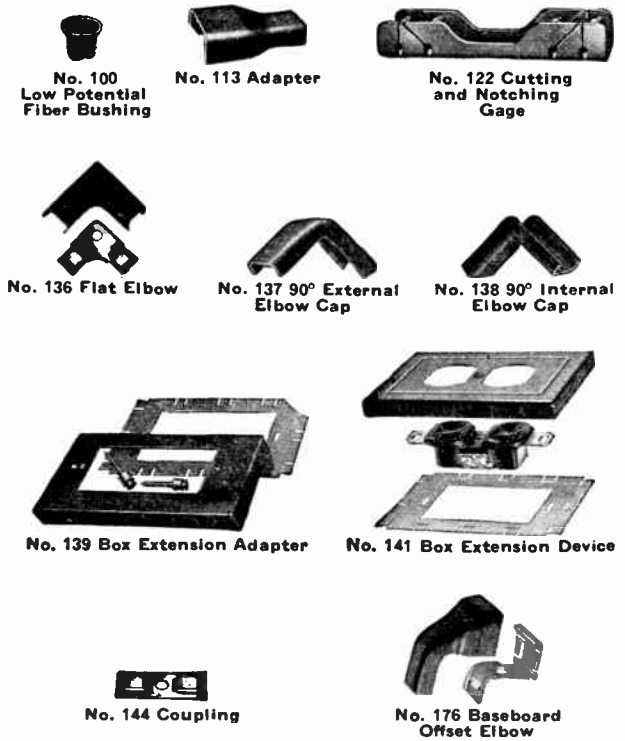
No. 111, Wt. per 100 Ft., 16 Lb. per 100 feet \$9.00

National La-In Metal Molding Fittings



No.	Per 100	Description	Unit Pkg.	Std. Pkg.	Std. Pkg.
319	\$30.00	For branch molding runs. Tee base slips under molding base. Capacity, up to 2 No. 10 or No. 14 splices.	5	50	15
325	33.00	To take No. 333 molding from wall to Ceiling for use as left or right ell or tee for through runs.	5	20	22
35	30.00	With Push-fit base. Capacity, up to 4 No. 12 splices.	5	50	15
36	21.00	With Push-fit base.	10	100	11
37	22.00	With Push-fit base.	10	100	8
37-B	13.50	For No. 337 external elbow.	30	60	3
38	22.00	With Push-fit base.	10	100	9
38-B	16.50	For No. 338 internal elbow.	30	60	3
37	24.00	With Push-fit base.	5	20	4
15	27.50	For 1/2 in. conduit to molding devices, elbows, tees.	5	50	3
16	40.00	Molding to 1/2 inch conduit.	5	20	5
17	40.00	Molding to 1/2 in. conduit KO or to 1/2 in. conduit coupling.	5	20	4

National La-In Xtensionduct Fittings



No.	Per 100	Description	Unit Pkg.	Std. Pkg.	Wt. Lb. Std. Pkg.
100	\$3.10	For covering bell wire where Xtensionduct is used without fittings.	10	100	1
113	6.60	Xtensionduct to No. 333 molding fittings.	10	50	3
122	1.00	Miter gage which assures close and neat fitting joints and corners. Xtensionduct only.	1	1	1 1/4
136	15.50	For use at left or right 90° bends. Supplied with base.	5	50	2
137	8.80	For use at outside corners; 90°.	5	50	1 1/2
138	8.80	For use at inside corners; 90°.	5	50	1 1/2
139	52.00	Accommodates extensions from outlets requiring other than standard convenience receptacles. May be used with any standard wiring device including P&S Despard Line.	1	20	5
141	77.00	Accommodates extensions from existing outlets. Includes plate and T-slot receptacle.	1	20	10
144	1.50	For connecting base; capping may overlap joint.	10	50	1
176	16.00	For runs from face to top of baseboard. Supplied with base.	5	20	2

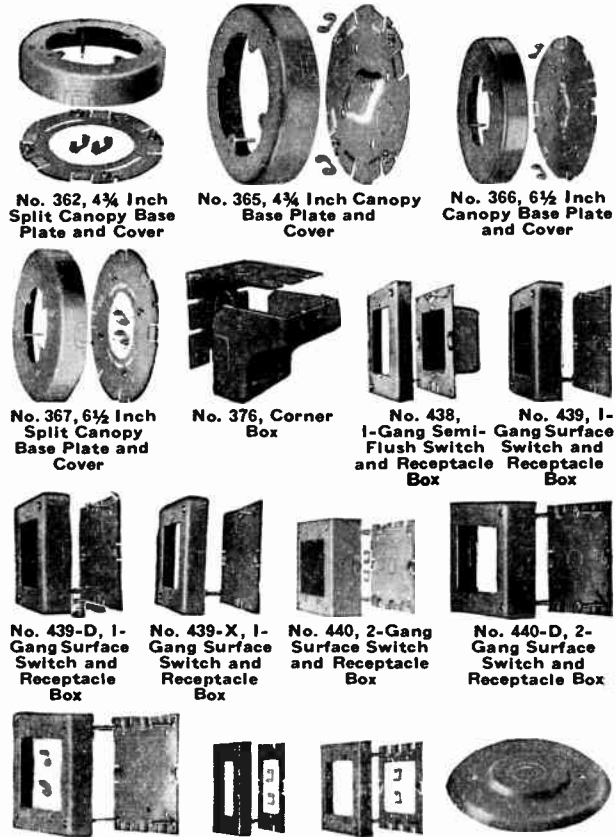
**National La-In Combination Fittings
For Xtensionduct and Metal Molding**



No. 348, 2½ Inch Drop Cord Rosette
No. 348-X, 3 Inch Drop Cord Rosette
No. 350, Duplex Receptacle with Parallel Slots
No. 350-T, Duplex Receptacle with T-Slots
No. 339-X
No. 351, Single Pole Toggle Switch
No. 352, Utility Box
No. 355-X, 3 Inch Keyless Receptacle
No. 360, 2½ Inch T-Slot Receptacle
No. 342, 3 Inch, 10 Ampere Device Box; No. 343, 2½ Inch, 5 Ampere Device Box
No. 361, 4¾ Inch Split Canopy Base Plate and Cover

No.	Per 100	Description	Unit Pkg.	Std. Pkg.	Wt., Lb.
348	\$49.50	Push-fit base; 4 dbl twistouts with terminal block.	5	50	15
348-X	38.50	Push-fit base; 4 dbl twistouts	5	50	19
350	72.00	Consists of parallel slot duplex receptacle and steel housing for surface mounting; 4 twistouts.	1	20	9
350-T	97.50	Consists of T-slot duplex receptacle and steel housing for surface mounting; 4 twistouts.	1	20	9
351	105.60	Consists of toggle switch and steel housing for surface mounting; 4 twistouts.	1	20	8
356-X	66.00	Threaded for Uno shade holder. Push-fit base; 4 double twistouts, 660 watt.	5	50	22
360	89.50	Push-fit base, 2 double twistouts, 660 watt.	5	50	18
339-X	13.00	With combination ½ inch conduit KO and drop cord eyelet. For use with Nos. 342 or 343 boxes.	5	50	8
342	45.50	Depth, 1 inch. ½ inch conduit KO in bottom. Two No. 6-32x7/8 inch screws furnished for mounting sockets, switches, or other devices. 4 double twistouts.	5	50	16
343	44.00	Depth, 5/8 inch. ½ inch conduit KO in bottom. Two No. 6-32x7/8 inch screws furnished for mounting sockets, switches, or other devices. 4 double twistouts.	5	50	16
352	44.00	With combination ½ inch conduit KO and drop cord eyelet; 4 twistouts.	5	20	7
361	71.50	Combination ½ inch conduit KO and drop cord eyelet. Six double twistouts.	5	20	35

**National La-In Combination Fittings
For Xtensionduct and Metal Molding**

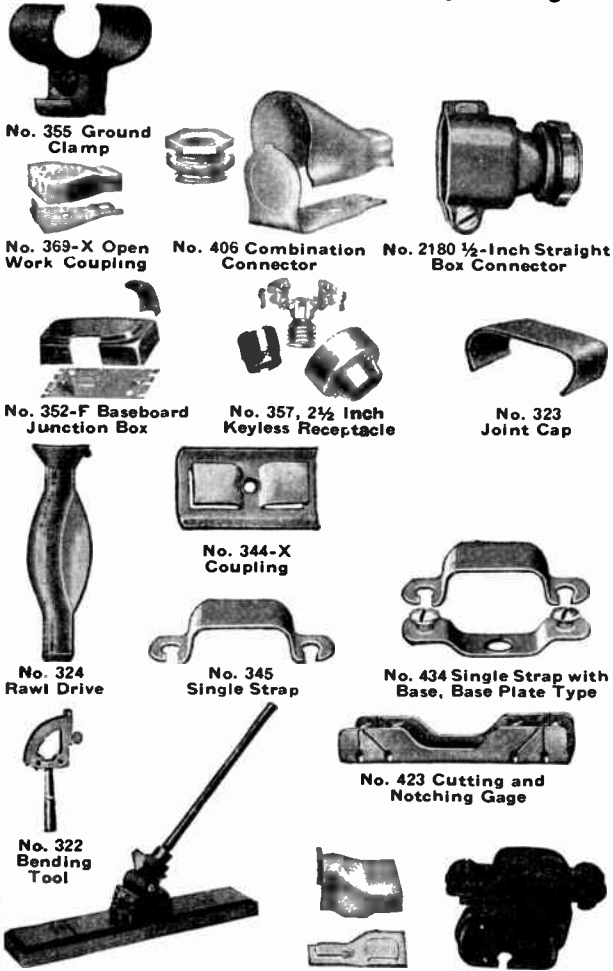


No. 362, 4¾ Inch Split Canopy Base Plate and Cover
No. 365, 4¾ Inch Canopy Base Plate and Cover
No. 366, 6½ Inch Canopy Base Plate and Cover
No. 367, 6½ Inch Split Canopy Base Plate and Cover
No. 376, Corner Box
No. 438, 1-Gang Semi-Flush Switch and Receptacle Box
No. 439, 1-Gang Surface Switch and Receptacle Box
No. 439-D, 1-Gang Surface Switch and Receptacle Box
No. 439-X, 1-Gang Surface Switch and Receptacle Box
No. 440, 2-Gang Surface Switch and Receptacle Box
No. 440-D, 2-Gang Surface Switch and Receptacle Box
No. 440-X, 2-Gang Surface Switch and Receptacle Box
No. 441, 1-Gang Switch and Receptacle Box Adapter
No. 442, 2-Gang Switch and Receptacle Box Adapter
No. 365-X, 4 Inch Blank Cover

No.	Per 100	Description	Unit Pkg.	Std. Pkg.	Wt., Lb.
362	\$71.50	*Two pairs 8-32 tapped holes.	5	50	30
365	65.00	*Five ½ inch conduit KO's in plate.	5	50	36
366	80.00	*Five ½ inch conduit KO's	5	20	25
367	92.50	*Two pairs 8-32 tapped holes.	5	20	23
376	50.50	Double twistouts on each side and 1 at each end, KO for ½ in. conduit in each arm of base.	5	20	21
438	115.50	†Has wall case without KO's 1½ inch deep and surface box ¾ inches deep.	1	20	9
439	69.50	†Depth 1¾ inches.	1	20	8
439-D	62.50	†Depth 1¾ inches.	1	20	7
439-X	60.50	†Depth 1 inch.	1	20	7
440	146.00	§Depth 1¾ inches.	1	10	11
440-D	140.25	§Depth 1¾ inches.	1	10	10
440-X	136.00	§Depth 1 inch.	1	10	9
441	62.50	†Depth ¾ inches.	1	20	5
442	158.00	†Depth ¾ inches.	1	10	7
365-X	18.50	With combination ½ inch conduit KO and drop cord eyelet. For use with Nos. 362, 365, 365-A, 366 and 367.	5	50	10

*Two pairs 8-32 tapped holes on 3¼ and 4 inch centers for standard outlet box covers or devices. Six double twistouts.
†For flush switches and receptacles. Size, 47/8x37/8 inches with 4 double twistouts.
‡Can be furnished up to six-gang.
§For flush switches and receptacles; 47/8x5 inches with 8 double twistouts.

National La-In Metal Molding Fittings



No.	Per 100	Description	Unit Pkg.	Std. Pkg.	Wt. Lb. Std. Pkg.
355	\$9.50	Ground clamp	5	20	4
369-X	\$39.00	Open work coupling	5	20	4
406	24.00	For 1/2 inch conduit KO in end and bottom, furnished with chase nipple and 1/2 inch locknut	5	50	11
2180	16.00	Molding to 1/2 in. conduit KO, or to 1/2 in. conduit cplg.	10	100	14
352-F	86.50	For branch from top to face of baseboard. Opening for No. 333 and elbow cap	5	20	9
357	68.00	Slips over molding base, secured by set-screw, bakelite liner for high wattage lamps, 600 watts. Threaded for Uno shade holder	5	50	19
323	1.50	Joint cap	50	200	4
324	8.60	Rawl drive	100	100	2
344-X	2.00	Coupling	50	200	11
345	1.40	Single strap	50	500	7
434	4.40	With base, base plate type	50	500	11
322	*4.00	For No. 333 molding	1	1	†2.7
422-X	*15.00	Molding shear	1	1	11
423	1.40	No. No. 333 molding. Miter gage which assures close fitting joints and corners	1	1	2
303	3.70	To take molding into Wire-mold boxes and devices	10	100	4
412	23.04	For 14/2 or 12/2 Ovalflex Flat Armored Cable to Metal Molding boxes and devices	10	100	6

*Each. †Ounces.

National 3-Wire Ovalduct



Ovalduct is a flat raceway for extension work on the walls and ceilings of fireproof buildings. It is a rigid tube formed from sheet steel.

Ovalduct is installed without channelling the underlying concrete, tile, or brick. It can be laid in a shallow groove in the plaster, and fastened to the ceiling or wall with straps and wire toggles provided for the purpose, or with short tie wires which are fished through small holes drilled in tile on each side of duct. It is shallow enough that plaster of ordinary thickness will completely cover it.

The Ovalduct line includes elbows, couplings, and boxes to take care of any wiring situation, and connectors which permit this raceway to be installed in conjunction with any other type of raceway or wiring system. All fittings are especially designed for the purpose and are easily installed. Approved by the Underwriters' Laboratories.

Nominal outside over all dimensions are 1 3/8 inch high, 3 1/2 inch wide and 10 feet long.

Standard package, 100 feet.
Weight per 100 feet, 35 pounds.

Per 1000 Feet.....\$20.00

Fittings for 3-Wire Ovalduct

No. 2133 Squeeze Type Couplings



For Ovalduct and elbows Length, 1 1/4 inches.

No.	Per 100	No. in Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
2133	\$15.26	50	100	7

No. 2143 Pitcher Lip Box Connectors



Takes Ovalduct to oval K.O.'s.

No.	Per 100	No. in Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
2143	\$6.30	25	100	6

No. 2662 Outlet Boxes



Outside dimensions, 4x3/4 inches; 6 oval K.O.'s in side; five 1/2-inch conduit K.O.'s in bottom.

2662	\$14.00	5	50	25
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No. 2159 Wire Toggle Fasteners

2159	\$2.00	25	500	13
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No. 2161 Strap Fasteners

2161	\$.80	50	1000	9
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No. 4170-S1 Sectional Switch Boxes



Galvanized. Size, 4x2x 1 1/2 inches; 1 oval K.O. each end; 2 oval K.O.'s 1 side; one 1/2-inch and one 3/8-inch K.O. on opposite side.

4170-S1	\$30.60	1	50	30
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No. 2137 90° Internal Elbows



Set screw for securing Ovalduct on each end.

Radius, 2 3/8 inch. Offset back to end, 2 1/16 inches.

2137	\$53.50	25	100	17
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No. 2134 90° Internal Elbows



Fits No. 2133 coupling and Nos. 2156, 401, and 2181 connectors.

Radius, 1 1/4 inches. Offset, back to end, approximately 2 1/2 inches.

2134	\$28.52	25	100	15
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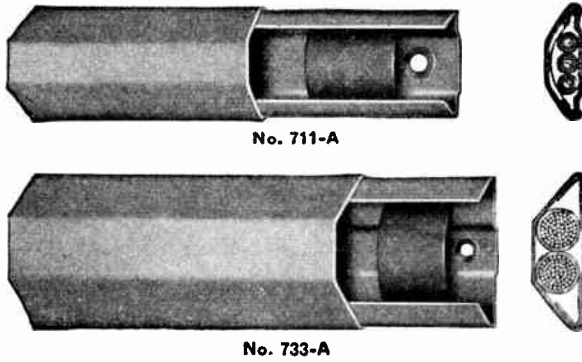
No. 2180 Box Connectors



With 1/2-inch Bondnut. Will take Ovalduct into conduit or 1/2-inch K.O.'s.

2180	\$16.00	10	100	14
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National Florduct



Florduct makes practical surface floor wiring across aisles and will stand the abuse of hand trucks and general office traffic. Consists of two pieces, base and capping so formed as to snap together, the capping snapping over the base. Capping is a ramp like plate offering the minimum of obstruction.

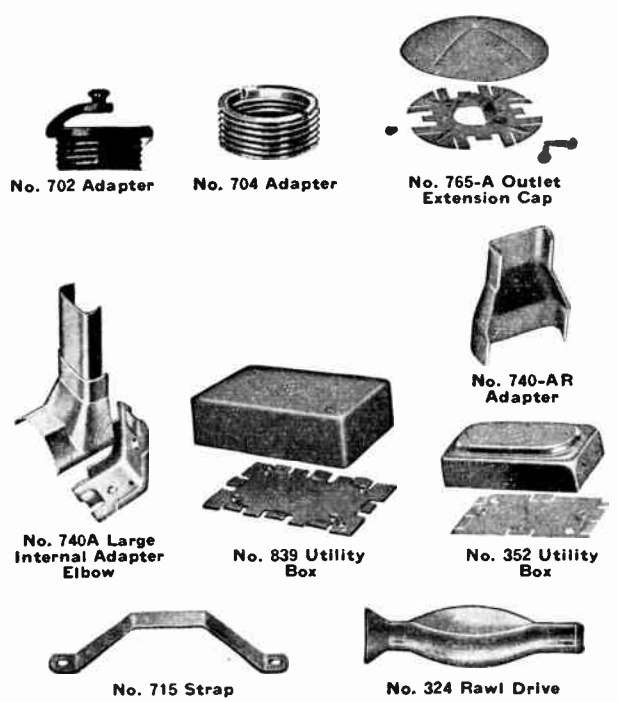
Neutral gray finish can be painted to match or harmonize with any given surface.

No. 711-A capacity, 3 No. 12 or 14 wires, 6 No. 16 wires, 8 No. 18 wires. Four twisted pairs inside telephone wires; 20 annunciator wires.

No. 733-A capacity, 3 No. 6 wires, 7 No. 8 wires, 10 No. 10, 12 or 14 wires, 20 No. 16 wires, 24 No. 18 wires. Eight twisted pair inside telephone wires. Cable up to 26 pair; 50 annunciator wires.

Unit package, 8 3/4 feet. Standard package, 100 feet.
No. 711-A, Wt. Std. Pkg., 38 Lb. per 100 feet \$24.00
No. 733-A, Wt. Std. Pkg., 78 Lb. per 100 feet 27.20

National Florduct Fittings



National Florduct Fittings



No.	Per 100	Description	Unit Pkg.	Std. Pkg.	Wt., Lb. Std. Pkg.
738-B	\$13.00	For No. 711-A Florduct only. For making bends from Florduct on floor to open wiring of No. 333 metal molding on baseboard. Furnished with fiber bushing to be used with open wiring.	5	20	1 1/4
352-F	86.50	For No. 711-A Florduct only. For branch from top to face of baseboard. Similar to No. 352 but provided with opening for No. 333 and elbow cap	5	20	9
766-BA	40.00	For No. 711-A or No. 733-A Florduct. Used as junction fitting between Florduct and the outlet from which extension is made. Arranged for mounting on wood floor. May also be used as a flat elbow or junction of Florduct.	10	20	4

No.	Per 100	Description	Unit Pkg.	Std. Pkg.	Wt., Lb. Std. Pkg.
702	\$13.00	For No. 711-A and No. 733-A Florduct. For connecting and fastening No. 765 extension cap to 1/2 inch threaded outlet on floor box.	10	20	1 1/2
703	16.00	Same as No. 702 above except for 3/4-inch threaded outlet on floor box.	10	20	1 1/2
704	24.00	For No. 711-A or No. 733-A Florduct. Used with No. 703 for 1 inch threaded outlet on floor box.	10	20	4
765-A	40.00	For No. 711-A Florduct only. Used as junction fitting between Florduct and the outlet from which extension is made. Arranged for mounting on wood floor. May be used as flat elbow or junction of Florduct runs.	5	20	5 1/2
740-A	22.00	For No. 733-A Florduct only. For making bends from Florduct on floor to molding on wall or baseboard, with twistouts in base for 1/2 and 3/4 inch quarter round.	5	20	1 1/2
839	84.00	For No. 733-A Florduct only. Combination 1/2 and 1 inch KO in base. Size 4 7/8 x 3 1/8 inches. Depth, 1 3/8 inches.	1	10	10
740-AR	25.00	For No. 733-A Florduct only. No. 888 to 333 metal molding used with No. 740-A.	10	20	2 1/2
352	44.00	For No. 733-A Florduct only. With combination 1/2 inch conduit and drop cord eyelet. Four twistouts for molding or Xtensionduct.	5	20	7
Fastenings					
715	5.00	For No. 711-A Florduct Strap	50	500	7
745-A	5.00	For No. 733-A Florduct only. Strap.	50	500	7
324	8.60	Rawl drive.	100	100	2

National Florduct Potential Fittings



No. 739-A Internal Adapter Elbow



No. 751-A In and Out Fitting



No. 750-TA Service Fitting



No. 749-A Service Fitting



No. 750-A Service Fitting



No. 753-A Rubber Gasket



No. 750-B A Service Fitting



No. 764-A Brass Base



No. 761-A Duplex Floor Receptacle

Low Potential Fittings

Description
 For open wiring to No. 733 Florduct. For telephone cables up to 2-26 pair telephone cable. Furnished with fiber bushing to be used with open wiring. Twistouts for 1/2 and 3/4 inch quarter round.

Will take up to two pair telephone cables.
 †Sheath has opening for up to 26 pair telephone cable.
 †Service fitting.
 †Sheath has .422 opening.
 For use with Nos. 749-A, 750-A, 750-B A and 750-TA. To make fitting watertight.
 Same as No. 750-A without sheath, 7/8 inch opening for 1/2 inch conduit.

High Potential Fittings

For standard 3/4 inch floor receptacle and fittings. Also used with Nos. 768-A, 769-A and 770-A box assemblies.

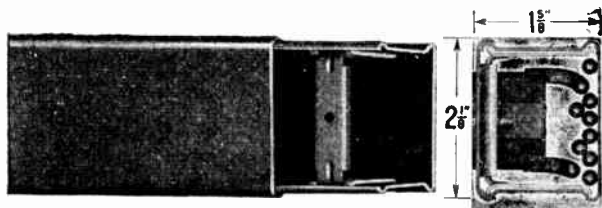
Auxiliary Fittings

For Nos. 711-A and 733-A Florduct. T-slot.

No.	Per 100	Description	Unit Pkg.	Std. Pkg.	Wt. Lb. Std. Pkg.
739-A	\$16.00	For open wiring to No. 733 Florduct. For telephone cables up to 2-26 pair telephone cable. Furnished with fiber bushing to be used with open wiring. Twistouts for 1/2 and 3/4 inch quarter round.	5	20	1 1/2
751-A	44.00	Will take up to two pair telephone cables.	1	10	4
*750-TA	56.00	†Sheath has opening for up to 26 pair telephone cable.	1	10	4 1/2
*749-A	90.00	†Service fitting.	1	10	4 1/2
*750-A	56.00	†Sheath has .422 opening.	1	10	4 1/2
753-A	10.00	For use with Nos. 749-A, 750-A, 750-B A and 750-TA. To make fitting watertight.	10	50	2 1/4
*750-B A	48.00	Same as No. 750-A without sheath, 7/8 inch opening for 1/2 inch conduit.	1	10	4
764-A	254.00	For standard 3/4 inch floor receptacle and fittings. Also used with Nos. 768-A, 769-A and 770-A box assemblies.	1	10	9
761	121.00	For Nos. 711-A and 733-A Florduct. T-slot.	1	10	7

*To make this fitting watertight, No. 753-A gasket may be used.
 †For Nos. 711-A or 733-A. To be used at the new outlet location for protecting wires leaving Florduct and extending to apparatus on desks, etc. Equipped with four triple twistouts used at ends, for through runs or for right angle branches.

No. 1700 National Surfaceduct



Made in two pieces, base and capping. Capping is secured in place by bridges, 4 of which are furnished with each length. Has 1/2 and 3/4-inch knockouts and mounting holes in base. Neutral gray finish. Packed 5 lengths, 10 feet long (50 feet) in sealed container.

Capacities

Single Conductor No.	6	8	10	12	14
Without Devices	6	10	10	10	10
Without Devices	4	5	10	10	10
No. 1700, Weight per Std. Pkg., 53 Pounds	per 100 \$45.00				

No. 1700 National Surfaceduct Fittings

No. 1719 Bushings

Used on ends of Surfaceduct in No. 1739 and No. 1740 boxes.

Carton, 2.

Standard package, 10.

No. 1719, Weight per Std. Pkg., 1 Pound per 100 \$6.00

No. 1731 Bridges

For securing capping, mounting devices and as a wire retainer.

Furnished with Surfaceduct and all fittings. Extra bridges should be ordered for short lengths of duct.

Carton, 10. Standard package, 50.

No. 1731, Weight per Std. Pkg., 2 Pounds . . . per 100 \$5.00

No. 1744 Couplings

Carton, 5.

Standard package, 20.

Weight per standard package, 1 pound.

No. 1744 per 100 \$7.00

No. 1790 Hangers

Carton, 2.

Standard package, 10.

Weight per standard package, 2 pounds.

No. 1790 per 100 \$26.00

No. 1728 Side Feeds

Can be used with No. 1780 as an end box. Use No. 1744 coupling to connect.

Carton, 1.

Standard package, 10.

Weight per standard package, 3 pounds.

No. 1728 per 100 \$13.60

No. 1736 90° Flat Elbows

Use No. 1744 coupling to connect.

Carton, 1.

Standard package, 10.

Weight per standard package, 8 pounds.

No. 1736 per 100 \$60.00

No. 1737 External Elbows

Use No. 1744 coupling to connect.

Carton, 1.

Standard package, 10.

Weight per standard package, 8 pounds.

No. 1737 per 100 \$60.00

No. 1738 External Elbow

Use No. 1744 coupling to connect. Carton, 1.

Standard package, 10.

Weight per standard package, 12 pounds.

No. 1738 per 100 \$62.00

Continued

No. 1700 National Surfaceduct Fittings

Continued



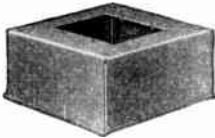
No. 1780 End Blank

Can be used with No. 1728 as an end box.
Carton, 2.
Standard package, 10.
Weight per standard package, 4 pounds.

No. 1780.....per 100 \$36.00

No. 1700 National Surfaceduct Boxes

No. 1740 Device Boxes



Dimensions: 6 inches square; 2 3/4 inches deep.

Has twistouts for Series 1700 Surfaceduct and Nos. 333 and 888 metal molding.

Has 2-gang opening in cover for 30, 50, and 60-ampere receptacles.

Also used with thinwall, rigid, and flexible conduit.

Carton, 1.
Standard package, 10.

Weight per standard package, 30 pounds.

No. 1740.....per 100 \$460.00

No. 1739 Junction Boxes



Dimensions: 6 inches square; 2 3/4 inches deep.

Has twistouts for Series 1700 Surfaceduct and Nos. 333 and 888 metal molding.

Also used with thinwall, rigid, and flexible conduit.

Carton, 1.
Standard package, 10.

Weight per standard package, 30 pounds.

No. 1739.....per 100 \$426.00

No. 1735 Combination Tee and Offset Service Fittings



For use as a tee and as a method of installing devices in an offset position.

Takes all device covers.

Carton, 1.
Standard package, 10.

Weight per standard package, 10 pounds.

No. 1735.....per 100 \$200.00

No. 1700 National Surfaceduct Adapters

No. 1715 Conduit Adapters



Has 1 1/2-inch threaded hub. Takes rigid conduit into Nos. 1739 and 1740 Surfaceduct twistouts.

Carton, 1.
Standard package, 10.

Weight per standard package, 10 pounds.

No. 1715.....per 100 \$164.00

No. 1700 National Surfaceduct Device Covers

Furnished with two bridges and screws.

No. 1701 Single Receptacle Covers



Carton, 1. Standard package, 10.
Weight per standard package, 4 pounds.

No. 1701.....per 100 \$30.00

No. 1702 Duplex Receptacle Covers



Carton, 1. Standard package, 10.
Weight per standard package, 4 pounds.

No. 1702.....per 100 \$30.00

No. 1703 Toggle Switch Covers



Carton, 1. Standard package, 10.
Weight per standard package, 4 pounds.

No. 1703.....per 100 \$30.00

Continued

No. 1700 National Surfaceduct Device Covers

Concluded

Furnished with 2 bridges and screws.

No. 1704 Surface Device Covers



Carton, 1. Standard package, 10.
Weight per standard package, 4 pounds.

No. 1704.....per 100 \$30.00

No. 1705 Screw Type Sign Receptacle Covers



Carton, 1. Standard package, 10.
Weight per standard package, 4 pounds.

No. 1705.....per 100 \$30.00

No. 1706 Surface Type Sign Receptacle Covers



Carton, 1. Standard package, 10.
Weight per standard package, 4 pounds.

No. 1706.....per 100 \$30.00

No. 1707 Condulet Device Covers



Will take all Obround condulet devices.
Carton, 1. Standard package, 10.

Weight per standard package, 4 pounds.

No. 1707.....per 100 \$30.00

No. 1708 Fixture and Drop Cord Covers



Has combination 1/2-inch knockouts and drop cord eyelet.

Carton, 1. Standard package, 10.
Weight per standard package, 4 1/2 pounds.

No. 1708.....per 100 \$30.00

No. LT-606 National Lopo-Trim Raceways



A hollow steel quarter-round raceway used to carry low potential wires such as telephone, inter-communication, and buzzer on top of the baseboard. Also used as a toe-plate where wall or baseboard meet, as a low potential wiring raceway at chair-rail moulding, and as a quarter-round trim above or beneath (or both) installations of Plug-In Strip.

Steel prongs exert a tension that holds the trim snugly in place.

Wiring can be brought out anywhere along the raceway. Merely drill a hole through the rounded surface, insert a standard grommet, and bring the wires out.

Furnished in six-foot sections which match perfectly for continuous installation. Sections are cut to fit and corners are mitered identically like wood quarter-round.

Cross-sectional dimensions: 1 1/16 x 3/4 inches.

Has neutral satin gray finish, matching Plug-In Strip, and harmonizes with all tones used in interior decoration. Can be repainted to match baseboard, floor, or walls.

Standard package, 17 six-foot lengths. Weight per standard package, 20 pounds.

No. LT-606.....per six-foot length \$1.32

National Plug-In Strips



6-Foot Length, With Outlet Every 18 Inches
No. CF2-606-18



3-Foot Length, With Five Outlets on 6-Inch Spacing
No. CF2-603-6

Available in 6-foot lengths with outlets every 18 inches. Also available in 3-foot lengths with five outlets on 6-inch spacing. May be installed on top of the baseboard or may be mounted directly on the surface. May be cut to fit right on the job and is connected together by means of connection blocks which are furnished with each unit. (Except end blank.)

Listed and approved by the Hydro Power Commission, the Underwriters' Laboratories, Inc., and complies with the regulations of the National Electric Code.

The baked enamel satin gray finish blends with any color of interior decoration. May also be repainted to desired shade or color.

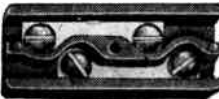
Furnished with 2 No. CF2-607 mounting clips and 3 No. CF2-645 mounting straps.

Carton, 1 length. Standard package, 10 lengths.		
No.	CF2-606-18	CF2-603-6
Per Length.....	\$4.44	3.72
Length.....feet	6	3
Plug Insertions per Length.....	4	5
Weight per Standard Package.....pounds	26	15



No. CF2-2 Connection Blocks

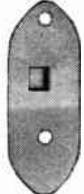
Terminal block for connecting adjoining lengths of Plug-In Strip and fittings. All fittings are furnished. (Except end blanks). Carton, 10. Standard package, 100. No. CF2-2
Each..... \$3.35



No. CF2-607 Mounting Clips

Clips which fasten to the back of Plug-In Strip on the surface. Mounting straps furnished with every length of Plug-In Strip. Carton, 50. Standard package, 500.

No.	CF2-607
Each.....	\$.03



No. CF2-645 Mounting Straps

For use when mounting Plug-In Strip on the surface. Furnished with every length of Plug-In Strip. Carton, 50. Standard package, 500.

No.	CF2-645
Each.....	\$.02



National Plug-In Strip Fittings

No. CF2-618 Center Feed Junction Boxes
Has 1/2-inch conduit knockout in base. Overall length, 11 inches. Furnished with two connection blocks and two jumpers for connecting to circuit. Carton, 5. Standard package, 50. Weight per standard package, 25 pounds.



No. CF2-618.....	each \$1.70
------------------	-------------

End Feed Junction Boxes



No. CF2-616-L

No. CF2-616-R

For bridging doorways, fireplaces, etc., or used as an end circuit feed. Has 1/2-inch knockout in base.

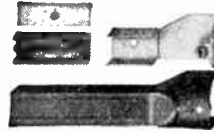
Overall length, 6 3/8 inches.		
Furnished with connection block for connecting to adjoining length of Plug-In Strip.		
Carton, 5. Standard package, 50. Weight per standard package, 15 pounds.		
No.	CF2-616-L	CF2-616-R
Each.....	\$.90	.90

Continued

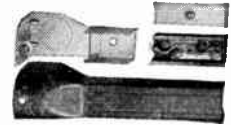
National Plug-In Strip Fittings

Concluded

Straight End and 90° Junction Boxes



No. CF2-617-L



No. CF2-617-R

For use as a surface mounted feed particularly for commercial installations.

Overall length, 5 1/2 inches. Has 1/2-inch conduit knockouts on end and rear for connection of any type wiring.

Furnished with connection block for connecting to adjoining Plug-In Strip.

Carton, 5. Standard package, 50. Weight per standard package, 13 pounds.

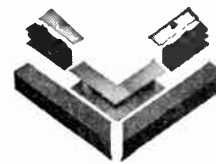
No.	CF2-617-L	CF2-617-R
Each.....	\$.90	.90

No. CF2-637 Exterior Elbows

Two-piece capping elbow, over base. Each capping leg of elbow acts as a coupling cover to adjoining length of Plug-In Strip.

Furnished with 2 connection blocks. Overall length of elbow legs, 5 inches.

Carton, 5. Standard package, 50. Weight per standard package, 19 pounds.



No. CF2-637.....	each \$1.30
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No. CF-2-638 Interior Elbows

Two-piece capping elbow, over base. Each capping leg of elbow acts as a coupling cover to adjoining length of Plug-In Strip.

Furnished with 2 connection blocks. Overall length of elbow legs, 5 3/4 inches.

Carton, 5. Standard package, 50. Weight per standard package, 21 pounds.



No. CF2-638.....	each \$1.30
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No. CF2-644 Couplings

Covers open ends of adjoining lengths of Plug-In Strip.

Furnished with connection block for connecting adjoining sections of Plug-In Strip.

Overall length, 5 inches. Carton, 10. Standard package, 50. Weight per standard package, 8 pounds.

No. CF2-644.....	each \$.50
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No. CF2-680 End Blank and Wire Nuts

Covers cut-back opening at termination of Plug-In Strip runs.

Furnished with two wire nuts for insulating conductor ends.

Overall length, 2 1/2 inches. Carton, 5. Standard package, 50. Weight per standard package, 4 pounds.

No. CF2-680.....	each \$.32
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No. CF2-623 Cutting Gages

For use in cutting back Plug-In Strip and capping to desired measurements.

Carton, 1. Standard package, 1. Weight per standard package, 1 pound.

No. CF2-623.....	each \$3.00
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Appleton Ovaltube and Fittings

Schedule OT
Drawn Steel
Three-Wire



Nominal outside dimensions, 1 1/2-inch high by 3/4-inch wide by 10 feet long. Standard package, 100 feet. Weight per 100 feet, 35 pounds.



4-Inch Round Box
Depth, 3/4-inch with ears, and 6 knockouts in side for Ovaltube, Ovalduct, and Ovalflex.
No. 403-A has fixture stud.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
403	50	21
403-A	50	25



No. 408 4-Inch Round Extension Ring

Depth, 3/4-inch with ears, and 6 knockouts in side for Ovaltube, Ovalduct, and Ovalflex.

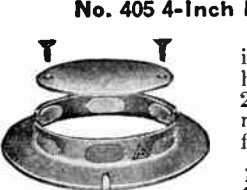
No.	Std. Pkg.	Wt. Lb. Std. Pkg.
408	100	34



No. 400 4-Inch Round Raised Open Cover

Without ears, with 6 oval knockouts in side for Ovaltube, Ovalduct, and Ovalflex.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
400	100	27



No. 405 4-Inch Round Raised Open Cover

With ears. Opening is 2 7/8 inches in diameter and 3/4-inch deep overall having 6 oval knockouts in side, also 2 7/8-inch flat disc fitting flush with rim and held in place by two 1/2-inch flat head screws.

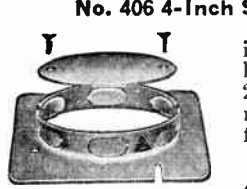
No.	Std. Pkg.	Wt. Lb. Std. Pkg.
405	50	28



No. 404 4-Inch Square Raised Open Cover

Without ears. With 6 oval knockouts in side for Ovaltube, Ovalflex, and Ovalduct.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
404	100	37



No. 406 4-Inch Square Raised Open Cover

With ears. Opening is 2 7/8 inches in diameter and 3/4-inch deep overall having 6 oval knockouts in side, also 2 7/8-inch flat disc fitting flush with rim and held in place by two 1/2-inch flat head screws.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
406	50	38



No. 401 4-Inch Square Cover

Furnished in galvanized finish only. Raised 3/4-inch high for one rectangular base switch or receptacle with one oval knockout in each side and one knockout in each end for Ovaltube, Ovalduct, and Ovalflex.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
401	100	39



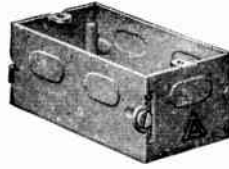
No. 402 4-Inch Square Cover

Furnished in galvanized finish only. Raised 3/4-inch high for two rectangular base switches or receptacles and with one oval knockout in each side and one knockout in each end for Ovaltube, Ovalduct, and Ovalflex.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
402	100	33

Appleton Ovaltube Fittings

Schedule OT
Three-Wire



No. 407 Switch Box
Drawn Steel
Galvanized Finish Only

Has one oval knockout in each end and two in each side for Ovaltube, Ovalduct, and Ovalflex; also 1/2-inch knockout and fixture stem holes in bottom.

No.	Dimensions, In. Length	Width	Depth	Std. Pkg.	Wt. Lb. Std. Pkg.
407	3 3/4	2	1 1/2	50	30



No. 101 90-Degree Unitary Elbow

Cast Aluminum
Used with 1/2-inch conduit or junction box. For Ovaltube, Ovalduct, and Ovalflex.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
101	100	13



No. 102 90-Degree Internal Elbow

Cast Aluminum
Does not require any extra couplings. For Ovaltube, Ovalduct, and Ovalflex.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
102	100	13



No. 107 90-Degree Flat Elbow

Cast Aluminum
Does not require any extra couplings. For Ovaltube, Ovalduct, and Ovalflex.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
107	100	15



No. 105 90-Degree Adjustable No-Thread Elbow
Cast Aluminum

For 3/4-inch conduit. Has an adjustment of 3 inches up or down allowing to reach ceiling height at time of lathing.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
103	100	33
103-A	25	16



No. 105
For Conduit Inches 3/4

No. 106 Connector Ovaltube to Oval Knockouts
Drawn Steel

Connector Ovaltube to oval knockouts in Nos. 403, 403-A, 407 boxes; also Nos. 400, 401, 402, 404, 405, 406, and 8459-D covers.



No. 106

Standard Package	Weight Pounds Standard Package
100	5



No. 104 Squeeze Type Coupling
Drawn Steel

Length, 1 1/4 inches for Ovaltube, Ovalduct, and Ovalflex.

No.	Standard Package	Weight Pounds Standard Package
104	100	7



No. 108 Squeeze Type Box Connector
Malleable

Furnished with 1/2-inch locknut. Will take Ovaltube into conduit or 1/2-inch knockouts.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
108	100	10



No. 109 Coupling

For use with box connector or elbows to 1/2-inch conduit.

No.	Std. Pkg.	Wt. Lb. Std. Pkg.
109	100	5

Appleton Ovaltube Fittings

Schedule OT

No. 110 Toggles

With Wire Fastener



Used for holding tile, plasterboard, wire lath, etc., for supporting Ovaltube, Ovalduct, and Ovalflex.

No.	Standard Package	Weight Pounds Standard Package
110	500	12

No. 115 Strap Fasteners



No. 115

No.	Standard Package	Weight Pounds Standard Package
115	1000	9

Fishing Cable



Coil the loop around hand until the bail pulls against spiral housing. Doing this will adjust the rigidity to meet the hardest kind of fishing.

Cable has been tested around five 90-degree elbows and six 45-degree elbows in a run of Ovalduct 20 feet long.

No.	SIZE, INCHES		Length Feet	Std. Pkg. Lengths Feet
	Cable	Spiral Housing		
201	1/16	3/16	25	10
202	1/16	3/16	50	10
203	3/32	3/16	100	5

No. 215-A Hickey Type Benders



Made to form tubing on the narrow edge to a 90-degree perfect bend. No inching of the tube is required.

The upper portion of the bender is designed for the purpose of offsetting Ovaltube on the flat side without kinking.

It is essential, on Ovaltube installations, that the tube be free from kinks when pulling circuit wires to keep tube in perfect condition.

Stub Concrete Nails

Used for fastening Ovaltube to concrete or brick walls. Standard package, 6-pound bags.

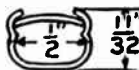
No. 200 Wiremold Raceways

Made of .025-inch steel.

Standard finish. Wiremold buff.

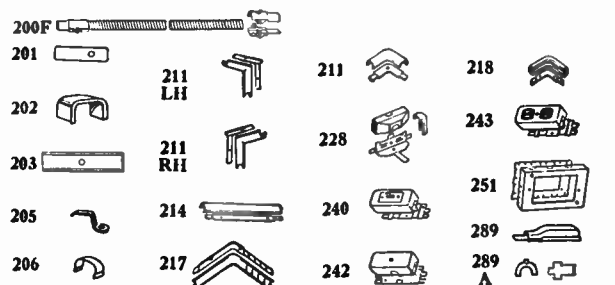
Furnished in 5-foot lengths.

Packed 100 feet in a carton. Weight per 1000 feet, 180 pounds.



Wire No.	6	8	10	12	14	16	18	19
Single Conductor Capacity:								
Type R, RH		2	2	4	4			
Type T, RU		2	2	6	8			
Twisted Pair Capacity:								
Type R or RH				2	2	2		
No. 200	per foot \$.121							

No. 200 Series Midget Size Wiremold Fittings

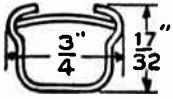


No.	Per 100	Description	Srd. Qty.	Pkg. Wt. Lb.	Unit Pkg. Qty.
200F	\$178.60	Flexible Section 18 in. Long...	10	3 1/2	1
201	2.30	Coupling	50	1/4	10
202	2.60	Bushing	200	1/2	50
203	2.90	Supporting Clip	50	1/4	10
205	1.90	One Hole Strap	50	1/4	10
206	1.90	Connection Cover	50	1/4	10
211	22.40	90° Flat Elbow	50	2 1/4	5
211LH	47.10	Internal Twisted Elbow for 90° Twist with 90° Turn	20	1 1/2	5
211RH	47.10	Internal Twisted Elbow for 90° Twist with 90° Turn	20	1 1/2	5
214	24.70	Pull Box	20	1 1/2	5
217	27.60	Adjustable Internal Elbow with One Scored Leg	50	5 1/2	5
218	24.00	External Elbow	50	2 1/4	5
228	54.50	Adjustable Junction Box	20	2 1/8	5
240	138.40	Single Pole Switch with Box, 10A, 125V, 5A, 250V	20	5 3/4	1
242	68.30	Utility Box	20	3 1/4	1
243	104.50	Duplex Receptacle, 15A, 125V, 10A, 250V	20	4 1/2	1
251	75.50	Extension Adapter	20	5 1/2	1
289	21.80	Reducing Connector, from No. 500 Twistout to No. 200 Wiremold	20	3/4	5
289A	3.10	Adapter	50	1/2	10
600	*5.80	Bender for Nos. 200, 500, 700	1	2 1/2	
610	*9.50	Mitre Box	1	3 3/4	
611	79.90	Mitre Box Guide Fingers	10	1/2	2
WE	118.80	Wiremold Enamel in 1-Pint Cans	5	6 1/4	1

*Price each.



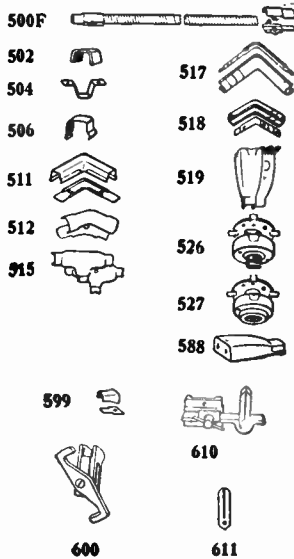
No. 500 Wiremold Raceways



Made of .040-inch steel.
Standard finish, Wiremold buff.
Furnished in 10-foot lengths.
Packed 100 feet in a carton. Weight per 1000 feet, 320 pounds.

Wire No.	6	8	10	12	14	16	18	19
Single Conductor Capacity								
Types R or RH		2	3	4	6	6		
Types T or RU		2	4	6	6	10	10	
Twisted Pair Capacity								
Types R or RH			2	2	3			
No. 500	per foot \$.142							

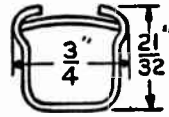
No. 500 Series Wiremold Fittings



No.	Per 100	Description	Qty.	Std. Pkg. Wt. Lb.	Unit Pkg. Qty.
500F	\$182.20	Flexible Section 18 In. Long	10	5 1/4	1
502	2.90	Bushing	200	1/2	50
504	1.80	One or Two Hole Strap	500	8 3/4	50
506	1.80	Connection Cover	200	1 3/4	5
511	23.30	90° Flat Elbow	50	7 1/4	5
512	26.90	45° Flat Elbow	20	1 1/2	5
515	34.80	Tee	50	8 1/4	5
517	26.80	Adjustable Internal Elbow	50	9 1/2	5
518	25.20	Adjustable External Elbow	50	7	5
519	64.70	Corner Box	20	4 1/4	5
526	95.90	Keyless Receptacle, 660W, 250V	50	19 1/2	5
527	130.10	Plug Receptacle, 15A, 125V, 10A, 250V	50	16 3/4	5
588	50.20	Open Work Coupling	20	3 1/4	5
599	5.80	Connector for Metal Moulding Fittings	20	1	5
600	*5.80	Bender for Nos. 200, 500, 700	1	2 1/2	..
610	*9.50	Mitre Box	1	3 3/4	..
611	79.90	Mitre Box Guide Fingers	10	1/2	2
WE	118.80	Wiremold Enamel in 1-Pint Cans	5	6 1/4	1

*Price each.

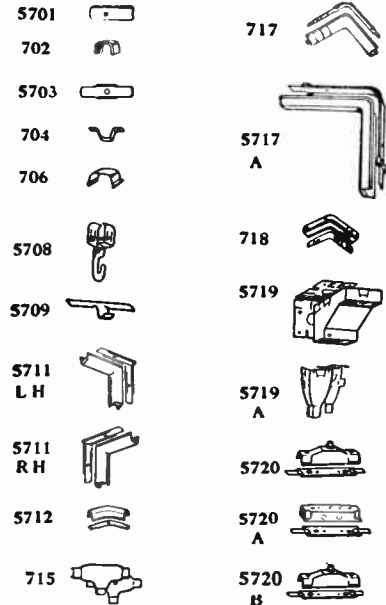
No. 700 Wiremold Raceways



Made of .040-inch steel.
Standard finish, Wiremold buff.
Furnished in 10-foot lengths.
Packed 100 feet in a carton. Weight per 1000 feet, 360 pounds.

Wire No.	8	10	12	14	16	18	19
Single Conductor Capacity							
Types R or RH		2	4	4	10	10	..
Type T or RU		3	6	8	8	16	18
Twisted Pair Capacity							
Types R or RH					4	4	4
No. 700	per foot \$.161						

Nos. 5700 and 700 Wiremold Fittings



Fittings with numbers beginning with 57 are for use with No. 500 and 700 Wiremold.

No.	Per 100	Description	Qty.	Std. Pkg. Wt. Lb.	Unit Pkg. Qty.
5700F	\$188.80	Flexible Section 18 In. Long	10	5 3/4	1
5701	2.90	Coupling	200	3 3/4	50
702	3.10	Bushing	200	3/4	50
5703	3.10	Supporting Clip	500	12 3/4	50
704	3.10	One or Two Hole Strap	500	15 3/4	50
706	2.20	Connection Cover	200	2	50
5708	29.80	Fixture Hook	20	1 1/2	10
5709	13.90	Ground Clamp	20	3 5/8	5
711	26.20	90° Flat Elbow	50	8 1/8	5
5711LH	47.90	Internal Twisted Elbow for 90° Twist with 90° Turn	20	3 3/4	5
5711RH	47.90	Internal Twisted Elbow for 90° Twist with 90° Turn	20	3 3/4	5
5712	35.60	45° Flat Elbow	20	1 3/4	5
715	39.20	Tee	50	9 1/2	5
717	29.00	Adjustable Internal Elbow with One Scored Leg	50	10 1/2	5
5717A	79.90	Internal Pull Elbow	10	4 1/4	1
718	26.80	Adjustable External Elbow with One Scored Leg	50	8	5
5719	73.40	Corner Box	20	8 1/4	5
5719A	63.80	Streamline Corner Box	20	5 1/2	5
5720	76.25	Narrow Fitting	50	10 1/4	5
5720A	87.80	Narrow Fitting	20	4 3/4	5
5720B	76.20	Narrow Fitting	50	10	5

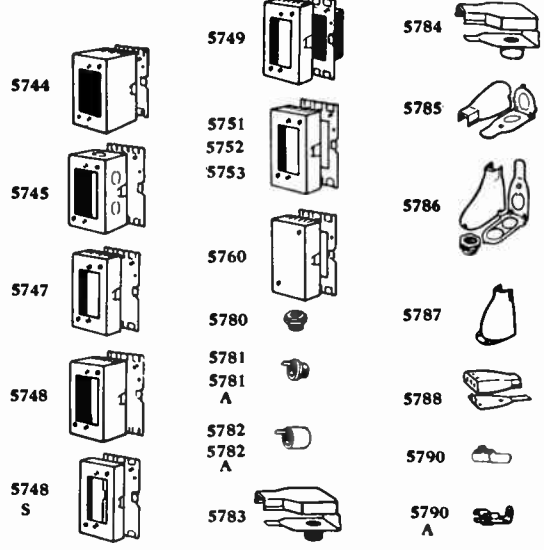
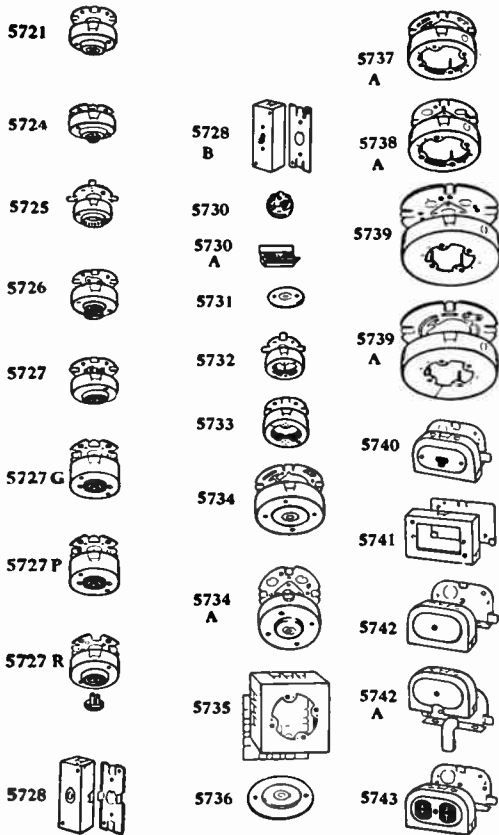
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Nos. 5700 and 700 Series Wiremold Fittings

Nos. 5700 and 700 Series Wiremold Fittings

Continued

Concluded



Fittings with numbers beginning with 57 are for use with No. 500 and 700 Wiremold.

Fittings with numbers beginning with 57 are for use with Nos. 500 and 700 Wiremold.

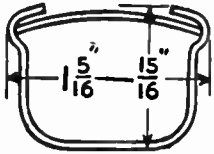
No.	Per 100	Description	Qty.	Srd. Wt. Lb.	Pkg. Qty.	Unit Qty.
5721	\$55.80	Utility Box	50	16 ¹ / ₄	5	
5725	127.80	Receptacle Base, 660W, 250V	50	20 ³ / ₄	5	
5726	95.80	Keyless Receptacle, 660W, 250V	50	20 ³ / ₄	5	
5727	130.10	Plug Receptacle, 15A, 125V, 10A, 250V	50	19 ¹ / ₂	5	
5727G	287.50	Receptacle, 2-Wire, 3-Pole with Ground	10	5 ¹ / ₄	1	
5727P	287.50	Receptacle, 3-Wire, 3-Pole without Ground	10	5 ¹ / ₂	1	
5727R	233.20	Radio Receptacle, Plug Cap Furnished	10	4 ¹ / ₂	1	
5728	63.80	Utility Box	50	17 ¹ / ₂	10	
5728B	153.20	Single Pole Switch with Box, 10A, 125V, 5A, 250V	10	4 ³ / ₄	1	
5730	31.80	Connector Block, 660W, 250V	20	1 ¹ / ₈	5	
5730A	63.80	Connector Block, 660W, 250V	20	1 ¹ / ₈	5	
5731	18.80	Blank Cover	50	3 ³ / ₄	5	
5732	63.80	Outlet Box	50	13 ¹ / ₄	5	
5733	66.10	Outlet Box	50	14 ¹ / ₈	5	
5734	103.90	Blank Extension Box	20	13 ¹ / ₈	5	
5734A	100.20	Utility Box	20	13 ¹ / ₈	5	
5735	141.50	Distribution Box	20	17 ¹ / ₂	1	
5736	26.90	Blank Cover	50	9 ³ / ₄	5	
5737A	103.90	Extension Box	50	38 ¹ / ₂	5	
5738A	94.40	Fixture Box	50	41 ¹ / ₂	5	
5739	116.20	Fixture Box	20	21 ³ / ₄	5	
5739A	134.30	Extension Box	20	20 ³ / ₄	5	
5740	164.00	Single Pole Switch and Box, 10A, 125V, 5A, 250V	20	10 ¹ / ₂	1	
5741	109.00	Switch and Receptacle Box	20	11 ³ / ₄	1	
5742	90.80	Junction Box	20	8	5	
5742A	125.50	Adjustable Junction Box	20	8 ¹ / ₄	5	
5743	141.50	Duplex Receptacle and Box, 15A, 125V, 10A, 250V	20	11	5	

Continued

No.	Per 100	Description	Qty.	Srd. Wt. Lb.	Pkg. Qty.	Unit Qty.
5744	\$155.40	Extra Deep Switch and Receptacle Box	20	19 ¹ / ₂	1	
5744-2	263.50	Extra Deep Switch and Receptacle Box	10	12 ¹ / ₂	1	
5744-3	311.40	Extra Deep Switch and Receptacle Box	10	15 ³ / ₄	1	
5744S	130.70	Switch and Receptacle Box	20	16	1	
5744S2	261.40	Switch and Receptacle Box 2-Gang	10	11	1	
5744S3	392.00	Switch and Receptacle Box 3-Gang	10	12	1	
5745	113.30	Combination Switch and Receptacle Box	20	13 ¹ / ₂	1	
5747	90.70	Shallow Switch and Receptacle Box	20	11 ¹ / ₂	1	
5747-2	203.30	Shallow Switch and Receptacle Box	10	8 ¹ / ₂	1	
5747-3	243.10	Shallow Switch and Receptacle Box	10	10 ¹ / ₄	1	
5748	101.20	Switch and Receptacle Box	20	13 ¹ / ₂	1	
5748-2	211.00	Switch and Receptacle Box	10	10	1	
5748-3	263.60	Switch and Receptacle Box	10	12 ¹ / ₄	1	
5748S	87.80	Shallow Receptacle Box	20	9 ³ / ₄	1	
5749	167.80	Switch and Receptacle Box	20	12 ¹ / ₂	1	
5751	90.70	Flush Type Extension Adapter	20	8 ¹ / ₂	1	
5752	229.40	Flush Type Extension Adapter	10	6	1	
5753	275.00	Flush Type Extension Adapter	10	7 ¹ / ₂	1	
5760	106.70	Blank Extension Box	20	9 ¹ / ₂	1	
5780	22.60	Special Nipple	50	2 ¹ / ₈	5	
5781	34.80	Box Connector, 1/2 In. Male	50	2 ³ / ₄	5	
5781A	51.60	Box Connector, 3/4 In. Male	20	2 ¹ / ₈	5	
5782	39.80	Pipe Connector, 1/2 In. Female	50	4 ¹ / ₂	5	
5782A	55.90	Pipe Connector, 3/4 In. Female	20	2 ³ / ₄	5	
5783	58.10	Elbow Box Connector, 1/2 In. Male	20	2 ¹ / ₂	5	
5784	58.10	Elbow Pipe Coupling, 1/2 In. Female	20	3 ¹ / ₂	5	
5785	34.80	Combination Connector	50	7 ¹ / ₈	5	
5786	83.50	Adjustable Offset Connector	20	5 ¹ / ₂	5	
5787	61.00	Kick Plate	10	3 ³ / ₄	1	
5788	56.60	Open Work Coupling	20	4 ³ / ₄	5	
5790	16.00	Armored Cable Connector	50	2	5	
5790A	16.00	Armored Cable Connector	50	3	5	
600	*5.80	Bender for Nos. 200, 500, 700	1	2 ¹ / ₂	...	
610	*9.50	Mitre Box	1	3 ¹ / ₄	...	
611	79.90	Mitre Box Guide Fingers	10	1 ¹ / ₂	2	
WE	118.80	Wiremold Enamel in 1-Pint Cans	4	6 ¹ / ₄	1	

*Price each.

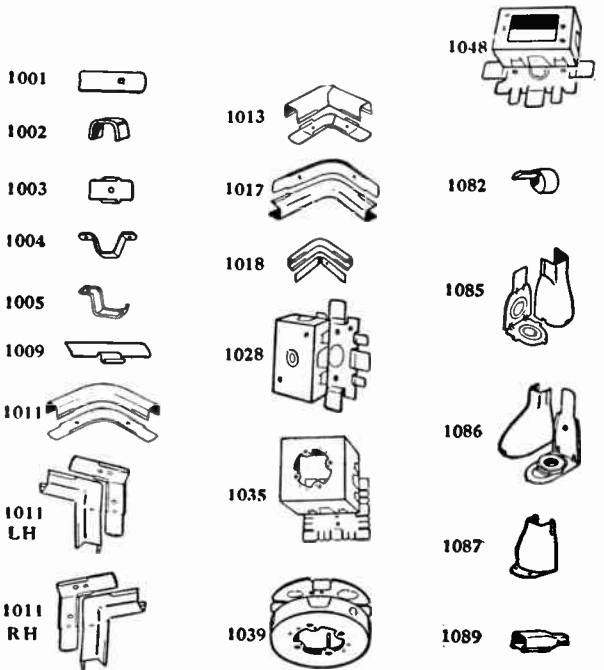
No. 1000 Wiremold Raceways



Made of .050-inch gage steel.
Standard finish, Wiremold buff.
Furnished in 10-foot lengths.
Packed 100 feet in a carton. Weight per 100 feet, 80 pounds.

Wire No.	6	8	10	12	14	16	18	19
Single Conductor Capacity								
Type R or RH	4	5	6	10	10	24	24	...
Type T or RU	5	8	8	10	10	40	50	...
Twisted Pair Capacity								
Type R or RH						10	10	11
No. 1000	per foot \$.37							

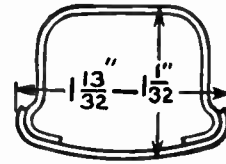
No. 1000 Series Wiremold Fittings



No.	Per 100	Description	Std. Pkg. Qty.	Pkg. Wt. Lb.	Unit Pkg. Qty.
1000F	\$214.90	Flexible Section 18 In. Long	10	11 1/4	1
1001	8.00	Coupling	100	6 3/4	10
1002	6.60	Bushing	100	1 1/4	10
1003	6.60	Supporting Clip	100	4 1/4	10
1004	12.40	Two Hole Strap	100	5	10
1005	12.40	One Hole Strap	100	3 1/2	10
1009	27.60	Ground Clamp	10	3 3/4	1
1011	67.60	90° Flat Elbow	10	7	1
1011LH	121.30	Internal Twisted Elbow for 90° Twist with 90° Turn.	10	5 1/4	1
1011RH	121.30	Internal Twisted Elbow for 90° Twist with 90° Turn.	10	5 1/4	1
1013	83.40	Adjustable Flat Elbow	10	5 1/4	1
1017	95.90	Internal Elbow	10	8 1/8	1
1018	61.70	External Elbow	10	4	1
1028	121.90	Utility Box	10	9 1/4	1
1035	198.10	Distribution Box	10	19 3/4	1
1039	161.90	Fixture Box	10	11 1/2	1
1048	183.70	Switch and Receptacle Box	10	9	1
1082	99.50	Pipe Connector	10	4	1
1085	51.50	Combination Connector	10	4 1/8	1
1086	125.60	Adjustable Offset Connector	10	6 3/4	1
1087	66.80	Kick Plate	10	5 1/2	1
1089	24.00	Reducing Connector, From No. 1000 Twistout to No. 500 or No. 700 Wiremold.	20	2 3/4	5
610	\$9.50	Mitre Box	1	3 3/4	...
611	79.90	Mitre Box Guide Fingers	10	1 1/2	2

*Price each.

No. 1100 Wiremold Lighting Strip



No. 1100B-C Cross Section

Made of .050-inch steel.
Base has supporting screw knockouts approximately 8-inch centers.

Standard finish, Wiremold buff.

Wire No.	6	8	10	12	14	16	18	19
Single Conductor Capacity								
Type R or RH	3	5	8	10	10	24	24	...
Type T or RU	6	10	10	10	10	40	50	...
Twisted Pair Capacity								
Type R or RH						10	10	11

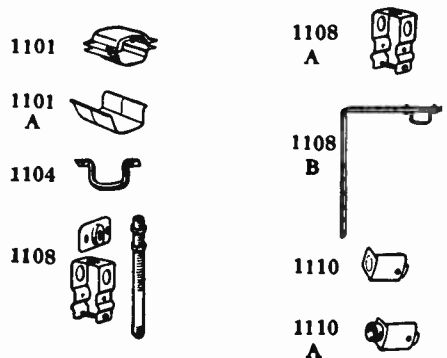
No. 1100B Channel

Furnished in 10-foot lengths.
Packed 100 feet in a carton. Weight per 100 feet, 57 pounds.
No. 1100B.....per foot \$.238

No. 1100C Cover

Furnished in 10-foot lengths.
Packed 100 feet in a carton. Weight per 100 feet, 26 pounds.
No. 1100C.....per foot \$.119

No. 1100 Series Wiremold Fittings

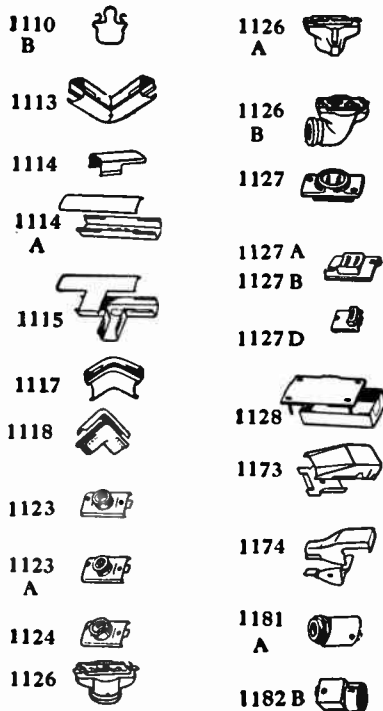


No.	Per 100	Description	Std. Pkg. Qty.	Pkg. Wt. Lb.	Unit Pkg. Qty.
1101	\$37.80	Coupling	20	3 3/4	5
1101A	13.10	Inside Coupling	20	1 3/4	5
1104	12.40	Two Hole Strap	50	2 3/4	10
1108	175.70	Adjustable Hanger Assembly	10	8 1/8	1
1108A	36.40	Hanger Clamp	20	1 1/2	5
1108B	87.80	Bracket Hanger	10	11 3/4	2
1110	30.50	End Fitting	20	1 1/4	5
1110A	53.00	End Connector Fitting	20	2 1/2	5

Continued

No. 1100 Series Wiremold Fittings

Concluded



No.	Per 100	Description	Std. Qty.	Pkg. Wt. Lb.	Unit Pkg. Qty.
1110B	\$18.80	Blank End Fitting.....	20	1/2	5
1113	95.90	Flat Elbow, 56° to 128°.....	10	5 3/4	1
1114	45.00	Turn-Over Connector, No. 1100 to No. 1000.....	20	3 1/8	2
1114A	45.00	Combination Connector, 1/2-Inch Knockout.....	20	6 3/4	5
1115	59.50	Tee, 1/2-Inch Knockout.....	10	5	1
1117	70.40	Internal Elbow.....	10	4 1/4	1
1118	80.30	External Elbow.....	10	2 3/4	1
1123	63.80	Cover Fitting.....	20	2 1/4	5
1123A	63.80	Cover Fitting.....	20	1 3/4	5
1124	66.80	Cover Fitting.....	20	2 3/4	5
1126	86.50	Keyless Socket, 660W, 250V..	20	6 3/4	1
1126A	92.90	Bayonet Reflector Socket, 660W, 250V.....	20	8	1
1126B	159.70	Angle Socket, 660W, 250V....	10	7 1/8	1
1127	61.00	Plug Receptacle, 15A, 125V, 10A, 250V.....	20	2	1
*1127A	79.90	Lumiline Duplex Receptacle, One Terminal.....	20	1 1/4	1
*1127B	92.90	Lumiline Duplex Receptacle, Two Terminals.....	20	1 1/2	1
*1127D	63.80	Lumiline Single Receptacle...	20	3/4	1
1128	143.80	Utility Box.....	10	5 1/4	1
1173	58.10	Adjustable Offset Connector, No. 1100 to No. 1500.....	10	2 1/2	1
1174	50.90	Takeoff Connector, No. 1100 to No. 500 or No. 700.....	10	2 1/8	1
1181A	63.80	Box Connector.....	20	2 1/2	5
1182B	79.90	1-Inch Pipe Connector, Female.....	20	4	5
610	†9.50	Mitre Box.....	1	3 3/4	..
611	79.90	Mitre Box Guide Fingers.....	10	1/2	2

*660 W, 250 V. †Each.

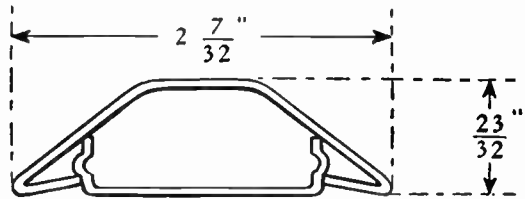
No. 1500 Pancake Wiremold Overfloor Raceways



Has supporting screw knockouts approximately 8-inch centers.

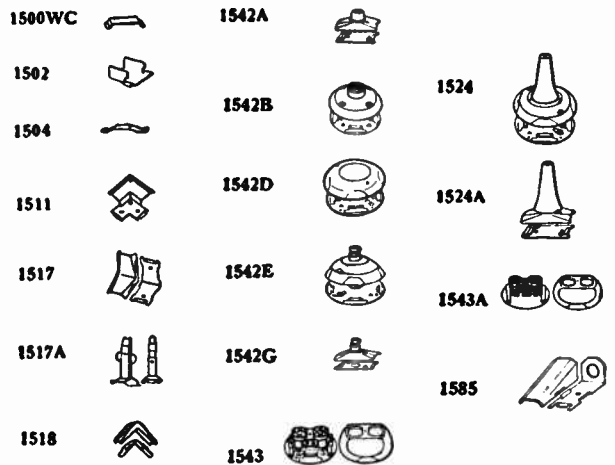
Made of .040-inch gage steel. Standard finish, galvanized. Furnished in 10-foot lengths.

Packed 100 feet in a carton. Weight per 100 feet, 50 pounds.



Wire No.	8	10	12	14	16	18	22
Single Conductor Capacity:							
Type R or RH.....		4	4	6	8	..	
Type T or RU.....	4	4	6	8	10	14	..
Twisted Pair Capacity:							
Type R or RH.....				3	4	5	
No. 1500.....	per foot \$3.43						

No. 1500 Wiremold Fittings

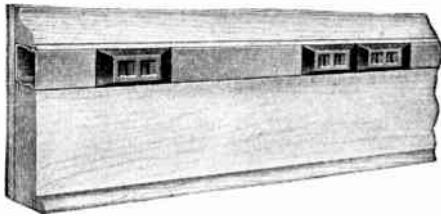


No.	Per 100	Description	Std. Qty.	Pkg. Wt. Lb.	Unit Pkg. Qty.
1500WC	\$1.10	Wire Clip.....	200	1/2	20
1502	6.50	Bushing.....	50	1/2	10
1504	11.40	Two Hole Strap.....	100	5	10
1511	31.90	90° Flat Elbow.....	20	4	5
1517	31.90	Internal Elbow.....	20	4 3/4	5
1517A	49.30	Adapter Fitting.....	20	3 3/4	5
1518	38.40	External Elbow.....	20	5	5
1524	143.80	Telephone Outlet.....	10	5 3/4	1
1524A	127.80	Narrow Telephone Outlet...	10	4	1
1524A	54.50	Narrow Junction Box, 1/2-Inch Bushing.....	20	5	5
1524B	405.70	Brass Base for Floor Receptacle Having 3/4-Inch Stem	10	9 1/2	1
1524D	63.80	Junction Box, Deep Type...	20	7 1/2	5
1524E	79.90	Telephone Outlet, Deep Type, 3/8-In. Bushing and 3/8-In. Connector.....	20	7 1/2	5
1524G	90.00	Narrow Telephone Outlet, 1/2-In. Female Bushing and 3/8-In. Connector.....	20	5	5
1543	175.70	Duplex Receptacle, 15A, 125V, 10A, 250V.....	10	7	1
1543A	447.20	Polarized Duplex Receptacle, 3-Wire, 15A, 125V, 10A, 250V.....	10	7 1/2	1
1585	38.50	End Connector.....	20	5	5

Wiremold Midget Plugmold Raceways

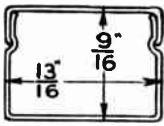
The Wiremold Continuous Outlet System

No. 1900B-C Cross Section



This Midget Plugmold continuous outlet system is for home, office or workshop. Midget Plugmold may be mounted on or set into the surface. The illustration shows it mounted on top of base board. It may also be set into plaster or cement. Made of .025-inch gage steel. Standard finish, Wiremold buff.

Wire No.	12	14	16	18
Single Conductor Cap.: Types R, RI1	2	2	10	10
Types T, RU	2	2	10	10



No. 1900B Cover

Has supporting screw knockouts approximately 8-inch centers. Furnished in 5-foot lengths.

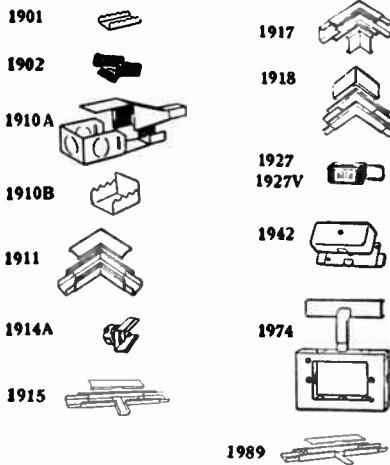
Packed 100 feet in a carton. Weight per 100 feet, 17 pounds. No. 1900B..... per foot **\$.106**

No. 1900C Cover

Furnished in 5-foot lengths.

Packed 100 feet in a carton. Weight per 100 feet, 11 pounds. No. 1900C..... per foot **\$.079**

No. 1900 Wiremold Midget Plugmold Fittings

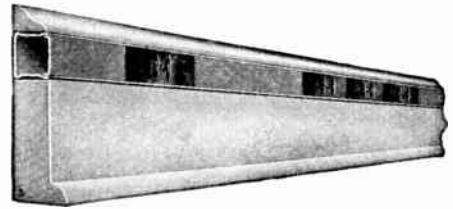


No.	Per 100	Description	Qty.	Std. Pkg. Wt. Lb.	Unit Pkg. Qty.
1901	\$5.80	Coupling	20	1/4	5
1902	3.10	Fiber Bushing	200	1/2	50
1910A	23.30	End Fitting	20	3 1/2	5
1910B	11.60	Blank End	20	3/4	5
1911	42.70	90° Flat Elbow	20	5 3/4	5
1914A	42.70	Connector Fitting	20	5 3/4	5
1915	45.00	Tee	20	7	5
1917	45.00	Internal Elbow	20	5 3/4	5
1918	45.00	External Elbow	20	5 3/4	5
1927	49.30	Receptacle, Brown	20	1 1/4	5
1927V	66.80	Receptacle, Ivory	20	1 1/4	5
1942	55.20	Junction Box	20	3 1/4	1
1974	116.20	Takeoff Fitting	5	2	1
1989	60.70	Reducing Connector	20	6	5
610	*9.50	Mitre Box	1	3 3/4	
611	79.90	Mitre Box Guide Fingers	10	1/2	2

Wiremold Plugmold Raceways

The Wiremold Continuous Outlet System

No. 2100B-C Cross Section

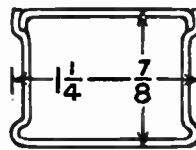


For home, office or work shop. May be mounted on or set into the surface, plaster or cement. Illustrated mounted on base board.

Made of .040-inch gage steel. Standard finish, Wire-mold buff.

Wire No.	6	8	10	12	14	16	18	22	
Single Conductor Capacity:									
Types R or RI1—with Receptacles							6	6	
Type T or RU—with Receptacle	6	8	10	10					
Type R or RI1—less Receptacles	4	6	10	10	10	24	24		
Twisted Pair Capacity:									
Type R or RI1—less Receptacles							10	10	11

No. 2100B Channel



Has 1/2-inch entrance knockouts approximately 8-inch centers. Has supporting screw knockouts approximately 8-inch centers.

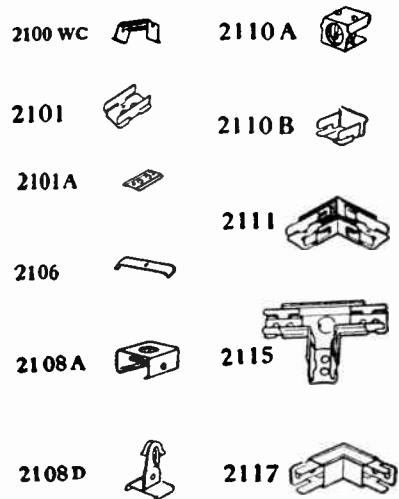
In 10-foot lengths, 100 feet in carton, weight, 45 pounds.

No. 2100B..... per foot **\$.203**

No. 2100C Cover

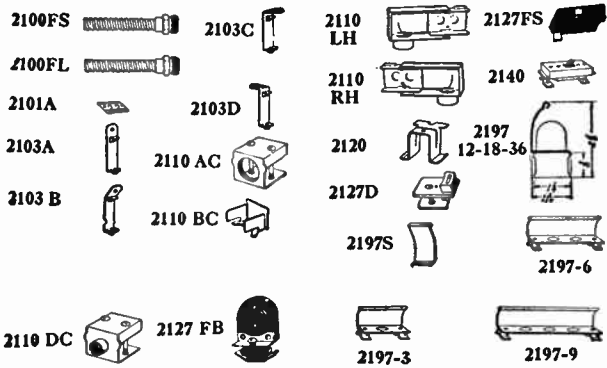
Furnished in 5-foot lengths. Packed 100 feet in a carton. No. 2100C Weight per 100 Feet 21 Pounds.... per foot **\$.145**

No. 2100 Wiremold Fittings



No.	Per 100	Description	Qty.	Std. Pkg. Wt. Lb.	Unit Pkg. Qty.
2100WC	\$2.90	Wire Clip	200	2	20
2101	7.30	Coupling	20	2	5
2101A	14.50	Rigid Coupling	20	1	5
2106	3.10	Cover Clip	200	1 1/2	50
2108A	34.80	Hanger Clamp	20	1 1/4	5
2108D	26.20	Fixture Hook	20	1 1/2	5
2110A	29.80	End Connector, 1/2-Inch Female Bushing	20	3	5
2110B	13.90	Blank End Fitting	20	2	5
2111	44.90	90° Flat Elbow	20	5	5
2115	111.80	Tee, 1/2-Inch Knockout	10	4	1
2117	46.40	Internal Elbow	20	5	5

No. 2100 Wiremold Show Case and Wall Case Lighting Equipment



No. 2100-SB Channel

No knockouts. Satin chrome finish.

Furnished in 5-foot lengths.

Packed 50 feet in a carton. Weight per 50 feet, 22 pounds.

No. 2100-SB.....per foot **\$.464**

No. 2100-SC Cover

Not scored. Satin chrome finish.

Furnished in 5-foot lengths.

Packed 100 feet in a carton. Weight per 100 feet, 21 pounds.

No. 2100-SC.....per foot **\$.304**

Fittings

No.	Per 100	Description	Std. Qty.	Pkg. Lb.	Unit Pkg. Qty.
2100FS	\$223.60	Flexible Conduit, 3'.....	5	2 1/2	1
2100FL	335.40	Flexible Conduit, 5 1/2'.....	5	4 1/2	1
2101A	14.50	Rigid Coupling.....	20	1	5
2103A	16.00	Clip, Straight.....	50	1 1/2	10
2103B	16.00	Clip, 45° Angle.....	50	1 1/2	10
2103C	16.00	Clip, 90° Angle.....	50	1 1/2	10
2103D	16.00	Clip, U.....	50	1 1/2	10
2110AC	45.00	End Connector.....	20	1 3/4	5
2110BC	29.00	Blank End Fitting.....	20	3/4	5
2110DC	54.50	End Connector.....	20	2 1/4	5
2110LH	79.90	90° Angle Connector.....	10	2 1/2	1
2110RH	79.90	90° Angle Connector.....	10	2 1/2	1
2120	13.10	Receptacle Clamp.....	50	2 1/4	10
2127D	63.80	Lumiline Receptacle.....	20	1	1
2127FB	52.30	Fluorescent Receptacle.....	10	1/2	1
2127FS	63.80	Starter Switch Base for FS-2 or FS-4 Starter.....	10	3/4	1
2140	139.40	S. P. Switch with Box, 10A, 125V, 5A, 250V.....	20	6	1
2197-12	143.80	*Reflector for 12" Lumiline.....	20	2 1/2	5
2197-18	191.60	*Reflector for 18" Fluorescent or Lumiline.....	20	3 3/4	5
2197-36	351.40	*Reflector for 36" Fluorescent.....	20	7 1/2	5
2197-3	72.60	Reflector Spacer, 3 3/8" L.....	5	1	1
2197-6	101.60	Reflector Spacer, 6" L.....	5	1 1/4	1
2197-9	130.70	Reflector Spacer, 9" L.....	5	1 1/2	1
2197S	16.00	Reflector Stop Gap.....	20	1/4	5
21211	17.40	†Cover for 12" Lumiline....	10	2 1/4	1
21212	27.60	†Cover for 18" Lumiline....	10	3 1/2	1
21213	43.60	†Cover for 18" Fluorescent.	10	3 3/4	1
21214	69.00	†Cover for 36" Fluorescent.	10	7 1/2	1
21221	28.20	†Cover for 12" Lumiline....	10	2 1/4	1
21222	54.50	†Cover for 18" Lumiline....	10	3 1/2	1
21223	70.40	†Cover for 18" Fluorescent.	10	3 3/4	1
21224	121.20	†Cover for 36" Fluorescent.	10	7 1/2	1

*Concentrating Type, Specular Ox-al-ite.

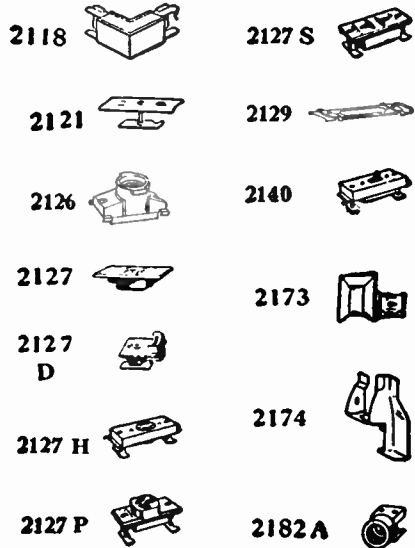
†Wiremold finish.

‡Chromium finish.

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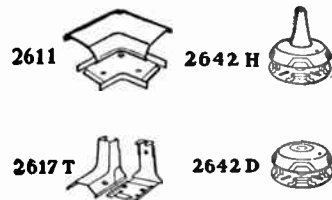
No. 2100 Wiremold Fittings

Concluded



No.	Per 100	Description	Std. Qty.	Pkg. Lb.	Unit Pkg. Qty.
2118	\$51.50	External Elbow.....	20	5	5
2121	26.90	Telephone Outlet.....	20	1 1/2	5
2126	86.50	Socket.....	20	2	1
*2127	55.90	Plug Receptacle, Black or Brown, 15A, 125V; 10A, 250V.....	20	2	1
2127	82.80	Plug Receptacle, Ivory, Cream and Wiremold Buff, 15A, 125V; 10A, 250V.....	20	2	1
2127D	63.80	Lumiline Single Receptacle, 660W, 250V.....	20	1	1
2127H	161.00	Midget Twistlock Receptacle.	20	4	5
2127P	114.70	3-Wire Polarized Receptacle (Brown) 15A, 125V; 10A, 250V.....	20	3	1
2127S	67.60	T-Slot Receptacle (Brown) 15A, 125V; 10A, 250V.....	20	2 1/4	1
2129	27.70	Adapter.....	20	1 1/2	5
2140	139.40	S.P. Switch with Box, 10A, 125V; 5A, 250V.....	20	6	1
2173	38.40	Offset Connector for No. 2100 to No. 1500 Wiremold.....	10	1 1/4	1
2174	50.90	Takeoff Connector for No. 2100 to No. 500 or No. 700 Wiremold.....	10	2	1
2182A	79.90	End Fitting, 3/4-inch Female Bushing.....	20	3 1/2	5
2197-3	72.60	Reflector Spacer 3 3/8 Inches Long.....	5	1	1
2197-6	101.60	Reflector Spacer 6 Inches Long	5	1 1/4	1
2197-9	130.70	Reflector Spacer 9 Inches Long	5	1 1/2	1

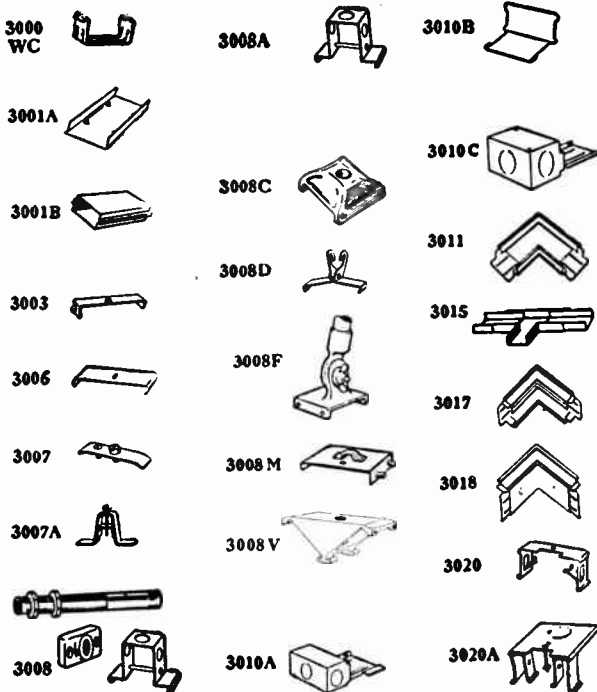
No. 2600 Wiremold Pancake Fittings



No.	Per 100	Description	Std. Qty.	Pkg. Lb.	Unit Pkg. Qty.
2600	†.502	Pancake Coil.....	50	46	..
2611	\$145.20	Flat Elbow.....	5	1 3/4	1
2617T	120.50	Special Elbow (For Telephone Use)..	5	1 3/4	1
2642D	127.80	Junction Box.....	5	2 3/4	1
2642H	188.80	Junction Box (With Rubber Stem).....	5	3 1/4	1

†Per foot.

No. 3000 Wiremold Fluorescent Lighting Equipment



No. 3000B Channel

In 10-foot lengths. Has 1/2 and 3/4-in. entrance knockouts and supporting screw knockouts, approximately 8-inch centers. Packed 100 feet in a carton; weight, 86 pounds. No. 3000B, Wiremold Finish.....per foot \$.396 No. 3000B, White Finish.....per foot .436

No. 3000C Cover

Furnished in 10-foot lengths. Not scored. Packed 100 feet in a carton; weight, 42 pounds. No. 3000C, Wiremold Finish.....per foot \$.203 No. 3000C, White Finish.....per foot .224

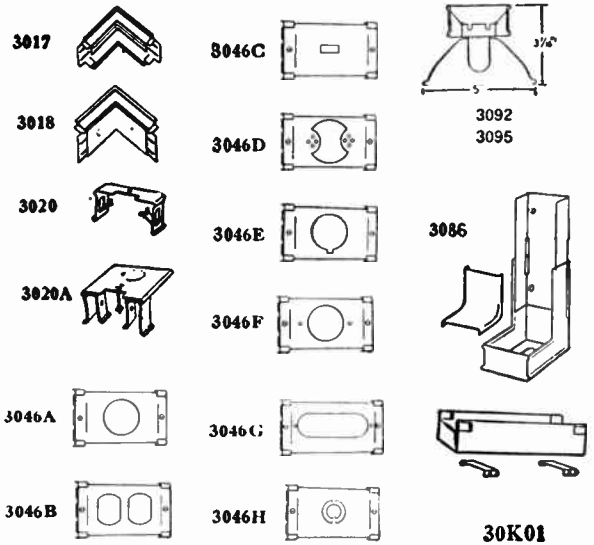
Parts Unpainted

No.	Per 100	Description	Std. Qty.	Pkg. Wt. Lb.	Unit Pkg. Qty.
3000WC	\$4.30	Wire Clip.....	20	1	1
3001A	17.40	Coupling.....	20	8	5
3007	12.40	Auxiliary Clamp.....	20	1	2
3007A	7.30	Mounting Strap for Wiring Device.....	20	2	2
Wiremold Finish					
3001B	\$72.60	Outside Coupling.....	10	9	1
3003WM	14.50	Supporting Clip.....	50	2 1/2	5
3006WM	2.90	Cover Clip.....	50	13 1/4	10
3008WM	183.00	Hanger Assembly with 3/8-Inch Pipe Nipple.....	10	8	1
3008AWM	37.80	Hanger Clamp.....	10	2	1
3008CWM	130.70	Hanger Casting Tapped for 1/2-Inch Iron Pipe.....	1	11 1/2	2
3008BWM	26.20	Loop Hanger.....	20	13 3/4	2
3008PWM	196.00	Adjustable Ratchet Hanger.....	1	1 1/2	1
3008VWM	92.40	Messenger Cable Hanger.....	5	1	1
3010AWM	52.30	End Fitting, 1/2-In. K.O.....	5	1	1
3010BWM	19.80	Blank End Fitting.....	5	1 1/2	1
3010CWM	78.40	End Fitting, 1-Inch K.O.....	5	2	1
3011WM	87.10	90° Flat Elbow.....	5	4	1
3015WM	145.20	Tee.....	5	10	1
White Finish					
3003	\$16.00	Supporting Clip.....	50	2 1/2	5
3006	3.10	Cover Clip.....	50	13 3/4	10
3008C	145.20	Hanger Casting.....	1	11 1/2	2
3008D	29.00	Loop Hanger.....	20	13 3/4	2
3008P	217.80	Adj. Ratchet Hanger.....	1	1 1/4	1
3008V	217.80	90° Angle Hanger.....	2	1 1/4	1
3010A	58.10	End Fitting, 1/2-In. K.O.....	5	1	1
3010B	21.80	Blank End Fitting.....	5	1 1/2	1

Continued

No. 3000 Wiremold Fluorescent Lighting Equipment

Concluded



No.	Per 100	Wiremold Finish Description	Std. Qty.	Pkg. Wt. Lb.	Unit Pkg. Qty.
3017	\$90.00	Internal Elbow.....	5	4 1/2	1
3018	87.10	External Elbow.....	5	3	1
3020WM	31.90	Receptacle Clamp.....	10	1 1/4	2
3020AWM	34.80	Receptacle and Starter Base Clamp.....	10	1 3/4	2
3046AWM	40.00	Single Receptacle Cover.....	10	2 3/4	1
3046BWM	40.00	Duplex Receptacle Cover.....	10	2 3/4	1
3046CWM	40.00	Tumbler Switch Cover.....	10	2 3/4	1
3046DWM	40.00	Service Device Cover.....	10	2 3/4	1
3046EWM	40.00	Screw Type Sign Receptacle Cover.....	10	2 3/4	1
3046FWM	40.00	Surface Type Sign Receptacle Cover.....	10	2 3/4	1
3046GWM	40.00	Condulet Device Cover.....	10	2 3/4	1
3046HWM	40.00	Fixture & Drop Cord Cover.....	10	2 3/4	1
3086	158.40	Adjustable Offset Connector.....	5	3 1/2	1
White Finish					
3020	\$35.20	Receptacle Clamp.....	10	1 1/4	2
3020A	38.30	Receptacle and Starter Base Clamp.....	10	1 3/4	2
3038C	116.20	Outlet Box Adapter.....	5	1 1/2	1
30K01	290.40	Ballast Housing Box.....	1	2 1/2	1
3095-18	246.80	18-Inch Reflector.....	10	17	1
3095-24	304.90	24-Inch Reflector.....	10	22	1
3095-36	450.10	36-Inch Reflector.....	5	17	1
3095-48	580.80	48-Inch Reflector.....	5	22	1
Specular Ox-al-ite Finish					
3092-18	\$304.90	18-Inch Reflector.....	10	4 1/2	1
3092-24	394.90	24-Inch Reflector.....	10	7	1
3092-36	531.50	36-Inch Reflector.....	5	6	1
3092-48	821.90	48-Inch Reflector.....	5	7	1
3092E	66.80	Reflector End Cap.....	20	1	5
3092S	24.70	Reflector Stop Gap.....	20	3/4	5

Appleton 3 1/4-Inch Octagonal Outlet Boxes and Covers

Schedule OB

Black Enamel or Galvanized



No. 3-0 Box



No. 8301 Cover

No. 8301-A Cover

No. 8302-A Cover

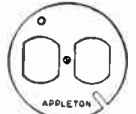


No. 8311 Cover

No. 8317 Cover

No. 8320 Cover

No. 8321 Cover



No. 8314-LR Cover

No.	Universal No.	Description	Std. Pkg.	Wt., lb. per 100
3-0-1/2	24151-1/2	1 1/2 In. Deep, 4-1/2-Inch K.O. in Sides, 1 in Bottom	100	47
3-0-3/4	24151-3/4	1 1/2 In. Deep, 4-3/4-Inch K.O. in Sides, 1 in Bottom	100	47
3-0 Special	24151 Special	1 1/2 In. Deep, 2-1/2-Inch and 2-3/4-Inch K.O. in Sides, 1-1/2-Inch in Center of Bottom	100	47

No.	Universal No.	Description	Std. Pkg.	Wt., lb. per 100
8301	24C2	Raised, Closed	100	23
8301-A	24C1	Flat, Blank	100	20
8302-A	24C12	Raised, with 3/8-inch Steel Bushing	100	23
8303	.....	Flat, with Cord Grip	100	18
8311	24C35, 24C36	Raised, 1 1/2-Inch Hole for Sign Receptacles	100	19
8317	24C28	Flat, Spider with Bolts	100	18
8320	24C6	Flat, 1/2-Inch K.O. in Center	100	21
8321	24C7	Raised, 1/2-Inch K.O. in Center	100	23
8314-LR	.....	With Openings, For Duplex Receptacle	100	15

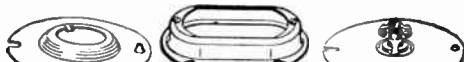
Appleton 4-Inch Octagonal Outlet Boxes and Covers

Schedule OB

Black Enamel or Galvanized



No. 4-0 Box



No. 8424 Cover

No. 8434 Cover

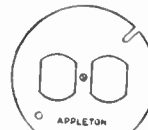
No. 8441 Cover



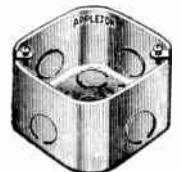
No. 8400 Cover

No. 8401 Cover

No. 8409 Cover



No. 8420-LR Cover



No. 4-OD Box

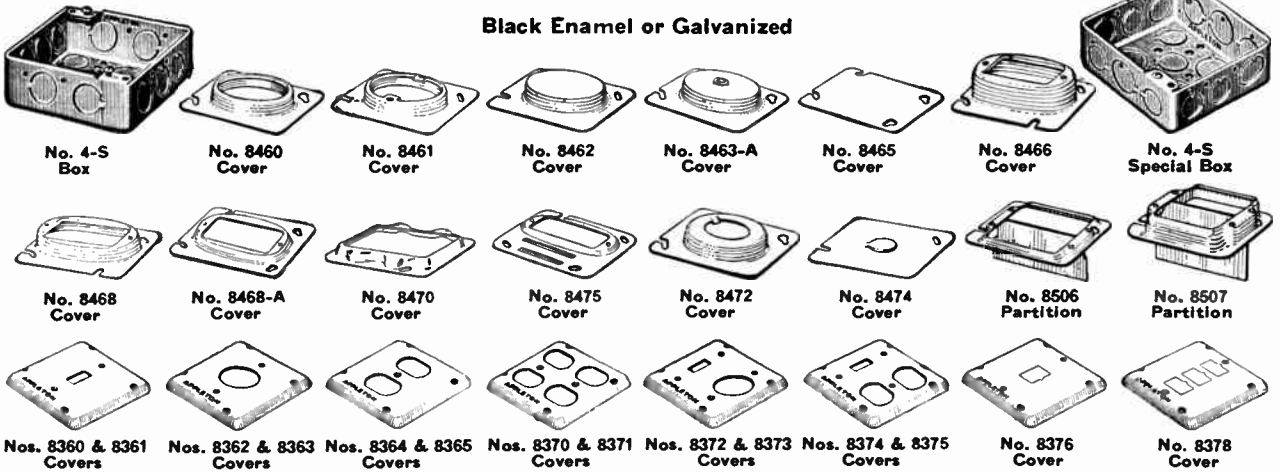
No.	Universal No.	Description	Std. Pkg.	Wt., lb. per 100
4-0-1/2	54151-1/2	1 1/2 In. Deep, 4-1/2-Inch K.O. in Sides, 5-1/2-Inch K.O. in Bottom	100	65
4-0-3/4	54151-3/4	1 1/2 In. Deep, 1-3/4-Inch K.O. in Each Side, 3-1/2-Inch and 2-3/4-Inch K.O. in Bottom	100	65
4-0 Spec.	54151 Spec.	1 1/2 In. Deep, 2-1/2-Inch and 2-3/4-Inch K.O. in Sides, 3-1/2-Inch and 2-3/4-Inch K.O. in Bottom	100	65
4-OD-1/2	54171	2 1/8 In. Deep, Furnished with Knockouts for 1/2, 3/4 or 1-Inch Conduit	50	84
4-OD-3/4	54171			
4-OD-1	54171			
4-OD Spec.	54171 Spec.	2 1/8 In. Deep, 2-1/2-Inch and 2-3/4-Inch K.O. in Sides, 3-1/2-Inch and 2-3/4-Inch K.O. in Bottom	50	84

No.	Universal No.	Description	Std. Pkg.	Wt., lb. per 100
8400	54C18	Raised, Open	100	24
8401	54C2	Raised, Closed, 5/8 Inch High	100	36
8402-A	54C12	Raised with 3/8-Inch Steel Bushing	100	37
8403	54C1	Flat, Blank	100	28
8404	54C28	Flat, Spider with Bolts	100	27
8407	54C31	Raised, with 1 1/4-Inch Hole for Federal Receptacles	100	26
8409	54C3	Raised, 5/8-Inch Open with Ears, 2 3/32 Inches Center to Center	100	25
8409-D	.....	Raised, 1 1/4 Inches Open with Ears, 2 3/32 Inches Center to Center	100	38
8413	54C6	Flat, 1/2-Inch K.O. in Center	100	28
8414	54C7	Raised, 1/2-Inch K.O. in Center	100	35
8424	54C35, 54C36	Raised, 1 1/2-Inch Hole for Sign Receptacles	100	26
8434	54C14	Raised, for Single Flush Device	100	27
8439	.....	Raised, for Use with Combination Hickey and Swivel Fixture Joints	100	28
8441	.....	Flat, with Cord Grip	100	36
8419-LR	.....	With Opening for Single Receptacle	100	27
8420-LR	.....	With Openings for Duplex Receptacle	100	24

Appleton 4-Inch Square Outlet Boxes and Covers

Schedule OB

Black Enamel or Galvanized



Boxes

No.	Universal Number	Description	Std. Pkg.	Wt., Lb. per 100
4-S-1/2	52151-1/2	1 1/2 In. Deep, 10-1/2-Inch K.O. in Sides, 5 in Bottom.....	50	92
4-S-3/4	52151-3/4	1 1/2 In. Deep, 2-3/4-Inch K.O. in each side; 3-1/2-Inch and 2-3/4-Inch K.O. in Bottom..	50	92
4-S Spec.	52151 Spec.	1 1/2 In. Deep, 2-1/2 and 1-3/4-Inch K.O. in each side; 3-1/2 and 2-3/4-Inch K.O. in Bottom	50	92
4-SL-1/2	52141-1/2	1 1/4-In. Deep, 10-1/2-Inch K. O. in sides, 5 in Bottom.....	50	80
4-SD-1/2	52171-1/2	2 1/8 In. Deep with 8-1/2-Inch K.O. in Sides, 5 in Bottom.....	50	110
4-SD-3/4	52171-3/4	2 1/8 In. Deep with 8-3/4-Inch K.O. in Sides. 5 in Bottom.....	50	110
4-SD-1	52171-1	2 1/8 In. Deep with 8-1-In. K.O. in Sides and 3-1/2- and 2-3/4-Inch in Bottom.....	50	110

Covers

No.	Universal Number	Description	Std. Pkg.	Wt., Lb. per 100
8460	52C48	Raised, Open.....	100	32
8461	52C3	Raised, 5/8 Inch Open, Ears, 2 23/32 Inches Center to Center.....	100	32
8461-D	.....	Raised, 1 1/4 Inch Open, Ears 2 23/32 Inches Center to Center.....	100	92
8462	52C2	Raised, Closed, 5/8 Inch High.....	100	44
8463-A	52C12	Raised, with 3/8 Inch Steel Bushing.....	100	47
8465	52C1	Flat, Blank.....	100	36
8466	52C16	Raised, 1 1/4 Inch for Single Flush Device.....	100	46
8466-A	52C15	Raised, 1 Inch for Single Flush Device.....	100	44
8467	52C15-7/8 In.	Raised, 7/8 Inch for Single Flush Device.....	100	42
8468	52C14	Raised, 3/4 Inch for Single Flush Device.....	100	36
8468-C	52C14-5/8 In.	Raised, 5/8 Inch for Single Flush Device.....	100	34
8468-A	52C13	Raised, 1/2 Inch for Single Flush Device.....	100	32
8468-B	52C62	Raised, 1/4 Inch for Single Flush Device.....	100	28
8468-F	.....	Flat, for One Single Flush Device.....	100	24
8469	52C21	Raised, 1 1/4 Inch for Two Flush Devices.....	100	45
8469-A	52C19	Raised, 1 inch for Two Flush Devices.....	100	41
8470	52C18	Raised, 3/4 Inch for Two Flush Devices.....	100	31
8470-C	52C18-5/8 In.	Raised, 5/8 Inch for Two Flush Devices.....	100	29
8470-A	52C17	Raised, 1/2 Inch for Two Flush Devices.....	100	24
8470-B	52C20	Raised, 1/4 Inch for Two Flush Devices.....	100	18
8470-F	.....	Flat, for Two Flush Devices.....	100	14
8475	.....	Raised, 1/4 In., Offset for Single Flush Device at One Side, Other Gang Blank.....	100	13
8472	52C35, 52C36	Raised, with 1 1/2 Inch Hole for Ring Receptacles.....	100	43
8474	52C6	Flat, 1/2 Inch K.O. in Center.....	100	37
8474-A	52C7	Raised, 1/2 Inch K.O. in Center.....	100	44
8478	52C28	Flat, Spider with Bolts.....	100	36

Partitions

8506	.....	Raised 1/2-Inch, 2-Gang Partition, For Two Flush Devices.....	50	42
8507	.....	Raised 3/4-Inch, 2-Gang Partition, For Two Flush Devices.....	50	49

Surface Covers

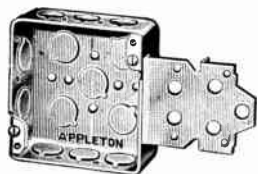
1/8-Inch Deep		1/2-Inch Deep		Description	Std. Pkg.
No.	Wt., Lb. per 100	No.	Wt., Lb. per 100		
8360	42	8361	44	For One Toggle Switch.....	100
8362	42	8363	44	For One Single Flush Receptacle.....	100
8364	42	8365	44	For One Duplex Flush Receptacle.....	100
8366	42	8367	44	For Two Toggle Switches.....	100
8368	42	8369	44	For Two Single Flush Receptacles.....	100
8370	42	8371	44	For Two Duplex Flush Receptacles.....	100
8372	42	8373	44	For One Toggle Switch and One Single Flush Receptacle.....	100
8374	42	8375	44	For One Toggle Switch and One Duplex Flush Receptacle.....	100
8376	42	.....	.....	With 1-Hole Strap for P&S Despard, Bryant LL or Hubbell LS Wiring Devices.....	100
8378	42	.....	.....	With 3-Hole Strap for same Wiring Devices as 8376.....	100

Appleton 4-Inch Square Boxes

Schedule OB

With Bracket—No Lath Support

Black Enamel or Galvanized



No. 4-SB-1/2 with 3-1/2-inch K.O. in each of 2 opposite sides, 2 in side opposite bracket and 5-1/2-inch K.O. in bottom.

No. 4-SB-Spl. with combination of 2-1/2 and 1-3/4-inch K.O. in each of 3 sides (none in bracket side) and combination of 3-1/2 and 2-3/4-inch K.O. in bottom.

No.	Universal No.	Size Square	Box Depth	Std. Pkg.	Wt. Lb. per 100
4-SB-1/2	52151-B-1/2	4	1 1/2	50	95
4-SB-Spl	52152-B-Spl	4	1 1/2	50	95

Appleton Swivel Hanger Covers

Schedule OB

For 3/4 and 4-Inch Octagonal, 4-Inch Square Outlet Boxes and Concrete Rings



Ball—Without Cushion



Ball—With Cushion

Designed with a free swing of 30 degrees in all directions from plumb.

Cushion type cover is recommended where vibration may take place to increase life of the lamp bulb.

Without Cushion



No. 8438-R



No. 8458-R



No. 8448-R

No.	Size Hub In.	Style and Size Box	Std. Pkg.	Wt. Lb. per 100
8438-R	1/2	3/4 and 4-Inch Octagonal Outlet Boxes	100	58
8436-R	3/4		100	60
8458-R	1/2		100	67
8459-R	3/4	4-Inch Square Outlet Boxes	100	69
8448-R	1/2		100	61
8449-R	3/4	4 1/2-Inch Diameter Concrete Rings	100	63

With Cushion



No. 8438-C



No. 8458-C



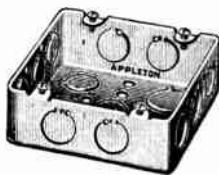
No. 8450-C

No.	Size Hub In.	Style and Size Box	Std. Pkg.	Wt. Lb. per 100
8438-C	1/2	3/4 and 4-Inch Octagonal Outlet Boxes	100	63
8439-C	3/4		100	65
8458-C	1/2		100	70
8459-C	3/4	4-Inch Square Outlet Boxes	100	72
8450-C	1/2		100	65
8451-C	3/4	4 1/2-Inch Diameter Concrete Rings	100	67
8452-C	1/2		100	64
8453-C	3/4	3/4 and 4-Inch Octagonal Outlet Boxes	100	66
8454-C	1/2		100	71
8455-C	3/4		100	73
8456-C	1/2	4 1/2-Inch Diameter Concrete Rings	100	66
8457-C	3/4		100	68

Appleton Outlet Boxes and Covers

Schedule OB

Galvanized Finish Only
4 11/16-Inch Square Outlet Boxes



No. 4-SJ-1/2 box, 1 1/2 inches deep. With two 1/2-inch knockouts in two sides, three 1/2-inch knockouts in two opposite sides, and combination of three 1/2-inch and two 3/4-inch knockouts in bottom.

No. 4-SJ-3/4 box, 1 1/2 inches deep. With two 3/4-inch knockouts in two sides, combination of one 3/4-inch and two 1/2-inch knockouts in two opposite sides and combination of two 3/4-inch and three 1/2-inch knockouts in bottom.

No. 4-SJD-1/2 box, 2 1/8 inches deep. With two 1/2-inch knockouts in two sides, combination of two 1/2-inch and one 3/4-inch knockouts in two opposite sides, and combination of three 1/2-inch and two 3/4-inch knockouts in bottom.

No. 4-SJD-3/4 box, 2 1/8 inches deep. With two 3/4-inch knockouts in two sides, combination of one 3/4-inch and two 1/2-inch knockouts in two opposite sides and combination of two 3/4-inch and three 1/2-inch knockouts in bottom.

No. 4-SJD-1 box, 2 1/8 inches deep. With two 1-inch knockouts in each side and combination of two 3/4-inch and three 1/2-inch knockouts in bottom.

No.	Universal Key No.	Standard Package	Wt. Lb. per 100
4-SJ-1/2	72151-1/2	50	110
4-SJ-3/4	72151-3/4	50	110
4-SJD-1/2	72171-1/2	50	130
4-SJD-3/4	72171-3/4	50	130
4-SJD-1	72171-1	50	130

Covers for 4 11/16-Inch Square Boxes

Standard package, 50.

No. 8480



Steel cover, raised. Universal Key No. 72-C-2. Weight per 100, 56 pounds.

No. 8485



Steel cover, raised, 3/4-inch high, for one rectangular base switch or receptacles. Universal Key No. 72-C-14. Weight per 100, 49 pounds.

No. 8486



Steel cover, raised, 3/4-inch high, for two rectangular base switches or receptacles. Universal Key No. 72-C-18. Weight per 100, 44 pounds.

No. 8487



Steel cover, flat. Universal key No. 72-C-1. Weight per 100, 51 pounds.

No. 8489



Steel cover, raised, 5/8-inch high, with 1/2-inch knockout. Universal Key No. 72-C-7. Weight per 100, 54 pounds.

No. 8481



Steel cover, raised, open, 5/8-inch high. Universal Key No. 72-C-48.

Weight per 100, 44 pounds.

No. 8485-A

Steel cover, raised, 1/2-inch high, for one rectangular base switch or receptacles.

Weight per 100, 43 pounds.

No. 8485-B

Steel cover, raised, 1/4-inch high, for one rectangular base switch or receptacle.

No. 8488



Steel cover, raised, open, with ears drilled and tapped 2 3/8 inches center to center.

Universal Key No. 72-C-3.

Weight per 100, 44 pounds.

No. 8489-A



Steel cover, raised, 3/4-inch high, for Hubbell 4-porcelain flush receptacle Nos. 7294 and 7301 (for exposed work only).

Weight per 100, 51 pounds.

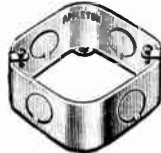
Appleton Extension Rings

Schedule OB

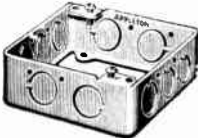
Black Enamel or Galvanized



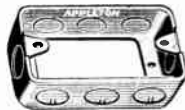
No. 3-OE



No. 4-OE



No. 4-SE



No. 4-SSLSE

For Octagonal Boxes

No.	Universal Key No.	Size In.	Depth In.	Size K.O., In.	Std. Pkg.	Wt. Lb. per 100
3-OE	25151	3 1/4	1 1/2	1/2 or 3/4	100	40
4-OE	55151	4	1 1/2	1/2 or 3/4	100	49
4-OES	57111	4	5/8	None	100	20
4-OESpl	.....	4	1 1/2	2 1/2, 2 3/4	100	49
4-OED	55171	4	2 1/8	1/2, 3/4 or 1	100	59

For Square Boxes

*4-SFE	73151	4 1/16	1 1/2	1/2 or 3/4	50	84
*4-SJDE	73171	4 1/16	2 1/8	1/2, 3/4 or 1	50	100
4-SF	53151	4	1 1/2	1/2 or 3/4	50	66

For Handy Boxes and Switch Boxes

*4-SSLSE 1/2	4	1 1/2	8 to 1 1/2	50	10
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*Standard finish, galvanized only.

Appleton Octagonal Concrete Rings and Plates

Schedule OB

Concrete Rings without Plates—Galvanized Finish Only



OCR-3 1/2 Ring with OCP Plate



OCR-3 1/2 Ring

Of two-piece design, furnished with two inside lugs at both ends, drilled and tapped to take OCP plates or any standard make of 4-inch round box cover. Outside ears have holes for nailing box to concrete form.

Furnished with combination of four 1/2-inch and four 3/4-inch knockouts, and can be supplied with combination of four 3/4-inch and four 1-inch knockouts.

With 4—1/2" and 4—3/4" Knockouts		With 4—3/4" and 4—1" Knockouts		Size Box Inches		Std. Pkg.	Wt. Lb. per 100
No.	Univ. No.	No.	No.	Diam.	Depth		
OCR-1 1/2	54521	.....	.....	4 3/8	1 1/2	100	52
OCR-2	54531	.....	.....	4 3/8	2	100	71
OCR-2 1/2	54541	.....	.....	4 3/8	2 1/2	50	82
OCR-3	54551	OCRS-3	.....	4 3/8	3	50	99
OCR-3 1/2	54561	OCRS-3 1/2	.....	4 3/8	3 1/2	50	114
OCR-4	54571	OCRS-4	.....	4 3/8	4	50	128
OCR-5	54581	OCRS-5	.....	4 3/8	5	25	173
OCR-6	54591	OCRS-6	.....	4 3/8	6	25	192

Plates Only

Furnished regularly with combination of three 1/2-inch and two 3/4-inch knockouts.



OCP-3/8



OCP Plate

No.	In.	Diam. In.	Fixture Studs	Std. Pkg.	Wt. Lb. per 100
OCP	4 3/8	.....	No Stud	100	36
OCP-3/8	4 3/8	.....	3/8-In.	100	42
OCP-1/2	4 3/8	.....	1/2-In.	100	42

Appleton Solid Conduit Gang Switch Boxes

Schedule OB

Galvanized Finish Only

Solid Gang—Deep Type

With 3/4 or 1/4-Inch Deep Covers



GSB-4 Box with GSC-4 Cover



GSC-4 Cover

Made from 14-gage steel. Cover has mounting centers to accommodate all standard push button switches, toggle switches, receptacles, etc.

Switch centers are 3 3/8 inches and center lines are 1 1/16 inches apart.

Outside dimensions of box complete with cover are: with deep cover, 4 1/4 inches wide, 2 3/4 inches deep; with shallow cover, 4 1/8 inches wide, 2 1/4 inches deep. Depth of box only, 2 inches. Has slots to take LVP partitions.

In addition to one knockout for each gang, there are two additional knockouts in each side of the 2 to 8-gang boxes. For example: A 2-gang box will have four knockouts in each side, a 3-gang box will have five knockouts in each side.

Boxes and covers are listed separately. Galvanized finish only.

No. Gangs	Std. Pkg.	*Boxes Only		3/4" Deep No.	Covers Only		Std. Pkg.	Wt. Lb. per 100
		No.	Wt., Lb. Std. Pkg.		1/4" Deep No.	Std. Pkg.		
2	5	GSB-2	243	GSC-2	GSCS-2	25	69	
3	5	GSB-3	286	GSC-3	GSCS-3	25	80	
4	5	GSB-4	323	GSC-4	GSCS-4	25	90	
5	5	GSB-5	375	GSC-5	GSCS-5	25	99	
6	1	GSB-6	409	GSC-6	GSCS-6	25	109	
7	1	GSB-7	457	GSC-7	GSCS-7	20	123	
8	1	GSB-8	513	GSC-8	GSCS-8	20	138	
9	1	GSB-9	575	GSC-9	GSCS-9	20	150	
10	1	GSB-10	615	GSC-10	GSCS-10	20	165	

Solid Gang—Shallow Type

With 1/4-Inch Deep Covers



GB-4 with GC-4 Cover



GC-4 Cover

Similar to boxes above, except that they are very shallow and are designed particularly for use with thin partitions. Depth of box with cover, 1 3/4 inches; box only, 1 1/2 inches.

No. Gangs	No.	*Boxes Only		No.	Covers Only		Std. Pkg.
		Wt., Lb. per 100	Wt., Lb. per 100		Wt., Lb. per 100		
2	GB-2	213	.....	GC-2	60	25
3	GB-3	262	.....	GC-3	72	25
4	GB-4	298	.....	GC-4	83	25
5	GB-5	352	.....	GC-5	92	25
6	GB-6	388	.....	GC-6	103	25

*Can be furnished with 1/2 or 3/4-inch knockouts. Specify size wanted when ordering. All 2 or 3-gang boxes have five 1/2-inch knockouts in center of bottom; all 4 to 10-gang boxes have two sets of five 1/2-inch knockouts in bottom.

No. LVP Low Voltage Partitions



To fit deep type solid gang boxes. When a combination of the gang box and cover is used with a low voltage partition, it is absolutely necessary that a cover and box of same gang be used. For example: A 2-gang cover on a 2-gang box, a 3-gang cover on a 3-gang box, etc.

Standard package, 10. Weight per 100, 21 pounds.

Appleton Ceiling Boxes

Schedule OB

Black Enamel—Galvanized 4-Inch Ceiling Boxes with Knockouts

For 1/2-Inch Conduit



No. 4-C

No. 4-C. Without ears. Five knockouts in bottom for 1/2-inch conduit.



No. 4-CL

No. 4-CL. With ears. Five knockouts in bottom for 1/2-inch conduit.

No.	Universal Key No.	Diameter Inches	Depth Inches	Std. Pkg.	Wt., Lb. per 100
4-C	56112	4	1 1/2	100	39
4-CL	56111	4	1 1/2	100	41

3 1/2-Inch Combination Boxes

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



No. 510-L. With ears. Four knockouts in bottom for loom and three knockouts in bottom for 1/2-inch conduit.



No. 510-LC

No. 510-LC. With ears. Four knockouts in bottom for loom and three knockouts in bottom for 1/2-inch conduit. With two CL-9 clamps.

No.	Universal Key No.	Diameter Inches	Depth Inches	Std. Pkg.	Wt., Lb. per 100
510-L	36115	3 1/2	1 1/2	100	32
510-LC	36115-C	3 1/2	1 1/2	100	36



No. 511-LC

No. 511-LC. With ears. Four knockouts in bottom for loom and three knockouts in bottom for 1/2-inch conduit. With two CL-9 clamps.

No.	Universal Key No.	Diameter Inches	Depth Inches	Std. Pkg.	Wt., Lb. per 100
511-LC	36125-C	3 1/2	3/4	100	45



No. 513-L

No. 513-L. With ears. Four knockouts in bottom, four in sides for loom; three knockouts in bottom and four in sides for 1/2-inch conduit.



No. 513-LC

No. 513-LC. With ears. Four knockouts in bottom, four in sides for loom, three knockouts in bottom and four in sides for 1/2-inch conduit. With two CL-9 clamps.

No.	Universal Key No.	Diameter Inches	Depth Inches	Std. Pkg.	Wt., Lb. per 100
513-L	24155	3 1/2	1 1/2	100	55
513-LC	24155-C	3 1/2	1 1/2	100	57



No. 521-L

No. 521-L. With ears. Eight knockouts in bottom for loom, one knockout in bottom for 1/2-inch conduit.

No. 521-LC. With ears. Eight knockouts in bottom for loom, one knockout in bottom for 1/2-inch conduit. With CL-9 clamps.

No.	Universal Key No.	Diameter Inches	Depth Inches	Std. Pkg.	Wt., Lb. per 100
521-L	36113	3 1/2	1 1/2	100	35
521-LC	36113-C	3 1/2	1 1/2	100	36

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation and Non-Metallic Flexible Tubing



No. 532-L

No. 532-L. With two bushed CL-6 clamps in bottom and fixture stud. With ears. Galvanized finish only.

No. 533-L. With two bushed CL-6 clamps in bottom. With ears. Galvanized finish only.



No. 533-L

No.	Diameter Inches	Depth Inches	No. Knockouts Loom	No. Knockouts Conduit	Std. Pkg.	Wt., Lb. per 100
532-L	3 1/2	3/4	4	1	100	45
533-L	3 1/2	3/4	1	3	100	45

Appleton Combination Boxes

Schedule OB

Black Enamel—Galvanized For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation With Two-Way Knockout Closing Clamps One Screw May Be Used for Bonding

Nos. 550-L and 550-LFS



No. 550-L

No. 550-L. Ears tapped 5/8-inch on 2 3/4-inch centers. Nail holes and two CL-25 clamps. Without fixture stud.

No. 550-LFS. Same as No. 550-L except with 3/8-inch fixture stud.

No.	Diameter Inches	Depth Inches	Knockouts		Std. Pkg.	Wt., Lb. per 100
			Loom	Conduit		
550-L	3 1/2	1 1/2	4	1-1/2"	100	61
550-LFS	3 1/2	1 1/2	4	.....	100	60

Nos. 551-L and 551-LFS



No. 551-L

No. 551-L. Ears tapped 5/8-inch on 3 1/4-inch centers. Nail holes and two CL-25 clamps. Without fixture stud.

No. 551-LFS. Same as No. 551-L except with 3/8-inch fixture stud.

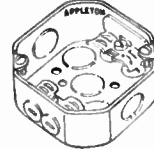
No.	Diameter Inches	Depth Inches	Knockouts		Std. Pkg.	Wt., Lb. per 100
			Loom	Conduit		
551-L	4	1 1/2	4	3-1/2"	100	77
551-LFS	4	1 1/2	4	2-1/2"	100	81

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing

Nos. 560-L, 561-L and 562-L



No. 560-L



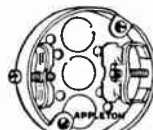
No. 561-L



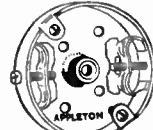
No. 562-L

No.	Diameter Inches	Depth Inches	3/8-Inch Stud	Ear	Clamps (2)	Std. Pkg.	Wt., Lb. per 100
560-L	3 1/4	1 1/2	No	Yes	CL-26	100	65 1/2
561-L	4	1 1/2	No	Yes	CL-26	100	76
562-L	3 1/2	1 1/2	Yes	No	CL-24	100	37

Nos. 563-L and 564-L



No. 563-L



No. 564-L

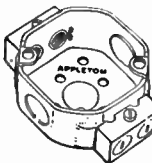
No.	Diameter Inches	Depth Inches	3/8-Inch Stud	Ear	Clamps (2)	Std. Pkg.	Wt., Lb. per 100
563-L	3 1/2	3/4	No	Yes	CL-24	100	45
564-L	3 1/2	3/4	Yes	Yes	CL-24	100	47

Appleton Combination Boxes

Schedule OB

With Two No. CL-18 Outside Clamps and Ears Black Enameled—Galvanized

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation



No.	DIMENSIONS, INCHES		Fix. Stud	Std. Pkg.	Wt., Lb. per 100
	Diameter	Depth			
570-L	3 1/4	1 1/2	No	100	67
570-LFS	3 1/4	1 1/2	Yes	100	76
571-L	4	1 1/2	No	100	82
571-LFS	4	1 1/2	Yes	100	82

Has two clamps on the outside allowing more room for wiring and for splicing. Clamps are riveted to boxes, which insures a positive ground.

Screws in clamps are staked to prevent removal or falling out in transit.

Appleton Combination Boxes

Schedule OB

With Side Mounting Ears

These boxes meet the requirements of many territories where the installation of outlet and combination boxes require furring strips at each ceiling outlet to support cut ends of the laths. These furring strips afford an ideal support for outlet boxes; therefore, boxes must have these mounting ears so they may be attached directly to the furring strips and thereby eliminate the additional expense of bar hangers.

Will not tip or rock after installation and eliminate the possible hazard of cracked plaster.

All boxes have ears. No. 550-LFSXE furnished with 3/8-inch fixture stud.

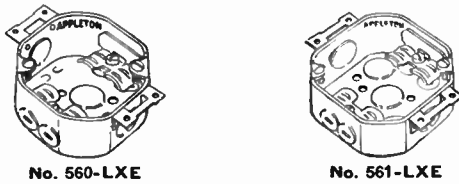
Standard package, 100.

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation and 1947 Code Rubber Insulation



No.	Diameter Inches	Depth Inches	KNOCKOUTS		Clamps (2)	Wt., Lb. per 100
			3/8"	Conduit		
550-LXE	3 1/2	1 1/2	1	1-1/2"	CL-25	61
550-LFSXE	3 1/2	1 1/2	1	1-1/2"	CL-25	60
551-LXE	4	1 1/2	1	3-1/2"	CL-25	60

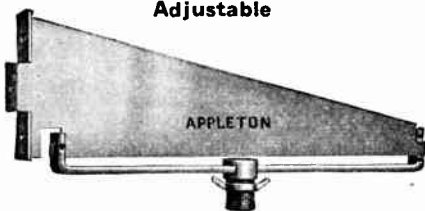
For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



No.	Diameter Inches	Depth Inches	KNOCKOUTS		Clamps (2)	Wt., Lb. per 100
			3/8"	Conduit		
560-LXE	3 1/2	1 1/2	4	1-1/2"	CL-26	57
561-LXE	4	1 1/2	4	3-1/2"	CL-26	65

No. BAR-3/8 Appleton Bar Hangers

Schedule OB
Adjustable



Furnished complete with 3/8-inch adjustable sliding stud and winged locknut.

Allows for an extra sturdy installation with most styles of outlet, ceiling and cable boxes.

Plain finish.

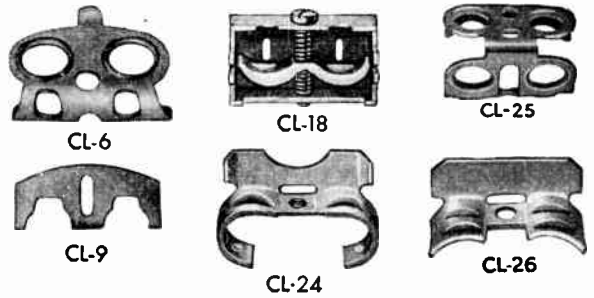
Standard package, 50. Weight per standard package, 45 pounds.

Appleton Clamps

Schedule OB

For Outlet Boxes, Ceiling Boxes, Etc.

For Armored Cable, Loom and Non-Metallic Sheathed Cable



Illustrated are the various types of the Appleton cable clamps as used in Appleton outlet boxes, ceiling boxes, etc.

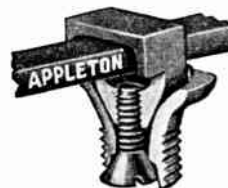
Along with the listing of all boxes having clamps, the number of the clamp furnished is specified. These clamp numbers correspond with those listed below and illustrate more clearly the clamps furnished with each box.

Box No.	Clamp No.	Box No.	Clamp No.	Box No.	Clamp No.
510-LC	CL-9	550-LFSXE	CL-25	561-LXE	CL-26
511-LC	CL-9	550-LXE	CL-25	562-L	CL-24
513-LC	CL-9	551-L	CL-25	563-L	CL-24
521-LC	CL-9	551-LFS	CL-25	564-L	CL-24
532-L	CL-6	551-LXE	CL-25	570-L	CL-18
533-L	CL-6	560-L	CL-26	570-LFS	CL-18
550-L	CL-25	560-LXE	CL-26	571-L	CL-18
550-LFS	CL-25	561-L	CL-26	571-LFS	CL-18

Appleton Bar Hangers

Schedule OB

With 3/8-Inch Set Screw Stud



Box locked in place with screw-driver. No locknuts to run down.

Compact design provides more wiring space. Easier to install.

Illustration at left shows clamping arrangement.

Straight Bar Hangers



No.	Length In.	Std. Pkg.	Wt., Lb. Std. Pkg.
S-21	18	100	30
S-22	24	100	70

Shallow Offset Hangers



No.	Length In.	Std. Pkg.	Wt., Lb. Std. Pkg.
S-23	19 1/2	100	31
S-25	24	100	37

Deep Offset Hangers



No.	Length In.	Std. Pkg.	Wt., Lb. Std. Pkg.
S-24	19 1/2	100	34
S-26	24	100	41

No. BHOW-3/8 Old Work Hangers—With Regular Stud



No.	Length In.	Std. Pkg.	Wt., Lb. Std. Pkg.
BHOW-3/8	12	100	44

No. CBH Universal Box Cleat



No.	Length In.	Std. Pkg.	Wt., Lb. Std. Pkg.
CBH	21	100	61

Bar hanger can be furnished in any length longer than the standard length, at an extra charge.

Appleton Bar Sets

Schedule OB

Black Enamel or Galvanized

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation and 1947 Code Rubber Insulation



No. BH-532-L

Straight bar, round box with ears; four loom knockouts with two CL-6 clamps and stud.

Diameter box, 3½ inches; depth, ¾ inch. Standard package, 50. Weight per 100, 69 pounds.

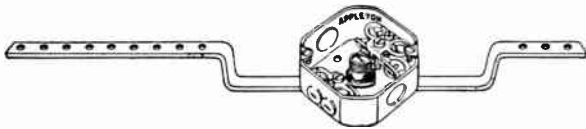
No. BHS-550-L (No. 13)



Shallow bar, octagonal box with ears; four loom knockouts, with two CL-25 two-way knockout closing clamps and stud.

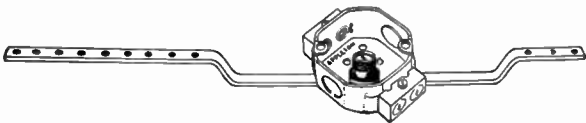
Diameter box, 3½ inches; depth, 1½ inches. Standard package 50. Weight per 100, 133 pounds.

No. BHD-551-L, Deep Bar
No. BHS-551-L, Shallow Bar



Bar, octagonal box with ears; four loom knockouts. Three ½-inch knockouts, with two CL-25 two-way knockout closing clamps and stud.

Diameter box, 4 inches; depth, 1½ inches. Standard package, 50. Weight per 100: No. BHD-551-L, 148 pounds; No. BHS-551-L, 130 pounds.

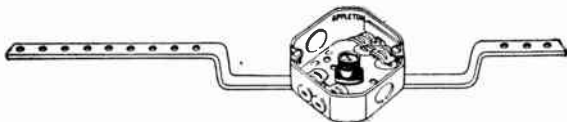


No. BHS-570-L—No. 570-L Octagonal Box Mounted on Shallow Bar Hanger

Diameter box, 3¼ inches; depth, 1½ inches. Standard package, 50. Weight per 100, 113 pounds.

No. BHD-571-L—No. 571-L Octagonal Box Mounted on Deep Bar Hanger

Diameter box, 4 inches; depth 1½ inches. Standard package, 50. Weight per 100, 126 pounds.



No. BHS-560-L—No. 560-L Box Mounted on Shallow Hanger

Diameter box, 3½ inches; depth, 1½ inches. Standard package, 50. Weight per 100, 133 pounds.

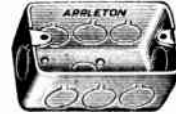
No. BHD-561-L—No. 561-L Box Mounted on Deep Hanger

Diameter box, 4 inches; depth, 1½ inches. Standard package, 50. Weight per 100, 148 pounds.

Appleton Universal Conduit Boxes and Covers

Schedule OB

Galvanized Finish Only
4½-Inch Boxes



These boxes have three knockouts in each side, one in each end, and one in the bottom for ½-inch conduit. Also two nail holes and two ¼-inch untapped holes for fixture studs.

No.	DIMENSIONS, IN.			Std. Pkg.	Wt., Lb. Std. Pkg.
	Length	Width	Depth		
180	4½	2¾	1½	100	60
181	4½	2¾	1½	100	70
184	4½	2¾	1½	100	56

Covers for 4½-Inch Universal Conduit Boxes

Standard package, 100.

No. 180-A



Steel cover, raised, blank. Wt., per 100, 15 pounds.

No. 180-K



Steel cover, flat, with ½-inch knockout in the center. Wt. per 100, 23 pounds.

No. 180-T



Steel cover, raised, for tumbler or toggle switches with square handle. Wt. per 100, 15 pounds.

No. 180-W



Steel cover, raised for standard duplex receptacles. Wt. per 100, 10 pounds.

*No. 180-Z cover has three knockouts so that 1, 2, or 3-devices may be used in a single-gang cover by removing knockouts to be utilized.

No. 180-X



Steel cover, raised, for flush plug receptacles. Weight per 100, 15 pounds.

No. 180-Y



Steel cover, raised, with 1-hole strap for P & S-Despard, Bryant IL, or Hubbell LS wiring devices. Standard package, 25. Wt. per 100, 20 pounds.

*No. 180-Z

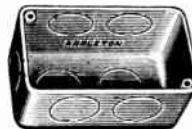


Steel cover, raised, with 3-hole strap for P & S Despard, Bryant IL, or Hubbell LW wiring devices. Wt. per 100, 20 pounds.

Appleton Special Outlet Boxes

Schedule OB

Galvanized Finish Only
For Power House and Sub-Station Work
No. 6-SLD Boxes



Knockouts: two 1¼-inch knockouts in each side and bottom; one 1¼-inch knockout in each end.

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
6-SLD	5¾	3¼	3	25	98
8594	Flat Blank Cover			25	25

No. 5-OD Boxes

Depth, 2¼ inches.

Knockouts: one 1¼-inch knockout in each side; one ½-inch knockout in bottom.

No.	Diam. In.	Std. Pkg.	Wt. Lb. per 100
5-OD	4¾	25	65

Covers

For No. 5-OD boxes.

No.	Description	Std. Pkg.	Wt. Lb. per 100
8595-A	Raised, ½-In. K.O. Center	25	28
8596	Flat Blank	25	20
8596-A	Flat, ½-In. K.O. Center	25	21

Appleton Handy Boxes

Schedule OB

Galvanized Finish Only
No. 4-SS, 3/4-Inch Boxes



Furnished with three knockouts in each side, two in bottom and one in each end for 1/2-inch conduit.

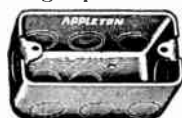
No.....	4-SS
Length.....inches	3 3/4
Width.....inches	1 1/2
Depth.....inches	1 1/2
Standard Package.....	
Weight per 100.....pound	50

No. 2520 Covers for No. 4-SS Boxes



Steel, cover, flat.

No.....	2520
Standard Package.....	20
Weight per 100.....pound	16



4-Inch Boxes

Knockouts for 1/2, 3/4 and 1-inch rigid conduit.

No. 4-CS

No. 4-CS

Furnished with three knockouts in each side, one in each end and two in bottom for 1/2 or 3/4-inch conduit.

No.....	4-CS-1/2	4-CS-3/4
Length.....inches	4	4
Width.....inches	2 1/8	2 1/8
Depth.....inches	1 7/8	1 7/8
Standard Package.....	100	100
Weight per 100.....pound	64	64

No. 4-SSL

Furnished with three knockouts in each side, one in each end, and two in bottom for 1/2-inch conduit. For 3/4-inch and 1-inch conduit, two knockouts in each side, one in each end, and one in center of bottom.

No.....	4-SSL-1/2	4-SSL-3/4	4-SSL-1
Length.....inches	4	4	4
Width.....inches	2 1/8	2 1/8	2 1/8
Depth.....inches	2 1/8	2 1/8	2 1/8
Standard Package.....	100	100	100
Weight per 100.....pound	68	68	68

No. 4-SSLD

Furnished with three knockouts in each side, one in each end, and two in bottom for 1/2-inch conduit. For 3/4-inch conduit, two knockouts, in each side, one in each end and two in bottom. For 1-inch conduit, two knockouts in each side, one in each end, and one in bottom.

No.....	4-SSLD-1/2	4-SSLD-3/4	4-SSLD-1
Length.....inches	4	4	4
Width.....inches	2 1/8	2 1/8	2 1/8
Depth.....inches	2 1/8	2 1/8	2 1/8
Standard Package.....	50	50	50
Weight per 100.....lb.	97	97	97

No. 4-SSLS

Furnished with three knockouts in each side, one in each end and two in bottom for 1/2-inch conduit only.

No.....	4-SSLS-1/2
Length.....inches	4
Width.....inches	2 1/8
Depth.....inches	1 1/2
Standard Package.....	100
Weight per 100.....pound	66

No. 4-SSLE Extension Ring



Extension ring furnished with eight 1/2-inch knockouts in sides and ends.

For Appleton Handy Boxes and Switch Boxes.

No.....	4-SSLE-1/2
Length.....inches	4
Width.....inches	2 1/8
Depth.....inches	1 1/2
Standard Package.....	50
Weight per 100.....pound	40

Appleton Handy Box Covers

Schedule OB

Galvanized Finish Only
for 4-Inch Boxes and Extension Ring

No. 2540



Steel cover, flat.

No.....	2540
Std. Pkg.....	100
Wt. per 100.....lb.	15

No. 2510



Steel cover, raised, for standard duplex receptacles.

No.....	2510
Std. Pkg.....	100
Wt. per 100.....lb.	11

No. 2555



Steel cover, flat, with 1/2-inch knockout in center.

No.....	2555
Std. Pkg.....	100
Wt. per 100.....lb.	20

No. 2594



Steel cover, raised, for square handle, tumbler or toggle switches.

No.....	2594
Std. Pkg.....	100
Wt. per 100.....lb.	14

No. 2537



Steel cover, raised for double push button switches.

No.....	2537
Std. Pkg.....	100
Wt. per 100.....lb.	11

No. 2598



Steel cover, raised, with one-hole strap for P & S Despard, Bryant 1L and Hubbell LS wiring devices.

No.....	2598
Std. Pkg.....	100
Wt. per 100.....lb.	15

No. 2539



Steel cover, raised, for flush plug receptacles (without lift cover).

No.....	2539
Std. Pkg.....	100
Wt. per 100.....lb.	11

*No. 2599



Steel cover, raised, with three-hole strap for P & S Despard, Bryant 1L and Hubbell LS wiring devices.

No.....	2599
Std. Pkg.....	100
Wt. per 100.....lb.	15

*This cover has three knockouts so that 1, 2 or 3 devices may be used in a single gang cover by removing knockouts to be utilized.



Appleton Guy Wire Conduit Clamps and Box Supports

Schedule OB

Cadmium Finish

For Rigid Conduit (Heavy-Wall) and Electrical Metallic Tubing



Outlet Box with No. 17210 Outlet Box Support and No. 17200 Clamp

Designed for use in industrial plants having irregular or high ceiling construction making it necessary to suspend the conduit system at a practical level. Box supports are equipped with 3/8-inch fixture studs.

Guy Wire Conduit Clamps

For Rigid Conduit (Heavy-Wall)



No.	Size of Conduit	Standard Package	Weight Pounds per 100
17200	1/2	100	17
17201	3/4	100	17
17202	1	100	17

For Electric Metallic Tubing

No.	Size of Conduit	Standard Package	Weight Pounds per 100
17T200	1/2	100	15
17T201	3/4	100	15
17T202	1	100	15

Guy Wire Box Supports

No. 17210



To be used in bottom knockouts of outlet boxes.

Standard package, 100.

Weight per 100, 22 pounds.

No. 17211



To be used in side knockouts of outlet and handy boxes.

Standard package, 100.

Weight per 100, 18 pounds.

National Redege Concrete Boxes

4-Inch Octagon—With Back Plates

Sherardized. Depth, 3 inches.



No.	National	Universal	Per 100	Fixture Stud	Knock-outs	Std. Pkg.	Lb. Pkg.
3302	54551	\$64.50	No	{ 4-1/2" } { 4-3/4" }	10	13	
3303	54551	67.50	Yes	{ 4-1/2" } { 4-3/4" }	10	13	

No. 800 National Sherarduct Floor Boxes

For telephone, signal and bell systems, light and power; for underfloor conduit system, etc.

Box is levelled in rough and easily raised or lowered to meet floor finish without affecting level adjustment.

Water and moisture-proof.

Adjustable box complete without receptacle.



No.	Each	Knockouts	Unit Pkg.	Std. Pkg.	Wt. Lb. Std. Pkg.
800	\$3.50	{ Bottom 3-1/2" } { Sides 2-1/2" } { 2-3/4" } { 2-3/4" }	1	25	58

No. 2900 National Redege Outlet Boxes

3 1/4-Inch Octagon—1 1/2-Inch Deep Inside



Galvanized finish.

Universal No. 24151. One 1/2-inch conduit bottom knockout; four 1/2-inch conduit side knockouts.

Packed 50 in standard package.

No. 2900, Weight per Std. Pkg., 25 Pounds. per 100 \$12.60

No. 2835 National Redege Shallow Ceiling Boxes

3 1/2-Inch Round—1/2-Inch Deep



Takes 3 1/4-inch standard covers.

Galvanized finish.

Universal No. 36113. Diameter and depth inside, 3 1/2 x 1/2 inches. One 1/2-inch conduit, 8-loom knockouts. With cover lugs.

Packed 50 in standard package.

No. 2835, Weight per Std. Pkg., 20 Pounds. per 100 \$12.50

National Outlet Box Covers

For 3 1/4-Inch Diameter Octagon and Round Boxes

Galvanized finish.

Actual outside diameter, 3 3/8 inches.

Packed 100 in standard package.

No. 28A



Raised, closed. Depth, 3/8 inch.

No. 28AQ



Flat, with 1/2-inch knockout in center.

No.	National	Universal	Per 100	Wt. Lb. Std. Pkg.	No.	National	Universal	Per 100	Wt. Lb. Std. Pkg.
28A	24C2	\$6.30	22	28AQ	24C6	\$6.30	20		

No. 28AC



Flat, closed.

No. 28L



Raised, with 27/64-inch metal eyelet for drop cord; 3/8-inch deep.

28AC	24C1	\$5.20	20	28L	24C12	\$6.30	22
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No. 2590 National Redege Outlet Boxes

4 1/16-Inch Square

Galvanized finish only.

Packed 25 in a standard package.

Weight per standard package, 32 pounds.



No.	National	Universal	Per 100	Depth Inside In.	Knockouts
2590	72171	\$94.00	2 1/8	{ Bottom 3-1/2" } { Sides 2-3/4" }	

No. 60 National Electric Spigots

For inside use. Utility outlet for 14/2 and 12/2 armored cable or loom wire.

Angle box slips into hole; wide flange covers work marks; no sharp bend in cable. Complete assembly; small wiring connection.

Complete with 10-ampere, 250-volt or 15-ampere, 125-volt receptacle and cable clamp

Packed 50 in standard package.



Weight per standard package, 25 pounds.

No. 60 per 100 \$88.00

National Redege Outlet Boxes
4-Inch Octagon



No. 2700



No. 2714

Galvanized finish.

Packed 50 in a standard package.

National	No. Uni-versal	Per 100	Depth Inside Inches	KNOCKOUTS		Wt. Lb. Std. Pkg.
				Bottom	Sides	
2700	54151	\$16.50	1 1/2	5-1 1/2"	4-1 1/2"	32
2701	54151	20.50	1 1/2	3-1 1/2"	4-1 1/2"	32
2702	54151	20.50	1 1/2	2-3/4"	4-3/4"	32
				3-1 1/2"	2-1 1/2"	
2714	54171	32.00	2 1/8	2-3/4"	2-3/4"	41
2715	54171	32.00	2 1/8	5-1 1/2"	4-1 1/2"	
				3-1 1/2"	4-1 1/2"	41
				2-3/4"	4-3/4"	

No. 2704 National Redege Extension Rings
4-Inch Octagon



Galvanized finish.

Universal No. 55151. Depth inside 1 1/2 inches; four 1/2-inch knockouts.

Packed 50 in a standard package.

Weight per standard package, 22 pounds.

No. 2704.....per 100 \$28.00

National Outlet Box Covers
For 4-Inch Octagon and Round Boxes

Sherardized finish.

Actual outside diameter, 4 1/8 inches.

Packed 50 in a standard package.

No. 26AC



Flat, closed.

No. 26L



Raised 5/8 inch, with 7/16-inch metal eyelet for drop cord.

National	No. Uni-versal	Per 100	Wt. Lb. Std. Pkg.	National	No. Uni-versal	Per 100	Wt. Lb. Std. Pkg.

No. 26AQ



Flat, with 1/2-inch knock-out in center.

No. 26Q



Raised 5/8 inch high, 2 3/4-inch opening.

Lugs tapped 8-32 on 2 3/4-inch centers.

26AQ	54C6	\$7.70	30	26Q	54C3	\$10.00	30
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No. 26AR



Raised, with 1/2-inch knockout in center; 5/8-inch deep.

National	No. Uni-versal	Per 100	Wt. Lb. Std. Pkg.

National Redege Square Outlet Boxes
4-Inch Square—1 1/2-Inch Deep



No. 2410

Double riveted. Made of No. 14 gage steel. Cover lugs recessed so head of screw is below box top; with 3/8-inch screws.

Underwriters' approval and meets Federal specification.

Galvanized.

National	No. Uni-versal	Per 100	KNOCKOUTS		Std. Pkg.	Wt. Lb. Std. Pkg.
			Bottom	Sides		
2400	52151	\$19.50	5-1 1/2"	10 1/2"	50	42
2401	52151	23.50	1-1 1/2"	8 3/4"	50	42
			4-3/4"	3-1 1/2"		
2410	52151	23.50	3-1 1/2"	8 1/2"	50	42
			2-3/4"	4 3/4"		

No. 2404 National Redege Extension Rings
4-Inch Square—1 1/2-Inch Deep



Two tapped lugs at top and two untapped lugs at bottom.
Galvanized.

2404	53151	\$30.00	10 1/2"	50	30
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National Outlet Box Covers
For 4-Inch Square Boxes

Galvanized. Actual dimensions, 4 1/16 inches square.
Packed 100 in standard package.

No. 24AC

Flat closed cover.



National	No. Uni-versal	Per 100	Wt. Lb. Std. Pkg.

No. 24Q

Raised with 2 3/4-inch opening, 5/8 inch deep.
Lugs tapped 8-32 on 2 3/4-inch centers.

Has extra slots and screw holes to permit either vertical or horizontal mounting.



24Q	52C3	\$10.20	33
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National Flush Device Covers
For 4-Inch Square Boxes



No. 24HZ



No. 24HY



No. 24KY



No. 24H



No. 24K

Have extra slots and screw holes to permit either vertical or horizontal mounting on 4-inch square boxes.
Galvanized.

Actual outside dimension, 4 1/16 inches square.

National	No. Uni-versal	Per 100	Depth In.	No. of Devices	Wt. Lb. Std. Pkg.	Std. Pkg.
24HY	52C13	15.00	1/2	1	16	50
24KY	52C17	19.00	1/2	2	12	50
24H	52C14	17.50	3/4	1	18	50
24K	52C18	20.00	3/4	2	18	50

National Redege Universal Economy Boxes 3 3/8 x 3 Inches Obround—1 1/2-Inches Deep



No. 2966



No. 2969

For A. B. C. cable, loom and loom wire.

Cable knockouts take sizes 14/2, 14/3, 12/2, and 12/3 armored cable or loom wire. Galvanized.

No.	Per 100	Fixture Stud	Clamps Used	Knockouts		Std. Pkg.	Std. Pkg.	Wt. Lb.
				Bottom	Sides			
*2966	\$28.00	Yes	CL-65	4-Cable	4-Cable	50	35	
2969	22.00	No	No	1-1 1/2"	2-1 1/2"	50	35	

*Also available mounted on offset bars. †Conduit.

National Redege Economy Boxes 3/4 Inches Diameter Round—3/4-Inch Deep



No. 2365



No. 2368

For A. B. C. cable, loom, or loom wire.

Cable knockouts take 14/2, 14/3, 12/2, and 12/3 armored cable or loom wire. Boxes hold from 1 to 4 cables of 2 or 3 wires each or 4 pieces of loom or combinations of both. Clamps lock cable in double grip. Plates with rimmed hole serve as cable stops and bushings. Bushing shelf is tapped for cover screws.

Galvanized finish only.

No.	Per 100	Clamps Used	Fixture Stud	Knockouts		Std. Pkg.	Std. Pkg.	Wt. Lb.
				Bottom	Sides			
2365	\$10.50	CL-65	3/8" Male	4-2 1/2"	.....	50	31	
2368	18.00	CL-65	No	1-1 1/2"	.....	50	22	

KO Conduit

No. 2365-D National Redege Economy Boxes 3 3/8 x 3 Inches Obround—1 1/2-Inch Deep



Galvanized.

For A. B. C. cable, loom, or loom wire. Cable knockouts take 14/2, 14/3, 12/2, and 12/3 armored cable or loom wire.

Can be mounted on bars.

No.	Per 100	Clamps Used	Fixture Stud	Knockouts		Std. Pkg.	Std. Pkg.	Wt. Lb.
				Bottom	Sides			
2365-D	\$28.00	2 CL-65	3/8" Male	*	2-1 1/2"	50	31	

*4-cable or loom.

National Redege Economy Boxes 3/4-Inch Diameter Round



No. 2375

Galvanized finish

For Loom and Loom Wire



No. 2910-L2

No.	Per 100	Size Diam. In.	Depth In.	Clamps Used	Fixture Stud	Knockouts		Std. Pkg.	Std. Pkg.	Wt. Lb.
						Bottom	Sides			
2375	\$19.50	3/4	1/2	2 CL-65	3/8" Male	4-Loom	.....	50	18	
2910-L2	18.50	*3 1/4	1 1/2	2 CL-65	No	{ 8-Loom 1-1 1/2"	{ 4-Loom 4-1 1/2"	50	26	

*Octagon. †For conduit.

National Economy Bar Hangers No. 2263 Straight



For shallow boxes in new work, or for holding boxes to concrete forms. Will fit any box having 1/2-inch knockout.

With 1/2-inch deep boxes where bar is nailed to joints or studding, edge of box will be flush with ordinary plaster.

No.	Per 100	Length Bar, In.	Std. Pkg.	Wt. Lb. Std. Pkg.
2263	\$14.50	18	50	26

No. 2265 Shallow Offset



For 1 1/2-inch deep boxes without switch covers or plaster rings; offset brings box edge flush with plaster. Will fit any box having 1/2-inch knockout. Offset, 1 1/16 inches deep.

No.	Per 100	Length Bar, In.	Std. Pkg.	Wt. Lb. Std. Pkg.
2265	\$17.00	19 1/2	50	32

No. 2266 Deep Offset



For 1 1/2-inch deep boxes with switch covers or plaster rings; offset brings covers 5/8-inch high, flush with plaster. Will fit any box having 1/2-inch knockout. Offset, 1 1/16 inches deep.

No.	Per 100	Length Bar, In.	Std. Pkg.	Wt. Lb. Std. Pkg.
2266	\$17.00	19 1/2	50	33

No. 2268 Box Cleat



For 1 1/2-inch deep boxes with covers and integral studs, or without studs. Offset has slots for stove bolts to hold box, and is right depth to bring 5/8-inch covers flush with plaster. Offset, 1 1/16 inches deep.

No.	Per 100	Length Bar, In.	Std. Pkg.	Wt. Lb. Std. Pkg.
2268	\$10.50	21	50	27

National Redege Economy Boxes

Nos. 2765 Economy Boxes for armored cable and Nos. 2966 and 2365-D for armored cable, loom or loom wire are furnished mounted on offset bars, 19 1/2 inches long with offset of 1 1/16 inches bringing edge of box flush with plaster line for an installation where no box cover is to be used.

The boxes are fastened on offset bars by a diagonal saddle clamp allowing bar to cross bottom of box without obstructing knockouts.

Galvanized finish.

Packed 25 in standard package.

No. 3814-FS



Diameter, 3 3/8 inches; 1 1/2 inches deep; 4-cable knockouts in bottom; 4-cable and two 1/2-inch conduit knockouts in sides; 2 hole, 1 screw clamp. Duplex cable clamps, 3/8-inch fixture stud; with cover lugs.

No.	Per 100	No. Box Used	Wt. Lb. Std. Pkg.
3814-FS	\$40.00	2966	31

No. 3812-FS

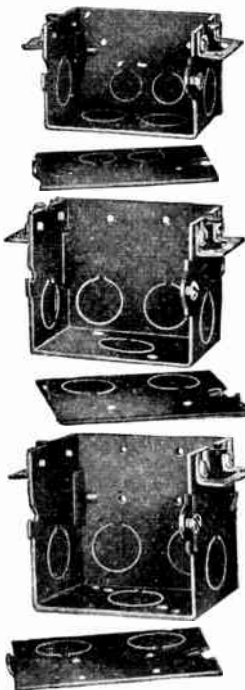


Round, 3 3/8 inches; 1 1/2 inches deep inside; 4-cable knockouts in bottom; two 1/2-inch knockouts in sides; 2 CL65 clamps; 3/8-inch male stud; with cover lugs.

No.	Per 100	No. Box Used	Wt. Lb. Std. Pkg.
3812-FS	\$40.00	2365-D	31

**National Redege Switch Boxes
For Conduit
Interchangeable Sectional**

May be used for armored cable with standard connectors. Square corners. Galvanized finish. Packed 50 in a standard package.



No. 8
With one 1/2-inch conduit knockout in each end; two 1/2-inch conduit in each side; one 1/2-inch conduit in bottom and fixture stud holes.

No.	Per 100	Depth In.	Wt. Lb. Std. Pkg.
8	\$18.50	2	30

No. 13
With one 1/2-inch conduit knockout in each end; two 1/2-inch conduit in each side; one 1/2-inch conduit in bottom and fixture stud holes.

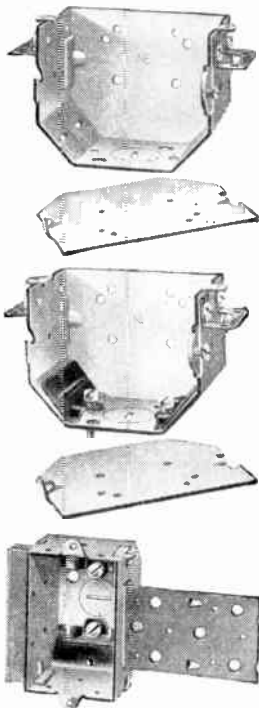
No.	Per 100	Depth In.	Wt. Lb. Std. Pkg.
13	\$19.50	2 1/2	36

No. 14
With one 1/2-inch conduit knockout in each end; two 1/2-inch conduit in each side; one 1/2-inch conduit in bottom and fixture stud holes.

No.	Per 100	Depth In.	Wt. Lb. Std. Pkg.
14	\$20.00	2 3/4	37

**National Redege Switch Boxes
For Non-Metallic Sheathed Cable
Interchangeable Sectional**

Beveled corners, galvanized finish. Packed 50 in standard package.



No. 3
With two 5/8-inch loom knockouts in bevels; two 5/8-inch loom in sides; one 1/2-inch conduit knockout in bottom and fixture stud holes. No clamps.

No.	Per 100	Depth In.	Wt. Lb. Std. Pkg.
3	\$18.50	2 1/4	30

No. 4
With two 5/8-inch loom knockouts in bevels; two 5/8-inch loom in sides; 1/2-inch conduit knockout in bottom and fixture stud holes; 2-loom.

No.	Per 100	Depth In.	Wt. Lb. Std. Pkg.
4	\$19.50	2 1/4	32

No. 4-SB
This is No. 4 with welded-on stud bracket and lath support; 2-loom.

No.	Per 100	Depth In.	Wt. Lb. Std. Pkg.
4-SB	\$28.50	2 1/4	42

**National Redege Switch Boxes
Interchangeable Sectional**

For A.B.C. armored cable, loom and loom wire.

Cable knockouts take 14/2, 14/3, 12/2, and 12/3 armored cable and loom wire. Two one-piece all-purpose clamps. Square corners.

Galvanized finish.

Packed 50 in a standard package.

No. 7

With two 3/32-inch cable knockouts in ends, two in sides; 1/2-inch knockout in bottom. Depth, 2 inches.

Weight per standard package, 32 pounds.

No. 7..... per 100 \$21.00

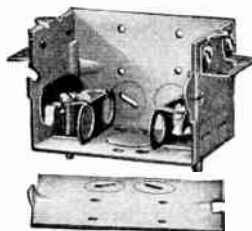
No. 12

With two 3/32-inch cable knockouts in ends; two in sides; 1/2-inch knockout in bottom; two one-piece all-purpose clamps.

Depth, 2 1/2 inches.

Weight per standard package, 37 pounds.

No. 12..... per 100 \$21.70



No. 12-SB

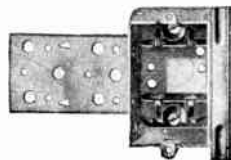
This is No. 12 with weld-on stud bracket and lath support.

With 2 one-piece all-purpose clamps.

Depth, 2 1/2 inches.

Weight per standard package, 46 pounds.

No. 12-SB..... per 100 \$29.50



No. 12-X

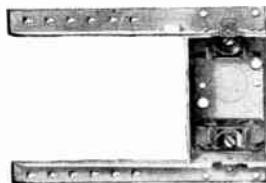
No. 12 with extended ears.

With 2 one-piece all-purpose clamps.

Depth, 2 1/2 inches.

Weight per standard package, 45 pounds.

No. 12-X..... per 100 \$24.50



No. 4170 National Redege Switch Boxes

Sectional

For shallow type switches and devices. For rigid conduit and A.B.C. armored cable.

Square corners.

With one 1/2-inch conduit knockout in sides, ends and bottom; one 3/32-inch cable knockout in each side. No supporting ears on box. Depth, 1 1/2 inches.

Galvanized finish.

Standard package, 50; weight 28 pounds.

No. 4710..... per 100 \$27.50



National Redege Gang Boxes



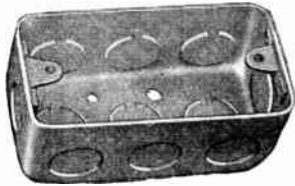
Suitable holes are provided in the bottom for nails. Galvanized finish. Width, 4½ inches; depth inside, 1¼ inches.

No.	Per 100	Gangs	Length In.	Knockouts			Bottom	Wt.	
				Each End	Each Side			Std. Pkg.	Std. Pkg.
3002	\$113.20	2	67/8	2-1/2"	5-1/2"	5-1/2"	5	8	
3003	163.20	3	85/8	2-1/2"	5-1/2"	10-1/2"	5	9	
3013	163.20	3	85/8	2-3/4"	6-3/4"	{6-1/2" 4-3/4"}	5	9	

Low voltage sectors furnished installed in boxes if desired. These divided boxes are used for standard plate spacing with high and low voltage signal systems, or radio connections—aerial and ground with high voltage receptacles. Prices upon application.

National Redege Flush Device Boxes

4¼ Inches Long—2½ Inches Wide



Lugs are tapped on 3¾ inch centers for all standard makes of push button and rectangular rotary switches and flush convenience outlets.

Two nail holes in bottom, and holes for fixture stud bolts.

National No.	Uni-versal	Per 100	Depth In.	Knockouts			Wt.	
				Bottom	Sides	Ends	Std. Pkg.	Std. Pkg.
2018	58351	\$18.00	1½	3-1/2"	3-1/2"	1-1/2"	50	29
2020	58361	18.00	17/8	3-1/2"	3-1/2"	1-1/2"	50	32
2022	58371	18.00	21/8	3-1/2"	3-1/2"	1-1/2"	50	32

National Gang Box Covers



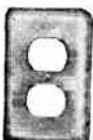
Galvanized finish.

No.	Per 100	Gangs	Designed for Box No.	Extra K.O. Screw Holes Permit Use with Box No.	Wt.	
					Std. Pkg.	Lb. Std. Pkg.
30C2	\$50.00	2	3002, 3012		50	19
30C3	75.30	3	3003, 3013	3002, 3012	25	13

National Steel Covers for Flush Device Boxes



No. 20A



No. 20C



No. 20E

Will fit other makes of similar type utility boxes. Covers are slightly countersunk or flanged, and rounded on corners.

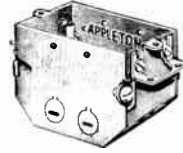
No.	Per 100	Description	Wt.	
			Std. Pkg.	Lb. Std. Pkg.
20A	\$7.20	Blank	100	14
20C	12.00	For Standard Duplex Receptacle	100	12
20E	12.00	For Square Handle Toggle Switch	100	14

No. 33 Appleton Switch Boxes

Schedule SB

Enameled or Galvanized Without Clamps

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



Ears extend ½-inch from body of box. Knockouts, 2½-inch, 2 in each side, 2 in each beveled corner only. Also ½-inch knockout and fixture stem holes in center of bottom.

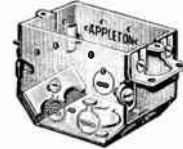
No.	DIMENSIONS, INCHES			Type of Clamp	Std. Pkg.	Wt. Lb. Std. Pkg.
	Length	Width	Depth			
33	3	2	2¼	None	100	60

No. 44 Appleton Switch Boxes

Schedule SB

Enameled or Galvanized With No. CL-5 Clamps

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



Knockouts, 2½-inch; two in each side, two in each beveled corner only; also ½-inch knockout and fixture stem holes in center of bottom.

No.	DIMENSIONS, INCHES			Type of Clamp	Std. Pkg.	Wt. Lb. Std. Pkg.
	Length	Width	Depth			
44	3	2	2¼	CL-5	100	60

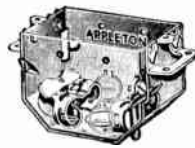
Appleton Special Switch Boxes

Schedule SB

With CL-16 Clamps

Enameled or Galvanized

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



Knockouts, 2½-inch, two in each side, two in each beveled corner only. Also ½-inch knockout and fixture stem holes in center of bottom.

No.	DIMENSIONS, INCHES			Type of Clamp	Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth			
387	3	2	2¼	CL-16	100	68

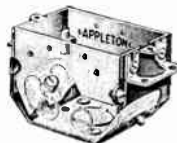
No. 388 Appleton Switch Boxes

Schedule SB

With No. CL-17 Clamp

Enameled or Galvanized

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



Knockouts, 3½-inch; two in each side, two in each beveled corner.

Also one ½-inch conduit K.O. and fixture stem holes in center of bottom.

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
388	3	2	2¼	100	64

Appleton Switch Boxes

Schedule SB

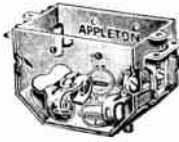
**With Adjustable Ears
Enameled or Galvanized**

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



No. 33-AE

Knockouts, $2\frac{1}{32}$ -inch: Two in each end, two in opposite sides; also one knockout in bottom for $\frac{1}{2}$ -inch conduit.



No. 387-AE

No.	Type of Box Used	DIMENSIONS, INCHES			Clamps	Std. Pkg.	Wt., Lb. per 100
		Length	Width	Depth			
33-AE	33	3	2	$2\frac{1}{4}$	None	100	68
44-AE	44	3	2	$2\frac{1}{4}$	CL-5	100	72
387-AE	387	3	2	$2\frac{1}{4}$	CL-16	100	72

No. 95 Appleton Solid Switch Boxes

Schedule SB

**With Two No. CL-7 Clamps
Black Enameled or Galvanized**

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



Knockouts, two $2\frac{1}{32}$ -inch in end corners.

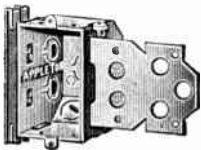
No.	DIMENSIONS, INCHES			Std. Pkg.	Wt., Lb. per 100
	Length	Width	Depth		
95	3	2	$1\frac{1}{2}$	100	55

Appleton Switch Boxes

Schedule SB

**With Lath Support and Mounting Bracket
Black Enameled or Galvanized**

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



No. 33-B

Knockouts, $2\frac{1}{32}$ -inch; two in each side, two in each beveled corner. Also $\frac{1}{2}$ -inch knockout and fixture stem holes in bottom.

No. 33-B is furnished without clamps.
No. 44-B is furnished with clamps.

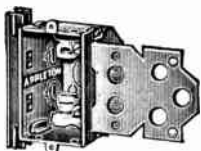
No.	DIMENSIONS, INCHES			Clamps (Two)	Std. Pkg.	Wt., Lb. per 100
	Length	Width	Depth			
33-B	$2\frac{1}{4}$	3	2	None	50	78
44-B	$2\frac{1}{4}$	3	2	CL-5	50	82

No. 387-B Appleton Switch Boxes

Schedule SB

**With Mounting Bracket and Lath Support
Black Enameled—Galvanized
With CL-16 Clamps**

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



Knockouts, $2\frac{1}{32}$ -inch, two in each side, two in each beveled corner; four $2\frac{1}{32}$ -inch and one $\frac{1}{2}$ -inch in bottom.

No.	DIMENSIONS, INCHES			Clamps (2)	Std. Pkg.	Wt., Lb. per 100
	Length	Width	Depth			
387-B	3	2	$2\frac{1}{4}$	CL-16	100	68

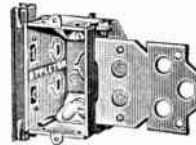
No. 388-B Appleton Switch Boxes

Schedule SB

**With Mounting Bracket and Lath Support
With Two No. CL-17 Clamps**

Black Enameled or Galvanized

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



Knockouts, two $2\frac{1}{32}$ -inch; two in sides; two in each beveled corner. Also one $\frac{1}{2}$ -inch conduit K.O. and fixture stem holes in bottom.

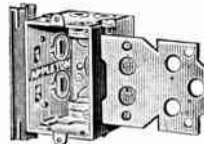
No.	DIMENSIONS, INCHES			Std. Pkg.	Wt., Lb. per 100
	Length	Width	Depth		
388-B	3	2	$2\frac{3}{4}$	50	82

Appleton Switch Boxes

Schedule SB

**With Mounting Bracket and Lath Support
Black Enameled—Galvanized**

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



No. 385-B

Knockouts, $2\frac{1}{32}$ -inch, two in each end, two in sides; four $2\frac{1}{32}$ -inch and one $\frac{1}{2}$ -inch in bottom. Both boxes are furnished with CL-23 clamps.

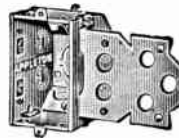
No.	DIMENSIONS, INCHES			Clamps (2)	Std. Pkg.	Wt., Lb. per 100
	Length	Width	Depth			
385-B	3	2	2	CL-23	50	86
386-B	3	2	$2\frac{1}{2}$	CL-23	50	93

Appleton Switch Boxes

Schedule SB

**With Mounting Bracket—Without Lath Support
Black Enameled or Galvanized**

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



No. 44-NL

Knockouts, $2\frac{1}{32}$ -inch; two in each side, two in each beveled corner. Also $\frac{1}{2}$ -inch knockout and fixture stem holes in bottom.

No. 33-NL furnished without clamps.
No. 44-NL furnished with clamps.

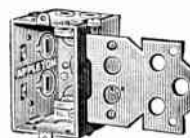
No.	DIMENSIONS, INCHES			Clamps (Two)	Std. Pkg.	Wt., Lb. per 100
	Length	Width	Depth			
33-NL	3	2	$2\frac{1}{4}$	None	50	74
44-NL	3	2	$2\frac{1}{4}$	CL-5	50	82

Appleton Switch Boxes

Schedule SB

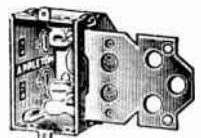
**With Mounting Bracket—Less Lath Support
Black Enameled—Galvanized**

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



No. 385-NL

Knockouts, $3\frac{1}{32}$ -inch, two in each side, two in each end; four $2\frac{1}{32}$ -inch and one $\frac{1}{2}$ -inch in bottom.



No. 387-NL

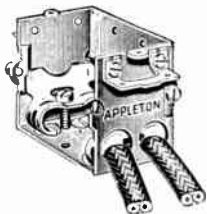
No.	DIMENSIONS, INCHES			Clamps (2)	Std. Pkg.	Wt., Lb. per 100
	Length	Width	Depth			
385-NL	3	2	2	CL-23	50	78
386-NL	3	2	$2\frac{1}{2}$	CL-23	50	88
387-NL	3	2	$2\frac{1}{4}$	CL-16	50	84

Appleton Switch Boxes

Schedule SB

With Adjustable Ears—CL-23 Clamps
Black Enameled—Galvanized

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing



With Side Removed to Show Clamps Used

Knockouts, two $2\frac{1}{32}$ -inch in ends, two $2\frac{1}{32}$ -inch in sides; four $2\frac{1}{32}$ -inch and one $1\frac{1}{2}$ -inch in bottom.

Furnished with two CL-23 clamps which securely hold the cable in place without injury to the outer covering. Braze of cable does not have to be removed before inserting it into box.

No.	DIMENSIONS, INCHES			Clamps (2)	Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth			
385	3	2	2	CL-23	100	65
386	3	2	$2\frac{1}{2}$	CL-23	100	77

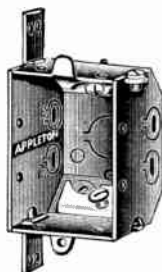
Appleton VB Bracket Switch Boxes

Schedule SB

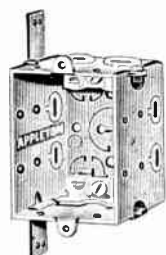
Without Lath Support
Black Enameled—Galvanized

For Non-Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing

Used in Wall Board, Beaver Board, Veneer Board and Plaster Board Construction



No. 44-VB



No. 385-VB



No. 387-VB

Plastered wall construction has given away, to a large extent, to the popularity of wall board, veneer board and similar type of construction.

In order to simplify the electricians' work in installations using wall board or veneer board, the VB Bracket Switch Box provides a simple solution to what ordinarily is a rather complicated task. The flat type VB bracket spot welded onto the long side of a standard switch box provides an easy means of solidly mounting the switch box to the wide side of a two-by-four, thus eliminating the need for channeling out the wall board or the studding. The VB Bracket Switch Box is easily fixed into place so that the edges of the switch box come perfectly flush with the outer surface of the board.

May also be used under $\frac{3}{4}$ -inch Celotex or boards having a thickness up to $\frac{1}{8}$ -inch.

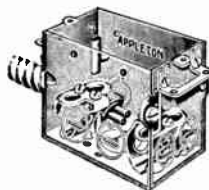
No.	Depth Inches	Box Used	Clamps (Two)	Std. Pkg.	Wt. Lb. per 100
33-VB	$2\frac{1}{4}$	No. 33	None	50	68
44-VB	$2\frac{1}{4}$	No. 44	CL-5	50	72
385-VB	2	No. 385	CL-23	50	77
386-VB	$2\frac{1}{2}$	No. 386	CL-23	50	81
387-VB	$2\frac{1}{4}$	No. 387	CL-16	50	72

No. 83 Appleton Switch Boxes

Schedule SB

With No. CL-25 2-Way Knockout Closing Clamps
Black Enameled or Galvanized

For Flexible Steel Conduit and Armoured Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation



Knockouts, $3\frac{1}{32}$ -inch; two in each side, two in each end, and four in bottom.

Also one $1\frac{1}{2}$ -inch knockout and fixture stem holes in center of bottom.

Clamp will hold cable with entrance either through end or bottom knockouts.

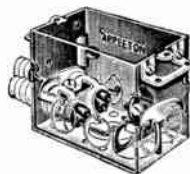
No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
83	3	2	$2\frac{1}{2}$	100	83

Appleton Switch Boxes

Schedule SB

With No. CL-13 Clamps
Black Enameled or Galvanized

For Flexible Steel Conduit and Armoured Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation



Knockouts: ends, two $2\frac{1}{32}$ -inch; sides, two $2\frac{1}{32}$ -inch; bottom, four $2\frac{1}{32}$ -inch and one $1\frac{1}{2}$ -inch for conduit.

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
171-F	3	2	2	100	65
173-F	3	2	$2\frac{1}{2}$	100	77
175-F	3	2	3	100	89

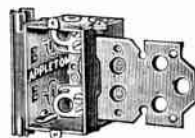
No. 83-B Appleton Switch Boxes

Schedule SB

With Lath Support and Mounting Bracket
With No. CL-25 Clamps

Black Enameled or Galvanized

For Flexible Steel Conduit and Armoured Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation



Knockouts, $2\frac{1}{32}$ -inch, two in each side, two in each end, and four in bottom.

Also $1\frac{1}{2}$ -inch knockout and fixture stem holes in bottom.

Clamp will hold cable with entrance either through end or bottom knockouts.

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
83-B	3	2	$2\frac{1}{2}$	50	100

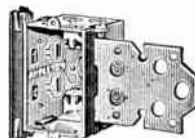
Appleton Switch Boxes

Schedule SB

With Lath Support and Mounting Bracket
With Two No. CL-13 Clamps

Black Enameled or Galvanized

For Flexible Steel Conduit and Armoured Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation



For armored cable. With special flanged, bushed visible clamps.

Knockouts, $2\frac{1}{32}$ -inch, two in each side, two in each end, and four in bottom.

Also $1\frac{1}{2}$ -inch knockout and fixture stem holes in bottom.

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
171-FB	3	2	2	50	86
173-FB	3	2	$2\frac{1}{2}$	50	93

Appleton VB Bracket Switch Boxes

Schedule SB

Without Lath Support

Black Enameled—Galvanized

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation



Used in wall board, beaver board, vincer board and plaster board construction.

Knockouts, two 2 1/8-inch in ends, two 2 1/8-inch in sides; four 2 1/8-inch and one 1/2-inch in bottom.

Length of box, 3 inches; width, 2 inches.

No.	Type of Box Used	Depth Inches	Clamps (2)	Std. Pkg.	Wt. Lb. per 100
171-FVB	171-F	2	CL-13	100	76
173-FVB	173-F	2 1/2	CL-13	100	83

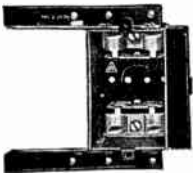
Appleton Switch and Receptacle Boxes

Schedule SB

**With Extended Ears and Lath Support
Black Enamel or Galvanized**

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation

Switch Boxes with Two No. CL-13 Clamps

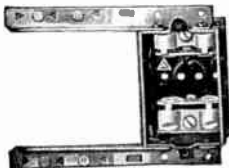


No. 173-FEE

With knockout-closing, bushed, visible clamps. Knockouts, 2 1/8-inch, two in each side, two in each end, and four in bottom.

Also 1/2-inch knockout and fixture stem holes in bottom.

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. Per 100
	Length	Width	Depth		
173-FEE	3	2	2 1/2	50	94



No. 173-FEX

With flanged, bushed, visible clamps. Knockouts, 2 1/8-inch, two in each side, two in each end, and four in bottom.

Also 1/2-inch knockout and fixture stem holes in bottom.

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
171-FEX	3	2	2	50	91
173-FEX	3	2	2 1/2	50	81

Receptacle Boxes with One No. CL-13 Clamp

For Receptacles Mounted in Plaster

With 2 1/8-inch knockouts, two in each side, two in each end and four in bottom. With knockout closing, visible clamp.

Also 1/2-inch knockout and fixture stem holes in bottom.



No. 173-FES

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
173-FES	3	2	2 1/2	50	90

For Receptacles Mounted in Wooden Baseboard

Knockouts, 2 1/8-inch; two in each side, two in each end and four in bottom. Also 1/2-inch knockout and fixture stem holes in bottom.



173-FESW

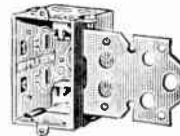
No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
173-FESW	3	2	2 1/2	50	91

Appleton Sectional Switch Boxes

Schedule SB

**With Mounting Bracket—Without Lath Support
With Two No. CL-13 Clamps
Black Enameled or Galvanized**

For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation



Knockouts, 2 1/8-inch; two in each side, two in each end, and four in bottom.

Also one 1/2-inch knockout and fixture stem holes in center of bottom.

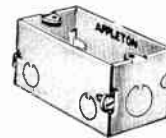
No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
171-FNL	3	2	2	50	78
173-FNL	3	2	2 1/2	50	88

No. 444 Appleton Switch Boxes

Schedule SB

Black Enameled or Galvanized

For 1/2-Inch Rigid Conduit (Heavy Wall)



For new work only. Designed as a combination loom and conduit, shallow switch box for use where there are thin partitions and also for outside wall work.

The knockouts in ends, also in bottom, are for 1/2-inch conduit and the two 2 1/8-inch knockouts on either side are for loom or 3/8-inch flexible conduit. Also one 1/2-inch knockout and fixture stem holes in bottom.

All sides are interchangeable. Without supporting ears.

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
444	4	2	1 7/8	50	65

Appleton Switch Boxes

Schedule SB

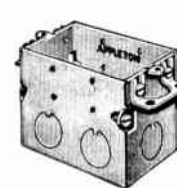
Without Clamps—With Supporting Ears

Black Enameled or Galvanized

For 1/2-Inch Rigid Conduit (Heavy Wall)



No. 111



No. 222



No. 333
No. 333-D

Knockouts: ends, one 1/2-inch; sides, two 1/2-inch; bottom, one 1/2-inch.

No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
111	3	2	2	100	60
222	3	2	2 1/2	100	70
333	3	2	2 3/4	100	77
333-D	3	2	3 1/2	50	91

No. 1490 Appleton Switch Box Extensions

Schedule SB

Black Enamel or Galvanized



Designed to fit snugly inside the box and allow ample room for switch and wiring.

Screws furnished are 1-inch long.

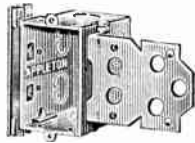
Fits all single-gang switch boxes.

Depth, 7/8-inch. Standard package, 100. Weight per 100, 15 pounds.

Appleton Sectional Switch Boxes

Schedule SB

With Lath Support and Mounting Bracket
Black Enameled or Galvanized



No. 111-B. Knockouts, one in each end and two in each side for 1/2-inch conduit. Also 1/2-inch knockout and fixture stem holes in bottom.

Nos. 222-B and 333-B. Knockouts, two in each side, one in each end for 1/2-inch conduit. Also 1/2-inch knockout and fixture stem holes in bottom.

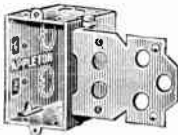
No.	DIMENSIONS, INCHES			Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth		
111-B	3	2	2	50	78
222-B	3	2	2 1/2	50	88
333-B	3	2	2 3/4	50	94

Appleton Solid Switch Boxes

Schedule BC

With Mounting Bracket—Without Lath Support
Black Enameled or Galvanized
Without Clamps

For 1/2-Inch Rigid Conduit (Heavy Wall)



No. 111-NL. Has knockouts in each end and two in each side for 1/2-inch conduit. Also 1/2-inch knockout and fixture stem holes in center of bottom.

Nos. 222-NL and 333-NL. Have two knockouts in each side, one in each end for 1/2-inch conduit. Also 1/2-inch knockout and fixture stem holes in bottom.

No.	Type Box	—DIMENSIONS, INCHES—			Std. 1 kg.	Wt per 100
		Length	Depth	Depth		
111-NL	111	3	2	2	50	78
222-NL	222	3	2	2 1/2	50	88
333-NL	333	3	2	2 3/4	50	94

Appleton VB Bracket Switch Boxes

Schedule SB

Without Lath Support

Black Enameled—Galvanized

For 1/2-Inch Rigid Conduit (Heavy Wall)



All 1/2-inch knockouts are for 1/2-inch conduit. One 1/2-inch in ends, two 1/2-inch in sides and one 1/2-inch in bottom.

No clamps furnished with these boxes.

No.	Type of Box Used	—DIMENSIONS, INCHES—			Std. Pkg.	Wt., Lb. per 100
		Length	Width	Depth		
111-VB	111	3	2	2	100	78
222-VB	222	3	2	2 1/2	100	88
333-VB	333	3	2	2 3/4	100	94

Appleton Door Switch Boxes

Schedule SB

Black Enameled or Galvanized
For Rigid and Flexible Conduit

Made in accordance with specifications recommended by the Underwriters' Laboratories, Inc.

No. 7010, Without Clamps

For Perkins door switches. Knockouts, one 5/8-inch in one end and bottom for flexible non-metallic sheathed cable with Type T or 1947 Code rubber insulation; one 1/2-inch in opposite end for rigid conduit.

No. 7011, With Clamps

Same as above but with 2 3/32-inch knockout for flexible steel conduit and furnished with clamp.

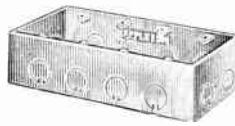
No.	DIMENSIONS, INCHES			Screw Ctr. In.	Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth			
7010	3 3/8	1 1/4	2 5/8	3 3/4	5	79
7011	3 3/8	1 1/4	2 5/8	3 3/4	5	79

Appleton Solid Gang Switch Boxes

Schedule SB

Galvanized Finish Only

With Square Corners—For Rigid Conduit



Solid; boxes ears permit mounting any standard push button or rectangular base switch and also receptacles. Used for concealed work, but can be furnished for open work and flush covers.

K.O. In.	Std. Pkg.	—Depth, 2 1/4 In.—		—Depth, 2 1/2 In.—	
		No.	Wt., Lb. per 100	No.	Wt., Lb. per 100
1/2	20	19010	130	19011	140
	20	19025	130	19026	140
3/4	10	19015	175	19016	185
	10	19030	175	19031	185
1/2	5	19020	205	19021	235
	5	19035	205	19036	235
1/2	1	19070	195	19080	215
	1	19075	195	19085	215
1/2	1	19071	340	19081	350
	1	19076	340	19086	350

Appleton Solid Gang Switch Box Covers

Schedule SB

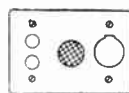
Galvanized Finish Only—2, 3, 4, 5 and 6-Gang

Furnished with fastening screws.

Combination Covers

In ordering describe the combinations by giving the Nos. of the component covers from left to right in order of arrangement desired. Example: An order for 50 three-gang covers for flush mounting, for push button switch, pilot lamp and round flush receptacle, arranged from left to right in order given, should read: 50 flush covers, combination FRK, for three-gang solid switch box.

The price of any combination cover is the sum of the prices of the component covers listed plus a flat charge per gang.



No. F



For double push button switches.

No. J



For round flush receptacles, (without lift cover).

No. K



For round flush receptacles, (with lift cover).

No. O



For standard duplex flush receptacles.

No. PS1



For P & S-Despard, Bryant IL, and Hubbell Interchangeable Line (for 1 device).

No. PS3



For P & S-Despard, Bryant IL, and Hubbell Interchangeable Line (for 2 or 3 devices).

No. Q



For sign receptacles with removable ring (1 1/2-inch hole).

No. R



For pilot lamp receptacle, with ruby jewel.

No. S



For Arrow, Bryant, Connecticut and G-E Tumbler and toggle switches.

No. X



Blank metal.

Appleton Laundry Fittings
Schedule SB
Black Enamel or Galvanized
With Single or Duplex Receptacles



These fittings are furnished in single gang, in sectional style which permits removing sides, and they can be built into any number of gangs necessary.

Each section is provided with a hinged door and lugs which will permit of using an ordinary small padlock. Padlock is not furnished.

No. 1460

No.	DIMENSIONS, INCHES			Size K.O. Inches	Std. Pkg.	Wt. Lb. per 100
	Length	Width	Depth			
1460	3	2	2 3/4	1/2	20	120
Duplex Receptacle						
1462	3	2	2 3/4	1/2	20	144

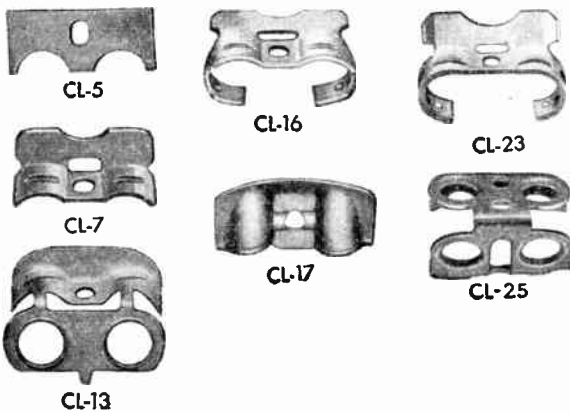
Appleton Clamps

Schedule SB

For Switch Boxes

For Metallic Sheathed Cable with Type T or 1947 Code Rubber Insulation and Non-Metallic Flexible Tubing, also For Flexible Steel Conduit and Armored Cable with 1940 Code Rubber Insulation, Type T Insulation, and 1947 Code Rubber Insulation

Illustrated below are the various types of the Appleton Cable Clamps as used in Appleton Switch Boxes. Along with the listing of all boxes having clamps, we specify the number of the clamp furnished. These clamp numbers correspond with those listed below and illustrate more clearly the clamps furnished with each box.

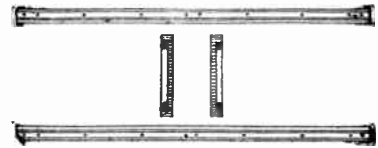


Box No.	Clamp No.	Box No.	Clamp No.	Box No.	Clamp No.
44	CL-5	171-FNL	CL-13	385-VB	CL-23
44-AE	CL-5	171-FVB	CL-13	386	CL-23
44-B	CL-5	173-F	CL-13	386-B	CL-23
44-NL	CL-5	173-FB	CL-13	386-NL	CL-23
44-VB	CL-5	173-FEE	CL-13	386-VB	CL-23
83	CL-25	173-FES	CL-13	387	CL-16
83-B	CL-25	173-FESW	CL-13	387-AE	CL-16
95	CL-7	173-FEX	CL-13	387-B	CL-16
171-F	CL-13	173-FNL	CL-13	387-NL	CL-16
171-FB	CL-13	173-FVB	CL-13	387-VB	CL-16
171-FEE	CL-13	385	CL-23	388	CL-17
171-FES	CL-13	385-B	CL-23	388-B	CL-17
171-FEX	CL-13	385-NL	CL-23		

Appleton Switch Box Supports

Schedule SB

Kruse Type

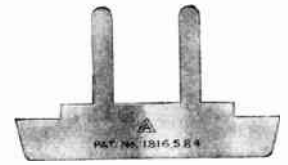
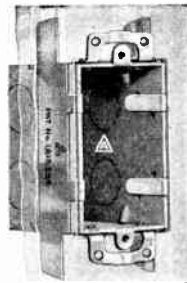


Used for new work on any standard switch box.

No.	Description	Std. Pkg.	Wt. Lb. per 100
897	Two 16 1/2-Inch Strips and Lath Support	*500	40
898	Two 18 1/2-Inch Strips and Lath Support	*500	50

*Sets.

No. 896 E-Z-IN Type



The E-Z-In switch box support solves the problem of mounting switch boxes to beaverboard, sheet-rock, metal lath, etc. Suitable for old house wiring using lath and plaster, and will take standard switch boxes of any number of gangs.

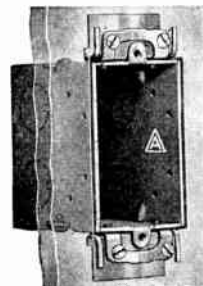
After cutting an opening in the wall just large enough to admit switch box, insert E-Z-In switch box support, one on each side of opening for switch box and bend over the two projections against the wall on the outside which serve to fasten the switch box support temporarily until the box is inserted.

The box can then be inserted in wall in the usual manner, making sure to press ears of box firmly against the wall then while still pressing against box, bend the projections of the switch box supports down over the sides into the box, securely anchoring the box in wall constructed of any material. It is unnecessary to countersink the ears of the box and no screws are required. The switch or receptacle plate will lie flat on the surface of walls.

Standard package, 1000.

Weight per 1000, 13 1/2 pounds.

No. 895 Switch Box Clips



Designed to hold the switch box firmly in place in wallboard.

Illustration shows the switch box clip back of the wallboard, and held in place by bending over the prongs after which the screws are placed through the ends of the ears and the switch box is fastened through the

wall board into the clip.

Cadmium finish only.

Standard package, 1000.

Weight per 1000, 23 pounds.

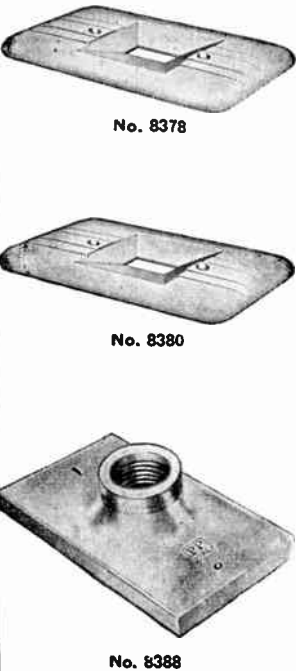
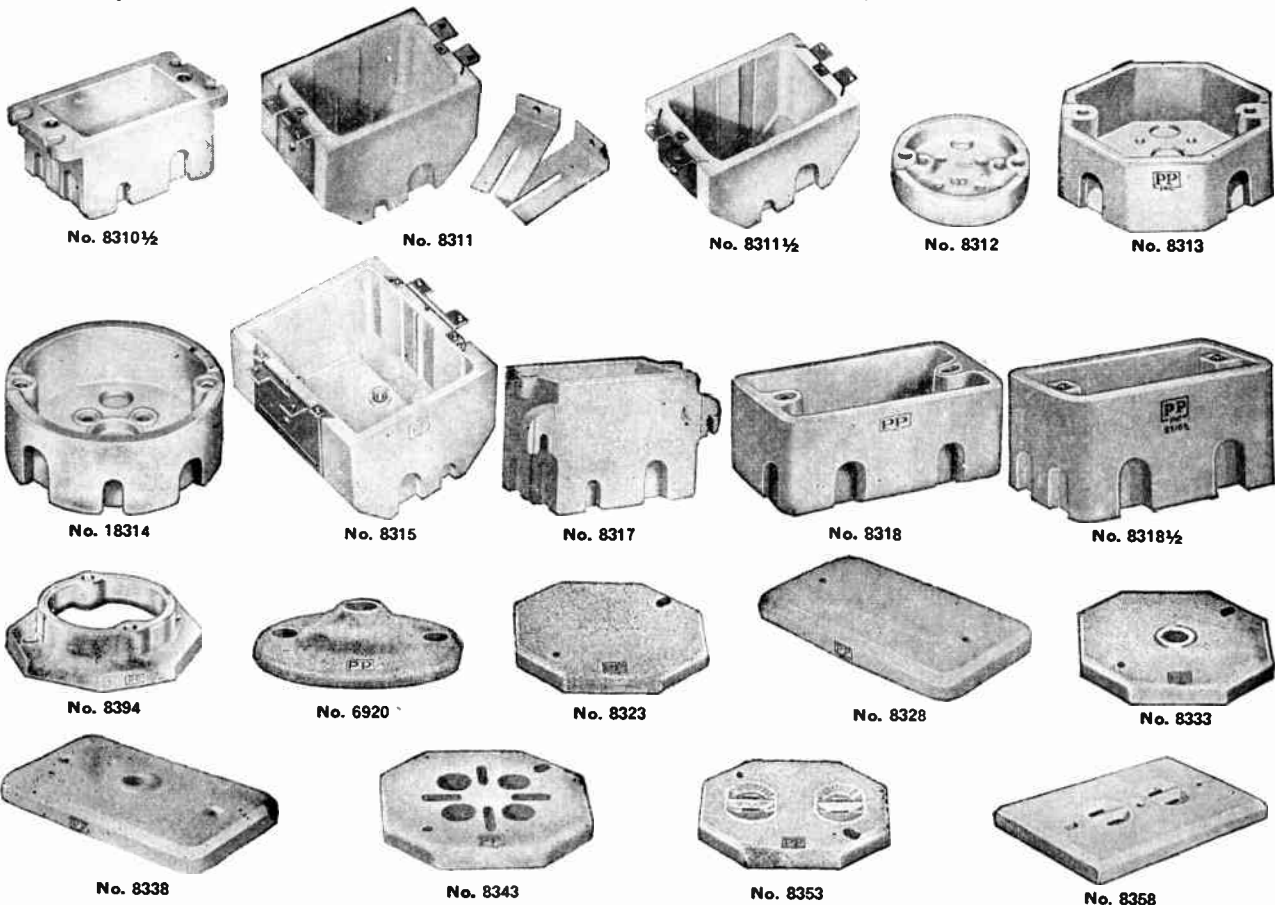
All-Porcelain Outlet Boxes, Covers and Receptacles

Listed by Underwriters' Laboratories, Inc.

Designed to receive standard wiring devices. Standard tapped inserts, knockouts, and spacing.

Provide a completely insulated wiring system when used with standard concealed knob and tube wiring, open cleat wiring or non-metallic sheathed cable, eliminating all live metallic exposures.

Ease of installation and economy are effected through elimination of grounding, clamps, and connectors. Grounding is not required since the porcelain box is an insulator, and the Code permits dispensing with clamps and connectors when the approaching conductors are supported within 6 inches of the box.



No.	Per 100	Description	Car-ton	Std. Pkg.	Ship. Wt. Lb. per 100
8310 1/2	\$30.80	Unglazed All Porcelain Shallow Switch Box.....	10	50	45
8311	52.80	Unglazed Switch Box with Adj. Mounting Lugs and Hangers	10	50	85
8311 1/2	52.80	Unglazed Shallow Switch Box with Adj. Mounting Lugs.....	10	50	55
8312	20.50	Unglazed Porcelain Shallow Ceiling Box.....	10	50	45
8313	27.00	Unglazed 3 1/4-Inch Octagonal Porcelain Outlet Box.....	10	50	70
8314	36.00	Unglazed 4-Inch Octagonal Porcelain Outlet Box.....	10	50	90
18314	36.00	Unglazed 4-Inch Round Porcelain Outlet Box.....	10	50	80
8315	36.00	Unglazed Two-Gang Switch Box with Adj. Mounting Lugs...	5	50	98
8317	102.20	Unglazed All Porcelain Switch Box.....	10	50	62
8318	30.80	Unglazed Ready Porcelain Outlet Box.....	10	50	90
8318 1/2	32.30	Unglazed Deep Ready Porcelain Outlet Box.....	10	50	110
8394	27.40	Unglazed Plaster Ring Cover for 4-Inch Box.....	16	80	49
6920	13.80	Glazed Pendant Cover for 3 1/4-Inch Round Box.....	10	50	34
6921	19.30	Glazed Pendant Cover for 4-Inch Round Box.....	10	50	70
8323	12.70	Glazed Blank Cover for 3 1/4-In. Oct. Porcelain Outlet Box...	10	50	30
8324	19.30	Glazed Blank Cover for 4-In. Oct. Porcelain Outlet Box.....	10	50	60
8328	12.70	Glazed Blank Cover for Ready Porcelain Outlet Box.....	10	50	46
8333	14.50	Glazed Pendant Cover for 3 1/4-In. Oct. Porcelain Outlet Box.	10	50	30
8334	21.10	Glazed Pendant Cover for 4-In. Oct. Porcelain Outlet Box...	10	50	60
8338	14.50	Glazed Pendant Cover for Ready Porcelain Outlet Box.....	10	50	48
8343	14.90	Glazed Mounting for 3 1/4-In. Oct. Porcelain Outlet Box.....	10	50	30
8344	21.50	Glazed Mounting Cover for 4-In. Oct. Porcelain Outlet Box .	10	50	62
8353	39.00	Glazed Dup. Flush Rec. for 3 1/4-In. Oct. Porcelain Outlet Box	5	25	60
8354	51.00	Glazed Dup. Flush Rec. for 4-In. Oct. Porcelain Outlet Box...	10	50	70
8358	39.00	Glazed Dup. Flush Rec. for Ready Porcelain Outlet Box.....	5	25	60
8378	14.90	Glazed Tumbler Switch Cover for Ready Porcelain Outlet Box	10	50	30
8380	16.60	Glazed Tumbler Switch Cover, for all Standard Switch Boxes	10	50	38
8388	50.40	Glazed Ready Receptacle, Keyless.....	10	50	80

All Porcelain Oversize Receptacles and Covers

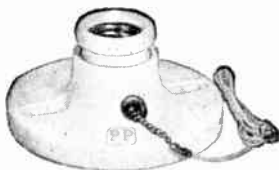
For Outlet Boxes



No. 6922



No. 8680



No. 8793-C

Have an overall diameter of 4½ inches.

Mounting screw holes slotted, permitting use with either 3½ or 4 inch boxes.

No.	Per 100	Description	Std. Pk. per 100	Ship. Wt. Lb. per 100
6922	\$20.70	Pendant Cover.....	50	58
8680	50.40	Keyless Receptacle.....	50	85
8793-C	95.46	Pull Rec. with Chain and Cord..	50	96

Parker Bakelite Outlet Box Covers

No. 5051 Blank or Knockout Covers



No. 5051

For Nos. 5050, 6050, and 7050 boxes.

No. 5051 may be used either as blank or by using knockouts for 1, 2, or 3. P. & S. Despard, Bryant II, or Hubbell I.S. wiring devices.

No. 5051-S same as No. 5051 with metal strap included.

Packed 10 in a carton, 100 in a standard package.

No.	Per 100	Description	Std. Pk. per 100	Ship. Wt. Lb. per 100
No. 5051			5051	5051-S
Less Than 100.....	per 100		\$8.59	19.93
Wt. Std. Pkg.....	pounds		6	13

No. 5053 Duplex Receptacle Covers



Packed 10 in a carton, 100 in a standard package.

Standard package weight, 6 pounds.

No. 5053 (Less Than 100).....	per 100	\$8.59
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No. 5055 Toggle Switch Covers



Packed 10 in a carton, 100 in a standard package.

Standard package weight, 6 pounds.

No. 5055 (Less Than 100).....	per 100	\$8.59
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Parker Bakelite Outlet Boxes

Especially designed for use with open non-metallic sheathed and CNX Type cable wiring and in all places where corrosive fumes are present. They resist corrosion from Ammonia fumes in cattle barns, acid fumes in Chemical or Industrial Plants; also any place where salt or moist air is present.

Bakelite boxes require no grounding. The sizes and design, except for clamps and wire knockouts, same as standard metal outlet boxes. They take standard types of fixture studs. Two clamps supplied with each box.

May be had without clamps or outlet boxes, if so specified, can be furnished with either three or four clamps.

Boxes have side knockouts and clamps to take 14-2, 14-3, and 12-2 non-metallic sheathed cable, and 14-2, 14-3, 12-2, and 12-3 CNX Type Cable and one ½ inch bottom knockout.

Packed 100 in standard package.

Octagonal Boxes

Depth 1½ inches.



No. 4050

No.	3050	4050	
Less Than 100.....	per 100	\$18.56	23.62
Size Box.....	inches	3¼	4
Wt. Std. Pkg.....	pounds	22	26

Rectangular Boxes

Switch type. Depth 2½ inches, length 4½ inches.



No. 5050

No.	5050	6050	
Less Than 100.....	per 100	\$23.62	26.33
Wt. Std. Pkg.....	pounds	30	33

No. 7050 Rectangular Boxes

Switch type. 3 inches long, 2 inches deep.



Weight standard package, 26 pounds.

No. 7050 (Less Than 100)....	per 100	\$22.99
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Clamps

Packed standard package of 100. Weight, 4 pounds.
 No. 34, For Nos. 3050, 4050 and 7050-S Boxes... per 100 \$3.17
 No. 35, For Nos. 5050, 6050, and 6051B Boxes... per 100 3.38
 No. 36, For Nos. 7050, and 7051B Boxes..... per 100 3.51

Bakelite Outlet Box Covers

Standard color black. Packed 10 in a carton, 100 in a standard package.

Nos. 3051 and 4051 may be used either as pendant or blank cover. Each has a knockout to convert from blank to pendant.

Blank or Pendant Covers



No. 3051

No.	3051	4051	
Less Than 100.....	per 100	\$9.33	13.60
Size.....	inches	3¼	4
Wt. Std. Pkg.....	pounds	7	13

Surface Mounting Covers



No. 3054

No.	3052	4052	
Less Than 100.....	per 100	\$9.58	13.86
Size.....	inches	3¼	4
Wt. Std. Pkg.....	pounds	7	13

Receptacle Socket Covers

Nos. 3051 and 4051 are for mounting receptacle type sockets.



No. 3053

No.	3054	4054	
Less Than 100.....	per 100	\$10.66	15.10
Size.....	inches	3¼	4
Wt. Std. Pkg.....	pounds	7	13

Duplex Receptacle Covers



No. 4055

No.	3053	4053	
Less Than 100.....	per 100	\$10.66	15.10
Size.....	inches	3¼	4
Wt. Std. Pkg.....	pounds	7	13

Toggle Switch Covers

Size 4 inches.
 Weight standard package, 13 pounds.
 No. 4055..... per 100 \$13.8

Appleton Pull Boxes

Schedule OB

Cadmium Finish

For Pulling A Number of Heavy Wires or Cables—With Blank Covers



Type PTC Threaded



Type PTC No-Thread



Type PTB Threaded



Type PTB No-Thread

Made from sheet steel and including blank steel cover. Hubs are malleable iron and brazed into steel body.

Can be furnished in special types to meet varying conditions. Give specifications and sketch in applying for prices.

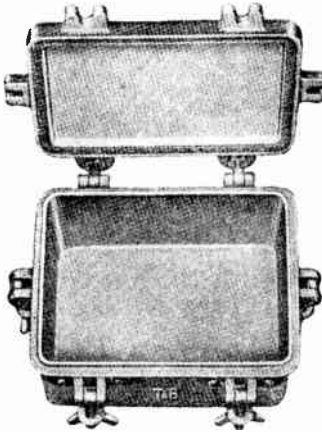
*Lgth. In.	†1-Inch Size				†1¼-Inch Size			
	Threaded		No-Thread		Threaded		No-Thread	
	Type PTC No.	Type PTB No.	Type PTC No.	Type PTB No.	Type PTC No.	Type PTB No.	Type PTC No.	Type PTB No.
12	1200	1250	12N00	12N50	1201	1251	12N01	12N51
18	1210	1260	12N10	12N60	1211	1261	12N11	12N61
24	1220	1270	12N20	12N70	1221	1271	12N21	12N71
30	1230	1280	12N30	12N80	1231	1281	12N31	12N81
36	1240	1290	12N40	12N90	1241	1291	12N41	12N91
	†½-Inch Size				2-Inch Size			
12	1202	1252	12N02	12N52	1203	1253	12N03	12N53
18	1212	1262	12N12	12N62	1213	1263	12N13	12N63
24	1222	1272	12N22	12N72	1223	1273	12N23	12N73
30	1232	1282	12N32	12N82	1233	1283	12N33	12N83
36	1242	1292	12N42	12N92	1243	1293	12N43	12N93
42	.....	.....	.....	.....	1800	1850	18N00	18N50
48	.....	.....	.....	.....	1810	1860	18N10	18N60
54	.....	.....	.....	.....	1820	1870	18N20	18N70
60	.....	.....	.....	.....	1830	1880	18N30	18N80
66	.....	.....	.....	.....	1840	1890	18N40	18N90
72	.....	.....	.....	.....	1550	1540	15N10	15N40
	2½-Inch Size				3-Inch Size			
12	1204	1254	12N04	12N54	1205	1255	12N05	12N55
18	1214	1264	12N14	12N64	1215	1265	12N15	12N65
24	1224	1274	12N24	12N74	1225	1275	12N25	12N75
30	1234	1284	12N34	12N84	1235	1285	12N35	12N85
36	1244	1294	12N44	12N94	1245	1295	12N45	12N95
42	1801	1851	18N01	18N51	1802	1852	18N02	18N52
48	1811	1861	18N11	18N61	1812	1862	18N12	18N62
54	1821	1871	18N21	18N71	1822	1872	18N22	18N72
60	1831	1881	18N31	18N81	1832	1882	18N32	18N82
66	1841	1891	18N41	18N91	1842	1892	18N42	18N92
72	1551	1541	15N11	15N41	1552	1542	15N12	15N42
	3½-Inch Size				4-Inch Size			
12	1206	1256	12N06	12N56	1207	1257	12N07	12N57
18	1216	1266	12N16	12N66	1217	1267	12N17	12N67
24	1226	1276	12N26	12N76	1227	1277	12N27	12N77
30	1236	1286	12N36	12N86	1237	1287	12N37	12N87
36	1246	1296	12N46	12N96	1247	1297	12N47	12N97
42	1803	1853	18N03	18N53	1804	1854	18N04	18N54
48	1813	1863	18N13	18N63	1814	1864	18N14	18N64
54	1823	1873	18N23	18N73	1824	1874	18N24	18N74
60	1833	1883	18N33	18N83	1834	1884	18N34	18N84
66	1843	1893	18N43	18N93	1844	1894	18N44	18N94
72	1553	1543	15N13	15N43	1554	1544	15N14	15N44
	5-Inch Size				6-Inch Size			
12	1208	1258	12N08	12N58	1209	1259	12N09	12N59
18	1218	1268	12N18	12N68	1219	1269	12N19	12N69
24	1228	1278	12N28	12N78	1229	1279	12N29	12N79
30	1238	1288	12N38	12N88	1239	1289	12N39	12N89
36	1248	1298	12N48	12N98	1249	1299	12N49	12N99
42	1805	1855	18N05	18N55	1806	1856	18N06	18N56
48	1815	1865	18N15	18N65	1816	1866	18N16	18N66
54	1825	1875	18N25	18N75	1826	1876	18N26	18N76
60	1835	1885	18N35	18N85	1836	1886	18N36	18N86
66	1845	1895	18N45	18N95	1846	1896	18N46	18N96
72	1555	1545	15N15	15N45	1556	1546	15N16	15N46

*Dimensions give length of body only, not including hubs.

†Not made in lengths longer than 36 inches.

T&B Weatherproof Cast Iron Junction Boxes

Approved by Underwriters' Laboratories



For enduring, weatherproof service. Cover has a deep recess in which square packing is secured. Strong bronze hinges on one long side and an adequate number of big, easy turning bronze thumb nuts on the other three sides make a perfect watertight job when the cover is tightened. Made of medium fine grain cast iron with hot dip galvanized finish.

No.	Each	SIZE, INCHES			Approx. Wall Thickness Inches	WEIGHT, POUNDS	
		Length	Width	Depth		Cover	Box
10500	\$12.00	6	4	1	1/8	2.0	5.0
10501	12.80	6	4 1/2	3	1/8	2.5	5.0
10502	15.60	6	6	4	3/32	3.0	10.0
10503	16.00	8	6	4	3/32	4.0	15.0
10504	17.60	8	6	6 3/4	3/32	4.0	12.3
10505	17.20	12	6	3	3/16	5.5	10.2
10545	19.00	12	6	6	3/16	5.5	13.0
10506	22.00	18	6	6 3/4	3/16	8.3	16.0
10507	15.00	9	7	3	3/16	5.0	8.0
10508	31.00	17	7	4	3/16	12.0	22.0
10509	16.00	8	8	4	3/16	5.0	9.0
10510	16.40	8	8	5	3/16	5.0	10.3
10511	18.00	8	8	6	3/16	4.5	10.3
10512	20.00	10	8	4	3/16	4.0	16.0
10538	24.00	12	8	6	1/4	8.0	20.0
10513	30.00	14	8	5	3/16	12.0	21.0
10514	40.00	18	8	6	1/4	11.0	27.0
10534	76.00	27	9	4 1/2	1/4	32.0	60.0
10515	21.00	10	10	1	1/4	8.2	13.2
10516	24.00	10	10	6	1/4	8.0	16.2
10517	22.40	12	10	1	1/4	10.0	14.0
10518	24.40	12	10	5	1/4	7.0	19.0
10519	34.00	14	10	6	1/4	10.0	24.0
10543	35.00	16	10	5	1/4	11.0	26.0
10520	36.00	18	10	4	5/16	13.0	23.0
10521	76.00	22	11	6	5/16	14.5	35.0
10522	28.00	12	12	4	1/4	10.0	16.0
10539	32.00	12	12	6	3/16	12.0	23.0
10523	36.00	16	12	1	1/4	15.0	27.0
10524	42.00	16	12	6	5/16	15.0	40.0
10535	72.00	16	12	8	3/16	20.0	70.0
10536	128.00	22	12	6	5/16	35.0	150.0
10537	130.00	23	13	10	3/8	40.0	110.0
10525	96.00	24	12	7	3/8	29.0	70.0
10526	65.00	19	14	4	3/8	31.0	50.2
10527	64.00	20	16	6	3/8	26.0	64.0
10532	104.00	20	17 1/2	8	3/8	45.0	120.0
10533	136.00	27 1/2	17 1/2	8	3/8	58.0	155.0
10528	72.00	18	18	6	3/8	29.0	73.0
10547	80.00	18	18	8	3/8	29.0	85.0
10529	88.00	18	18	10	3/8	32.0	100.0
10530	80.00	24	18	6	3/8	42.0	83.0
10531	144.00	36	18	8	3/4	70.0	173.0

T&B Cast Iron Junction Boxes and Covers

Approved by Underwriters' Laboratories
Flanged or Flush Type



Hot dip galvanized finish.
Drilling and tapping at extra cost.

No.	Box Only Each	Box and Cover Each	Gasket Only Each	SIZE, INCHES				Approx. Wall Thickness Inches	Approx. Weight Pounds Complete
				Width	Length	Depth	Depth		
10750	\$1.70	\$2.20	\$.30	3	5 1/4	2	1/8	4.4	
10751	1.90	2.50	.30	3	6	2	1/8	5.0	
10752	1.10	1.50	.20	3 1/4	3 1/4	1 1/2	1/8	2.4	
10753	1.30	1.70	.20	3 1/2	3 1/2	1 1/2	1/8	2.7	
10754	1.70	2.20	.30	3 1/2	4 1/2	1 1/2	1/8	3.0	
10755	1.80	2.30	.30	3 1/2	4 1/2	2	1/8	3.4	
10895	1.40	2.00	.30	4	4	3	1/8	3.8	
10756	2.00	2.60	.30	4	4	4	1/8	3.8	
10914	2.80	3.60	.40	4	6	3	1/8	7.0	
10899	3.60	4.80	.60	4	8	3	5/32	12.6	
10757	3.80	5.40	.70	4	12	4	5/32	10.8	
10896	2.40	3.10	.50	5	6	3	5/32	6.8	
10897	2.50	3.70	.60	6	6	3	5/32	9.0	
10898	3.40	4.70	.60	6	6	4	5/32	8.0	
10915	3.80	5.10	.60	6	6	6	5/32	14.0	
10900	4.60	6.00	.70	6	8	3	5/32	14.0	
10902	4.30	5.70	.70	6	8	4	5/32	15.0	
10916	5.00	6.40	.70	6	8	6	5/32	15.5	
10758	4.60	6.20	.80	6	9	4	5/32	18.0	
10630	5.70	7.75	.40	6	9	6	11/64	19.0	
10759	7.20	9.00	.80	6	10	6	3/16	24.0	
10906	6.80	8.80	1.00	6	12	3	5/32	20.0	
10908	7.20	9.20	1.00	6	12	4	5/32	19.0	
10910	10.80	12.80	1.00	6	12	6	3/16	24.0	
10760	12.00	16.00	2.60	6	24	4	3/16	44.0	
10901	6.00	8.00	.90	8	8	3	5/32	14.0	
10903	6.20	8.20	.90	8	8	4	5/32	16.0	
10904	7.30	9.30	.90	8	8	6	3/16	18.0	
10763	7.80	9.80	.90	8	8	8	3/16	20.0	
10891	9.00	10.00	1.00	8	10	8	3/16	23.0	
10917	8.50	11.50	1.00	8	12	4	3/16	24.0	
10764	10.00	13.00	1.00	8	12	6	3/16	28.0	
10918	15.00	18.00	1.00	8	12	8	7/32	32.0	
10631	12.40	16.00	1.00	8	15	6	3/16	38.0	
10783	22.00	38.00	3.00	8	30	4	7/32	107.0	
10636	10.90	16.80	.80	9	12	4	3/16	30.0	
10632	11.00	17.00	.80	9	16	4	3/16	32.0	
10784	12.00	18.00	2.00	9	16	5	7/32	50.0	
10633	16.00	21.00	1.50	9	20	5	1/4	50.0	
10766	20.00	30.00	2.40	9	21	4	1/4	60.0	
10913	34.00	44.00	2.40	9	24	8	7/32	89.0	
10767	36.00	54.00	3.00	9	28	8	1/32	114.0	
10905	11.10	14.30	1.00	10	10	8	11/32	104.0	
10768	24.00	32.00	2.20	10 1/4	16 1/4	12	3/8	74.0	
10907	9.00	13.00	1.20	12	12	3	7/32	41.0	
10909	9.00	13.00	1.20	12	12	4	3/8	45.0	
10911	14.00	18.00	1.20	12	12	6	3/16	52.0	
10749	16.40	20.40	1.20	12	12	8	3/16	75.0	
10769	20.00	24.00	1.20	12	12	12	3/16	96.0	
10770	10.00	14.60	1.30	12	16	4	7/32	42.0	
10771	32.00	37.50	1.40	12	18	12	11/32	130.0	
10785	34.00	42.00	3.00	12	24	12	7/32	113.0	
10786	42.00	60.00	3.50	12	28	8	13/32	165.0	
10634	62.00	85.00	3.00	12	36	5	3/8	142.0	
10772	66.00	94.00	4.00	12	36	6	7/16	178.0	
10912	20.00	26.20	1.50	14	18	6	13/32	80.0	
10773	28.00	36.00	2.00	14	20	6	13/32	88.0	
10774	34.00	46.00	3.00	14	24	7	5/16	119.0	
10635	18.00	31.00	2.00	15	15	6	9/32	74.0	
10775	17.00	26.00	2.00	15 1/2	15 1/2	5	5/16	77.0	
10776	32.00	46.00	3.00	16	24	12	3/8	210.0	

Continued

T&B Cast Iron Junction Boxes and Covers

Approved by Underwriters' Laboratories

Continued

Flanged or Flush Type

No.	Box Only Each	Box and Cover Each	Gasket Only Each	Size, Inches			Approx. Wall Thick. Inches	Approx. Weight Pounds Complete
				Width	Length	Depth		
10777	\$42.00	\$64.00	\$3.50	16	30	8	1 1/4	205
10778	31.00	44.00	3.00	18	18	8	1 1/2	140
10787	43.00	64.00	4.00	18	26	5	7/16	170
10799	50.00	74.00	3.80	18	30	8	13/16	235
10780	66.00	94.00	4.00	24	30	12	1 1/2	360
10788	67.00	88.00	4.00	25	26	9	7/16	270
10781	110.00	172.00	4.50	30	30	12	1 1/2	455
10782	180.00	290.00	6.00	30	48	12	1 1/2	910

Unflanged or Surface Type



No.	Box Only Each	Box and Cover Each	Gasket Only Each	Size, Inches			Approx. Wall Thick. Inches	Approx. Weight Pounds Complete
				Width	Length	Depth		
10864	\$1.30	\$1.75	\$.30	3	6	2	1/8	4.75
10857	1.45	1.90	.30	3	6	2 3/4	1/8	5.00
10860	1.00	1.30	.20	3 1/2	3 1/2	2	1/8	2.25
10600	1.40	2.20	.20	4	6	2 1/2	1/8	4.25
10861	.90	1.20	.20	4	4	2	1/8	2.50
10890	1.00	1.30	.20	4	4	2 1/2	1/8	4.00
10862	1.00	1.30	.20	4	4	3	1/8	3.50
10700	1.70	2.00	.20	4	4	4	1/8	5.00
10701	1.20	1.60	.30	4	5 1/2	1 1/2	1/8	4.50
10866	1.50	2.00	.30	4	6	2	1/8	5.50
10601	1.90	2.20	.20	4	6	3	1/8	6.00
10703	2.20	2.70	.30	4	6	4	1/8	7.75
10614	2.50	3.20	.50	4	8	4	1/8	10.00
10704	2.60	3.80	1.00	4	11	1 1/2	1/8	8.50
10877	3.25	4.50	1.00	4	12	4	1/8	11.00
10863	1.60	2.10	.40	5	5	3	1/8	6.00
10602	2.30	3.00	.40	5	5	4	3/32	7.00
10867	1.00	2.00	.50	5	6	3	1/8	6.00
10869	2.00	3.20	.60	5	7	3	3/32	8.00
10705	3.70	5.00	.80	5	10	2 1/2	5/32	12.00
10706	3.70	4.90	.70	5 1/4	8	3 1/4	3/32	11.00
10707	2.60	3.30	.50	5 1/2	5 1/2	3 1/2	1/8	9.00
10893	2.70	3.40	.50	5 1/2	5 1/2	5	5/32	14.00
10894	1.70	2.40	.50	6	6	2	1/8	6.50
10962	1.70	2.40	.50	6	6	3	5/32	7.50
10868	2.60	3.30	.50	6	6	4	5/32	8.50
10963	3.50	4.20	.50	6	6	5	5/32	12.50
10964	3.70	4.40	.50	6	6	6	5/32	14.50
10871	2.70	3.60	.60	6	8	3	3/32	10.50
10872	3.10	4.00	.60	6	8	4	3/32	10.50
10874	4.60	5.50	.60	6	8	6	3/32	15.50
10854	2.50	3.70	.80	6	9	3	3/32	3.00
10875	4.30	5.50	.80	6	9	4	3/32	16.00
10878	5.40	6.70	.90	6	10	4	3/32	15.00
10603	6.20	8.00	.90	6	10	6	1 1/4	22.00
10880	4.80	6.80	1.00	6	12	3	3/32	18.00
10968	4.70	6.70	1.00	6	12	4	3/32	21.00
10604	5.80	8.00	1.00	6	12	5	1 1/4	21.00
10882	8.00	10.00	1.00	6	12	6	3/16	27.00
10709	7.00	9.50	1.30	6	15 3/4	2	3/32	17.00
10885	9.00	12.00	2.00	6	18	3 1/2	3/16	18.50
10710	13.80	16.80	2.00	6	18	5	3/16	20.00
10711	15.00	18.00	2.00	6	18	6	3/16	25.00
10712	8.00	10.50	1.30	6 1/4	15	4	3/16	27.50
10870	2.80	3.60	.60	7	7	3	3/32	11.00

Continued

T&B Cast Iron Junction Boxes and Covers

Approved by Underwriters' Laboratories

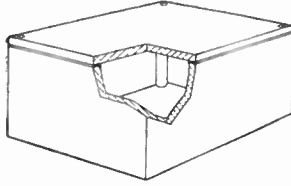
Concluded

Unflanged or Surface Type

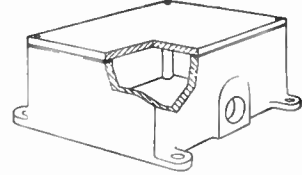
No.	Box Only Each	Box and Cover Each	Gasket Only Each	Size, Inches			Approx. Wall Thick. Inches	Approx. Weight Pounds Complete
				Width	Length	Depth		
10884	\$8.00	\$11.00	\$1.60	7	15	4 1/2	3/16	34.0
10713	15.00	19.00	2.00	7	17 1/2	4 3/4	3/16	39.0
10965	4.00	5.20	.80	8	8	3	5/32	13.0
10873	4.00	5.20	.80	8	8	4	5/32	13.5
10876	8.00	9.00	.75	8	8	6	3/16	20.0
10717	9.00	10.20	.80	8	8	8	3/16	23.0
10714	5.00	6.80	1.00	8	10	4	1 1/4	20.0
10855	6.20	8.00	1.00	8	10	6	3/16	15.5
10715	10.00	11.80	1.00	8	10	8	3/16	32.0
10605	16.00	18.50	1.00	8	10	12	1/4	43.0
10606	5.00	8.40	.60	8	12	4	3/16	20.0
10718	10.00	12.00	1.20	8	12	6	3/16	37.0
10719	7.00	9.50	1.40	8	14	3	1 1/4	33.0
10720	7.30	9.80	1.40	8	14	4	3/16	25.0
10721	10.00	13.50	1.50	8	18	4 1/2	3/16	32.0
10722	12.50	17.50	2.00	8	24	4 1/2	7/32	44.0
10723	16.00	23.00	2.80	8	30	4 1/2	1/4	58.0
10853	5.30	6.80	1.10	9	9	4	1 1/4	5.0
10724	8.00	9.50	1.10	9	9	7	3/16	17.0
10725	6.60	9.20	1.50	9	15	4	3/16	28.0
10889	5.20	6.80	1.20	10	10	4	3/16	14.0
10852	5.40	7.00	1.20	10	10	5	3/16	14.0
10726	7.40	9.00	1.20	10	10	6	3/16	17.0
10970	17.00	20.50	1.40	10	14	8	1/4	55.0
10727	14.50	18.50	1.80	10	16	6	1/4	51.0
10607	21.00	26.80	1.80	10	16	8	1/4	62.0
10728	7.00	10.00	1.60	12	12	3	3/16	27.0
10881	7.50	10.50	1.60	12	12	4	3/16	32.0
10969	9.60	12.60	1.60	12	12	6	7/32	39.0
10729	12.00	15.00	1.60	12	12	8	1/4	46.0
10972	12.40	15.50	1.00	12	16	4	7/32	36.0
10730	12.40	16.20	1.80	12	16	6	1/2	59.0
10731	15.40	19.20	1.80	12	16	8	5/16	61.0
10971	11.00	15.50	2.00	12	18	4	7/32	53.0
10886	18.00	22.50	2.00	12	18	5	1/4	60.0
10732	19.50	24.00	2.00	12	18	6	1/4	68.0
10747	21.00	25.00	2.00	12	18	8	3/8	80.0
10733	22.00	26.50	2.00	12	18	10	3/8	97.0
10879	24.00	28.50	2.00	12	18	12	3/8	105.0
10734	16.00	20.50	2.00	12	19	4	1/4	55.0
10735	22.00	27.00	2.50	12	20	5	1/4	62.0
10736	27.00	37.00	2.80	12	22	5	1/4	68.0
10737	30.00	40.50	3.00	12	24	6	1 1/2	82.0
10738	98.00	108.50	3.00	12	24	24	1 1/2	185.0
10883	24.00	31.00	3.00	14	14	10	3/8	107.0
10609	42.00	47.00	3.00	14	18	8	3/8	120.0
10739	25.00	35.00	3.00	14	19	6	3/16	95.0
10740	32.00	44.00	3.50	14	24	12	1 1/2	178.0
10887	31.00	44.00	3.80	16	24	8	7/16	139.0
10741	62.00	75.00	3.80	16	24	12	7/16	197.0
10851	102.00	120.00	5.00	16	48	8	1 1/2	250.0
10742	24.00	32.00	2.50	18	18	5	1 1/2	106.0
10743	21.00	29.00	2.50	18	18	6	3/8	117.0
10744	29.00	37.50	3.50	18	24	6	13/32	168.0
10745	40.00	48.50	3.50	18	24	8	7/16	196.0
10746	48.00	62.00	4.00	24	24	8	15/32	265.0
10610	115.00	145.00	5.00	24	24	12	1 1/2	320.0
10611	65.00	90.00	4.80	24	30	6	7/16	210.0
10888	37.00	52.00	4.50	24	28	3 1/2	13/32	225.0
10850	110.00	140.00	5.50	24	48	8	17/32	370.0
10849	118.00	130.00	5.50	30	36	8	7/32	385.0
10848	150.00	176.00	6.00	30	48	8	3/16	570.0

O.Z. Type Y1200 Unflanged Junction or Pull Boxes

With Surface Covers



Standard Construction



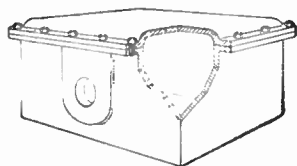
With Boss and Mounting Lugs

Furnished with plain covers and standard rubber gaskets.
Standard finish, hot-dip galvanized.

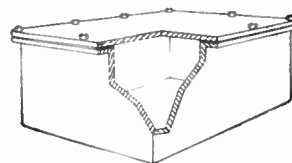
Drilling and tapping, mounting lugs, bosses, iron or brass checkered covers available at additional cost.

No.	Each	DIMENSIONS, INCHES			Approx. Wall Thick. Inches	Approx. Weight Pounds	No.	Each	DIMENSIONS, INCHES			Approx. Wall Thick. Inches	Approx. Weight Pounds
		Length	Width	Depth					Length	Width	Depth		
Y1201	\$1.40	4	4	1 1/2	3/16	3.5	Y1290	\$28.40	14	x14	x 6	5/8	66.0
Y1202	1.00	4	x 2	x 2	3/16	2.5	Y1291	34.00	14	x14	x10	3/8	106.0
Y1203	1.40	4	x 4	x 2	3/16	4.0	Y1292	11.60	15	x 6	x 4	3/16	19.5
Y1205	1.50	4	x 4	x 3	3/16	4.5	Y1316	18.40	15	x 8	x 8	3/16	35.0
Y1206	2.20	4	x 4	x 4	3/16	5.5	Y1293	12.70	15	x 9	x 4	3/16	25.5
Y1204	2.60	4 1/2	x 4 1/2	x 1	3/16	6.5	Y1234	17.60	15	x10	x 6	3/16	33.0
Y1262	4.80	4 3/4	x 4 3/4	x 2 15/16	3/16	9.0	Y1294	44.80	15	x12	x12	3/16	93.0
Y1207	2.50	5	x 5	x 3	3/16	6.5	Y1235	12.00	16	x 5	x 8	3/16	22.5
Y1208	2.40	6	x 4	x 3	3/16	6.0	Y1255	27.00	16	x12	x 8	3/16	44.0
Y1209	3.00	6	x 4	x 4	3/16	7.5	Y1296	25.60	16	x16	x 6	1/4	65.0
Y1210	3.15	6	x 6	x 3	3/16	8.5	Y1236	18.65	18	x 6	x 6	1/4	37.5
Y1211	3.80	6	x 6	x 4	3/16	9.5	Y1297	22.00	18	x 8	x 6	1/4	44.0
Y1263	4.70	6	x 6	x 5	1/4	14.5	Y1237	22.50	18	x12	x 4	1/4	49.0
Y1212	4.90	6	x 6	x 6	1/4	16.5	Y1238	25.00	18	x12	x 6	3/16	43.0
Y1213	3.50	7	x 5	x 3	3/16	8.0	Y1298	33.20	18	x12	x 8	1/4	67.0
Y1214	3.50	8	x 4	x 3	3/16	8.0	Y1299	44.00	18	x12	x10	5/16	94.5
Y1215	3.70	8	x 4	x 4	3/16	9.0	Y1229	27.00	18	x14	x 6	3/16	48.0
Y1264	4.20	8	x 6	x 3	3/16	10.0	Y1301	50.00	13	x14	x 8	1/4	73.0
Y1216	4.60	8	x 6	x 4	3/16	12.0	Y1302	63.50	18	x12	x12	5/16	106.0
Y1217	7.60	8	x 6	x 6	1/4	20.5	Y1240	30.50	18	x16	x 6	3/16	53.0
Y1218	6.00	8	x 8	x 3	3/16	12.5	Y1241	43.50	18	x18	x 8	3/16	66.0
Y1219	6.40	8	x 8	x 4	3/16	14.5	Y1242	60.00	18	x18	x10	1/4	100.0
Y1265	8.40	8	x 8	x 5	1/4	22.5	Y1243	72.00	18	x18	x12	3/8	165.0
Y1220	9.60	8	x 8	x 6	1/4	21.0	Y1303	93.50	13	x18	x15	3/8	187.0
Y1221	11.00	8	x 8	x 8	1/4	29.0	Y1304	18.00	20	x 9	x 4 1/2	3/16	34.0
Y1266	5.60	9	x 6	x 3	3/16	14.0	Y1244	24.00	20	x10	x 6	3/16	41.0
Y1268	6.30	9	x 6	x 4	3/16	16.0	Y1245	29.50	20	x12	x 6	1/4	62.0
Y1270	6.80	10	x 5	x 4	3/16	16.0	Y1246	63.50	20	x16	x 8	5/16	110.0
Y1222	7.60	10	x 6	x 4	1/4	19.0	Y1247	38.00	20	x20	x 4	3/16	60.0
Y1271	8.40	10	x 6	x 5	1/4	21.5	Y1248	54.00	20	x20	x 6	1/4	91.0
Y1272	9.20	10	x 6	x 6	1/4	23.0	Y1249	39.00	21	x18	x 6	3/16	65.0
Y1223	7.80	10	x 8	x 4	1/4	17.0	Y1250	26.50	23 1/2	x 6 5/8	x 5 1/4	3/16	35.0
Y1273	10.50	10	x 8	x 6	1/4	28.0	Y1305	36.00	24	x 8	x 8	5/16	82.0
Y1274	12.80	10	x 8	x 8	1/4	33.0	Y1251	26.00	24	x12	x 4 1/2	3/16	49.0
Y1275	11.20	10 3/4	x 9	x 6	1/4	28.0	Y1252	43.50	24	x12	x 6	3/16	54.0
Y1276	8.20	10	x10	x 3	3/16	17.5	Y1306	91.00	24	x12	x12	7/16	182.0
Y1277	9.40	10	x10	x 4	1/4	20.0	Y1307	86.50	24	x14	x12	3/8	173.0
Y1224	10.20	10	x10	x 6	1/4	32.0	Y1253	53.50	24	x16	x 6	1/4	89.0
Y1278	7.80	12	x 6	x 3	3/16	14.0	Y1254	47.80	24	x16	x 8	3/16	76.0
Y1225	8.50	12	x 6	x 4	3/16	16.0	Y1255	48.00	24	x18	x 6	3/16	73.0
Y1226	11.00	12	x 6	x 6	1/4	27.0	Y1256	82.50	24	x18	x 8	3/8	165.0
Y1280	9.00	12	x 8	x 4	3/16	25.0	Y1308	84.50	24	x18	x12	5/16	169.0
Y1227	12.50	12	x 8	x 6	3/16	30.0	Y1309	140.00	24	x18	x16	3/8	239.0
Y1228	15.00	12	x 8	x 8	3/16	37.0	Y1310	70.00	24	x20	x 6	5/16	134.0
Y1281	11.50	12	x10	x 4	3/16	23.0	Y1311	74.50	24	x20	x 8	5/16	149.0
Y1282	12.10	12	x10	x 5	3/16	29.0	Y1312	116.50	24	x22	x12	3/8	233.0
Y1283	12.40	12	x10	x 6	3/16	31.0	Y1257	91.00	24	x24	x10	5/16	190.0
Y1286	11.60	12	x12	x 3	1/4	32.0	Y1313	83.40	27	x21	x 4 1/2	5/16	139.0
Y1229	12.10	12	x12	x 4	3/16	23.5	Y1207	70.80	28	x12	x 8	5/16	118.0
Y1230	14.20	12	x12	x 6	3/16	31.5	Y1209	106.80	28	x12	x12	3/8	178.0
Y1231	16.60	12	x12	x 8	3/16	42.0	Y1258	34.00	30	x 8	x 6	3/16	51.0
Y1232	22.00	12	x12	x10	3/16	43.0	Y1279	94.00	30	x12	x12	5/16	157.0
Y1287	38.40	12	x12	x12	3/8	96.5	Y1259	83.00	30	x18	x 8	1/4	133.0
Y1315	56.00	12	x12	x15	3/8	112.0	Y1285	153.50	30	x18	x14	3/8	263.0
Y1233	11.20	14	x 8	x 4	3/16	25.0	Y1314	254.00	30	x24	x17	1/2	390.0
Y1288	14.40	14	x 8	x 6	1/4	36.0	Y1260	147.50	34	x30	x 5 3/4	5/16	246.0
Y1289	21.90	14	x10	x 8	1/4	48.0	Y1261	96.25	36	x18	x 8	1/4	154.0

O.Z. Type Y6000 Heavy Duty Cast Iron Junction or Pull Boxes



Box A



Box B

Used for surface or flush mounting depending upon requirements.

Flange and cover are the same thickness as the box. Steel cap screws are furnished, and, where style A is called for, the cap screws are installed on close centers.

Box A is designed for explosion-resisting-proof work, and has a raised cover which is machined to a close tolerance. Has boss to provide 5 full threads.

Box B is watertight and is provided with a rubber gasket.

Drilling and tapping, mounting lugs, and bosses available at additional cost.

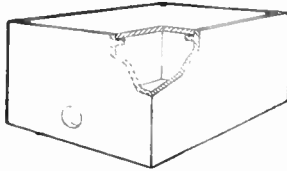
When ordering specify letter A or B after catalog number.

No.	Galv. Each	Black Each	DIMENSIONS, INCHES— Length Width Depth			Approx. Wall Thick. Inches	Approx. Weight Pounds	No.	Galv. Each	Black Each	DIMENSIONS, INCHES— Length Width Depth			Approx. Wall Thick. Inches	Approx. Weight Pounds
Y6001	\$11.00	\$10.10	4x	4	x 3	5/16	13.5	Y6040	\$55.20	\$43.10	14	x14	x 8	7/16	122.0
Y6002	11.45	10.35	4x	4	x 4	5/16	15.5	Y6041	58.10	45.00	14	x14	x10	7/16	135.0
Y6003	12.10	10.93	5x	5	x 3	5/16	17.5	Y6042	104.25	97.30	15 1/2	x12	x 9	1 1/2	139.0
Y6004	13.08	11.33	5x	5	x 4	5/16	20.0	Y6043	48.80	38.33	16	x10	x 6	7/16	95.5
Y6005	12.45	11.05	6x	4	x 3	5/16	17.5	Y6044	54.50	43.00	16	x12	x 6	7/16	106.0
Y6006	13.95	12.23	6x	4	x 4	5/16	20.0	Y6045	65.94	50.57	16	x14	x10	7/16	148.0
Y6007	14.10	12.55	6x	6	x 3	5/16	22.0	Y6046	38.92	31.80	18	x 6	x 6	7/16	78.0
Y6008	15.23	13.00	6x	6	x 4	5/16	25.0	Y6047	55.67	43.60	18	x18	x 4	7/16	100.0
Y6009	15.65	13.25	6x	6	x 5	5/16	28.5	Y6048	58.60	45.77	18	x12	x 6	7/16	116.0
Y6010	16.30	13.62	6x	6	x 6	5/16	30.0	Y6049	61.35	47.64	18	x12	x 8	7/16	131.0
Y6011	15.03	13.10	8x	4	x 3	5/16	19.5	Y6050	65.54	50.29	18	x12	x10	7/16	146.0
Y6012	15.42	13.30	8x	4	x 4	5/16	17.5	Y6051	69.26	52.50	18	x12	x12	7/16	162.0
Y6013	16.70	14.25	8x	6	x 3	5/16	26.0	Y6052	67.77	53.47	18	x18	x 4	7/16	135.0
Y6014	17.95	15.05	8x	6	x 4	5/16	30.0	Y6053	72.94	56.99	18	x18	x 6	7/16	153.0
Y6015	19.25	15.90	8x	6	x 6	5/16	29.0	Y6054	78.40	60.80	18	x18	x 8	7/16	171.0
Y6016	18.95	16.00	8x	8	x 3	5/16	31.5	Y6055	87.97	67.57	18	x18	x12	7/16	207.0
Y6017	20.20	16.80	8x	8	x 4	5/16	35.5	Y6056	58.97	47.24	19	x14	x 4	7/16	117.0
Y6018	21.53	17.90	8x	8	x 6	5/16	43.0	Y6057	60.07	46.69	19	x14	x 6	7/16	134.0
Y6019	25.20	20.25	8x	8	x 8	5/16	50.0	Y6058	73.60	57.10	19	x14	x10	7/16	167.0
Y6020	21.25	15.75	10x	6	x 4	3/8	35.0	Y6059	79.07	61.14	19	x14	x12	7/16	183.0
Y6021	23.70	17.93	10x	6	x 6	3/8	43.5	Y6060	63.00	51.00	20	x10	x 8	7/16	127.0
Y6022	24.53	20.17	10x	8	x 4	3/8	13.0	Y6061	57.25	46.44	20	x12	x 4	7/16	109.0
Y6023	24.26	21.43	10x	8	x 6	3/8	56.0	Y6062	62.60	50.47	20	x12	x 6	7/16	125.0
Y6024	28.86	23.24	10x	8	x 8	3/8	58.0	Y6063	172.38	155.48	21 1/2	x21 1/2	x 8	5/8	338.0
Y6025	26.00	21.00	10x10	x 4		3/8	19.5	Y6064	75.00	62.00	24	x12	x 8	7/16	162.0
Y6026	28.57	22.88	10x10	x 6		3/8	58.5	Y6065	88.10	70.74	24	x12	x10	7/16	181.0
Y6027	24.50	20.12	12x	6	x 4	3/8	11.0	Y6066	92.95	73.85	24	x12	x12	7/16	199.0
Y6028	27.10	21.90	12x	6	x 6	3/8	49.5	Y6067	85.92	69.24	24	x16	x 6	7/16	175.0
Y6029	28.60	22.79	12x	8	x 6	3/8	58.0	Y6068	91.97	73.64	24	x16	x 8	7/16	195.0
Y6030	32.20	25.40	12x	8	x 8	3/8	66.5	Y6069	83.17	67.04	24	x18	x 4	7/16	170.0
Y6031	35.50	28.40	12x12	x 4		3/8	64.0	Y6070	89.50	71.25	24	x18	x 6	7/16	191.0
Y6032	39.40	31.20	12x12	x 6		3/8	71.5	Y6071	95.49	75.50	24	x18	x 8	7/16	212.0
Y6033	42.50	33.22	12x12	x 8		3/8	85.5	Y6072	105.97	82.14	24	x18	x12	7/16	253.0
Y6034	47.48	36.65	12x12	x12		3/8	106.0	Y6073	111.00	88.09	24	x24	x 6	7/16	237.0
Y6035	54.00	51.39	13x	8 1/2	x 7 1/2	1/2	90.0	Y6074	117.39	91.94	24	x24	x 8	7/16	261.0
Y6036	32.46	27.10	14x	8	x 6	3/4	61.0	Y6079	210.00	198.00	29 3/8	x18 1/4	x10	5/8	400.0
Y6037	39.10	31.50	14x	8	x 8	3/4	71.0	*Y6076	141.75	132.30	30	x 9 3/4	x10	1/2	189.0
Y6038	48.20	38.50	14x14	x 4		7/16	93.0	*Y6077	196.00	173.60	36	x 9 3/8	x10	1/2	248.0
Y6039	51.33	40.50	14x14	x 6		7/16	106.0	*Y6078	214.50	200.20	42	x 9 3/8	x10	1/2	286.0

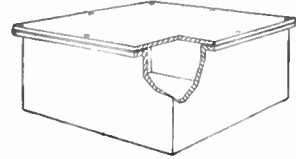
*Cross-ribs in cover.

O.Z. Type Y6200 Unflanged Recessed-Cover Boxes

For Flush or Surface Mounting and Use in Concrete Construction



O.Z. Type Y8000 Flanged or Flush Boxes



Furnished with plain covers and standard rubber gaskets. Standard finish, hot-dip galvanized. Drilling and tapping, mounting lugs, bosses, and iron or brass checkered covers available at additional cost.

Furnished with plain covers and standard rubber gaskets. Standard finish, hot-dip galvanized.

Drilling and tapping, mounting lugs, bosses, iron or brass checkered covers, and cylinder locks and hasps are available at additional cost.

No.	Each	DIMENSIONS, INCHES Length Width Depth	Approx. Wall Thick. Inches	Approx. Weight Pounds
Y6201	\$3.50	4 x 4 x 2	1/4	4.0
Y6202	4.20	4 x 4 x 3	1/4	5.0
Y6203	4.90	4 x 4 x 4	1/4	6.5
Y6204	8.40	6 x 4 x 4	1/4	11.0
Y6205	9.15	6 x 6 x 4	1/4	16.5
Y6206	11.50	6 x 6 x 6	1/4	18.0
Y6207	9.80	8 x 4 x 4	1/4	13.5
Y6208	12.60	8 x 6 x 4	1/4	17.0
Y6209	14.20	8 x 6 x 6	1/4	21.5
Y6210	14.00	8 x 8 x 4	1/4	20.5
Y6211	17.00	8 x 8 x 6	1/4	26.0
Y6212	24.00	8 x 8 x 8	1/4	30.5
Y6213	14.70	10 x 6 x 4	1/4	20.0
Y6214	18.00	10 x 8 x 5	1/4	27.5
Y6215	24.30	10 x 8 x 6	1/4	30.0
Y6216	25.50	10 x 10 x 6	1/4	35.0
Y6217	24.50	12 x 6 x 6	1/4	29.0
Y6218	21.70	12 x 8 x 4	1/4	28.5
Y6219	28.00	12 x 8 x 6	1/4	34.5
Y6220	28.60	12 x 12 x 4	1/4	38.0
Y6221	32.00	12 x 12 x 6	1/4	45.5
Y6222	37.00	12 x 12 x 8	1/4	51.5
Y6223	40.00	14 x 14 x 4	1/4	48.0
Y6224	62.30	14 x 14 x 8	1/4	64.5
Y6225	29.30	16 x 6 x 4	1/4	30.0
Y6226	32.40	16 x 6 x 6	1/4	36.0
Y6227	32.40	16 x 8 x 4	1/4	36.0
Y6228	49.50	16 x 12 x 6	1/4	55.0
Y6229	53.10	16 x 16 x 4	1/4	59.0
Y6230	29.70	18 x 6 x 4	1/4	33.0
Y6231	38.00	18 x 8 x 8	1/4	51.0
Y6232	35.00	24 x 6 x 4	1/4	43.0
Y6233	39.00	24 x 6 x 6	1/4	51.0

No.	Each	DIMENSIONS, INCHES Length Width Depth	Approx. Wall Thick. Inches	Approx. Weight Pounds
Y8001	\$2.30	4 x 4 x 3	3/16	5.5
Y8002	2.90	4 x 4 x 4	3/16	7.5
Y8003	4.00	6 x 4 x 3	3/16	8.5
Y8004	4.55	6 x 4 x 4	3/16	9.5
Y8005	4.75	6 x 6 x 3	3/16	11.0
Y8006	5.30	6 x 6 x 4	3/16	12.5
Y8007	6.00	6 x 6 x 6	3/16	15.0
Y8008	5.40	8 x 4 x 3	3/16	10.5
Y8009	6.10	8 x 4 x 4	3/16	12.0
Y8010	6.40	8 x 6 x 3	3/16	13.5
Y8011	6.70	8 x 6 x 4	3/16	15.0
Y8012	8.10	8 x 6 x 6	3/16	18.0
Y8013	8.90	8 x 8 x 3	3/16	16.0
Y8014	9.10	8 x 8 x 4	3/16	18.0
Y8015	10.20	8 x 8 x 6	3/16	20.5
Y8016	10.80	8 x 8 x 8	3/16	25.0
Y8017	8.95	10 x 6 x 4	3/16	17.5
Y8018	9.80	10 x 6 x 6	3/16	21.0
Y8019	10.80	10 x 10 x 4	3/16	24.0
Y8020	13.05	10 x 10 x 6	3/16	29.0
Y8021	7.00	12 x 4 x 4	3/16	16.0
Y8022	9.80	12 x 6 x 3	3/16	18.5
Y8023	10.20	12 x 6 x 4	3/16	20.0
Y8024	13.80	12 x 6 x 6	3/16	24.0
Y8025	12.50	12 x 8 x 4	3/16	23.5
Y8026	14.00	12 x 8 x 6	3/16	28.5
Y8027	19.00	12 x 8 x 8	3/16	32.5
Y8028	18.75	12 x 10 x 6	3/16	31.5
Y8029	18.75	12 x 12 x 4	3/16	31.5
Y8030	19.20	12 x 12 x 6	3/16	37.0
Y8031	21.60	12 x 12 x 8	3/16	42.0
Y8032	23.70	12 x 12 x 10	3/16	47.5
Y8033	33.10	12 x 12 x 12	3/16	107.0
Y8034	12.50	14 x 8 x 4	3/16	30.0
Y8035	14.90	14 x 8 x 6	3/16	31.5
Y8036	47.00	14 x 14 x 10	3/16	117.5
Y8037	19.00	15 x 10 x 6	3/16	38.0
Y8038	17.10	16 x 12 x 6	3/16	45.0
Y8039	19.50	16 x 12 x 8	3/16	50.5
Y8040	17.40	18 x 6 x 6	1/4	43.5
Y8041	25.20	18 x 12 x 4	1/4	56.5
Y8042	29.20	18 x 12 x 6	1/4	65.0
Y8043	36.50	18 x 12 x 8	1/4	73.5
Y8044	41.50	18 x 12 x 10	1/4	83.0
Y8045	45.50	18 x 12 x 12	1/4	91.0
Y8046	73.00	18 x 18 x 8	3/8	146.0
Y8047	81.00	18 x 18 x 10	3/8	162.5
Y8048	90.00	18 x 18 x 12	3/8	180.0
Y8049	146.00	18 x 18 x 15	3/8	252.0
Y8050	34.20	24 x 12 x 4 1/2	3/16	57.0
Y8051	43.40	24 x 12 x 6	3/16	62.0
Y8052	99.50	24 x 12 x 12	7/16	199.0
Y8053	50.40	24 x 16 x 8	3/16	84.0
Y8054	54.00	24 x 18 x 6	1/4	108.0
Y8055	91.50	24 x 18 x 8	3/8	183.0
Y8056	92.75	24 x 18 x 12	5/16	185.5
Y8057	127.20	24 x 18 x 16	5/16	212.0
Y8058	108.50	24 x 24 x 10	5/16	217.0
Y8059	80.40	28 x 12 x 8	3/16	134.0
Y8060	96.00	28 x 12 x 12	5/16	160.0
Y8061	103.80	30 x 12 x 12	5/16	173.0



FA Floor Boxes

Types FB-5, FB-345 and FB-345-2



Type FB-5



Type FB-345-2

Particularly designed for installation in wood floors with concrete base, can also be installed in concrete or tile floors.

Adjustable type with 5-inch diameter, satin finish brass reversible cover.

Type FB-5 is for telephone, signal and bell system outlets, also light and small capacity power outlets without receptacle. Cover has 1/2-inch pipe size tapped opening with brass plug and one-piece fiber bushing.

Type FB-345 is for light or power service with small capacity receptacle (15-amp., 125-v., 2-pole, single flush receptacles with fastening screws on 2 3/8-inch centers and standard plug cap); also telephone, signal and bell service. Cover has 1 1/4-inch pipe size tapped opening with brass plug and split bushing.

Type FB-345-2 is of same type and for same application as Type FB-345, except cover has 2-inch tapped opening with brass plug, but no bushing, and is particularly suitable for use with the following capacity.

- 15 amp., 125 v., 2 pole, Arrow 7960-7963, H&H 7960-7963, Hubbell 5566-6730.
- 15 amp., 125 v., 3 pole, Arrow 8147-SA, Bryant, 9116-9111, H&H 7310-7070, Hubbell 6051-6149.
- 20 amp., 250 v., 2 pole, Arrow 8245-JA, Bryant 556-652, H&H 7089-7303, Hubbell 5552-6720.
- 20 amp., 250 v., 3 pole, Arrow 8140-KA, Bryant 9326-9322, H&H 7316-7314, Hubbell 6810-7198.

Each unit is furnished with a hot galvanized finish No. 12 gage, 4 1/4-inch diameter, 3-inch deep pressed steel box, having two 1/2-inch and two 3/4-inch conduit knockouts in opposite sides and one 1/2-inch knockout in bottom; 1-inch conduit can be used by reaming these knockouts.

Cadmium plated drawn steel adjusting ring permits adjustment for 3/4-inch variation in setting of box. Extra depth rings for greater variation are available at an additional charge. Rubber gaskets make the box reasonably watertight.

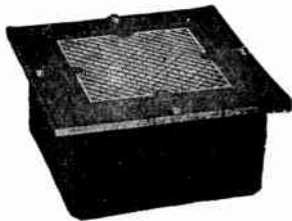
Standard package, 24 of one type.

Shipping weight, 100 pounds.

All Types..... Each **\$10.00**

For special depth adjusting rings add \$1.50 for each additional inch.

FA Signal Floor Boxes



Cast iron box with brass cover.

Type 437-S complies with U.S. Treasury Department specifications for work under its jurisdiction.

Tapped conduit holes will be provided if template accompanies order.

No.	437-D
Each.	\$22.50
Inside Dimensions..... inches	5 1/2 x 5 1/2 x 4

FA Floor Boxes

Types FB-3W and FB-343R



Type FB-3W



Type FB-343R

For installation in concrete or tile floors.

Adjustable type with 3-inch diameter, satin finish brass reversible cover.

Type FB-3W is for telephone, signal and bell system outlets; also light and small capacity power outlets without receptacle. Cover has 1/2-inch pipe size tapped opening with brass plug and one-piece fiber bushing.

Type FB-343R is for light or power service with small capacity receptacle; also telephone, signal and bell systems. Special receptacles are furnished at extra charge. The following receptacle and plug combinations can also be used.

15 amp., 125 v., 2 pole, H&H 7176-1407, Hubbell 7331-7068, Arrow 8232-RA.

15 amp., 125 v., 3 pole polarized, Hubbell 7214-9975.

Each unit is furnished with a hot galvanized finish No. 12 gage, 4 1/4-inch diameter, 3-inch deep pressed steel box, having two 1/2-inch and two 3/4-inch conduit knockouts in opposite sides and one 1/2-inch knockout in bottom; 1-inch conduit can be used by reaming these knockouts.

Cadmium plated drawn steel adjusting ring permits adjustment for 3/4-inch variation in setting of box. Extra depth rings for greater variation are available at an additional charge. Rubber gaskets make the box reasonably watertight.

Standard package, 24 of one type.

Shipping weight, 100 pounds.

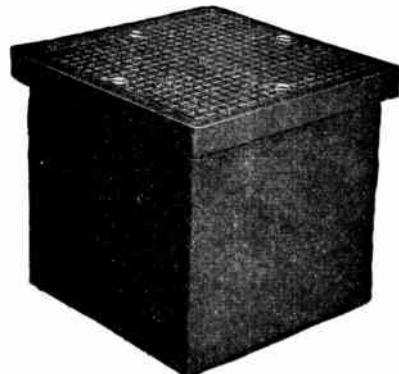
Both Types..... each **\$6.00**

Special depth adjusting rings, add \$1.50 for each additional inch.

Receptacles

10 Amp., 250 V., 2 Pole.....	each \$.35
10 Amp., 250 V., 3 Pole, Polarized.....	each .60

FA Hand Hole Boxes



Cast iron box with checkered cover of same material and rubber gasket to exclude moisture.

Tapped conduit holes will be provided if template accompanies order.

No.	2010	2011	2012
Each.	\$55.00	70.00	115.00
Inside Dimensions..... inches	12x12x6	12x12x12	18x18x12

R&S Heavy Duty Floor Receptacles and Plugs

***Non-Adjustable**

3-Wire—Round Type

†75 Amperes, 440 Volts
†100 Amperes, 250 Volts
Polarized



No. 155

Box is made of cast iron with corrosion resisting finish.

Floor plate, nozzle, and flush cap are made of brass.

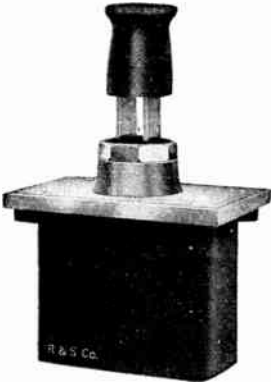
Receptacle interior and plug base are made of molded composition with heavy, self-aligning machined contacts.

Outlets: maximum, 1½ inches. Specify size and location when ordering.

Amperes	Volts	Complete with Plug		Plug Only	
		No.	Each	No.	Each
75	440	155	....	151	....
100	250	281	....	975	....

2-Wire—Rectangular Type

60 Amperes, 250 Volts
Polarized



No. 142

Box is made of cast iron with corrosion resisting finish.

Floor plate, nozzle, and flush cap are made of brass.

Receptacle is furnished with lugs for soldering in cable and heavy molded composition plug with cable grip.

Outlets: maximum, 1¼ inches. Specify size and location when ordering.

No. 142, with Plug.....each
No. 140, Plug Only.....each

2, 3, and 4-Wire—Round Type
30 and †70 Amperes, 250 Volts
Polarized



No. 86

Box is made of cast iron with corrosion resisting finish.

Floor plate, cone nozzle, and flush cap are made of brass.

Molded composition interior has heavy self-aligning machined contacts.

Outlets: maximum, Nos. 86 and 89, 1-inch; Nos. 987 and 364, 1½-inch. Specify size and location when ordering.

Amperes	Wire	Complete		Plug Only	
		No.	Each	No.	Each
30	2	86	....	556	....
30	3	89	....	157	....
70	3	987	....	150	....
70	4	364	....	337	....

*Adjustable type can be furnished.

†To be used in series with switches and not for closing or opening circuits under load.

R & S Watertight Floor Boxes

Box is made of cast iron with corrosion resisting finish. Cover and flange is made of brass.

Non-Adjustable—Round Type



No. 2580

Used for wood flooring or where adjustable type is not required. Furnished with or without convenience type receptacle.

Outlets: Nos. 2580, 2581, and 2590 tapped ½-inch straight through on sides and two ½-inch on bottom only; three outlets plugged. Nos. 366 and 466, ¾-inch maximum; No. 367, 2-inch maximum. Specify size and location when ordering.

No.	Each	Floor Plate Diameter Inches	Box Height Inches	Furnished Complete With
366	5	3⅞	*½-Inch Flush Cap
367	6¾	4⅝	*½-Inch Flush Cap
466	4⅞	3⅝	*½-Inch Flush Cap
2580	3½	3¼	2-Pole Receptacle
2581	3½	3¼	3-Pole Receptacle
2590	3½	3¼	*½-Inch Flush Cap

*Covers can be furnished with ¾, 1, or 2½-inch flush caps if specified.

Adjustable—Round Type



No. 2503H



No. 2505, Shallow

Outlets: Regularly furnished, Nos. 2502 and 2503 tapped two ½-inch and two ¾-inch straight through at right angles; all plugged except one ½-inch outlet; Nos. 2504 and 2505 tapped ½-inch four-way, three outlets plugged unless specified otherwise; Nos. 2502H and 2503H, maximum 1-inch four-way or two ½-inch or ¾-inch per pad. Specify size and location when ordering. Furnished undrilled unless specified.

Permanent adjustment is provided by means of leveling screws permitting 15 degree angular and ⅝-inch vertical adjustment.

Will accommodate all standard convenience receptacles. Can also be furnished to accommodate R&S 2, 3, and 4-pole receptacles up to 30 amperes if specified.

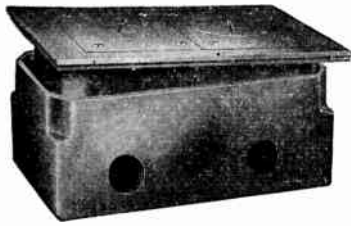
Receptacle not included except where noted.

No.	Each	Flange Diameter Inches	Minimum Height Inches	Furnished Complete With
2502	...	4¼	3¾	½-Inch Cap
2503	...	4¼	3¾	2½-Inch Cap
2502H	...	4⅞	3⅝	½-Inch Cap
2503H	...	4⅞	3⅝	2½-Inch Cap
2504	...	3⅝	2¾	T-Slot Receptacle and 2½-Inch Cap
2505	...	3⅝	2¾	½-Inch Flush Cap
2509	T-Slot Receptacle Only for No. 2504

Prices furnished upon application.

R & S Watertight Rectangular Floor Boxes

Adjustable—1 to 5-Gang



No. 2512

With No. 2537 and No. 2538 Cover

Box is made of cast iron with corrosion resisting finish. Outlets: Regularly furnished tapped two 3/4-inch straight through per gang, one plugged unless otherwise specified. Maximum 1-inch. Specify size and location of special outlets when ordering.

Furnished with No. 2537 (1/2-inch cap) cover or No. 2538 (2 1/8-inch cap) cover. Specify cover when ordering. Adjustment, 5/8-inch vertical and ample angular.

No.	2511	2512	2513	2514	2515
Each					
Length..... inches	4 3/4	7 3/4	10 3/4	13 3/4	16 3/4
No. of Gangs.....	1	2	3	4	5

R & S Combination Floor Extension Sets

2 and 3-Wire and Low Tension

10 Amperes, 250 Volts

Used in banks, offices, and libraries for connecting desk lamps, dictaphones, adding machines, telephones, etc.

Has heavy bakelite interior which is mounted in brass casing and tapped for 1/2 or 3/4-inch extensions.

Extension sets are available complete or in parts.

Brushed brass is standard finish. Other finishes are available. Height, 6 inches.



No. 3000



No. 3008

Also available in different heights upon order.

No. 3000, 2-Wire, 10-Ampere, 250-Volt Duplex Combination Set for 1/2-Inch Floor Outlet	each	.....
No. 3001, 2-Wire, 10-Ampere, 250-Volt Duplex Combination Set for 3/4-Inch Floor Outlet	each	.....
No. 3020, 3-Wire, 10-Ampere, 250-Volt Duplex Combination Set for 1/2-Inch Floor Outlet	each	.....
No. 3021, 3-Wire, 10-Ampere, 250-Volt Duplex Combination Set for 3/4-Inch Floor Outlet	each	.....
No. 3008, Low Tension Combination Set for 1/2-Inch Floor Outlet	each	.....
No. 3009, Low Tension Combination Set for 3/4-Inch Floor Outlet	each	.....
No. 2696, 2-Wire, 10-Ampere, 250-Volt Duplex Head Only for 1/2-Inch Extension	each	.....
No. 2697, 2-Wire, 10-Ampere, 250-Volt Duplex Head Only for 3/4-Inch Extension	each	.....
No. 2570, 3-Wire, 10-Ampere, 250-Volt Duplex Head Only for 1/2-Inch Extension	each	.....
No. 2569, 3-Wire, 10-Ampere, 250-Volt Duplex Head Only for 3/4-Inch Extension	each	.....
No. 2686, Low Tension Head Only for 1/2-Inch Extension	each	.....
No. 2687, Low Tension Head Only for 3/4-Inch Extension	each	.....
No. 1921, 3 1/2-Inch Extension, 1/2-Inch Iron Pipe Size Threaded for Flange	each	.....
No. 1956, 3 1/2-Inch Extension, 3/4-Inch Iron Pipe Size Threaded for Flange	each	.....
No. 2619, Locking Flange for 1/2-Inch Iron Pipe Size Extension	each	.....
No. 2620, Locking Flange for 3/4-Inch Iron Pipe Size Extension	each	.....

T & B Watertight Floor Boxes

Approved by Underwriters' Laboratories



Box is furnished with polarized receptacle plug.

Has 3 outlets in sides and 2 in bottom for 1/2-inch rigid conduit or any connector with 1/4-inch threads.

Has 5 tapped holes for 1/4-inch conduit; 4 of these are plugged with watertight steel plugs.

Outside diameter: box body (under flange), 2 3/4 inches; overall (face of plate), 3 3/4 inches. Outside height: box body (under flange), 2 5/8 inches; overall, including plate but not nozzle, 3 inches. Height of nozzle, 1 1/4 inches.

Standard package, 25. Weight, 70 pounds.

No. 1700, Box with 2-Wire Recp.	each	\$4.00
No. 1701, Box with 3-Wire Recp.	each	5.00
No. 1702, Box with 3-Wire Grnd. Recp.	each	5.00
No. 1703, Phone or Signal Floor Box, No Recp.	each	3.00

T & B Adjustable Watertight Floor Boxes

Deep Type

10 Amperes, 250 Volts—15 Amperes, 125 Volts

Approved by Underwriters' Laboratories

Standard conduit drilling is 4 holes on sides, tapped for 1/2-inch conduit, with 2 holes plugged. Will be supplied, 3/4-inch, when specified, at no extra charge.

Cover plate, 4 inches. Height, 3 3/4 inches.

*Attachment plug furnished when specified at extra charge.



No. 1730, with Bell Nozzle

No.	Description	Each	Unit Cuan.	Std. Wt., lb.	Pkg. per 100
*1730	2-Wire Receptacle Box	\$5.00	1	10	4 1/4
1731	3-Wire Receptacle Box	5.50	1	10	4 1/2
1732	3-Wire Ground Recp. Box	5.50	1	10	4 1/2
1733	Telephone or Signal Box	4.00	1	10	4

T & B Floor Box Accessories

For 1700, 1730 and 1760 Series

No. 1707

Bronze disc; standard equipment on entire 1700 series of boxes except 1703, 33 and 63. No. 1707.....each \$2.25



No. 1707 Disc

No. 1708

Bronze bushed outlet nozzle; standard equipment on 1700-1-2. No. 1708.....each \$0.80



No. 1708 Nozzle

No. 1709

Bronze disc with 1/2-inch hole, for telephone or signal work; standard equipment on 1703, 33 and 63. No. 1709.....each \$0.80



No. 1709 Disc

No. 1710

Bronze reversible disc with fiber bushing. No. 1710.....each \$1.00



No. 1710 Reversible Disc

No. 1739

Bronze bushed triple nozzle. No. 1739.....each \$1.50



No. 1710 Reversible Disc

*No. 1742

Bushed extension piece, 1/2-inch pipe size, 6 inches long. No. 1742.....each \$1.70



No. 1739 Triple Nozzle

*No. 1745

Two 2-wire receptacles (15 amperes 125 volts each) on extension 1/2 inch pipe size, 6 inches long. No. 1745.....each \$3.50

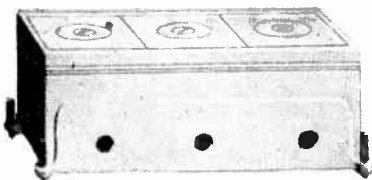


No. 1742 Extension Piece

*Bushed extension piece can be furnished in any length. Extensions furnished in 3/4 and 1-inch stock, any length.

Standard package, \$100.00 list value. Accessories may be assorted with complete boxes to obtain standard package.

T&B Rectangular Gang Floor Boxes
Adjustable and Watertight Boxes for Light,
Power and Communications
Approved by Underwriters' Laboratories



These boxes have a double mechanical adjustment: floor form adjustment by adjusting screw in ear at each corner of box; floor level adjustment by adjusting screws in cover frames. Covers have no unsightly screws. The cover is metallically grounded to the box. Boxes are heavily gasketed and are watertight.

Standard equipment of these boxes is a combination 1/2-inch and 2-inch cover plate with each gang. Receptacles, nozzles and other accessories extra. Adjustment: 5/8-inch vertical; 10° angular. Minimum height overall, 3 7/8 inches; width, 4 1/8 inches. Packed one to a carton.

No.	Each	Description	Length Inches	Wt., Lb. Each
1810	\$5.00	1-Gang	1 1/8	9
1820	10.00	2-Gang	8 3/8	15
1830	15.00	3-Gang	12 7/8	21
1840	20.00	4-Gang	16 1/2	27
1850	25.00	5-Gang	20 7/8	33

Steel City Non-Adjustable Floor Outlets
Original Fullman Type



No. 490

No. 490.—A round outlet with No. 481 box body, No. 482 brass cover plate with 1/2-inch tapped hole. Brass plug in cover plate. No. 484 cork gasket. Height, 3 1/16 inches. Diameter, 3 1/2 inches. Standard package, 25. Approximate weight each, 1 3/4 pounds.

No. 490.....each \$3.10

No. 490-LB.—Large non-adjustable floor box, similar to No. 490. Takes conduit up to 1 1/4 inches in all sides. With 5-inch cover. Height overall, 3 3/16 inches. Inside diameter, 4 inches. Inside height, 3 1/2 inches. Standard package, 5. Approximate weight each, 5 1/2 pounds.

No. 490-LB.....each \$12.00

No. 490-ELB.—Extra large non-adjustable box takes conduit up to 2 inches in all four sides. With 1/4-inch bronze cover. Diameter, 6 3/4 inches. Height overall, 3 3/16 inches. Inside diameter, 4 7/16 inches. Inside height, 4 1/4 inches. Standard package, 2. Approximate weight each, 11 pounds.

No. 490-ELB.....each \$30.00

Parts

No.	Each	Description	Approx Wt. Oz
481	\$2.50	Box Body Only, 1/2" Conduit Holes Tapped One in Each of 2 Sides and 1 in Bottom, 2 Plugged with Iron Rings	20
475-R	3.60	Two 10-Ampere 2-Wire Bakelite Receptacles, Mounted on Flat Steel Ring.....	14
484	.40	Cork Gasket.....	1
482	1.80	Brass Cover Plate with 1/2" Convex Plug, Diameter, 3 1/2"	6
483	2.50	Brass Cover Plate with 2" Flush Plug, Diameter, 3 1/2"	4
487	1.00	Convex Brass Plug for No. 482 Cover, Diam., 1/2"	1
480	1.20	Flush Brass Plug for No. 483 Cover, Diam., 2"	2
480-S	1.40	Brass Flush Plug for No. 483 Cover, Diam., 1/2", Convex Plug in Center, 2" Diameter.....	2
479	1.60	Brass Bell Nozzle, Threaded 2" at Bottom.....	2
478	1.70	10-Amp. 2-Wire Bakelite Receptacle Mounted on Flat Steel Ring.....	7
493-R	6.00	10-Amp. 3-Wire Bakelite Receptacle and Plug Mounted on Flat Steel Ring.....	10
491-R	6.00	20-Amp. 2-Wire Receptacle and Plug Mounted on Steel Strap.....	12
492	9.60	20-Amp. 2-Wire Polarized Receptacle and Plug, Steel Ring, Brass Cover Plate and Gasket for No. 491 Outlet	16

Steel City Non-Adjustable Floor Outlets
Original Fullman Type



No. 477



Sectional View of No. 477 Showing Receptacle Mounted on Steel Ring

Complete assembly consists of No. 481 box body, No. 478 10-ampere 2-wire bakelite receptacle mounted on flat steel ring which also serves as a seat for the bell nozzle or flush brass plug. No. 483 brass cover plate with 2-inch tapped hole. No. 480 flush brass plug in cover plate. No. 484 cork gasket. No. 479 bell nozzle.

Conduit holes: one in each of two sides and one in bottom tapped for 1/2-inch conduit. Two of the holes are plugged with iron plugs.

All bronze parts are brushed bronze finish. All iron and steel parts sherardized to prevent rust.

No. 475

Complete assembly, duplex type. Height, 3 1/16 inches. Standard package, 10. Approximate weight each, 5 pounds.

No. 475.....each \$12.50

No. 477

Complete assembly, single type. Height, 3 1/16 inches. Diameter, 3 1/2 inches. Standard package, 25. Approximate weight each, 2 pounds.

No. 477.....each \$4.60

No. 493

Complete assembly, single type, with 10-ampere 3-wire receptacle and plug. Height, 3 1/16 inches. Diameter, 3 1/2 inches. Standard package, 10. Approximate weight each, 2 pounds.

No. 493.....each \$9.60

No. 491

Complete assembly, single type, with No. 491-R 20-ampere 2-wire polarized receptacle and plug and No. 466 nozzle. Height, 3 1/16 inches. Diameter, 3 1/2 inches. Standard package, 10. Approximate weight each, 2 3/4 pounds.

No. 491.....each \$12.00

No. 495

Rectangular outlet with bell nozzle. No receptacle and plug. Four 1/2-inch tapped holes in body. One 2-inch tapped hole in center of cover. Size, 4 3/8 x 4 3/4 x 3 1/16 inches deep. Cover plate 5 1/2 inches square. Approximate weight each, 6 1/2 pounds.

No. 495.....each \$6.30

No. 496

Rectangular floor outlet same as No. 495, except with 10-ampere receptacle on steel plate with attachment plug. Size, 1 3/8 x 4 3/8 x 3 1/16 inches deep. Cover plate 5 1/2 inches square. Approximate weight each, 6 3/4 pounds.

No. 496.....each \$7.80

No. 497

Rectangular floor outlet with bell nozzle, No. 59201 30-ampere 250-volt receptacle, No. 57197 G-E attachment plug and receptacle strap. With 3 1/4-inch tapped hole in cover. Size, 4 3/8 x 4 3/8 x 3 1/16 inches deep. Cover plate 5 1/2 inches square. Approximate weight each, 7 1/2 pounds.

No. 497.....each \$12.50

No. 498

Round outlet same as No. 477, except with flange ring. Height, 3 1/4 inches. Standard package, 10. Approximate weight, 3 pounds.

No. 498.....each \$7.80

Steel City Adjustable Floor Outlets

Original Fullman Type

Standard tapping—four 1/2-inch holes (one in each side), three of which are closed with plugs. Can be tapped special to meet requirements. Flange rings are 1/8-inch thick.
 Total diameter of complete outlets Nos. 400, 400-D, 400-S, 401, 401-D and 401-S, 4 1/2 inches.
 Total diameter of complete outlets Nos. 420, 420-S, 421 and 421-S, 5 inches.
 All cover plates are 3/64 inch thick and set flush with top of flange ring.



Nos. 400 and 420



Nos. 401 and 421



No. 403-R

Complete Assemblies

No.	Each	Description	SIZE, INCHES			Min. Ht. In.	Max. Ht. In.	Approx. Wt. Lb.
			High	Diam.	Plug			
400	\$7.34	Includes No. 402 Std. Box Body, *No. 405 Std. Comb. Adjusting Ring and Bronze Flange Ring, No. 409 Cover Plate with No. 471 1/2-Inch Plug, No. 411 Cork Gasket and No. 476 Sealing Cement.	4 1/4	1/2	3 3/4	4 3/8	5 1/2	
400-D	9.40	Same as No. 400, Except with No. 404 Deep Box Body	4 1/4	1/2	4 1/2	5 1/4	8	
†400-S	7.34	Same as No. 400, Except with No. 402-S Shallow Box; Adjusting Ring, 1 3/16 In. High	4 1/4	1/2	†3 3/8	3 1/16	5 1/2	
420	9.30	Includes No. 422 Box Body, *No. 431 Std. Comb. Adj. Ring & Bronze Flange Ring, No. 435 Cover Plate with No. 471 1/2-In. Plug, No. 438 Rubber Gasket & No. 476 Sealing Cement.	5	1/2	3 13/16	4 3/8	7	
420-S	9.30	Same as No. 420, Except with No. 422-S Box Body; Adjusting Ring, 1-Inch High.	5	1/2	2 13/16	3 3/8	7	
401	7.34	Includes No. 402 Std. Box Body, *No. 405 Std. Comb. Adjusting Ring & Bronze Flange Ring, No. 410 Cover Plate with No. 472 2-In. Plug, No. 411 Cork Gasket, No. 414 Steel Plate as a Seal for 2-In. Plug, and No. 476 Sealing Cement	4 1/4	2	3 3/4	4 3/8	5 1/2	
401-D	9.40	Same as No. 401, Except with No. 404 Deep Box Body	4 1/4	2	4 1/2	5 1/4	8	
†401-S	7.34	As No. 401, Except with No. 402-S Shallow Box Body; Adjusting Ring, 1 3/16 In. High.	4 1/4	2	†3 3/8	3 1/16	5 1/2	
421	9.30	Includes No. 422 Box Body, *No. 431 Std. Comb. Adjusting Ring and Bronze Flange Ring, No. 436 Cover Plate with No. 472 2-In. Plug, No. 438 Rubber Gasket, No. 437 Steel Plate as a Seal for 2-In. Plug, and No. 476 Sealing Cement	5	2	3 13/16	4 3/8	7	
421-S	9.30	Same as No. 421 Except with No. 422-S Box Body and Adjusting Ring, 1-Inch High.	5	2	2 13/16	3 3/8	6 1/2	

High Tension Outlet

403-R	6.88	Complete Assembly, Box Body, Adjusting Ring, Plate with 2-Inch Flush Plug, Cork Gasket, Sealing Cement and Steel Plate.	2 7/8	3 1/2	2	3 1/4	3 7/8	2 3/4
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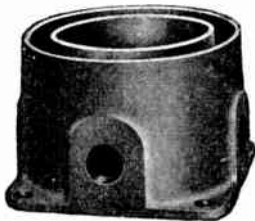
Low Tension Outlet

403-T	6.50	Same as No. 403-R Except No Steel Plate; 1/2-Inch Plug in Cover Plate.	2 7/8	3 1/2	1/2	3 1/4	3 7/8	2 3/4
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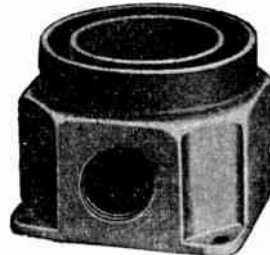
*Special adjustment rings for higher adjustments are available at extra cost as follows: Nos. 406, 407 and 408 for outlets Nos. 400, 400-D, 400-S, 401, 401-D and 401-S; Nos. 432, 433 and 434 for outlets Nos. 420, 420-S, 421 and 421-S.

†By removing adjusting screws minimum height can be lowered 1/8 inch.

Box Bodies Only



No. 402

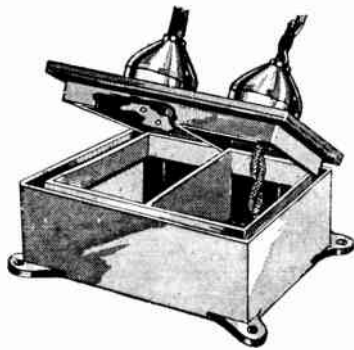


No. 404

No.	Each	Description	SIZE, INCHES				Approx. Wt. Lb.
			High	Diam. Open	Groove Depth		
402	\$5.00	Std. Box Body for Outlets Nos. 400, 401; Std. Tapping.	3 1/16	3 1/4	1	3 1/2	
402-S	5.00	Spec. Shallow Box Body for Outlets 400-S, 401-S; Std. Tapping	2 9/16	3 1/4	1/2	3 1/2	
†404	6.30	Spec. Deep Box Body for Outlets 400-D, 401-D; Std. Tapping.	3 3/4	3	1	6 1/4	
422	5.50	Std. Box Body for Outlets Nos. 420, 421; Std. Tapping	3 1/16	3 3/4	1	5	
422-S	5.50	Std. Shallow Box Body for Outlets 420-S, 421-S; Std. Tapping	2 1/4	3 3/4	1/2	3 1/2	

†Boss is large enough to allow room for two 1/2-inch or two 3/4-inch conduits side by side and can be tapped special to order for conduit up to 1 1/2-inch with room for bushing or for 2-inch conduit without room for bushing.

Steel City Adjustable Gang Floor Outlets
Original Fullman Type



Available with No. 458 or No. 459 cover plates. No. 458 for 1/2-inch convex plug, No. 459 for 2-inch flush plug. End sections are provided with three holes tapped for 1/2-inch conduit. Intermediate sections have two 1/2-inch tapped holes.

Can also be tapped for 3/4-inch and 1-inch conduit with room for bushings or for 1 1/4-inch conduit without room for bushings. Sketches

should be furnished showing size and location of conduit holes if special tapping is required.

Complete Outlets

No.	Each	No. of Gangs	No. of Plates	Size, In.			Approx. Wt., Lb.
				Min. Height	Lgth.	Width	
441	\$8.90	1	1	3 1/2	4	5 1/2	6 1/4
442	17.80	2	2	4 1/16	7	5 1/2	12
442-L	17.80	2	2	4 1/16	7	5 1/2	12
442-S	17.80	2	2	...	7	5 1/2	12
443	26.70	3	3	3 7/8	10	5 1/2	17 3/4
444	35.60	4	4	4 1/4	13	5 1/2	21 1/2
445	44.50	5	5	4 1/8	16	5 1/2	28
446	53.40	6	6	4	19	5 1/2	32

Bodies Only

Made of gray iron with electro-galvanized or sherardized finish, specify when ordering.

No.	Each	No. of Gangs	Ht. In.	Approx. Wt., Lb.	No.	Each	No. of Gangs	Ht. In.	Approx. Wt., Lb.
447	\$5.50	1	2 3/4	1	450	\$21.84	4	3 1/8	14
448	10.92	2	3 1/8	7 1/2	451	27.30	5	3 1/8	16 1/2
449	16.38	3	3 1/8	11 1/2	452	32.76	6	3 1/8	19

Frames Only

Adjusting frame with rubber gasket and edge frame.

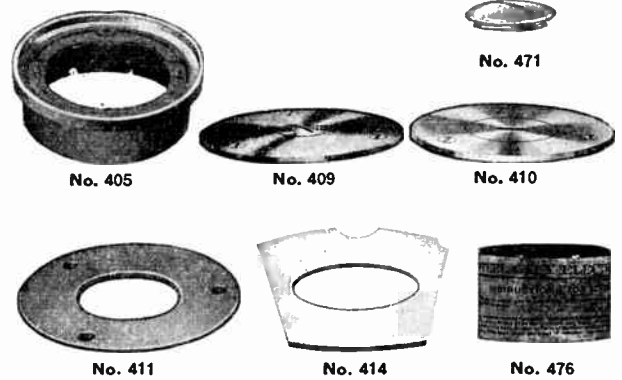
Made of steel, electro-galvanized or sherardized finish, specify when ordering. Bronze edge frame statuary bronze finish. Edge frame extends all around cover plates.

No.	Each	No. of Overall Gangs	Height In.	Approx. Wt., Lb.	No.	Each	No. of Overall Gangs	Height In.	Approx. Wt., Lb.
488	\$3.90	1	1 1/4	1 1/2	455	\$15.60	4	1 1/16	6
453	7.86	2	1 3/4	2 3/4	456	19.50	5	1 3/4	8 1/2
454	11.70	3	1 5/8	4	457	23.40	6	1 1/16	8 1/2

Parts

- No. 458 Cover Plate.**—For 1-section gang outlet for 1/2-inch convex plug. Approximate weight, 7 ounces. each \$3.00
- No. 459 Cover Plate.**—Same as No. 458, except for 2-inch flush plug. Approximate weight, 7 ounces. Each 3.00
- No. 471 Plug.**—A 1/2-inch convex plug for cover plate. Approximate weight, 1 ounce. each 1.00
- No. 472 Plug.**—A 2-inch flush plug for cover plate. Approximate weight, 2 ounces. each 1.20
- No. 472-S Plug.**—A 2-inch plug for cover with 1/2-inch convex plug in center. Approximate weight, 2 ounces. each 1.40
- No. 439 Plate.**—For seating 2-inch flush plug. Approximate weight, 1 ounce. each .40
- No. 464 Gasket.**—Rubber gasket for No. 458 or 459 cover plate. Approximate weight, 1/2 ounce. each .40
- No. 476 Sealing Cement.**—For 1-section gang. Approximate weight, 4 ounces. each .40
- No. 439-E Frame.**—Extension frame for mounting on No. 441 single gang floor outlet. Opening, 2 inches. Thickness, 1/16 inch. Height, 7/8 inch. Approximate weight, 3/4 pound. each 3.00
- No. 459-EC Collar.**—Threaded 2-inch male for inserting in any 2-inch opening and 2-inch female for inserting 2-inch flush plug. Gasket furnished in female end for use under 2-inch plug. Height, 7/8-inch. Approximate weight, 1/2 pound. each 2.50

Parts for Steel City Adjustable Floor Outlets



Rings for Outlets Nos. 400, 400-D, 400-S, 401, 401-D or 401-S

No.	Each	Description	Approx. Wt., Lb.
405	\$2.50	Adjusting and Bronze Flange Type, 1 1/2" High Overall	1
405-S	2.50	Special, 1 3/16" High	1
406	2.70	Special, 2 1/8" High	1 1/4
407	3.00	Special, 2 3/4" High	1 1/2
408	3.50	Special, 3 1/16" High	1 3/4

Rings for Outlets Nos. 420, 420-S, 421 and 421-S

431	\$2.70	Standard, 1 1/2" High	1 1/4
431-S	2.70	Special, 1" High	1
432	3.00	Special, 2 1/8" High	1 1/2
433	3.50	Special, 2 3/4" High	2
434	4.00	Special, 3 3/8" High	2 1/2

Bronze Cover Plates

409	\$3.50	For Outlets Nos. 400, 400-D, 400-S, With No. 471 1/2" Plug; Diam., 4"	9/16
410	3.50	For Outlets Nos. 401, 401-D, 401-S With No. 472 2-Inch Plug; Diam., 4"	1/2
435	4.00	For Outlets Nos. 420, 420-S, With No. 471 1/2" Plug; Diameter, 4 3/4"	3/4
436	4.00	For Outlets Nos. 421, 421-S, With No. 472 2" Plug; Diameter, 4 3/4"	3/4

Bronze Plugs

471	\$1.00	Convex, For Nos. 409 or 435 Cover Plates, Diameter, 1/2"	*1/2
472	1.20	Flush, For Nos. 410 or 436 Cover Plates, Diameter, 2"	1/16
472-S	1.40	Flush, For Nos. 410 or 436 Cover Plates, Diameter, 2", With 1/2" Diameter Convex Plug in Center	1/8

Gaskets

411	\$.40	For Outlets Nos. 400, 400-D, 400-S, 401, 401-D and 401-S	*1/4
438	.40	For Outlets Nos. 420, 420-S, 421, 421-S	*1/2

Steel Plates

414	\$.40	For Seats Under 2" Plug No. 472, For Outlets Nos. 401, 401-D, 401-S	1/16
437	.40	For Seats Under 2" Plug No. 472, For Outlets Nos. 421, 421-S	1/8

Cement

476	\$.40	For Use With All Outlets, Amount Sufficient For 1 Outlet	1/4
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*Ounces.

Steel City Nozzles and Bases

For All Types of Floor Outlets

Combination Duplex Cover Plates and Bell Nozzles



No. 415



No. 460

No. 415.—For use with floor outlets Nos. 400, 400-S, 400-D, 401, 401-S and 401-D. Diameter, 4 inches.

Approximate weight, 16 ounces.

No. 415.....each \$6.30

No. 460.—For use with all adjustable gang type floor outlets. Size, 3x4 inches. Approximate weight, 12 ounces.

No. 460.....each \$6.30

Standpipe Nozzles



Threaded 1/2 inch for 1/2-inch taps. Length, 3 inches.

No.....	416	416-A
Each.....	\$1.60	1.88
Diameter.....inches	1/2	3/4
Approximate Weight.....ounces	7	9

Round Type High Tension Nozzles



Complete with 10-ampere 250-volt receptacle. Diameter head, 27/16 inches. Overall length, 4 3/4 inches.

Approximate weight, 16 ounces.

No.....	417	417-A
Each.....	\$3.80	4.50
Diameter Stem.....inches	1/2	3/4

Round Type Low Tension Nozzles



Diameter head, 27/16 inches. Overall length, 4 3/4 inches. Complete with two 5/8-inch inside diameter fiber bushings, one on each side.

Approximate weight, 16 ounces.

No.....	417-B	417-C	*417-D
Each.....	\$3.80	4.50	7.50
Diameter Stem.....inches	1/2	3/4	1 1/2

*With receptacle on both sides.

No. 465 Drip Nozzles



For two outlets from same box. Threaded 1/2 inch for 1/2-inch taps.

Approximate weight, 4 ounces.

No. 465.....each \$2.34

No. 466 Bell Nozzles



Diameter at bottom, 2 inches. For use with cover plates with 2-inch openings. Approximate weight, 3 ounces.

No. 466.....each \$1.60

No. 467 Bronze Stem Nozzles



Threaded 1/2 inch for 1/2-inch taps. Diameter, 1/2 inch.

Approximate weight, 3 ounces.

No. 467.....each \$1.60

Steel City Nozzles and Bases

For All Types of Floor Outlets
No. 468-B Cast Bronze Nozzles



With two duplex receptacles, allowing four connections. Threaded 1/2 inch for 1/2-inch taps. Can also be furnished with 3/4-inch stem, specify when ordering. Available in horizontal or vertical type, specify when ordering.

Price does not include cover plate or base.

Approximate weight, 14 ounces.

No. 468-B.....each \$12.48

Telephone Pull-Box Nozzles



No. 469 Nozzle,
No. 461 Base



No. 470 Nozzle,
No. 461-A Base



No. 474 Low Tension
Nozzle No. 473-A Base

No. 469.—Threaded 1/2-inch. Takes 5-pair braided cable 3/4-inch high.

No. 469—Approximate Weight, 10 Ounces.....each \$5.92

No. 470.—Same as No. 469, except threaded 3/4-inch. Takes from 5 to 20-pair braided cable.

No. 470—Approximate Weight, 14 Ounces.....each \$6.30

No. 474.—Low tension type nozzle threaded for attachment to any 3/4-inch opening. Stem threaded 1 inch long for use with No. 473-A base. Height, 3 1/4 inches.

No. 474—Approximate Weight, 14 Ounces.....each \$2.80

Bronze Bases for Nozzles

No.	Each	BASE, INCHES		Diam. In.
		Drilling & Tapping	Opening	
461	\$1.70	1/2	3/4	2 1/8
461-A	1.70	3/4	3/4	2 1/8
461-B	1.70	1/2	1/2	2 1/8
462	1.70	1/2	1	2 1/8
462-A	1.70	3/4	1	2 1/8
463	1.70	1/2	2	2 1/8
463-A	1.70	3/4	2	2 1/8
463-B	1.70	1	2	2 1/8
473	1.80	1/2	1/2	3
473-A	1.80	3/4	3/4	3

No. 468 Cast Bronze Combination Nozzles



With duplex threaded 1/2 inch for 1/2-inch taps. Can also be furnished with 3/4-inch stem, specify when ordering. Available in horizontal or vertical type, specify when ordering.

Approximate weight, 16 ounces.

No. 468.....each \$7.80

No. 468-A Cast Bronze Nozzles

With single receptacle. Threaded 1/2 inch for 1/2-inch taps. Can also be furnished with 3/4-inch stem, specify when ordering. Available in horizontal or vertical type, specify when ordering.

Approximate weight, 16 ounces.

No. 468-A.....each \$7.80

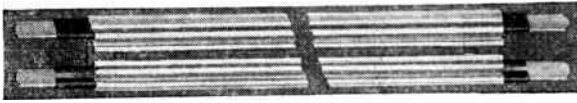
Prices of nozzles do not include cover plates or bases.

Bull Dog Universal Type Trol-E-Duct Systems Portable Electricity

Universal Trol-E-Duct provides a flexible wiring system, in contrast to the old fixed outlet system.

Consists of standardized duct sections enclosing copper busbars into which can be inserted plugs and trolleys for feeding current to lights and small tools.

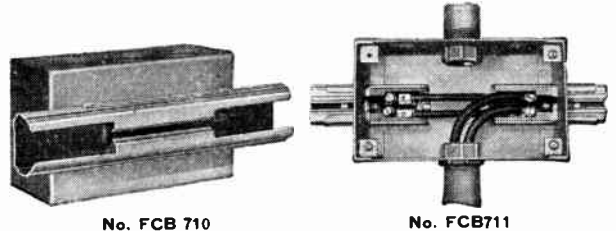
Duct Lengths



Rated capacity: 50 amperes, 250 volts. Available in ten lengths, measured from ends of busbars.

No.	Each	Lgth. In.	Std. Pkg.		No.	Each	Lgth. In.	Std. Pkg.	
			No.	Wt. Lb.				No.	Wt. Lb.
D701	\$3.00	1	10	5	D706	\$7.00	6	10	37
D702	4.50	2	10	12	D707	7.00	7	10	45
D703	4.50	3	10	17	D708	8.00	8	10	50
D704	6.50	4	10	25	D709	8.00	9	10	55
D705	6.50	5	10	30	D710	8.00	10	10	60

Duct Couplings



Provides a means for joining the duct sections electrically and mechanically.

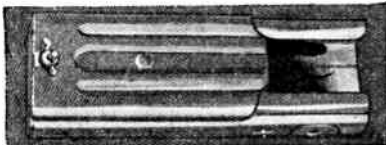


Hangers

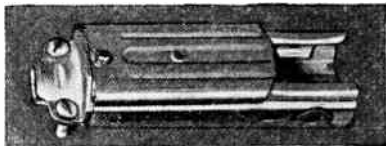
Available without hooks, for mounting flush against wall or ceiling, and with hooks for use with messenger cable.

No.	Each	Hook Inches	Std. Pkg.	
			No.	Wt. Lb.
H1710-0	\$.10	None	100	6 1/4
H210-2	.30	1 1/4	50	6 1/4
H210-4	.30	3 1/4	100	12 1/2

End Caps



No. TEC210



No. PEP250

Used for closing up the ends of duct runs. Also used as feed-in or trolley entrance point.

No.	Each	Type	Std. Pkg.	
			No.	Wt. Lb.
PEP250	\$3.00	Cord Grip	10	3 3/4
PEP230C	2.50	Cord Clamp	10	3 3/4
TEC210	1.50	Trolley Entrance	20	5

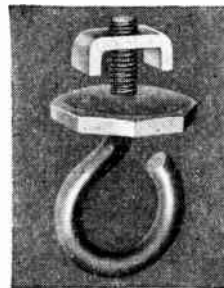
Standard Couplings

No.	Each	Type	Std. Pkg.	
			No.	Wt. Lb.
C710	\$1.50	Plain	40	15
TC710	3.00	Trolley Entrance	20	9
UC710	3.00	Union	10	5 1/2
USC710	3.50	Sectionalized	10	5 1/2

Feed-In Couplings With Outlet Box

FCB710	\$7.00	Standard	4	10
SFB710	8.00	Sectionalized	4	10
FCB711	7.00	Standard	4	10
SFB711	8.00	Sectionalized	4	10
EFB711	6.00	End Feed	4	10

No. WS710B Weight Support



When inserted in the duct, it supports loads such as lighting fixtures, transformers, etc., up to 75 pounds. It locks in place by turning 90° in duct, bringing prongs of clamp down into duct grooves and then tightening lock nut against the outside of duct.

Standard package, 50.

Weight per standard package, 4 1/2 pounds.

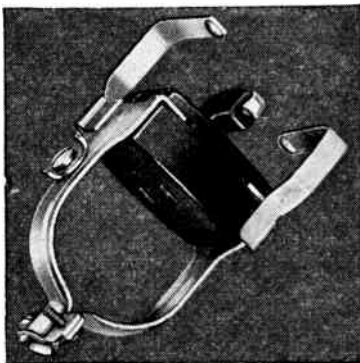
No. WS710B each \$3.00

Hangers

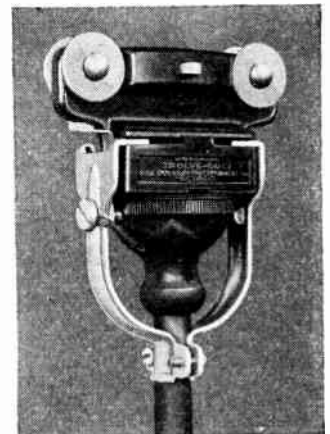
The terminal type plug or trolley is used where the connection to the light fixture or appliance is likely to be permanent; the receptacle type where it is necessary to frequently disconnect the appliance or fixture.

Cord set is not included.

No.	Each	Type	Std. Pkg.	
			No.	Wt. Lb.
Plugs				
125 Volts, 20 Amperes, A.C.				
125 Volts, 15 Amperes, D.C.				
TPG712	\$2.00	Terminal	20	4
RPG712	2.00	Receptacle	20	4
Trolleys				
250 Volts, 20 Amperes, A.C.				
250 Volts, 20 Amperes, D.C.				
TTG712	\$3.00	Terminal	20	4 1/2
RTG712	3.00	Receptacle	20	4 1/2

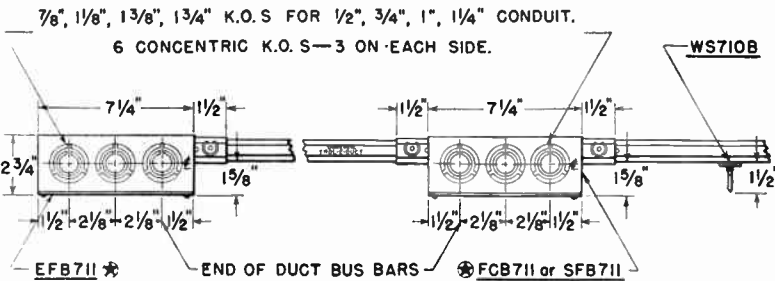
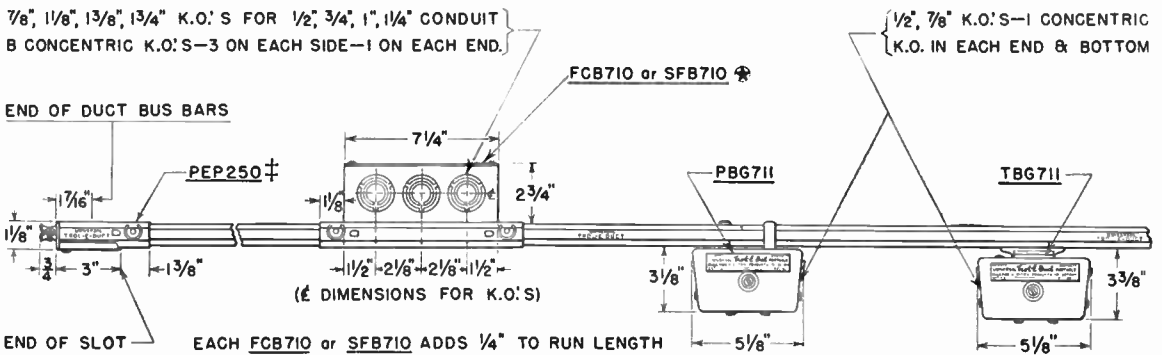
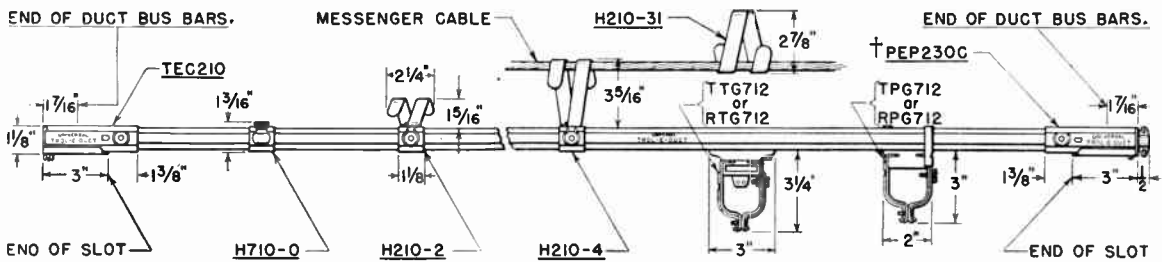
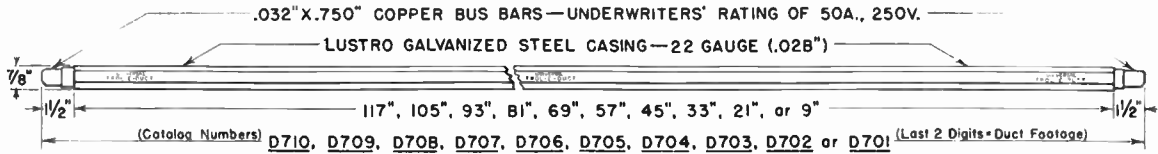


No. TPG712 Plug



No. RTG712 Trolley

Dimensional Data For Installing Bull Dog Universal Trol-E-Duct



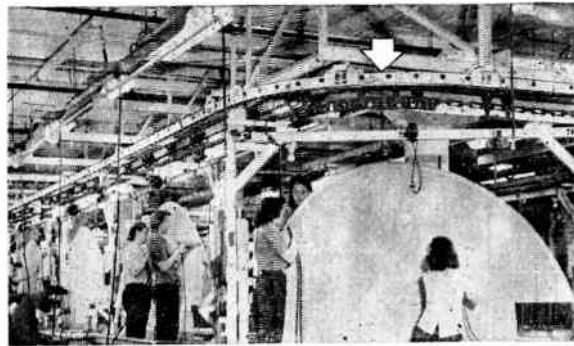
Each USC710 coupling adds 1/4" to the length of the duct run. C710, TC710, and UC710 couplings do not add to the length of the duct run.

⊛ Each EFB711 adds 5 3/4" and each FCB711 or SFB711 adds 4 1/4" to the length of the duct run. FCB711, SFB711, FCB710, SFB710, and EFB711 are all 4 1/8" wide.

† PEP230C is used for connecting flexible cord to end of duct. Maximum cord diameter—.406".

‡ PEP250 is used for connecting steel armored cable, flexible metallic conduit (limited to 1/2" size) and flexible cords to end of duct.

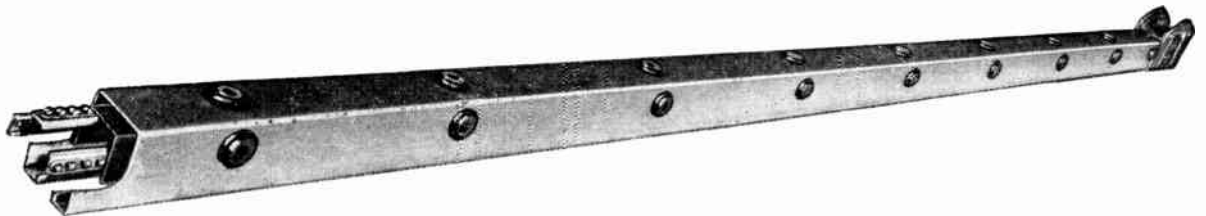
Bull Dog Industrial Type Trol-E-Duct Systems



Bull Dog Industrial Trol-E-Duct is a mobile electrical system providing a constant source of electrical power for cranes, hoists, portable electric tools, and other moving loads. Carries current through copper bus bars enclosed in insulated steel duct. Current is collected by trolleys to which are wired portable or movable electrical devices. Flexibility, unit construction, and standardized design permits Trol-E-Duct to be installed, dismantled, and reinstalled innumerable times to meet the ever-changing nature of modern industry.



Drop-Out Section



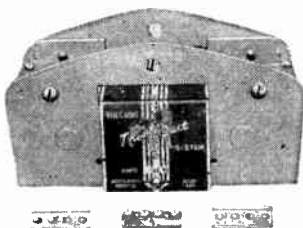
No. TRD310-44, 3-Pole Standard 10-Foot Duct Section

One hanger assembly, complete with hanger, cover and set of bus connectors, is furnished as standard equipment with each duct section, drop-out, and drop-out sectionalizing section.

Standard 10-Foot, 90-Ampere Duct Sections 575 Volts or Less

No.	Description	Each
TRD210-44	2-Pole, 10-Foot Standard Section.....	\$45.00
TRD310-44	3-Pole, 10-Foot Standard Section.....	50.00
TRD010	10-Foot Busless Section.....	30.00
TRD010R	10-Foot Busless Drop-Out Section.....	40.00
TRD210R-44	2-Pole, 10-Foot Drop-Out Section.....	55.00
TRD310R-44	3-Pole, 10-Foot Drop-Out Section.....	60.00
TRD310RS-44	2-Pole, 10-Foot Drop-Out Sectionalizing Section.....	75.00

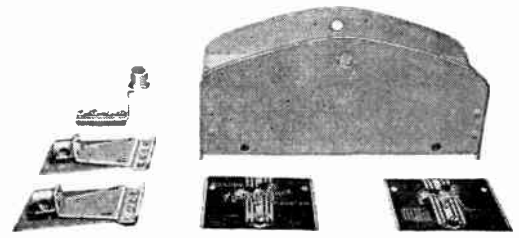
Complete Assemblies of Duct Accessories



No. TRH3, Hanger



No. TRB23, End Plate and Bumper



No. TRF3, Feed-In Adaptor

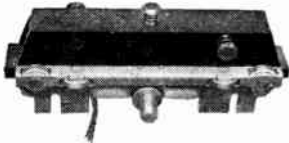
No.	Description	Each
TRH2	2-Pole Hanger Assembly.....	\$5.50
TRH3	3-Pole Hanger Assembly.....	6.00
TRF2	2-Pole Feed-In Adaptor Set.....	7.50
TRF3	3-Pole Feed-In Adaptor Set.....	7.50
TRB23	End Closer and Bumper Assembly.....	3.00

Bull Dog Flexible Industrial Type Trol-E-Duct Systems

Concluded

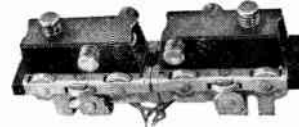
Trolleys Only

575 Volts or Less



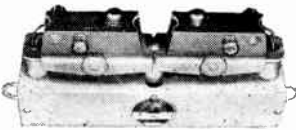
Standard Type Trolley
30 Amperes Maximum

No.	T131	T331
Each.	\$15.00	18.00
No. of Poles	2	3



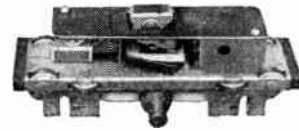
Heavy Duty Type Trolley
60 Amperes Maximum

No.	T132	T332
Each.	\$25.00	30.00
No. of Poles	2	3



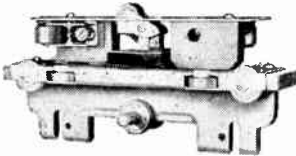
Curve Type Trolley
30 Amperes Maximum

No.	TR131-1	TR331-1
Each.	\$28.00	33.00
No. of Poles	2	3



Shoe Type Trolley
60 Amperes Maximum

No.	T134	T334
Each.	\$37.00	42.00
No. of Poles	2	3



Roller Collector Trolley
20 Amperes Continuous
30 Amperes Intermittent

No.	TR131-2	TR331-2
Each.	\$20.00	25.00
No. of Poles	2	3

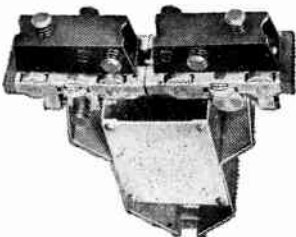


Transfer Type Trolley
30 Amperes Continuous
60 Amperes Intermittent

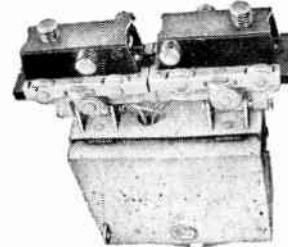
No.	T25	T35
Each.	\$60.00	70.00
No. of Poles	2	3

Trolleys With Tool Hangers

With Plain Tool Hanger



With Box Tool Hanger

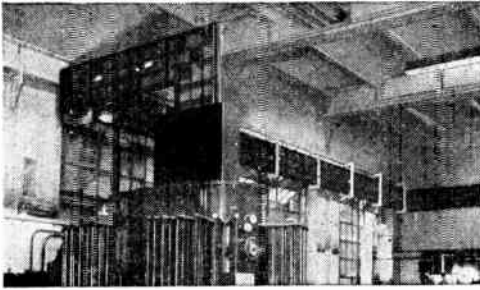


Plain tool hangers are designed for use with standard and heavy duty trolleys. The removable screw cover on the hanger makes wiring connections easily accessible for installation, inspection and maintenance.

Box tool hangers are designed for use with standard and heavy duty trolleys. The hinged cover on the hanger box makes wiring connections, SaftoFuse units, starters, and receptacles easily accessible.

No.	Each	Poles	Type of Trolley	No.	Each	Poles	Type of Trolley
T13101	\$23.00	2	Standard	T13102	\$27.50	2	Standard
T33101	26.00	3	Standard	T33102	30.50	3	Standard
T13101-2	28.00	2	Roller Collector	T13102-2	32.50	2	Roller Collector
T33101-2	33.00	3	Roller Collector	T33102-2	37.50	3	Roller Collector
T13201	33.00	2	Heavy Duty	T13202	37.50	2	Heavy Duty
T33201	38.00	3	Heavy Duty	T33202	42.50	3	Heavy Duty

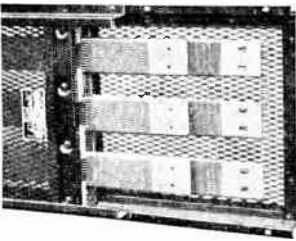
Bull Dog Flexible BUStributionDUCT Systems
Ventilated O-X Duct for Feeder Circuits



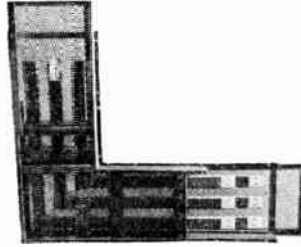
Ventilated LO-X BUStributionDuct is designed for efficient power and lighting feeder runs; also welders or other large inductive loads.

Materially reduces voltage drop, operating temperatures, and operating costs.

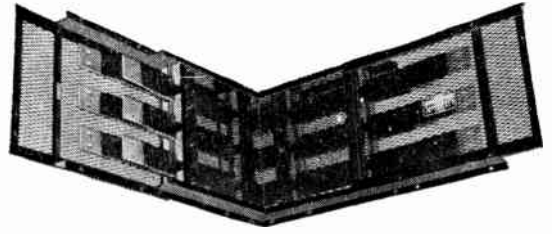
Available in capacities ranging from 600 to 4000 amperes inclusive, for 2-pole, 3-pole, or 3-phase 4-pole, 600 volts or less, a.c. or d.c.



Duct Section



Flatwise Elbow



Edgewise Elbow

Duct Section. In addition to standard 10-foot duct sections (as illustrated) fittings are available to meet any building contour or installation requirements.

Flatwise Elbow. Flatwise elbows are available for making right or left hand 90° bends. Scarf lap joints and bolted connections are used for joining elbows to duct sections.

Edgewise Elbows. Edgewise elbows permit 90° right or left hand bends. Handhole openings afford access to bus bars within casing and facilitate connecting of fittings to duct.

2-Pole 10-Foot Duct Sections					Elbows				
Amps.	No.	Size Inches	No.	Each	2-Pole No.	3-Pole No.	Each	4-Pole No.	3-Phase Each
600	1	1/4x2	VXF206	\$100.00	VEL206	VEL306	\$80.00	VEL406	\$100.00
800	1	1/4x3	VXF208	140.00	VEL208	VEL308	80.00	VEL408	100.00
1000	1	1/4x4	VXF210	180.00	VEL210	VEL310	80.00	VEL410	100.00
1350	2	1/4x2 7/16	VXF213	220.00	VEL213	VEL313	80.00	VEL413	100.00
1600	2	1/4x3	VXF216	260.00	VEL216	VEL316	80.00	VEL416	100.00
2000	2	1/4x4	VXF220	340.00	VEL220	VEL320	80.00	VEL420	100.00

3-Pole 10-Foot Duct Sections					Tees				
Amps.	No.	Size Inches	No.	Each	3-Pole No.	4-Pole No.	Each	3-Phase Each	
600	2	1/4x1	VXF306	\$160.00	VTE206	VTE306	\$100.00	VTE406	\$120.00
800	2	1/4x1 1/2	VXF308	210.00	VTE208	VTE308	100.00	VTE408	120.00
1000	2	1/4x2	VXF310	260.00	VTE210	VTE310	100.00	VTE410	120.00
1350	2	1/4x2 7/16	VXF313	310.00	VTE213	VTE313	100.00	VTE413	120.00
1600	2	1/4x3	VXF316	360.00	VTE216	VTE316	100.00	VTE416	120.00
2000	2	1/4x4	VXF320	480.00	VTE220	VTE320	100.00	VTE420	120.00

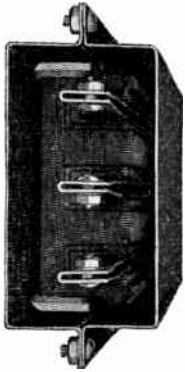
4-Pole 3-Phase 10-Ft. Duct Sections—Neutral 1/2 Rating					Crosses				
Amps.	No.	Size Inches	No.	Each	4-Pole No.	3-Phase No.	Each	3-Phase Each	
600	2	1/4x1	VXF406	\$200.00	VCR206	VCR306	\$120.00	VCR406	\$140.00
800	2	1/4x1 1/2	VXF408	260.00	VCR208	VCR308	120.00	VCR408	140.00
1000	2	1/4x2	VXF410	310.00	VCR210	VCR310	120.00	VCR410	140.00
1350	2	1/4x2 7/16	VXF413	360.00	VCR213	VCR313	120.00	VCR413	140.00
1600	2	1/4x3	VXF416	410.00	VCR216	VCR316	120.00	VCR416	140.00
2000	2	1/4x4	VXF420	550.00	VCR220	VCR320	120.00	VCR420	140.00

Amps.	End Closers				Transformer Tap Openings			
	2-Pole No.	3-Pole No.	4-Pole, 3-Phase No.	Each	2-Pole No.	3-Pole No.	4-Pole, 3-Phase No.	Each
600	VEC206	VEC306	VEC406	\$10.00	VTT206	VTT306	VTT406	\$45.00
800	VEC208	VEC308	VEC408	15.00	VTT208	VTT308	VTT408	50.00
1000	VEC210	VEC310	VEC410	16.00	VTT210	VTT310	VTT410	55.00
1350	VEC213	VEC313	VEC413	17.00	VTT213	VTT313	VTT413	60.00
1600	VEC216	VEC316	VEC416	18.00	VTT216	VTT316	VTT416	65.00
2000	VEC220	VEC320	VEC420	22.00	VTT220	VTT320	VTT420	70.00

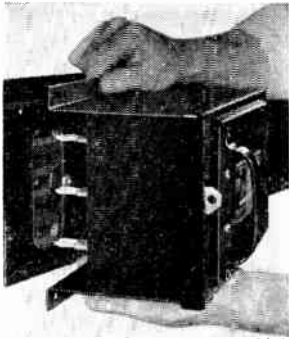
Box Amperes	3-Pole Tap Boxes									
	Duct Ampere Rating									
	600	800	1000	1350	1600	2000	2500	3000	4000	
225	VTB306A	VTB308A	VTB310A	VTB313A	VTB316A	VTB320A	VTB325A	VTB330A	VTB340A	
400	VTB306B	VTB308B	VTB310B	VTB313B	VTB316B	VTB320B	VTB325B	VTB330B	VTB340B	
600	VTB306C	VTB308C	VTB310C	VTB313C	VTB316C	VTB320C	VTB325C	VTB330C	VTB340C	
800		VTB308D	VTB310D	VTB313D	VTB316D	VTB320D	VTB325D	VTB330D	VTB340D	
1000			VTB310E	VTB313E	VTB316E	VTB320E	VTB325E	VTB330E	VTB340E	
Tap Box, each	\$100.00	\$105.00	\$110.00	\$115.00	\$120.00	\$125.00	\$130.00	\$145.00	\$200.00	
Opening, each	30.00	30.00	30.00	35.00	35.00	35.00	56.00	56.00	56.00	

Bull Dog Flexible BUStributionDUCT Systems

Type BDA Plug-In Duct for Branch Circuits



Type BDA Duct



Bus Plug for Type BDA Duct
Cover Operable Type

Type BDA plug-in duct (200 amperes maximum) has been specially designed for use in factories, garages, repair shops, and similar places where the total connected load is small and individual motor circuits do not exceed 100 amperes.

Furnished for 2 and 3-pole service, 600 volts or less.

Each 10-foot section is equipped with 10 plug-in openings, 5 on each side of duct.

Amps.	2-Pole 6000V.		3-Pole 575V. A.C.		Bus Bars per Leg Inches	Duct Gage
	No.	Each	No.	Each		
200	BDA202	\$50.00	BDA302	\$55.00	1-.05x2	16

Amps.	End Closers		Flange End		3-Phase Trans. Tap Opening		Ebony End Closers	
	No.	Each	No.	Each	No.	Each	No.	Each
200	EC1	\$7.00	FE41	\$25.00	TT41	\$25.00	EE41	\$25.00

Amps.	250 Volts		2-Pole 575V. A.C.		230V. A.C.		3-Pole 575V. A.C.	
	No.	Each	No.	Each	No.	Each	No.	Each
30	BSU221	\$17.00	BSJ251	\$19.00	BSU321	\$18.00	BSJ351	\$20.00
60	BSJ222	17.00	BSJ252	19.00	BSJ322	18.00	BSJ352	20.00
100	BSJ2237	23.00	BSJ2537	25.00	BSJ3237	24.00	BSJ3537	27.00

*Not fusible. same price.

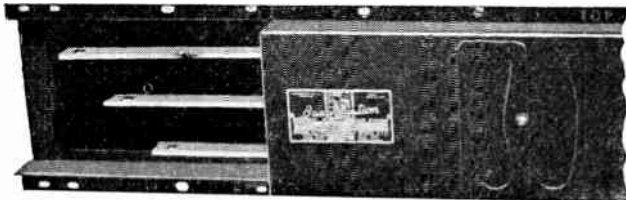
Type BD Plug-In Duct for Branch Circuits



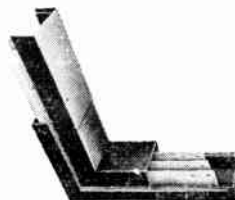
Type BD plug-in duct has ten provisions for insertion of branch circuit plugs in each standard 10-foot section, 5 on each side of duct.

It is prefabricated and can be quickly and easily installed, rearranged, relocated or moved into another building without any material loss.

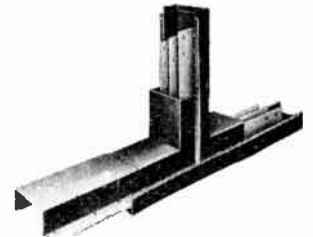
Furnished in capacities from 225 to 1350 amperes for 2 or 3-pole service, 600 volts or less, a.c. or d.c. Also available for 3-phase, 4-pole, 250 volts or less.



Standard 10-Foot Duct Section



Edgewise Elbow



Edgewise Tee

2-Pole 10-Foot Duct Sections

Amps.	Bus Bars No.	Per Leg Inches	Approximate Cir. Mils per Leg	No.	Each
225	1	.05x2	127,324	BDP202	\$55.00
400	1	1/4x1 1/2	460,387	BDP204	85.00
600	1	1/4x2	619,541	BDP206	110.00
800	1	1/4x3	937,850	BDP208	165.00
1000	1	1/4x4	1,256,160	BDP210	200.00

3-Pole 10-Foot Duct Sections

225	1	.05x2	127,324	BDP302	\$60.00
400	1	1/4x1 1/2	460,387	BDP304	95.00
600	1	1/4x2	619,541	BDP306	120.00
800	1	1/4x3	937,850	BDP308	180.00
1000	1	1/4x4	1,256,160	BDP310	220.00

4-Pole, 3-Phase 10-Ft. Duct Sections—Neutral 1/2 Rating

225	1	.05x2	127,324	BDP402	\$80.00
400	1	1/4x1 1/2	460,387	BDP404	125.00
600	1	1/4x2	619,541	BDP406	150.00
800	1	1/4x3	937,850	BDP408	220.00
1000	1	1/4x4	1,256,160	BDP410	275.00

Elbows

2-Pole No.	3-Pole No.	Each	4-Pole 3-Phase No.	Each
LDP202	LDP302	\$60.00	LDP402	\$72.00
LDP204	LDP304	60.00	LDP404	72.00
LDP206	LDP306	60.00	LDP406	72.00
LDP208	LDP308	60.00	LDP408	72.00
LDP210	LDP310	60.00	LDP410	72.00

Tees

TDP202	TDP302	72.00	TDP402	\$84.00
TDP204	TDP304	72.00	TDP404	84.00
TDP206	TDP306	72.00	TDP406	84.00
TDP208	TDP308	72.00	TDP408	84.00
TDP210	TDP310	72.00	TDP410	84.00

Crosses

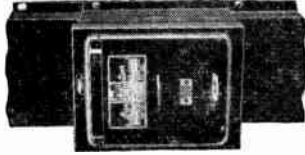
CDP202	CDP302	84.00	CDP402	\$96.00
CDP204	CDP304	84.00	CDP404	96.00
CDP206	CDP306	84.00	CDP406	96.00
CDP208	CDP308	84.00	CDP408	96.00
CDP210	CDP310	84.00	CDP410	96.00

Bull Dog Flexible BUStribution DUCT Systems

Type BD Plug-In Duct for Branch Circuits

Vacu-Break Switch Plugs

2-Pole—230-Volt, A.C.—250-Volt, D.C.



Circuit Master Plug

Used for the individual control of lighting circuits and wall receptacles, thus eliminating the distribution network of the centralized panel-board lighting system.

Ratings from 15 to 50 amperes, 120 and 208 volts.



Circuit Breaker Plug

Used where an automatic protective device of the industrial breaker type with inverse time limit feature is required.

Plugs are quick-make and quick-break with cover interlock.

Ratings from 15 to 600 amperes, 2, 3, and 4-poles, 600 volts or less.



Transformer Plug

Rated at 2, 4, 6, 8, and 10 kva. Furnish single-phase kva. Furnish single-phase current at reduced voltage (240V. or 120V.).

Designed with or without 2-pole a.c. magnetic contactors. May be plugged in on 240V. or 280V., 2-pole or 2-pole Type BD duct. Contactors are rated at 22 and 45 amperes.



Temperature Indicating Plug

Warns, by visual indication through a lamp, when temperatures along a bus duct run exceed an efficient operating temperature—100°C. (221°F.) and thus remedial measures can be taken to relieve the situation.

Amps.	No.	Each	Hp. A.C.	Hp. D.C.
30	BOS14221	\$29.00	2	5
60	BOS14222	33.00	5	10
100	BOS14223	50.00	10	15
200	BOS14224	87.00	15	30
400	BOS14225	179.00	30	50
600	BOS14226	232.00	..	..

2-Pole—575-Volt, A.C.

30	BOS14261	\$29.00	5	..
60	BOS14262	33.00	10	..
100	BOS14263	57.00	15	..
200	BOS14264	96.00	30	..
400	BOS14265	206.00	..	..
600	BOS14266	292.00	..	..

3-Pole—230-Volt, A.C.

30	BOS14321	\$33.00	3	..
60	BOS14322	37.00	7½	..
100	BOS14323	57.00	15	..
200	BOS14324	96.00	30	..
400	BOS14325	192.00	50	..
600	BOS14326	264.00	..	..

3-Pole—575 Volt, A.C.

30	BOS14351	\$33.00	7½	..
60	BOS14352	37.00	20	..
100	BOS14353	63.00	30	..
200	BOS14354	108.00	50	..
400	BOS14355	219.00	..	..
600	BOS14356	324.00	..	..

4-Pole, 3 Phase—230-Volt, A.C.

30	BOS16421	\$39.00	3	..
60	BOS16422	43.00	7½	..
100	BOS16423	69.00	15	..
200	BOS16424	114.00	30	..
400	BOS16425	212.00	50	..
600	BOS16426	292.00	..	..

Type BP Bus Plugs

2-Pole—230-Volt, A.C.—250-Volt, D.C.

30	BP221	\$20.00	2	5
60	BP222	20.00	5	10
100	BP2237	29.00	10	15

2-Pole—575-Volt, A.C.

30	BP251	\$20.00	5	..
60	BP252	20.00	10	..
100	BP2537	33.00	15	..

3-Pole—230-Volt, A.C.—575-Volt, A.C.

30	BP321	\$22.00	3	..
60	BP322	22.00	7½	..
100	BP3237	30.00	15	..

3-Pole—575-Volt, A.C.

30	BP351	\$22.00	7½	..
60	BP352	22.00	20	..
100	BP3537	35.00	30	..

4-Pole, 3-Phase—230 Volt, -A.C.

30	BP421	\$32.00	3	..
60	BP422	32.00	7½	..
100	BP4237	44.00	15	..

Ground Detector (Potentializer) Plugs

230 and 460-Volt

No.	2-Pole	3-Pole
.....	PGR6214	PGR6314
Each.....	\$42.00	42.00

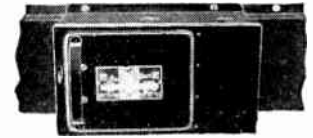


Vacu-Break Type BOS Switch Plug

Fusible and non-fusible types are available from 30 to 600 amperes, 2 or 3-pole 600 volts or less, or 4-pole solid neutral, 230 volts, a.c.

Minimizes arcing, also prevents pitting and beading of contacts.

Plugs are quick-make, quick-break and horsepower rated.



Type BP Bus Plug

Fusible and non-fusible plugs for disconnecting service only.

Ratings are for 30, 60, and 100 amperes, 2 or 3-pole 600 volts or less, or 4-pole, solid neutral, 230 volts a.c.

Opening and closing the hinged cover makes or breaks the circuit.

Plugs are horsepower rated.



Capacitor Plug

A convenient and flexible means for reducing inductive heating and improving the power factor on bus duct systems.

The thermal protective device and capacitor unit are contained in one housing.

Rated from 1 to 7.5 kva. at 230 volts and 1 to 15 kva. at 460 volts, 60 cycle a.c.



Ground Detector Plug

Affords an easy means, through lamps, for quickly indicating grounds on the system. Also serves as potentializer by establishing a potential to ground between bus bars and casing.

Ratings, single-phase and 3-phase, 160 and 230 volts.

Bull Dog Kbl-Duct and Fittings

4x4-Inch Wiring Trough

Cross Sectional Area 16 Inches

Approved for use under Wireways—Article 362 of the National Electrical Code.



Kbl-Duct is an enclosed metal raceway, or trough, for conveying electric wires and cables, and designed to provide ample protection against damage to the wires or cables. It affords instant accessibility at all points throughout its length,

permitting splicing, tapping, or other changes, or allowing other cables to be run through quickly and easily. Its use makes possible the convenience of temporary wiring with the efficiency of a permanent installation.

Kbl-Duct is manufactured in standardized sections, provided with hinged covers and numerous conduit knockouts. The sections are designed to be bolted together, the completed assembly forming a continuous, unbroken wireway. Its variety of fittings (tees, elbows, pull boxes, etc.) makes it adaptable to any building contour. Offsets or change of direction are readily effected. Kbl-Duct may be suspended from an overhead mounting, or supported on a wall. Single runs, multiple runs, branch runs or any combinations of these are possible.

All items of the Kbl-Duct line are die made from heavy steel, and are uniform in size. All have a durable, baked black enamel finish.

Maximum Number of Wires (Types R, RH, and RW) Which May Be Installed in 4x4-Inch Kbl-Duct

The table below shows the maximum number of wires or cables, Types R, RH, and RW, all of one size or in combination, which may be installed in 4x4-inch, Kbl-Duct, under the 20 per cent of area limitation provided in Article 362, paragraph 3624, of the 1947 National Electrical Code. It should be noted particularly that the Code states: "Wire ways shall not contain more than 30 conductors at any cross section, unless the conductors are for signaling circuits or are control conductors between a motor and its starter and used only for starting duty."

All One Size			
Wire Size No.	Area of Rubber Covered Wire Types R, RH, & RW Square Inches	Maximum Number of Wires All of One Size	Wire Size No.
14	* .0230	†139	1/0
12	* .0278	†115	2/0
10	.0460	† 69	3/0
8	.0760	† 42	4/0
6	.1238	25	250M
4	.1605	19	300M
3	.1817	17	400M
2	.2067	15	500M
1	.2715	11	.....

No. 14 to 8, solid wire; No. 6 and larger, stranded.
*Areas in square inches for Type RW in Nos. 14 and 12 are .0327 and .0384.

†Maximum number of conductors limited to 30, except as noted in paragraph above.

Combinations of Sizes

Combinations of various sizes may be computed in the following manner:

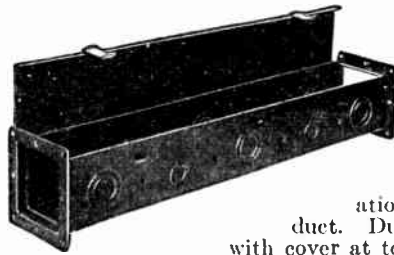
EXAMPLE: It is desired to install three 250,000CM cables in 4x4-inch Kbl-Duct, using the remaining capacity of the wireway for No. 8 wires. How many No. 8 wires may be installed?

Area of 4x4-inch Kbl-Duct = 16 square inches.
Area of 20 per cent of wireway = $16 \div 5 = 3.2$ square inches.
Space reserved for three 250,000CM cables = $3 \times .5917 = 1.7751$ square inches.
Space remaining for No. 8 wires = $3.2 - 1.7751 = 1.4249$ square inches.
Space required for one No. 8 wire = .076 square inches.
Number of No. 8 wires permissible = $1.4249 \div .076 = 18$.
Thus, 18 No. 8 wires may be installed in combination with three 250,000CM cables.

Bull Dog Kbl-Duct and Fittings

Listed as "Wireways" by Underwriters' Laboratories

4x4-Inch Kbl-Duct



Kbl-Duct has adaptable features whereby it can be connected to any type 4x4-inch duct. With No. 40A35 it can be connected to existing install-

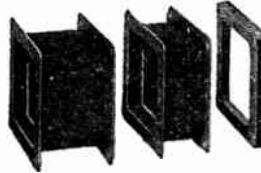
ations of 3 1/2 x 3 1/2-inch duct. Duct may be mounted with cover at top, sides, or bottom.

Two types of concentric knockouts are provided, spaced at convenient intervals along the duct sections and fittings. The smaller type accommodates 1/2 and 3/4-inch conduit; the larger, 3/4, 1, 1 1/4, and 1 1/2-inch conduit.

No.	40D5	40D2	40D1
Each.....	\$8.00	5.00	4.00
Length.....	5	2	1
Weight.....	18	8	5

Nipples

A short length of duct which may be inserted between the standard lengths so as to secure any dimensional length of duct required.



No.	Each	Length Feet	Weight Pounds
40X6	\$4.00	6	2 1/4
40X3	3.00	3	1 1/2
40X2	3.00	2	1 1/4
40X07	1.50	3/4	1 1/4
40X05	1.50	1/2	1
40X01	.60	1/8	1/4

No. 40SN Slide Nipples



A convenient adjustable fitting for taking up the slack where there are variations in lengths of runs. After length is established, both sliding sections should be bonded together for grounding; screws are provided.

Minimum length, 8 inches; maximum extension, 13 inches. Weight, 5 pounds.
No. 40SN.....each \$4.50

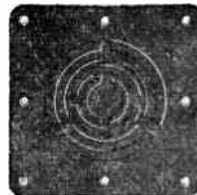
No. 40F End Flanges



This fitting is the regular reinforced flange end of the Kbl-Duct and is supplied separately for welding or bolting onto a section of duct where it may have been necessary to cut a standard section.

Weight, 1/4 pound.
No. 40F.....each \$.80

No. 40EP End Plates



This end plate, provided with K.O., is used for closing the end of a duct section or opening in a pull box.

Weight, 1/4 pound.
No. 40EP.....each \$.80

No. 40H7 Hangers



For suspending Kbl-Duct. Where necessary, hanger can be bent at right angles in a vise, as shown at right. Any number of these hangers may be bolted together to secure any length hanger desired in 1/2 inch multiple adjustments.

Length, 7 inches. Weight, 1 1/2 pounds.
No. 40H7.....each \$.60



Bull Dog Kbl-Duct Fittings

Listed as "Wireways" by Underwriters' Laboratories

22½°, 45°, and 90° Elbows



This elbow is provided with flanges, so it can be bolted on the end of a Kbl-Duct section. It is made with special dies and formed circular and smooth, so that wires may be readily pulled through it.

No.	40L22	40L45	40L90
Each.	\$5.00	5.00	5.50
Shape.	22½°	45°	90°
Weight .....pounds	1½	2½	4

No. 40CL9 90° Corner Elbows and Pull Boxes

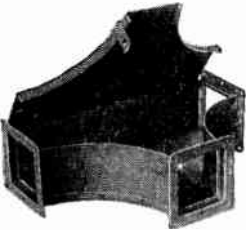


A combination pull box and elbow, provided with hinged cover and spring catch. K.O.'s are provided for convenient conduit outlets.

Weight, 5½ pounds.

No. 40CL9each \$9.00

No. 40T Tees



This tee has hinged cover provided with catch. K.O.'s are provided. This fitting recommended for use at every building column or point where light and power cabinets are, or may be later, located.

Weight, 7¼ pounds.

No. 40Teach \$11.00

No. 40X Crosses



This cross is provided with double hinged doors, so it may be used as a pull box, greatly increasing the flexibility of the duct system.

Weight, 9¼ pounds.

No. 40Xeach \$13.50

No. 40B40 4-Inch Square Junction Boxes

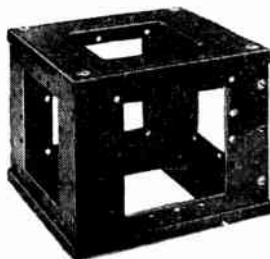


This junction box may sometimes be used in place of the more expensive tees and ells. It has removable sides provided with K.O.'s, so that junction with sections of Kbl-Duct or conduit can be readily effected.

Weight, 1¾ pounds.

No. 40B40each \$3.00

No. 40B7 7½-Inch Square Junction and Pull Boxes



This 7½-inch square, combined junction and pull box is designed for use where space limitations or requirements preclude the use of the larger pull box. Closing plates for unused openings (No. 40EP) are extra. Kbl-Duct bushings (No. 40DB) should be ordered and inserted in the used openings.

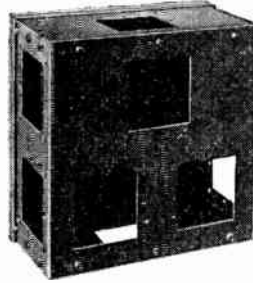
Weight, 4 pounds.

No. 40B7each \$7.00

Bull Dog Kbl-Duct Fittings

Listed as "Wireways" by Underwriters' Laboratories

No. 40B12 12½-Inch Square Pull Boxes

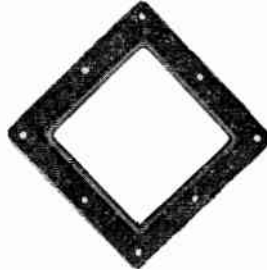


This 12½-inch square box provides a more ample pull box and may also be used as a junction box for double runs of Kbl-Duct. Closing plates for unused openings (No. 40EP) are extra. Kbl-Duct bushings (No. 40DB) should be ordered for insertion in the used openings.

Weight, 9½ pounds.

No. 40B12each \$18.00

No. 40DB Pull Box Bushings

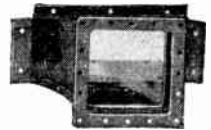
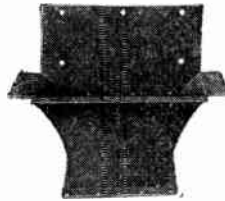


Kbl-Duct bushing has a round edge bead to protect and facilitate the work of pulling through the wires; should be ordered for insertion in the used openings of the pull boxes.

Weight, ¼ pound.

No. 40DBeach \$.50

No. 40DC Branch-Off Couplings



This branch-off coupling (of which two views are shown) may be used as a convenient or emergency tee to start a branch run of Kbl-Duct from any point of an existing installation. All that is necessary is to knock out the K.O.'s in the duct, or if a larger opening is desired, cut out a section of the duct, bolt this fitting onto the duct, and continue with the branch run in the direction desired.

Weight, 3 pounds.

No. 40DCeach \$4.50

No. 40A35 Adapters



The adapter is for use in connecting new runs of 4x4-inch Kbl-Duct to existing installations of 3½x3½-inch duct.

Weight, 2½ pounds.

No. 40A35each \$3.00

Conduit Couplings



A casting provided with threads for conduit and flange for bolting on the Kbl-Duct or fittings.

No.	40C25	40C30	40C35
Each.	\$4.00	4.00	4.00
Duct Conduit .....inches	4 to 2½	4 to 3	4 to 3½
Weight .....pounds	1¾	1¾	1¾

Nipples

For use where shorter connection than is afforded by 1-foot lengths of the telescope fittings, is required.

No.	Each	Lgth. In.	Size In.
20200	\$1.50	1 1/2	2 1/2 x 2 1/2
20202	3.00	2	2 1/2 x 2 1/2
20203	3.00	3	2 1/2 x 2 1/2
20206	4.00	6	2 1/2 x 2 1/2
20400	1.50	1 1/2	4x4
20402	3.00	2	4x4
20403	3.00	3	4x4
20406	4.00	6	4x4
20600	6.00	1 1/2	6x6
20602	7.00	2	6x6
20603	7.50	3	6x6
20606	8.50	6	6x6



Universal Drop Hangers

For suspending wiring trough from overhead. Provided with screws and nuts for mounting.

No.	Each	Size In.
20217	\$.50	2 1/2 x 2 1/2
20417	.60	4x4
20617	3.00	6x6



Universal Bracket Hangers

For mounting wiring trough on side wall.

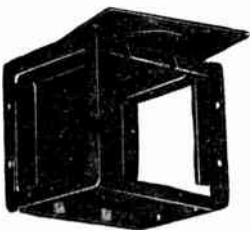
No.	Each	Size In.
20227	\$.50	2 1/2 x 2 1/2
20427	.60	4x4
20627	3.00	6x6



Reducing Fittings

No.	Each	For Joining Duct, In.
20422	\$2.30	4x4 to 2 1/2 x 2 1/2
20622	5.00	6x6 to 4x4

Junction Boxes



To form T, L or cross. Price includes two closing plates. Cover is removable.

No.	Each	Size Inches
20248	\$2.50	2 1/2 x 2 1/2
20448	3.00	4x4
20648	11.00	6x6

Closing Plates

For closing end of section or any side of junction box.

No.	Each	Size In.
20216	\$.60	2 1/2 x 2 1/2
20559	.80	4x4
20659	3.00	6x6



Square D Duct and Fittings

Schedule A Duct



The trough is flanged at both ends so that two sections can be clamped together. Cover is hinged. Knockouts are provided in sides and back for 1/2 and 3/4-inch conduit in 2 1/2 x 2 1/2-inch duct, and 1/2, 3/4, 1 and 1 1/4-inch conduit in 4x4 and 6x6-inch duct.

No.	Each	Size Inches	Length Feet
20241	\$2.50	2 1/2 x 2 1/2	1
20242	3.00	2 1/2 x 2 1/2	2
20243	5.00	2 1/2 x 2 1/2	5
20441	4.00	4x4	1
20442	5.00	4x4	2
20443	8.00	4x4	5
20641	12.00	6x6	1
20642	16.00	6x6	2
20643	26.00	6x6	5

Trough Collars

Used when necessary to cut standard duct.

No.	Each	Size In.
20240	\$.60	2 1/2 x 2 1/2
20440	.80	4x4
20640	3.00	6x6



Panel Fitting Collars

For connecting duct to panels. By cutting hole size of duct in panel box and clamping box wall between panel fitting collar and duct collar, a solid connection is made free from rough edges.

No.	Each	Size Inches
20221	\$.60	2 1/2 x 2 1/2
20421	1.30	4x4
20621	3.00	6x6

Telescope Fittings



Slide arrangement for making connection to duct fittings at varying distances.

No.	Each	Size Inches	Extends Inches
20244	\$3.00	2 1/2 x 2 1/2	7 1/2 to 12
20444	4.50	4x4	8 to 12
20644	36.00	6x6	8 to 12

Elbows

7 1/2° Elbows

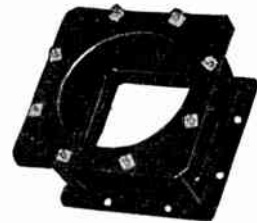
No.	Each	Size Inches
20207	\$2.00	2 1/2 x 2 1/2
20407	2.50	4x4
20607	9.00	6x6

22 1/2° Elbows

20255	\$3.00	2 1/2 x 2 1/2
20455	5.00	4x4
20655	16.00	6x6

45° Elbows

20245	\$3.00	2 1/2 x 2 1/2
20445	5.00	4x4
20645	16.00	6x6



Box Fittings

For connecting duct to panels, pull boxes, etc. One end fits round hole in box other end matches duct collar.

No.	Each	Size Inches
20249	\$5.00	2 1/2 x 2 1/2
20449	5.00	4x4
*20467	5.00	4x4
*20649	36.00	6x6
*20667	36.00	6x6

*For square hole in box or panel cabinet.

Pull Boxes

Price includes two sides with double openings and two with single openings; does not include closing plates for unused openings.



No.	Each	Description	Size In.
20558	\$18.00	Pull Box.....	4x4
20658	63.00	Pull Box.....	6x6
20559	.80	(Closing Plate)....	4x4
20659	3.00	(Closing Plate)....	6x6
20561	3.00	(Box Side, 1 Opening)	4x4
20661	12.00	(Box Side, 1 Opening)	6x6
20562	4.00	(Box Side, 2 Opening)	4x4
20662	15.00	(Box Side, 2 Opening)	6x6

T Fittings and Pull Boxes

No.	Each	Size In.
20471	\$11.00	4x4
20671	36.00	6x6

90° Elbows and Pull Boxes

No.	Each	Size In.
20472	\$9.00	4x4
*20490	5.50	4x4
20672	28.00	6x6

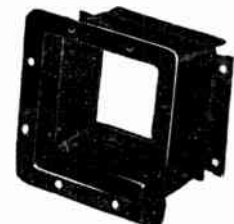
*Without hinged cover; other numbers have hinged cover as illustrated.



T Fittings

For T connection. Cut hole inside of duct and drill holes to match holes in flange on narrow end of fitting.

No.	Each	Size In.
20247	\$3.00	2 1/2 x 2 1/2
20447	4.50	4x4
20647	16.00	6x6



Prices on Square D Duct without knockouts will be furnished on request. Prices on cadmium plating and other special weatherproofing finishes on Square D Duct and Fittings furnished on application.

Typical Square-Duct Installations



Fig. 1

Fig. 1 is a down-view showing how the use of 4 vertical elbows makes it possible to cross over or to bridge another section of wiring trough. The use of 2 of these fittings makes it possible to drop to a lower level whenever desirable. In this view, the wiring trough sections are mounted to the side wall by means of bracket hangers.

Fig. 2 illustrates the use of the telescope fitting, the drop hanger, the junction box and connecting a wiring trough section to the power panel.

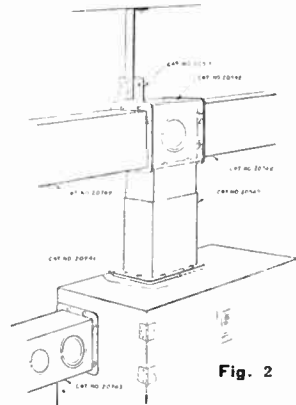


Fig. 2

By looking carefully at the bottom of the telescope fitting, you will notice a cutaway view showing how the use of the panel fitting collar provides a smooth surface over which wires can be drawn without trouble.

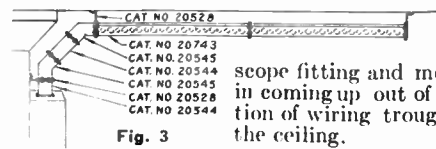


Fig. 3

Fig. 3 illustrates the use of elbows, telescope fitting and mounting brackets, in coming up out of a panel to a section of wiring trough suspended from the ceiling.

Using one of the many knockouts in the wiring trough to make a connection to a switch.

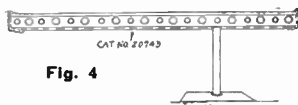


Fig. 4

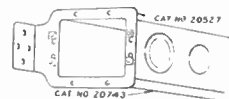


Fig. 5

Illustration shows how a bracket hanger is used to mount a section of trough to the sidewall.

Fig. 6 shows the use of the T fitting in a section of trough. The use of this fitting permits the connection to another section of trough running at right angles, to a junction box, or to make a right angle connection when the joints are not conveniently located.

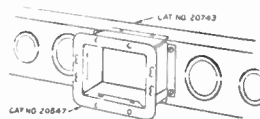


Fig. 6

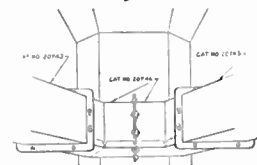


Fig. 7

Illustration shows the use of two 45° elbows, passing a column located in a corner.

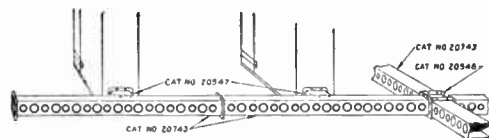
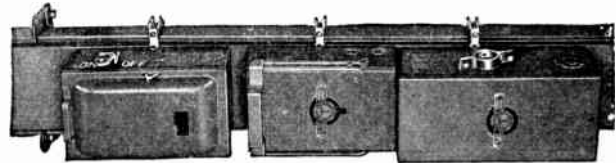
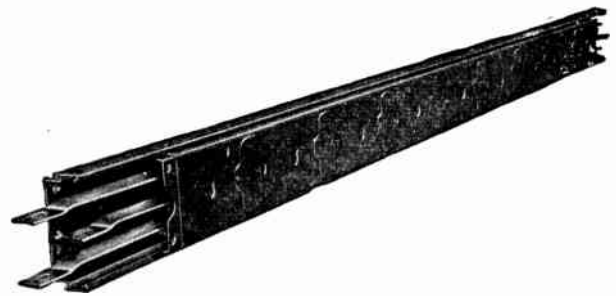


Fig. 8

Fig. 8 shows one method of using Square Duct trough to connect power panels in one common gutter. It also illustrates the use of the junction box as a cross fitting.

Trumbull FVK Flex-A-Power Enclosed Bus Bar Distribution Systems



Types FD, FL and FCE Flex-A-Plugs Assembled on 10-Foot Length of Type FVK Flex-A-Power

Flex-A-Power, commonly known as the convenience outlet for power in industry, is provided with outlets located on both sides of the bus bar steel housing for the plugging in of Flex-A-Plugs at any desired point at 12-inch intervals, making direct connection to motor-driven machines which may be moved or relocated as required.

Standard length, 10 feet; other lengths can be furnished on request.

Amp.	BAR SIZE, INCHES		2-Pole		3-Pole		3-Phase, 4-Wire	
	Phase	Neutral	No.	Each	No.	Each	No.	Each
225	1/4x1	3/4x1	FVK-262A	\$55.	FVK-362A	\$60.	FVKN-362B	\$80.
400	3/16x2	3/16x1	FVK-264	85.	FVK-364	95.	FVKN-364A	125.
600	1/4x2	1/4x1	FVK-266	110.	FVK-366	120.	FVKN-366A	150.
800	3/16x4	2 3/16x1 1/2	FVK-268	165.	FVK-368	180.	FVKN-368	220.
1000	1/4x4	2 1/4x1 1/2	FVK-2610	200.	FVK-3610	220.	FVKN-3610	275.

Cable Tap Boxes

Joint and End-Of-Run Types

Price of cable tap boxes includes necessary bus and lugs only. Tap boxes are made standard for assembly between two standard lengths or at end of run. If tap boxes are required for assembly in special locations, an additional charge will be made.

When ordering, give number and size of proposed cables.

No.	2-Pole				
	SKCB-22	SKCB-24A	SKCB-26	SKCB-210	SKCB-210
Each.....	\$45.00	45.00	45.00	65.00	65.00
Amp.....	225	400	600	800	1000

No.	3-Pole				
	SKCB-32	SKCB-34A	SKCB-36	SKCB-310	SKCB-310
Each.....	\$50.00	50.00	50.00	70.00	70.00
Amp.....	225	400	600	800	1000

No.	3-Phase, 4-Wire				
	SKCBN-32	SKCBN-34A	SKCBN-36	SKCBN-310	SKCBN-310
Each..	\$60.00	60.00	60.00	80.00	80.00
Amp..	250	400	600	800	1000

End Boxes

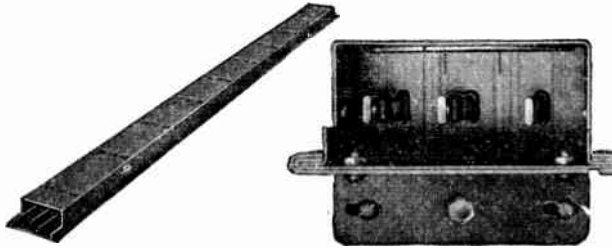
No.	2 and 3-Pole				
	SKEB-34	SKEB-36	SKEB-36	SKEB-310	SKEP-310
Each.	\$10.00	10.00	10.00	15.00	15.00
Amp..	225	400	600	800	1000

No.	3-Phase, 4-Wire				
	SKEBN-34	SKEBN-36	SKEBN-36	SKEBN-310	SKEBN-310
Each....	\$10.00	10.00	10.00	15.00	15.00
Amp....	225	400	600	800	1000

*Hollow

Trumbull 125 Flex-A-Power Enclosed Bus Bar Distribution Systems

Schedule L-10
575 Volts, Maximum—225 Amperes, Maximum



Cross Section View

With outlets located on bus bar steel housing for the plugging in of Flex-A-Plugs at any desired point at 12-inch intervals, making direct connection to motor-driven machines which may be moved or relocated as required.

Recommended for small industrial plants, factories, garages, repair shops, workshops and similar places.

Bar size, 1/4x3/8 inch. Standard length, 10 feet. Each length furnished with two hanger clamps to permit 5-foot suspension.

No.	FAP22	FAP32
Each.	\$50.00	55.00
No. of Poles.	2	3

Combination End and Cable Boxes

No.	*HCB-31	†SHEB-31	‡SHEB-32
Each.	\$20.00	20.00	20.00
Lug Size.	2 to 1-0	2 to 1-0	2-0 to 4-0

No. EB-32 End Boxes Only

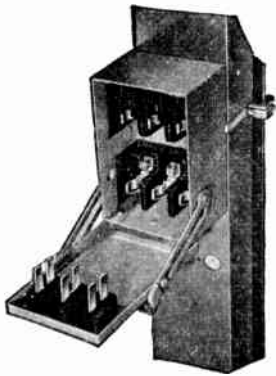
No. EB-32.	each \$7.00
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Plug-In Cable Tap Boxes

No.	HCB-31	HCB-32
Each.	\$80.00	80.00
Lug Size.	4 to 1-0	1-0 to 4-0

Fittings.—Elbows, T and X connections, flange connections, ebony end closures and transformer taps are available, information upon request.

Type FH Fusible Flex-APlugs



No.	No. FH362			
Each.	FH321	FH322	FH361	FH362
Amperes.	30	60	30	60
Hp., 3-Phase.	3	7 1/2	7 1/2	120

Type FHE Circuit Breaker Plugs

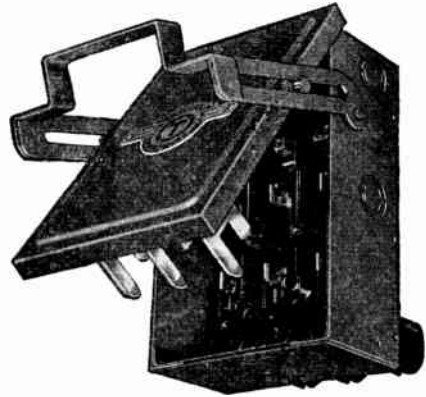
Amp.	3-Pole		3-Pole	
	230-Volt Maximum		600-Volt Maximum	
15	FHE31015	\$53.00	FHE35015	\$83.00
20	FHE31020	53.00	FHE35020	83.00
25	FHE31025	53.00	FHE35025	83.00
35	FHE31035	54.00	FHE35035	87.00
50	FHE31050	54.00	FHE35050	87.00

*For end having two outside busses extended.
†For end having center bus extended.
‡Hp. given is at 460 volts a.c., hp. at 575 volts a.c. is 15.
§For single-phase loads, the use of standard 3-pole plugs is recommended. Any two of the three switching poles may be wired on the job, permitting balancing of loads between phases.

Trumbull Flex-A-Plugs

Reinforced fuse clips and solderless lugs are furnished as standard.

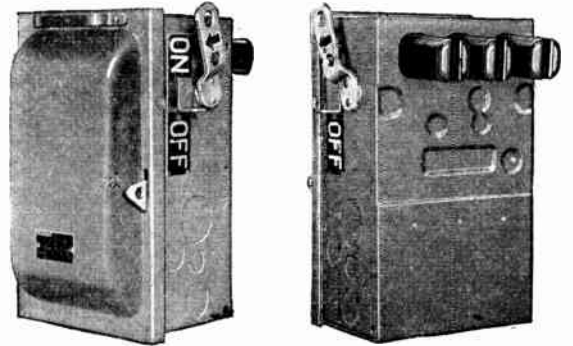
Type FL Double Break Fusible Switch Plugs



With Cam Operating Mechanism

*250 Volts, 3-Pole				
No.	FL-321	FL-322	FL-323	
Each.	\$22.00	22.00	30.00	
Amperes.	30	60	100	
Horsepower:				
Single-Phase.	2	5	..	
3-Phase.	3	7 1/2	..	
120/208 Volts, 3-Phase, 4-Wire				
No.	FLN-321	FLN-322	FLN-323	
Each.	\$32.00	32.00	44.00	
Amperes.	30	60	100	
Horsepower, 3-Phase.	3	7 1/2	..	
*575 Volts, 3-Pole				
No.	FL-361	FL-362	FL-363	
Each.	\$22.00	22.00	35.00	
Amperes.	30	60	100	
Horsepower:				
Single-Phase.	5	10	..	
3-Phase.	10	20	..	

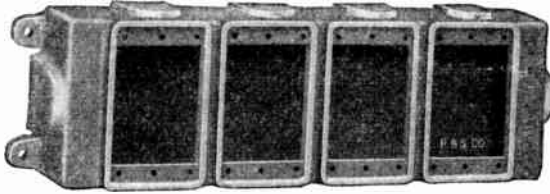
Type FD Motor Circuit Switch Plugs



*250 Volts, 3-Pole					
No.	FD-321	FD-322	FD-323	FD-324A	FD-325
Each.	\$33.00	37.00	57.00	96.00	192.00
Amperes.	30	60	100	200	400
Horsepower:					
Single-Phase.	2	5	10	15	30
3-Phase.	3	7 1/2	15	30	50
120/208 Volts, 3-Phase, 4-Wire					
No.	FDN-321	FDN-322	FDN-323	FDN-324A	FDN-325
Each.	\$39.00	43.00	69.00	114.00	212.00
Amperes.	30	60	100	200	400
Hp., 3-Ph.	3	7 1/2	15	30	50
*575 Volts, 3-Pole					
No.	FD-361	FD-362	FD-363	FD-364A	FD-365
Each.	\$33.00	37.00	63.00	108.00	219.00
Amperes.	30	60	100	200	400
Hp., 3-Phase.	7 1/2	20	30	50	..

*For single-phase loads, the use of standard 3-pole plugs is recommended. Any two of the three switching poles may be wired on the job, permitting balancing of loads between phases.

Type FS and FD R & S Conduit Boxes



Type FS, Four-Gang

For surface mounting.

Maximum conduit, 1 inch.

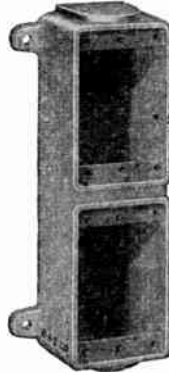
Accommodates all Russell & Stoll Type FS and FD fittings.

Single-gang, 4-way; multi-gang, one outlet on one side, one per gang on opposite side and one on each end. Specify size and location when ordering.

Finish: cast iron, corrosion resisting finish; cast brass, bright dip.



Single-Gang



Tandem

Single-Gang

Type	Cast Iron		Cast Brass		*Overall Dimensions Inches
	No.	Each	No.	Each	
FS	3701	\$1.25	3721	\$3.60	4 1/8 x 2 5/8 x 2 1/4
FD	3711	1.50	3731	4.25	4 1/8 x 2 5/8 x 2 7/8
2-Gang					
FS	3702	\$2.50	3722	\$7.20	4 1/8 x 5 1/2 x 2 1/4
FD	3712	3.00	3732	8.50	4 1/8 x 5 1/2 x 2 7/8
3-Gang					
FS	3703	\$3.75	3723	\$10.80	4 1/8 x 10 3/8 x 2 1/4
FD	3713	4.50	3733	12.75	4 1/8 x 8 1/2 x 2 7/8
4-Gang					
FS	3704	\$5.00	3724	\$14.40	4 1/8 x 13 1/4 x 2 1/4
FD	3714	6.00	3734	17.00	4 1/8 x 11 1/2 x 2 7/8
2-Gang Tandem					
FS	3715	\$2.50	3735	\$7.20	8 1/2 x 2 5/8 x 2 1/4

Adapter plates are available for flush mounting.
*Dimensions are overall exclusive of conduit pads and mounting lugs.

Type DSFD—Single-Gang



For surface mounting.

Will accommodate same devices as Type FS and FD boxes.

Can be tapped for two 1/2-inch or one 1 1/2-inch outlet maximum at each end.

Dimensions: 4 1/8 x 3 3/8 x 4 1/8 inches deep.

Adapter plates are available for flush mounting.

No. 3781, Cast Iron, Corrosion Resisting Finish, each \$2.50

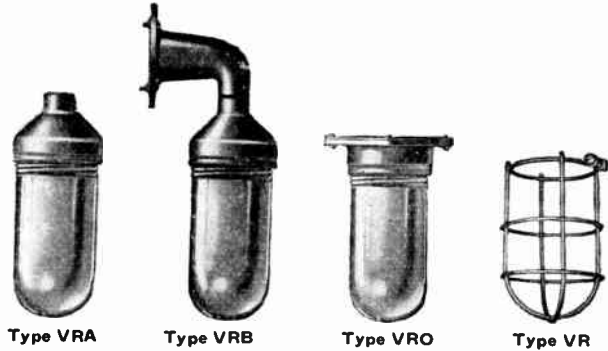
No. 3782, Cast Brass, Bright Dip, each 7.20

No additional charge for drilling outlets when boxes are ordered as part of the complete devices. When ordering boxes only, there is an additional charge for drilling: 1/2 or 3/4-inch conduit size, 10 cents; 1-inch, 20 cents; 1 1/4-inch, 40 cents; 1 1/2-inch, 50 cents each. Specify size and location when ordering.

Condulet Equipment

Schedule CM

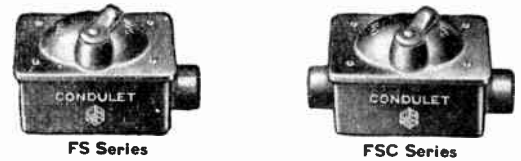
For REA Rural Electrification Wiring
VR Series Lighting Condulets



Takes 100-watt lamp.

No. VRA110.....	each	\$1.50
No. VRB110.....	each	2.20
No. VRO410.....	each	1.50
No. VR10, Guard.....	each	.65

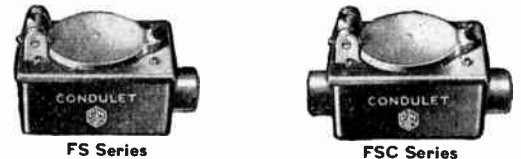
FS Series Switches



RATING Amperes	Volts	Type	FS Series		FSC Series	
			No.	Each	No.	Each
10	125	1-Pole	FS1311	\$1.65	FSC1311	\$1.72
5	250	1-Pole				
10	125	2-Pole	FS1312	2.40	FSC1312	2.47
5	250	2-Pole				
10	125	3-Pole	FS1313	1.85	FSC1313	1.93
5	250	3-Pole				
5	125	4-Way	FS1314	4.20	FSC1314	4.27
2	250	4-Way				

FS Series Plug Receptacles with Spring Door

15 Amperes—125 Volts or 10 Amperes—250 Volts



Type	FS Series		FSC Series	
	No.	Each	No.	Each
2-Wire, 2-Pole	FS1514	\$1.80	FSC1514	\$1.85
2-Wire, 3-Pole	FS1515	2.35	FSC1515	2.42
3-Wire, 3-Pole	FS1516	2.50	FSC1516	2.57

FS Series Plug Receptacles with Threaded Cap and Chain

15 Amperes—125 Volts or 10 Amperes—250 Volts



Type	FS Series		FSC Series	
	No.	Each	No.	Each
2-Wire, 2-Pole	FS1614	\$1.80	FSC1614	\$1.85
2-Wire, 3-Pole	FS1615	2.35	FSC1615	2.42
3-Wire, 3-Pole	FS1616	2.50	FSC1616	2.57

Series REA Appleton Conduit Fittings

Schedule CFS

For Rural Electrification Wiring—Weathertight

Outdoor Receptacle Fittings

Complete with Receptacle Cap and Chain



Type E

Type C

Will take standard attachment plug caps, 15 amperes, 125 volt or 10 amperes, 250 volt. Packed 1 to a carton.

Type E—One 1/2-Inch Hub

No.	Style	AMPERES		Wt. Lb.
		125 V.	250 V.	
REA-4	2-Wire, 2-Pole	15	10	2 1/16
REA-5	2-Wire, 3-Pole	15	10	2 1/16
REA-6	3-Wire, 3-Pole	15	10	2 1/16

Type C—Two 1/2-Inch Hubs

REA-7	2-Wire, 2-Pole	15	10	2 3/4
REA-8	2-Wire, 3-Pole	15	10	2 3/4
REA-9	3-Wire, 3-Pole	15	10	2 3/4

Outdoor Receptacle Fittings

Complete with Receptacle and Lift Cover



Type E

Type C

Will take standard attachment plug caps, 15 amperes, 125 volt or 10 amperes, 250 volt. Packed 1 to a carton.

Type E—One 1/2-Inch Hub

No.	Style	AMPERES		Wt. Lb.
		125 V.	250 V.	
REA-44	2-Wire, 2-Pole	15	10	2 1/16
REA-45	2-Wire, 3-Pole	15	10	2 1/16
REA-46	3-Wire, 3-Pole	15	10	2 1/16

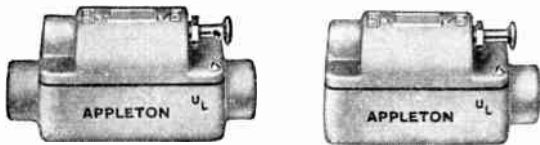
Type C—Two 1/2-Inch Hubs

REA-47	2-Wire, 2-Pole	15	10	3
REA-48	2-Wire, 3-Pole	15	10	3
REA-49	3-Wire, 3-Pole	15	10	3

Outdoor Switch Fittings

Complete With Switches

All Switches Except Double Pole are "T" Rated



Type E

Type C

Packed 1 to a carton.

Type E—One 1/2-Inch Hub

No.	Style	AMPERES		Wt. Lb.
		125 V.	250 V.	
REA-10	Single Pole	10	5	1 1/8
REA-11	Double Pole	..	10	1 1/8
REA-12	Three Way	10	5	1 1/8
REA-13	Four Way	10	5	1 1/8

Type C—Two 1/2-Inch Hubs

REA-14	Single Pole	10	5	1 3/16
REA-15	Double Pole	..	10	1 3/16
REA-16	Three Way	10	5	1 3/16
REA-17	Four Way	10	5	1 3/16

Series REA Appleton Conduit Fittings

Schedule CFS

For Rural Electrification Wiring—Weathertight
Lightweight Lighting Fixtures
With Clear Globe—No Guard

Type RVA

Type ROB



No. REA-1



No. REA-2

Hub at top tapped for 1/2-inch rigid conduit (heavy wall).

Watts, 100. Packed 1 to a carton; weight, 3 lb.

With 4-inch square plate for 4-inch square or 3 1/4 and 4-inch octagonal outlet boxes.

Watts, 100. Packed 1 to a carton; weight, 3 lb.



No. REA-20
Clear Globe

Type RBVA

With bracket for mounting on 3/4 or 4-inch octagonal outlet boxes. Screw holes for 4-inch octagonal box and fastening strap for 3 1/4-inch octagonal box.

Watts, 100. Packed 1 to a carton; weight, 4 lb.



No. REA-33

For types RVA, RBVA, and ROB lighting fixtures.

Watts, 100. Packed 1 to a carton; weight, 1 1/4 lb.

Wire Guard



No. REA-3

For types RVA, RBVA, and ROB lighting fixtures.

Watts, 100. Packed 1 to a carton; weight, 3 lb.



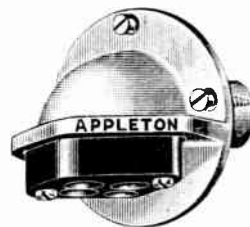
No. REA-21

*Standard Dome Reflector and Holder

For Nos. REA-1 and REA-2. Watts, 100. Packed 1 to a carton; weight, 4 lb.

*When reflector is used, reflector holder clamps onto Types RVA and ROB lighting fixtures and guard cannot be used.

Type FEH Flange Type Entrance Fittings



No.

REA-25, Without DuxSeal Compound 20
REA-26, With DuxSeal Compound 21

Combination entrance cap and flange for out building service entrances in accordance with REA specifications. Made of aluminum and cannot rust. Insulator has four holes, two of which are plugged. Hub in back is tapped for 1/2-inch conduit. Furnished with hot galvanized wood screws.

Standard package, 24; carton, 1.

No.	Description	Std. Ikg.	Wt. Lb.
REA-25	Without DuxSeal Compound	..	20
REA-26	With DuxSeal Compound	..	21

Crouse-Hinds Condulets

Discount Schedule. Unless otherwise specified, Condulets carry Crouse-Hinds CR Schedule of terms and discounts.

Material. Unless otherwise indicated, all Condulets are made of Feraloy, a special Crouse-Hinds alloy. Feraloy is a special alloy having the desirable characteristics of both cast steel and gray iron, and possesses high tensile strength and unusual resistance to corrosion.

Finish. Unless otherwise indicated, the standard finish is cadmium-galvanized.

Available in a wide range of sizes for every need and purpose.

Obround Series Condulets

Form 7

Obround Condulets of the same size take the same covers and wiring devices.

Type A



Size In.	Threaded Thick Wall		Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	A17	\$.30	A197	\$.35	A17-MT	\$.35
3/4	A27	.35	A297	.45	A27-MT	.45
1	A37	.50	A397	.60	A37-MT	.60
1 1/4	A47	.80	A497	1.10	A47-MT	1.10
1 1/2	A57	1.04	A597	1.50	A57-MT	1.50
2	A67	2.14	A697	2.75	A67-MT	2.75
2 1/2	A77	4.20	A797	5.50	.....	.....
3	A87	5.00	A897	6.50	.....	.....
3 1/2	A97	7.00	A997	10.00	.....	.....
4	A107	9.00	A1097	12.00	.....	.....

Type C



Size In.	Threaded Thick Wall		Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	C17	\$.40	C197	\$.50	C17-MT	\$.50
3/4	C27	.45	C297	.60	C27-MT	.60
1	C37	.65	C397	.90	C37-MT	.90
1 1/4	C47	1.05	C497	1.50	C47-MT	1.50
1 1/2	C57	1.40	C597	2.10	C57-MT	2.10
2	C67	2.40	C697	3.50	C67-MT	3.50
2 1/2	C77	5.00	C797	7.00	.....	.....
3	C87	6.50	C897	9.00	.....	.....
3 1/2	C97	10.50	C997	14.00	.....	.....
4	C107	12.00	C1097	16.50	.....	.....

Type B



One-Piece Body



Two-Piece Body

Size In.	Threaded Thick Wall		Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	B17	\$.30	B197	\$.35	B17-MT	\$.35
3/4	B27	.35	B297	.45	B27-MT	.45
1	B37	.50	B397	.60	B37-MT	.60
1 1/4	B47	\$1.25	B497	\$1.48	B47-MT	\$1.48
1 1/2	B57	1.50	B597	1.84	B57-MT	1.84
2	B67	2.60	B697	3.20	B67-MT	3.20
2 1/2	B77	8.15	B797	9.15	.....	.....
3	B87	9.00	B897	10.30	.....	.....
3 1/2	B97	15.25	B997	17.00	.....	.....
4	B107	17.00	B1097	19.25	.....	.....

Obround Series Condulets

Obround Condulets of the same size take the same covers and wiring devices.

Type E



Size In.	Threaded Thick Wall		Threadless Thick Wall		Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	E17	\$.30	E197	\$.35	E17-MT	\$.35
3/4	E27	.35	E297	.45	E27-MT	.45
1	E37	.50	E397	.60	E37-MT	.60
1 1/4	E47	.80	E497	1.10	E47-MT	1.10
1 1/2	E57	1.04	E597	1.50	E57-MT	1.50
2	E67	2.14	E697	2.75	E67-MT	2.75
2 1/2	E77	4.20	E797	5.50	.....	.....
3	E87	5.00	E897	6.50	.....	.....
3 1/2	E97	7.00	E997	10.00	.....	.....
4	E107	9.00	E1097	12.00	.....	.....

Type F

Type F is not furnished in the threadless.

Threaded—Thick Wall

Size In.	No.	Each
1/2	F17	\$.50
3/4	F27	.80
1	F37	1.25
1 1/4	F47	2.20
1 1/2	F57	3.25
2	F67	5.00
2 1/2	F77	8.20
3	F87	10.20
3 1/2	F97	18.10
4	F107	25.00
4 1/2	F0117	32.00
5	F0127	40.00
6	F0147	50.00

Type LB



Size In.	Threaded Thick Wall		Threadless Thick Wall		Thin Wall	
	No.	Each	No.	Each	No.	Each
1/8	LB187	\$.30	.....	.....	.....	.....
1/4	LB287	.30	.....	.....	.....	.....
3/8	LB387	.35	.....	.....	.....	.....
1/2	LB17	.40	LB197	\$.50	LB17-MT	\$.50
3/4	LB27	.45	LB297	.60	LB27-MT	.60
1	LB37	.65	LB397	.90	LB37-MT	.90
1 1/4	LB47	1.05	LB497	1.50	LB47-MT	1.50
1 1/2	LB57	1.40	LB597	2.10	LB57-MT	2.10
2	LB67	2.40	LB697	3.50	LB67-MT	3.50
2 1/2	LB777	5.00	LB797	7.00	.....	.....
3	LB87	6.50	LB897	9.00	.....	.....
3 1/2	LB97	10.50	LB997	14.00	.....	.....
4	LB107	12.00	LB1097	16.50	.....	.....

Type LR¹

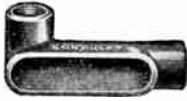


1/8	LR187	\$.30	.....	.....	.....	.....
1/4	LR287	.30	.....	.....	.....	.....
3/8	LR387	.35	.....	.....	.....	.....
1/2	LR17	.40	LR197	\$.50	LR17-MT	\$.50
3/4	LR27	.45	LR297	.60	LR27-MT	.60
1	LR37	.65	LR397	.90	LR37-MT	.90
1 1/4	LR47	1.05	LR497	1.50	LR47-MT	1.50
1 1/2	LR57	1.40	LR597	2.10	LR57-MT	2.10
2	LR67	2.40	LR697	3.50	LR67-MT	3.50
2 1/2	LR777	5.00	LR797	7.00	.....	.....
3	LR87	6.50	LR897	9.00	.....	.....
3 1/2	LR97	10.50	LR997	14.00	.....	.....
4	LR107	12.00	LR1097	16.50	.....	.....

Obround Series Condulets

Obround Condulets of the same size take the same covers and wiring devices.

Type LL



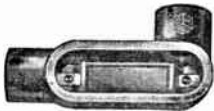
Size In.	Threaded Thick Wall		Threadless			
	No.	Each	Thick Wall No.	Each	Thin Wall No.	Each
1/8	LL187	\$.30				
1/4	LL287	.30				
3/8	LL387	.35				
1/2	LL17	.40	LL197	\$.50	LL17-MT	\$.50
3/4	LL27	.45	LL297	.60	LL27-MT	.60
1	LL37	.65	LL397	.90	LL37-MT	.90
1 1/4	LL47	1.05	LL497	1.50	LL47-MT	1.50
1 1/2	LL57	1.40	LL597	2.10	LL57-MT	2.10
2	LL67	2.40	LL697	3.50	LL67-MT	3.50
2 1/2	LL777	5.00	LL797	7.00		
3	LL87	6.50	LL897	9.00		
3 1/2	LL97	10.50	LL997	14.00		
4	LL107	12.00	LL1097	16.50		

Type LF



Size In.	Threaded Thick Wall		Threadless			
	No.	Each	Thick Wall No.	Each	Thin Wall No.	Each
1/2	LF17	\$.40	LF197	\$.50	LF17-MT	\$.50
3/4	LF27	.45	LF297	.60	LF27-MT	.60
1	LF37	.65	LF397	.90	LF37-MT	.90
1 1/4	LF47	1.05	LF497	1.50	LF47-MT	1.50
1 1/2	LF57	1.40	LF597	2.10	LF57-MT	2.10
2	LF67	2.40	LF697	3.50	LF67-MT	3.50
2 1/2	LF777	5.00				
3	LF87	6.50				
3 1/2	LF97	10.50				
4	LF107	12.00				

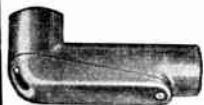
Type L



Type L is a double-faced Condulet which may be used either as an LL or LR Condulet. It has two openings, one of which is furnished with a blank sheet steel cover.

Size In.	Threaded Thick Wall		Threadless			
	No.	Each	Thick Wall No.	Each	Thin Wall No.	Each
1/2	L17	\$.40	L197	\$.50	L17-MT	\$.50
3/4	L27	.45	L297	.60	L27-MT	.60
1	L37	.65	L397	.90	L37-MT	.90
1 1/4	L47	1.05	L497	1.50	L47-MT	1.50
1 1/2	L57	1.40	L597	2.10	L57-MT	2.10
2	L67	2.40	L697	3.50	L67-MT	3.50

Type LBD



For use when it is necessary to make a 90° bend in the conduit system. Condulet is split, permitting a straight pull on the wires. Furnished with blank cast Feraloy cover.

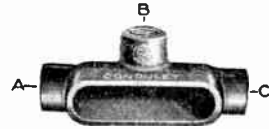
Size In.	No.	Each	Size In.	No.	Each
1/2	LBD1100	\$.65	3	LBD8800	\$14.25
3/4	LBD2200	.80	3 1/2	LBD9900	23.25
1	LBD3300	1.20	4	LBD10900	26.00
1 1/4	LBD4400	3.25	4 1/2	LBD011	35.00
1 1/2	LBD5500	5.75	5	LBD012	40.00
2	LBD6600	6.25	6	LBD014	75.00
2 1/2	LBD7700	11.75			

Obround Series Condulets

Obround Condulets of the same size take the same covers and wiring devices.

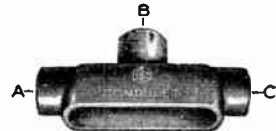
Size of cover or wiring device is the same as size of hubs at ends of cover opening.

Type T



Size Inches	Threaded Thick Wall		Threadless			
	No.	Each	Thick Wall No.	Each	Thin Wall No.	Each
1/8 - 1/8 - 1/8	T187	\$.33				
1/4 - 1/4 - 1/4	T287	.33				
3/8 - 3/8 - 3/8	T387	.40				
1/2 - 1/2 - 1/2	T17	.48	T197	\$.65	T17-MT	\$.65
1/2 - 3/4 - 1/2	T127	.56				
1/2 - 1 - 1/2	T137	.63				
3/4 - 1/2 - 3/4	T217	.57	T2197	.84	T217-MT	.84
3/4 - 3/4 - 3/4	T27	.57	T297	.80	T 27-MT	.80
3/4 - 1 - 3/4	T237	.65				
3/4 - 1 1/2 - 3/4	T257	.90				
1 - 1/2 - 1	T317	.80	T3197	1.19	T317-MT	1.19
1 - 3/4 - 1	T327	.80	T3297	1.19	T327-MT	1.19
1 - 1 - 1	T37	.80	T397	1.10	T 37-MT	1.10
1 - 2 - 1	T367	1.45				
1 1/4 - 1/2 - 1 1/4	T417	1.22	T4197	1.91	T417-MT	1.91
1 1/4 - 3/4 - 1 1/4	T427	1.22	T4297	1.91	T427-MT	1.91
1 1/4 - 1 - 1 1/4	T437	1.22	T4397	1.91	T437-MT	1.91
1 1/4 - 1 1/4 - 1 1/4	T47	1.22	T497	1.90	T 47-MT	1.90
1 1/4 - 1 1/2 - 1 1/4	T457	1.50				
1 1/4 - 2 - 1 1/4	T467	1.96				
1 1/2 - 1/2 - 1 1/2	T517	1.69				
1 1/2 - 3/4 - 1 1/2	T527	1.69				
1 1/2 - 1 - 1 1/2	T537	1.69				
1 1/2 - 1 1/4 - 1 1/2	T547	1.69				
1 1/2 - 1 1/2 - 1 1/2	T57	1.69	T597	2.70	T 57-MT	2.70
1 1/2 - 2 - 1 1/2	T567	2.52				
2 - 1/2 - 2	T617	2.55				
2 - 3/4 - 2	T627	2.55				
2 - 1 - 2	T637	2.55				
2 - 1 1/4 - 2	T647	2.55				
2 - 1 1/2 - 2	T657	2.55				
2 - 2 - 2	T67	2.55	T697	4.30	T 67-MT	4.30
2 1/2 - 1 1/2 - 2 1/2	T7577	5.00				
2 1/2 - 2 - 2 1/2	T7677	5.00				
2 1/2 - 2 1/2 - 2 1/2	T77	5.00	T797	8.00		
3 - 2 - 3	T867	7.50				
3 - 3 - 3	T87	7.50	T897	11.00		
3 1/2 - 2 1/2 - 3 1/2	T977	11.00				
3 1/2 - 3 1/2 - 3 1/2	T97	11.00	T997	16.00		
4 - 4 - 4	T107	13.00	T10097	19.00		

Type TB

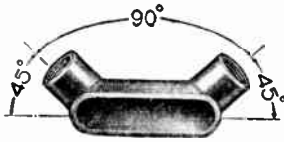


Size Inches	Threaded Thick Wall		Threadless			
	No.	Each	Thick Wall No.	Each	Thin Wall No.	Each
1/8 - 1/8 - 1/8	TB187	\$.33				
1/4 - 1/4 - 1/4	TB287	.33				
3/8 - 3/8 - 3/8	TB387	.40				
1/2 - 1/2 - 1/2	TB17	.48	TB197	\$.65	TB17-MT	\$.65
1/2 - 3/4 - 1/2	TB27	.57	TB297	.80	TB27-MT	.80
3/4 - 1 - 3/4	TB237	.65				
1 - 1/2 - 1	TB317	.80				
1 - 3/4 - 1	TB327	.80				
1 - 1 - 1	TB37	.80	TB397	1.10	TB37-MT	1.10
1 1/4 - 1 1/4 - 1 1/4	TB47	1.22	TB497	1.90	TB47-MT	1.90
1 1/2 - 1 1/2 - 1 1/2	TB57	1.69	TB597	2.70	TB57-MT	2.70
2 - 2 - 2	TB67	2.55	TB697	4.30	TB67-MT	4.30
2 1/2 - 2 1/2 - 2 1/2	TB77	5.00	TB797	8.00		
3 - 3 - 3	TB87	7.50	TB897	11.00		
3 1/2 - 3 1/2 - 3 1/2	TB97	11.00	TB997	16.00		
4 - 4 - 4	TB107	13.00	TB10097	19.00		

Obround Series Condulets

Obround Condulets of the same size take the same covers and wiring devices.

Type U



Size A-B-C	Threaded Thick Wall		Threadless			
	No.	Each	Thick Wall		Thin Wall	
1/8	U187	\$.33	.....	.....	.....	.....
1/4	U287	.33	.....	.....	.....	.....
3/8	U387	.40	.....	.....	.....	.....
1/2	U17	.48	U197	\$.58	U17-MT	\$.58
3/4	U27	.54	U297	.72	U27-MT	.72
1	U37	.78	U397	1.04	U37-MT	1.04
1 1/4	U47	1.26	U497	1.72	U47-MT	1.72
1 1/2	U57	1.68	U597	2.36	U57-MT	2.36
2	U67	3.00	U697	4.20	U67-MT	4.20
2 1/2	U777	6.00	.....	.....	.....	.....
3	U87	7.80	.....	.....	.....	.....
3 1/2	U97	12.60	.....	.....	.....	.....

Type CO



Type CO Condulet provides an offset of 4 inches in a conduit system.

Size In.	Threaded Thick Wall		Threadless			
	No.	Each	Thick Wall		Thin Wall	
1/2	CO17	\$.50	CO197	\$.60	CO17-MT	\$.60
3/4	CO27	.65	CO297	.83	CO27-MT	.83
1	CO37	.75	CO397	1.01	CO37-MT	1.01
1 1/4	CO47	1.25	CO497	1.71	CO47-MT	1.71
1 1/2	CO57	1.60	CO597	2.28	CO57-MT	2.28
2	CO67	3.25	CO697	4.45	CO67-MT	4.45
2 1/2	CO777	5.20	.....	.....	.....	.....
3	CO87	7.90	.....	.....	.....	.....
3 1/2	CO97	12.60	.....	.....	.....	.....
4	CO107	13.80	.....	.....	.....	.....

Type COV



Type COV Condulets connected by a nipple of suitable length form a convenient cross-over for two or more pipes or conduits.

Size In.	Size Pipe Crossed In.	Threaded Thick Wall		Threadless			
		No.	Each	Thick Wall		Thin Wall	
1/2	1 1/4	COV147	\$.50	.....	.....	.....	.....
3/4	1 1/4	COV247	.65	.....	.....	.....	.....
1	1 1/4	COV347	.75	.....	.....	.....	.....
1 1/4	1 1/2	COV457	1.25	.....	.....	.....	.....
1 1/2	2	COV567	1.60	.....	.....	.....	.....
2	2 1/2	COV677	3.25	.....	.....	.....	.....
2 1/2	3 1/2	Use CO777	.....	.....	.....	.....	.....
3	3 1/2	Use CO87	.....	.....	.....	.....	.....
3 1/2	3 1/2	Use CO97	.....	.....	.....	.....	.....
4	3 1/2	Use CO107	.....	.....	.....	.....	.....

Type CUB

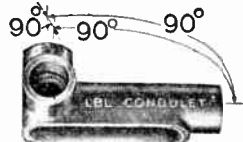


1/2	3/4	CUB127	\$.75	.....	.....	.....	.....
1/2	1 1/4	CUB147	.85	.....	.....	.....	.....
3/4	1 1/4	CUB247	.95	.....	.....	.....	.....
1	1 1/4	CUB347	1.40	.....	.....	.....	.....
1 1/4	1 1/2	CUB457	1.90	.....	.....	.....	.....
1 1/2	2	CUB567	2.40	.....	.....	.....	.....
2	2 1/2	CUB677	4.80	.....	.....	.....	.....

Obround Series Condulets

Obround Condulets of the same size take the same covers and wiring devices.

Type LBL



Size In.	Threaded Thick Wall		Threadless Thin Wall		Threaded Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each	No.	Each
1/2	LBL17	\$.65	LBL17-MT	\$.80	LBR17	\$.65	LBR17-MT	\$.80
3/4	LBL27	.80	LBL27-MT	1.07	LBR27	.80	LBR27-MT	1.07
1	LBL37	.95	LBL37-MT	1.34	LBR37	.95	LBR37-MT	1.34
1 1/4	LBL47	1.25	LBL47-MT	2.15	LBR47	1.25	LBR47-MT	2.15
1 1/2	LBL57	2.00	LBL57-MT	2.35	LBR57	2.00	LBR57-MT	3.35
2	LBL67	2.65	LBL67-MT	4.45	LBR67	2.65	LBR67-MT	4.45
2 1/2	LBL77	6.55	.....	.....	LBR77	6.55	.....	.....

Type TA

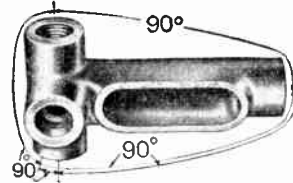


1/2	TA17	\$.70	TA17-MT	\$.90	XA17	\$ 1.00	XA17-MT	\$ 1.25
3/4	TA27	.75	TA27-MT	1.11	XA27	1.15	XA27-MT	1.65
1	TA37	1.00	TA37-MT	1.52	XA37	1.45	XA37-MT	2.20
1 1/4	TA47	1.55	TA47-MT	2.75	.....	.....	.....	.....
1 1/2	TA57	2.30	TA57-MT	4.10	.....	.....	.....	.....
2	TA67	3.95	TA67-MT	6.35	.....	.....	.....	.....

Type XA

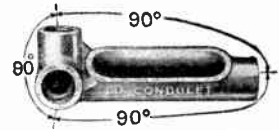


Type LFT



1/2	LFT17	\$ 1.05	LFT17-MT	\$ 1.25	LU17	\$.65	LU17-MT	\$.80
3/4	LFT27	1.15	LFT27-MT	1.55	LU27	.80	LU27-MT	1.10
1	LFT37	1.30	LFT37-MT	1.90	LU37	.95	LU37-MT	1.40

Type LU



Type LBB



Size In.	Threaded Thick Wall		Threaded Thick Wall	
	No.	Each	No.	Each
1/2	LBB17	\$.40	LLB17	\$.40
3/4	LBB27	.45	LLB27	.45
1	LBB37	.65	LLB37	.65
1 1/4	LBB47	1.05	LLB47	1.05
1 1/2	LBB57	1.40	LLB57	1.40
2	LBB67	2.50	LLB67	2.50
2 1/2	LBB777	5.00	LLB777	5.00
3	LBB87	6.50	LLB87	6.50
3 1/2	LBB97	10.50	LLB97	10.50
4	LBB107	12.00	LLB107	12.00

Type LLB



Type LFB



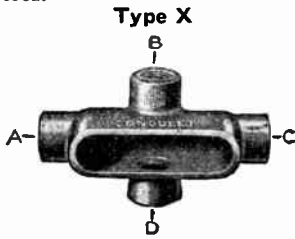
1/2	LFB17	\$.40	LRB17	\$.40
3/4	LFB27	.45	LRB27	.45
1	LFB37	.65	LRB37	.65
1 1/4	LFB47	1.05	LRB47	1.05
1 1/2	LFB57	1.40	LRB57	1.40
2	LFB67	2.50	LRB67	2.50
2 1/2	LFB777	5.00	LRB777	5.00
3	LFB87	6.50	LRB87	6.50
3 1/2	LFB97	10.50	LRB97	10.50
4	LFB107	12.00	.....	.....

Type LRB



Obround Series Condulets

Obround Condulets of the same size take the same covers and wiring devices.



Type X

The size of the cover or wiring device for a Type X Condulet is the same as the size of the hubs at the ends of the cover opening.

Sizes of hubs are indicated by sequence of letters.

Size Inches				Threaded		Threadless		
A	B	C	D	Thick Wall No.	Each	Thick Wall No.	Thin Wall No.	Each
1/2	1/2	1/2	1/2	X17	\$.60	X197	X17-MT	\$.80
3/4	1/2	1/2	1/2	X21117	.77	.....	X21117-MT	1.02
3/4	1/2	3/4	1/2	X217	.77	.....	X217-MT	1.07
3/4	3/4	3/4	3/4	X27	.77	.....	X27-MT	1.10
1	1/2	1	1/2	X317	1.05	X3197	X317-MT	1.57
1	3/4	1	3/4	X327	1.05	.....	X327-MT	1.55
1	1	1	1	X37	1.05	X397	X27-MT	1.50
1 1/4	1/2	1 1/4	1/2	X417	1.40	.....	X417-MT	2.10
1 1/4	3/4	1 1/4	3/4	X427	1.40	.....	X427-MT	2.20
1 1/4	1 1/4	1 1/4	1 1/4	X47	1.40	X497	X47-MT	2.30
1 1/2	3/4	1 1/2	3/4	X527	1.78	.....	X527-MT	2.88
1 1/2	1 1/2	1 1/2	1 1/2	X57	1.78	X597	X57-MT	3.10
2	2	2	2	X67	3.50	X697	X67-MT	5.50
2 1/2	2 1/2	2 1/2	2 1/2	X77	6.00	.....	.....	.....
3	3	3	3	X87	10.00	.....	.....	.....

Covers for Obround Series Condulets

Standard Porcelain or Composition Covers

Material	Size In.	Diam. Hole In.	1-Wire Standard		Material	Size In.	Diam. Hole In.	2-Wire		Material	Size In.	Diam. Hole In.	3-Wire		Material	Size In.	Diam. Hole In.	4-Wire									
			No.	Each				No.	Each				No.	Each				No.	Each	No.	Each	No.	Each				
Porcelain	1/2	3/16	171 and 1771	Use 1773	Composition	1/2	3/8	172 and 1772	Use 1773	Porcelain	1/2	3/8	173	Use 1773	Composition	1/2	5/16	174	\$.10	1774	\$.10						
	3/4	3/16	271 and 2771	Use 2773		3/4	13/32	272 and 2772	Use 2773		1	1/2	373	Use 3773		3/4	5/16	274	.15	2774	.15						
	1	7/16	371 and 3771	Use 3773		1	1/2	372 and 4772	Use 3773		1	1/2	373	Use 3773		1	13/32	374	.25	3774	.25						
	1 1/4	7/16	471	\$.36		4771	\$.50	1 1/4	11/16		472	\$.36	4772	\$.50		1 1/4	11/16	473	.36	4773	.50	1 1/4	17/32	474	.36	4774	.50
Composition	1 1/2	13/8	571	.36	5771	.50	1 1/2	13/16	572	.36	5772	.50	1 1/2	13/16	573	.36	5773	.50	1 1/2	5/8	574	.36	5774	.50			
	2	1 3/4	671	.60	6771	.60	2	1	672	.60	6772	.60	2	1	673	.60	6773	.60	2	1	674	.60	6774	.60			
	2 1/2, 3	2 3/16	871	.80	8771	1.60	2 1/2, 3	1 13/16	872	.80	8772	1.60	2 1/2, 3	1 13/16	873	.80	8773	1.60	2 1/2, 3	1 13/16	874	.80	8774	1.60			
	3 1/2, 4	3 1/4	971	.90	9771	2.50	3 1/2, 4	1 15/16	972	.90	9772	2.50	3 1/2, 4	1 15/16	973	.90	9773	2.50	3 1/2, 4	1 15/16	974	.90	9774	2.50			
	4 1/2, 5, 6	3 3/4	4.00	4 1/2, 5, 6	2 1/4	14771	4.00	4 1/2, 5, 6	2 1/4	14772	4.00	4 1/2, 5, 6	1 7/8	14773	4.00	4 1/2, 5, 6	1 7/8	14774	4.00

Covers for Obround Series Condulets

Standard Porcelain or Composition Covers

Material	Size In.	Diam. Hole In.	5-Wire Standard		Material	Size In.	Diam. Hole In.	6-Wire				
			No.	Each				No.	Each			
Porcelain	3/4	5/16	275	\$.15	2775	\$.15	1	3/8	376	.25	3776	.25
	1	13/32	375	.25	3775	.25	1 1/4	1 1/2	476	.36	4776	.50
	1 1/4	17/32	475	.36	4775	.50	1 1/2	1 3/8	576	.36	5776	.50
Composition	1 1/2	7/8	575	.36	5775	.50	2	1 3/8	676	.60	6776	.60
	2	13/16	675	.60	6775	.60	2 1/2, 3	1 1/2	876	.80	8776	1.60
	2 1/2, 3	1 1/16	875	.80	8775	1.60	3 1/2, 4	1 1/2	.....	.....	9776	2.50
	3 1/2, 4	1 1/2	.....	.....	9775	2.50	4 1/2, 5, 6	1 3/4	.....	.....	14776	4.00

Blank Composition Covers

Special drilling at slight additional charge: up to 1/2" diam., 5 cents per hole; over 1/2", less than 1", 15 cents per hole; 1" and over, 20 cents per hole.

Size In.	Porcelain		Composition	
	No.	Each	No.	Each
1/8	18770	\$.20
1/4	28770	.20
3/8	38770	.20
1/2	1770	.10
3/4	2770	.15
1	3770	.25
1 1/4	4770	.50
1 1/2	5770	.50
2	6770	.60
2 1/2, 3	8770	1.60
3 1/2, 4	9770	2.50
4 1/2, 5, 6	14770	4.00

Blank Metal Covers

Size In.	Sheet Steel		Cast Feraloy	
	No.	Each	No.	Each
1/8	1870	\$.06	.....	.....
1/4	2870	.06	.....	.....
3/8	3870	.06	.....	.....
1/2	170	.06	170f	\$.16
3/4	270	.08	270f	.22
1	370	.17	370f	.35
1 1/4	470	.24	470f	.50
1 1/2	570	.24	570f	.50
2	670	.42	670f	.70
2 1/2, 3	870	.56	870f	.75
3 1/2, 4	970	.60	970f	.80

Cast Feraloy Covers with Nipples

Size In.	With 1/8-Inch Nipple			
	Male		Female	
	No.	Each	No.	Each
1/2	1721	\$.20	1731	\$.20
3/4	2721	.25	2731	.25
1	3721	.35	3731	.35
With 1/4-Inch Nipple				
1/2	1722	\$.23	1732	\$.23
3/4	2722	.28	2732	.28
1	3722	.38	3732	.38
With 3/8-Inch Nipple				
1/2	1723	\$.25	1733	\$.25
3/4	2723	.30	2733	.30
1	3723	.40	3733	.40
With 1/2-Inch Nipple				
1/2	1724	\$.30	1734	\$.30
3/4	2724	.35	2734	.35
1	3724	.45	3734	.45
1 1/4	4724	.56	4734	.56
1 1/2	5724	.56	5734	.56

Covers for Obround Series Condulets

Sheet Steel Covers with Cord Clamps

Provided with cord clamp and bushed hole which safeguards the drop cord. Takes cord 1/4 to 3/8-inch diameter.

Size In.	No.	Each
1/2	1972	\$.30
3/4	2972	.35

Porcelain Covers

For Drop Cords and Fixture Pull Switches

With 1-wire hole and 1/8-inch male nipple.

Size In.	Diam. Hole In.	No.	Each
1/2	13/32	1782	\$.35
3/4	15/32	2782	.40

For Weatherproof Sockets—2-Wire

Size In.	No.	Each
1/2	1781	\$.16
3/4	2781	.25

Aluminum Covers

Takes P&S-Despard, Bryant II, Hubbell, Arrow-II&II TS and G-E TS wiring devices. Mounting bridge required to install wiring device; furnished with each cover listed below.

Without Guard		
Size In.	No.	Each
1/2	1755	\$.20
3/4	2755	.30

With Guard

Size In.	No.	Each
1/2	1785	\$.20

For switches only.

Vaportight Switch Covers

With gasket and mounting strap for switches. Takes P&S-Despard, Bryant II and Hubbell tumbler switches.

Size In.	No.	Each
1/2	1766	\$1.40
3/4	2766	1.50
1	3766	1.60

Wiring Devices for Obround Series Condulets

2-Pole Attachment Plug Receptacles

15 Amperes, 125 Volts or 10 Amperes, 250 Volts Single, with Double T Slots

Size In.	Composition		Porcelain	
	No.	Each	No.	Each
1/2	1715	\$.40	1705	\$.60
3/4	2715	.45	2705	.70
1	3715	.70	3705	.90

Duplex, with Parallel Slots

Size In.	No.	Each
1/2	1748	\$.60
3/4	2748	.70
1	3748	.90

Duplex, with Double T Slots

Size In.	No.	Each
1/2	1725	\$.60
3/4	2725	.70
1	3725	.90

2-Pole Polarity Plug Receptacles

15 Amperes, 125 Volts or 10 Amperes, 250 Volts

Size In.	Composition		Porcelain	
	No.	Each	No.	Each
1/2	*1728	\$.40	*1708	\$.60
3/4	*2728	.45	*2708	.70
1	*3728	.70	*3708	.90

20 Amperes, 250 Volts

Size In.	No.	Each
1/2	1738	\$.55
3/4	2738	.60
1	3738	.85

*Takes Hubbell No. 5567 polarized plug. For parallel blade polarity plugs, use Nos. 1705, 1715, 1725, 2705, 2715, 2725, 3705, 3715, and 3725 receptacles.

Prices listed for receptacles listed above do not include attachment plugs.

If specified, lamp receptacle with lamp grip will be furnished at an advance in price of 10 cents.

Wiring Devices for Obround Series Condulets

3-Pole Attachment Plug Receptacles 3-Wire

Size In.	Composition		Porcelain	
	No.	Each	No.	Each
1/2	1709	\$.75	1709	\$.75
3/4	2709	.80	2709	.80

20 Amperes, 250 Volts

Size In.	Composition		Porcelain	
	No.	Each	No.	Each
1/2	1719	\$.90	1719	\$.90
3/4	2719	1.00	2719	1.00

2-Wire, Extra Pole Grounded

15 Amperes, 125 Volts or 10 Amperes, 250 Volts

Size In.	Composition		Porcelain	
	No.	Each	No.	Each
1/2	1729	\$.85	1729	\$.85
3/4	2729	.90	2729	.90

20 Amperes, 250 Volts

Size In.	Composition		Porcelain	
	No.	Each	No.	Each
1/2	1739	\$1.00	1739	\$1.00
3/4	2739	1.10	2739	1.10

Lamp Receptacles

660 Watts, 600 Volts

With Shade Holder Groove

Size In.	Composition		Porcelain	
	No.	Each	No.	Each
1/2	1726	\$.35	1706	\$.45
3/4	2726	.40	2706	.50
1	3726	.60	3706	.70

Without Shade Holder Groove

Size In.	Composition		Porcelain	
	No.	Each	No.	Each
1/2	1727	\$.35	1707	\$.45
3/4	2727	.40	2707	.50
1	3727	.60		

Cord Rosettes

660 Watts, 250 Volts

Size In.	Composition		Porcelain	
	No.	Each	No.	Each
1/2	1720	\$.75	1700	\$.60
3/4	2720	.80	2700	.70
1	3720	1.00	3799	.90



Porcelain

Prices for receptacles listed above do not include attachment plugs.

If specified on the order, lamp receptacle with lamp grip will be furnished at an advance in price of 10 cents.

Gaskets for Obround Series Condulets



For use between Condulets, and metal covers or Obround adapters.

Size Inches	Rubber		Cork		Vellumoid		Each
	No.	Each	No.	Each	No.	Each	
1/2	Gask 571		Gask 671		Gask 771		\$1.10
3/4	Gask 572		Gask 672		Gask 772		.10
1	Gask 573		Gask 673		Gask 773		.15
1 1/4	Gask 574		Gask 674		Gask 774		.20
1 1/2	Gask 575		Gask 675		Gask 775		.20
2	Gask 576		Gask 676		Gask 776		.25
2 1/2, 3	Gask 578		Gask 678		Gask 778		.40
3 1/2, 4	Gask 579		Gask 679		Gask 779		.50

Adapters for Obround Series Condulets



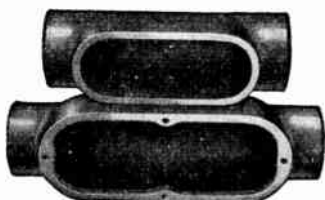
Size In.	No.	Each
1	731	\$.35
1 1/4	741	.50
1 1/2	751	.70

Gaskets for LBD Condulets

Size In.	No.		Each
	No.	No.	
1/2	Gask 680R	1715	\$1.50
3/4	Gask 681R	2715	1.70
1	Gask 682R	3715	3.50
1 1/4	Gask 683R	4715	5.00
1 1/2	Gask 684R	5715	

Form 8 Series Condulets

Threaded for Thick Wall Conduit



Relative Sizes of 2-Inch Type C, Forms 7 and 8 Condulets

Form 8 series Condulets are for use where sizes of conductors, number of splices or tapping and pulling requirements necessitate more room than provided in the Oround series Form 7.

Type C

Type LR



Size In.	No.	Each
1/2	Use Form 7 Condulets	
3/4	Use Form 7 Condulets	
1	Use Form 7 Condulets	
1 1/4	C48	\$1.05
1 1/2	C58	1.40
2	C68	2.40
2 1/2	C78	5.00
3	C88	6.50
3 1/2	C98	10.50
4	C108	12.00

Size In.	No.	Each
1/2	Use Form 7 Condulets	
3/4	Use Form 7 Condulets	
1	Use Form 7 Condulets	
1 1/4	LR48	\$1.05
1 1/2	LR58	1.40
2	LR68	2.40
2 1/2	LR78	5.00
3	LR888	6.50
3 1/2	LR98	10.50
4	LR108	12.00

Type E

Type T



Size In.	No.	Each
1/2	Use Form 7 Condulets	
3/4	Use Form 7 Condulets	
1	Use Form 7 Condulets	
1 1/4	E48	\$0.80
1 1/2	E58	1.04
2	E68	2.14
2 1/2	E78	4.20
3	E88	5.00
3 1/2	E98	7.00
4	E108	9.00

Size In.	No.	Each
1/2	Use Form 7 Condulets	
3/4	Use Form 7 Condulets	
1	Use Form 7 Condulets	
1 1/4	T48	\$1.22
1 1/2	T58	1.69
2	T68	2.55
2 1/2	T78	5.00
3	T88	7.50
3 1/2	T98	11.00
4	T108	13.00

Type LB

Type TB



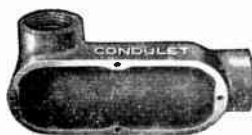
Size In.	No.	Each
1/2	Use Form 7 Condulets	
3/4	Use Form 7 Condulets	
1	Use Form 7 Condulets	
1 1/4	LB48	\$1.05
1 1/2	LB58	1.40
2	LB68	2.40
2 1/2	LB78	5.00
3	LB888	6.50
3 1/2	LB98	10.50
4	LB108	12.00

Size In.	No.	Each
1/2	Use Form 7 Condulets	
3/4	Use Form 7 Condulets	
1	Use Form 7 Condulets	
1 1/4	TB48	\$1.22
1 1/2	TB58	1.69
2	TB68	2.55
2 1/2	TB78	5.00
3	TB88	7.50
3 1/2	TB98	11.00
4	TB108	13.00

Form 8 Series Condulets Threaded for Thick Wall Conduit

Type LL

Type X



Size In.	No.	Each	Size In.	No.	Each
1/2	Use Form 7 Condulets		1/2	Use Form 7 Condulets	
3/4	Use Form 7 Condulets		3/4	Use Form 7 Condulets	
1	Use Form 7 Condulets		1	Use Form 7 Condulets	
1 1/4	LL48	\$1.05	1 1/4	X48	\$1.40
1 1/2	LL58	1.40	1 1/2	X58	1.78
2	LL68	2.40	2	X68	3.50
2 1/2	LL78	5.00	2 1/2	X78	6.00
3	LL888	6.50	3	X88	10.00
3 1/2	LL98	10.50	3 1/2	X98	13.00
4	LL108	12.00	4	X108	16.00

Covers for Form 8 Series Condulets

Blank Sheet Steel



Size In.	No.	Each
1 1/4 or 1 1/2	580	\$0.32
2	680	.56
2 1/2 or 3	880	.75
3 1/2 or 4	980	.80

Cast Feraloy



Size In.	No.	Each
1 1/4 or 1 1/2	580F	\$0.50
2	680F	.70
2 1/2 or 3	880F	.75
3 1/2 or 4	980F	.80

Bakelite



Size In.	No.	Each
1 1/4 or 1 1/2	5870	\$1.00
2	6870	1.20
2 1/2 or 3	8870	1.60
3 1/2 or 4	9870	2.50

If specified on order, blank bakelite cover will be furnished with special drilling at an advance in list price as follows: Up to 1/2 inch diameter, 5 cents list per hole; over 1/2 inch but less than 1 inch, 15 cents list per hole; 1 inch and over, 20 cents list per hole.

2, 3, 4, or 5-Wire Bakelite



Size In.	DIAMETER, INCHES			No.	Each
	HOLES A	B KNOCKOUTS	C		
1 1/4 or 1 1/2	1 13/16	5/8	1 13/16	5875	\$1.00
2	1	1	1	6875	1.20
2 1/2 or 3	1 7/16	1 1/16	1 7/16	8875	1.60
3 1/2 or 4	1 13/16	1 1/16	1 13/16	9875	2.50

Gaskets for Form 8 Series



For use between Condulets and metal covers.

Size In.	Rubber	No. Cork	Vellumoid	Each
1 1/4 or 1 1/2	Gask 805R	Gask 805C	Gask 805V	\$0.20
2	Gask 806R	Gask 806C	Gask 806V	.25
2 1/2 or 3	Gask 808R	Gask 808C	Gask 808V	.40
3 1/2 or 4	Gask 809R	Gask 809C	Gask 809V	.50

Mogul Series Condulets

Take Mogul Covers

Type BC



Size In.	No.	Each
1	BC3	\$1.90
1 1/4	BC4	2.15
1 1/2	BC5	4.15
2	BC6	5.00
2 1/2	BC7	7.40
3	BC8	9.90
3 1/2	BC9	14.85
4	BC10	18.00

Type BT



Size In.	No.	Each
1	BT3	\$2.25
1 1/4	BT4	2.50
1 1/2	BT5	4.65
2	BT6	5.60
2 1/2	BT7	7.80
3	BT8	11.20
3 1/2	BT9	16.85
4	BT10	20.00

Type BEE



Size In.	No.	Each
1	BEE3	\$1.70
1 1/4	BEE4	1.90
1 1/2	BEE5	3.70
2	BEE6	4.50
2 1/2	BEE7	6.80
3	BEE8	8.70
3 1/2	BEE9	14.00
4	BEE10	16.00

Type BTB



Size In.	No.	Each
1	BTB3	\$2.25
1 1/4	BTB4	2.50
1 1/2	BTB5	4.65
2	BTP6	5.60
2 1/2	BTB7	7.80
3	BTB8	11.20
3 1/2	BTB9	16.85
4	BTB10	20.00

Type BLB



Size In.	No.	Each
1	BLB3	\$1.90
1 1/4	BLB4	2.15
1 1/2	BLB5	4.15
2	BLB6	5.00
2 1/2	BLB7	7.60
3	BLB8	10.20
3 1/2	BLB9	16.35
4	BLB10	19.00

Type BX



Size In.	No.	Each
1	BX3	\$1.90
1 1/4	BX4	2.15
1 1/2	BX5	4.15
2	BX6	5.00
2 1/2	BX7	7.60
3	BX8	10.20
3 1/2	BX9	16.35
4	BX10	19.00

Type BUB



Size In.	No.	Each
1	BUB3	\$1.90
1 1/4	BUB4	2.15
1 1/2	BUB5	4.15
2	BUB6	5.00
2 1/2	BUB7	7.60
3	BUB8	10.20
3 1/2	BUB9	16.35
4	BUB10	19.00

Covers for Mogul Series Condulets

Blank



Bakelite



Cast Feraloy

Size In.	Bakelite		Cast Feraloy	
	No.	Each	Without Gasket	With Gasket
1 or 1 1/4	CF534	\$1.25	BG47	\$1.10
1 1/2 or 2	CF536	3.00	BG67	1.75
2 1/2 or 3	CF538	4.00	BG87	3.50
3 1/2 or 4	CF539	6.80	BG97	5.50
			BG48	\$1.50
			BG68	2.40
			BG88	5.00
			BG98	7.00

Gaskets for Mogul Series Condulets

For use between condulets and covers; except No. BG48, BG68, BG88 and BG98 covers, which have round gaskets.

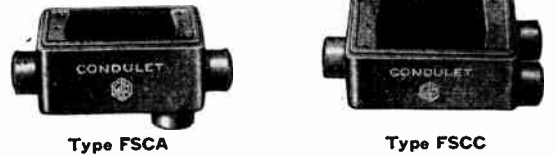
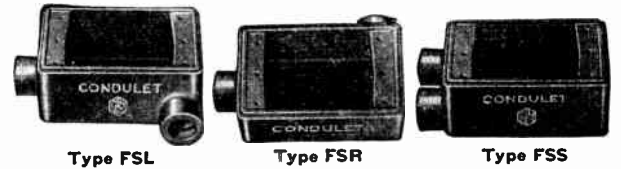
Size In.	No.	Each
1 or 1 1/4	Gask271	\$.25
1 1/2 or 2	Gask272	.35
2 1/2 or 3	Gask273	.45
3 1/2 or 4	Gask274	.65

FS Series Shallow Type Condulets

Take covers and shallow flush rectangular wiring devices, or receptacles with housings.

Overall dimensions of body, exclusive of hubs: length, 4 3/8 inches; width, 2 3/4 inches; depth, 1 7/8 inches.

For wiring devices exceeding 1 5/8 inches in depth under the fastening ears, use Condulets of the FD series.



Size In.	Threaded Thick Wall		Thick Wall		Threadless	
	No.	Each	No.	Each	No.	Each
1/2	FS1	\$.65	FS191	\$.70	FS1-MT	\$.70
3/4	FS2	.75	FS291	.85	FS2-MT	.85
1	FS3	.85	FS391	1.00	FS3-MT	1.00

Type FSA						
Size In.	No.	Each	No.	Each	No.	Each
1/2	FSA1	\$.65	FSA191	\$.70	FSA1-MT	\$.70
3/4	FSA2	.75	FSA291	.85	FSA2-MT	.85
1	FSA3	.85	FSA391	1.00	FSA3-MT	1.00

Type FSC						
Size In.	No.	Each	No.	Each	No.	Each
1/2	FSC1	\$.75	FSC191	\$.85	FSC1-MT	\$.85
3/4	FSC2	.90	FSC291	1.10	FSC2-MT	1.10
1	FSC3	1.10	FSC391	1.40	FSC3-MT	1.40

Type FSL						
Size In.	No.	Each	No.	Each	No.	Each
1/2	FSL1	\$.75	FSL191	\$.85	FSL1-MT	\$.85
3/4	FSL2	.90	FSL291	1.10	FSL2-MT	1.10
1	FSL3	1.10	FSL391	1.40	FSL3-MT	1.40

Type FSR						
Size In.	No.	Each	No.	Each	No.	Each
1/2	FSR1	\$.75	FSR191	\$.85	FSR1-MT	\$.85
3/4	FSR2	.90	FSR291	1.10	FSR2-MT	1.10
1	FSR3	1.10	FSR391	1.40	FSR3-MT	1.40

Type FSS						
Size In.	No.	Each	No.	Each	No.	Each
1/2	FSS1	\$.75	FSS191	\$.85	FSS1-MT	\$.85
3/4	FSS2	.90	.....	.....	.....	.....
1	FSS3	1.10	.....	.....	.....	.....

Type FSCA						
Size In.	No.	Each	No.	Each	No.	Each
1/2	FSCA1	\$1.00	FSCA191	\$1.15	FSCA1-MT	\$1.15
3/4	FSCA2	1.25	FSCA291	1.55	FSCA2-MT	1.55
1	FSCA3	1.45	FSCA391	1.90	FSCA3-MT	1.90

Type FSCC						
The hubs at the right in the illustration are 1/2 inch.						
Size In.	No.	Each	No.	Each	No.	Each
1/2	FSCC1	\$1.00	FSCC191	\$1.15	FSCC1-MT	\$1.15
3/4	FSCC21	1.25	.....	.....	.....	.....
1	FSCC31	1.45	.....	.....	.....	.....

FS Series Shallow Type Condulets

Take covers and shallow flush rectangular wiring devices, or receptacles with housings.

Overall dimensions of body, exclusive of hubs: length, 4 $\frac{1}{2}$ inches; width, 2 $\frac{3}{4}$ inches; depth, 1 $\frac{1}{8}$ inches.

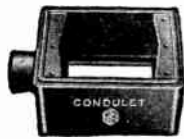
For wiring devices exceeding 1 $\frac{5}{8}$ inches in depth under the fastening ears, use Condulets of the FD series.



Type FSCT



Type FSX



Type FS
Double Face



Type FSC
Double Face

Type FSCT

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	FSCT1	\$1.00	FSCT191	\$1.15	FSCT1-MT	\$1.15
3/4	FSCT2	1.25	FSCT291	1.55	FSCT2-MT	1.50
1	FSCT3	1.45	FSCT391	1.90	FSCT3-MT	1.90

Type FSX

1/2	FSX1	\$1.20	FSX191	\$1.40	FSX1-MT	\$1.40
3/4	FSX2	1.50	FSX291	1.90	FSX2-MT	1.90
1	FSX3	1.70	FSX391	2.30	FSX3-MT	2.30

Type FS, Double Face

1/2	FS152	\$1.15	FS159	\$1.25	FS152-MT	\$1.25
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Type FSC, Double Face

1/2	FSC152	\$1.25	FSC159	\$1.45	FSC152-MT	\$1.45
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FD Series Deep Type Condulets

Take covers and deep or shallow flush rectangular wiring devices, or receptacles with housings.

Overall dimensions of body, exclusive of hubs: length, 4 $\frac{1}{2}$ inches; width, 2 $\frac{3}{4}$ inches; depth, 2 $\frac{3}{4}$ inches.



Type FD

Type FDA

Type FDC

Type FD

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	FD1	\$.75	FD191	\$.80	FD1-MT	\$.80
3/4	FD2	.85	FD291	.95	FD2-MT	.95
1	FD3	1.00	FD391	1.15	FD3-MT	1.15

Type FDA

1/2	FDA1	\$.75	FDA191	\$.80	FDA1-MT	\$.80
3/4	FDA2	.85	FDA291	.95	FDA2-MT	.95
1	FDA3	1.00	FDA391	1.15	FDA3-MT	1.15

Type FDC

1/2	FDC1	\$.85	FDC191	\$.95	FDC1-MT	\$.95
3/4	FDC2	1.05	FDC291	1.25	FDC2-MT	1.25
1	FDC3	1.25	FDC391	1.55	FDC3-MT	1.55

FD Series Deep Type Condulets

Take covers and deep or shallow flush rectangular wiring devices, or receptacles with housings.

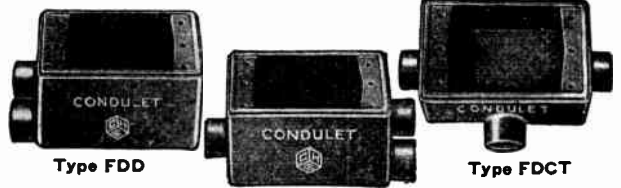
Overall dimensions of body, exclusive of hubs: length, 4 $\frac{1}{2}$ inches; width, 2 $\frac{3}{4}$ inches; depth, 2 $\frac{3}{4}$ inches.



Type FDL

Type FDR

Type FDCA



Type FDD

Type FDCC

Type FDCT



Type FDT



Type FDX

Type FDL

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	FDL1	\$.85	FDL191	\$.95	FDL1-MT	\$.95
3/4	FDL2	1.05	FDL291	1.25	FDL2-MT	1.25
1	FDL3	1.25	FDL391	1.55	FDL3-MT	1.55

Type FDR

1/2	FDR1	\$.85	FDR191	\$.95	FDR1-MT	\$.95
3/4	FDR2	1.05	FDR291	1.25	FDR2-MT	1.25
1	FDR3	1.25	FDR391	1.55	FDR3-MT	1.55

Type FDCA

1/2	FDCA1	\$1.10	FDCA191	\$1.25	FDCA1-MT	\$1.25
3/4	FDCA2	1.35	FDCA291	1.65	FDCA3-MT	1.65
1	FDCA3	1.55	FDCA391	2.00	FDCA3-MT	2.00

Type FDD

1/2	FDD1	\$.85	FDD191	\$.95	FDD1-MT	\$.95
3/4	FDD2	1.05	.....	.....	FDD2-MT	1.25
1	FDD3	1.25	.....	.....	FDD3-MT	1.55

Type FDCC

The hubs at the right in the illustration are 1/2 inch.

1/2	FDCC1	\$1.10	FDCC191	\$1.25	FDCC1-MT	\$1.25
3/4	FDCC2	1.35	.....	.....	FDCC2-MT	1.55
1	FDCC3	1.55	.....	.....	FDCC3-MT	1.80

Type FDCT

1/2	FDCT1	\$1.10	FDCT191	\$1.25	FDCT1-MT	\$1.25
3/4	FDCT2	1.35	FDCT291	1.65	FDCT2-MT	1.65
1	FDCT3	1.55	FDCT391	2.00	FDCT3-MT	2.00

Type FDT

1/2	FDT1	\$1.10	FDT191	\$1.25	FDT1-MT	\$1.25
3/4	FDT2	1.35	FDT291	1.65	FDT2-MT	1.65
1	FDT3	1.55	FDT391	2.00	FDT3-MT	2.00

Type FDX

1/2	FDX1	\$1.30	FDX191	\$1.50	FDX1-MT	\$1.50
3/4	FDX2	1.60	FDX291	2.00	FDX2-MT	2.00
1	FDX3	1.80	FDX391	2.40	FDX3-MT	2.40

FS Series Shallow Type Condulets

Type FS, 2-Gang Tandem



Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	FS17	\$1.65	FS197	\$1.70	FS17-MT	\$1.70
3/4	FS27	1.75	FS297	1.85	FS27-MT	1.85
1	FS37	1.85	FS397	2.00	FS37-MT	2.00

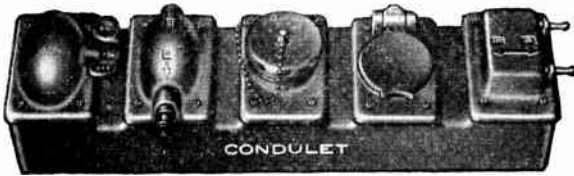
Type FSC, 2-Gang Tandem



1/2	FSC17	\$1.75	FSC197	\$1.85	FSC17-MT	\$1.85
3/4	FSC27	1.85	FSC297	2.05	FSC27-MT	2.05
1	FSC37	1.95	FSC397	2.25	FSC37-MT	2.25

Types FS and FD Multiple Gang Condulets

Without Hubs



Type FS, Five-Gang

With Push Button and Tumbler Switch Covers, and Threaded Cap and Spring Door Housings



Type FS, Two-Gang Tandem



Type FS, Three-Gang

Can be furnished with welded conduit hubs complete with integral bushings or can be drilled on the job and used with locknut and bushing.

Takes all individual covers to make up combination of several devices in one Condulet.

When ordering with welded hubs, specify type (threaded, union, threadless thin wall or threadless thick wall), size, and location of each hub. Furnish description or sketch of hub layout desired.

Number of Gangs	Type FS		Type FD	
	No.	Each	No.	Each
Single	FS01	\$.50	FD01	\$.60
Two-Gang Tandem	FS097	1.25	FD097	1.45
Two-Gang	FS02	1.25	FD02	1.45
Three-Gang	FS03	2.00	FD03	2.30
Four-Gang	FS04	2.75	FD04	3.15
Five-Gang	FS05	3.50	FD05	4.00

Welded Hubs

Size Inches	Threaded		Threadless, Thick Wall or Thin Wall	
	Each	Union Each	Each	Each
1/2	\$.55	\$.90		\$.75
3/4	.60	.90		.85
1	.70	1.10		1.00
*1 1/4	.85	1.60		1.20
*1 1/2	1.00	....		....

*For FD Series only.

Type FS Condulets

With Bosses For Tapping



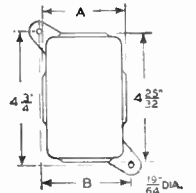
Type FS



Type FS, Two-Gang



Type FS, Three-Gang



No.	Each	Number of Gangs	DIMENSIONS, IN.		
			A	B	Depth
FS019	\$.75	Single	3 1/4	3 1/4	1 31/32
FS029	1.50	Two-Gang	7	7	1 31/32
FS039	2.25	Three-Gang	10 3/4	10 3/4	1 31/32

Drilling and Tapping

Condulets can be drilled and tapped on the job or, if specified, will be drilled and tapped at the factory for the following prices per opening: 1/2 or 3/4-inch, 5 cents; 1-inch, 10 cents.

Type ExF Extensions

For FS and FD Series Condulets



No. ExF11 No. ExF41

No.	Each	Depth Inches
ExF11	\$.50	1
ExF21	1.75	2 1/2
ExF41	2.00	4 5/8

Gaskets for FS and FD Series Condulets

For Use Between Condulets and Covers

Not recommended as watertight.



No. of Gangs	No.		Each
	Rubber	Vellumoid	
1	Gask 91	Gask 412	\$.20
2	Gask 145	Gask 343	.25
3	Gask 135	.....	.30
4	Gask 146	.....	.40

For Use Between Condulets and Vaportight Covers



1	Gask 425	.....	\$ .20
2	Gask 434	.....	.25
3	Gask 460	.....	.30
4	Gask 461	.....	.40

For Use in Threaded Cap of Type BRD Plug Receptacle Housings





No. of Poles	No.	Rubber Each
2	Gask 173	\$.10
3	Gask 144	.10
4	Gask 144	.10



Condulet Covers

For Condulets of the FS and FD Series, and FS Series 2-Gang Tandem


For Double Push Button, Double Push Button Momentary Contact, and Double Push Lock Switches


	No. DS8 DS88	Sheet Steel Each \$.15 .15	Style Surface Flush
	DS8g DS8g	Cast Feraloy—Guarded \$.35 .35	Surface Flush


For G-E, Arrow-H&H, Bryant, and Hubbell Tumbler Flush Switches with Square Handles

	DS32 DSS32	Sheet Steel \$.15 .15	Surface Flush
	DS32g DS32g	Cast Feraloy—Guarded \$.35 .35	Surface Flush

For Round Flush Receptacles

	DS10 DSS10	Sheet Steel—Spring Hinge Lid Diameter opening, 1 $\frac{3}{8}$ inches. \$.60 .60	Surface Flush
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	DS10g DS10g	Cast Feraloy—With Spring Door Diameter opening, 1 $\frac{1}{16}$ inches. \$1.25 1.25	Surface Flush
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	DS21 DSS21	Sheet Steel Diameter opening, 1 $\frac{1}{32}$ inches. \$.15 .15	Surface Flush
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For Standard Duplex Flush Receptacles

	DS23 DSS23	Sheet Steel \$.15 .15	Surface Flush
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For Dugle Tumbler Switches


	DS63 DSS63	Sheet Steel \$.15 .15	Surface Flush
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For Trigle Tumbler Switches

	DS65 DSS65	Sheet Steel \$.15 .15	Surface Flush
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For Despard Wiring Devices

	DS71 DSS71	With 1 Opening—Sheet Steel Furnished with mounting bridge. \$.25 .25	Surface Flush
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	DS72 DSS72	With 2 Openings—Sheet Steel Furnished with mounting bridge. \$.25 .25	Surface Flush
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	DS73 DSS73	With 3 Openings—Sheet Steel Furnished with mounting bridge. \$.25 .25	Surface Flush
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For 30-Ampere Flush Plug Receptacles

	DS35 DSS35	Sheet Steel Diameter cover opening, 1 $\frac{1}{8}$ inches. \$.15 .15	Surface Flush
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Condulet Covers

For Condulets of the FS and FD Series, and FS Series 2-Gang Tandem With Female Brass Nipple

	No. DS18 DS116	Sheet Steel— $\frac{3}{8}$ -Inch Nipple Each \$.40 \$.45	Style Surface Surface
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Blank Covers

	No. DS100 DSS100	Sheet Steel Each \$.10 .10	Style Surface Flush
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Cast Feraloy—With Gasket

	No. DS100g DS100g	Each \$.25 .25	Style Surface Flush
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For Pilot Lamp Flush Receptacles



Sheet Steel Cast Feraloy
Furnished with clear or colored jewels.

Style	Sheet Steel		Cast Feraloy			
	Surface No.	Flush Each	Surface No.	Flush Each		
Ruby.....	DS24	\$1.00	DSS24	\$1.00	DS24g	\$1.25
Olive Green....	DS34	1.00	DSS34	1.00	DS34g	1.25
Emerald.....	DS41	1.00	DSS41	1.00	DS41g	1.25
Canary.....	DS42	1.00	DSS42	1.00	DS42g	1.25
Amethyst.....	DS43	1.00	DSS43	1.00	DS43g	1.25
Amber.....	DS44	1.00	DSS44	1.00	DS44g	1.25
Topaz.....	DS45	1.00	DSS45	1.00	DS45g	1.25
Opal.....	DS46	1.00	DSS46	1.00	DS46g	1.25
Frosted.....	DS47	1.00	DSS47	1.00	DS47g	1.25
Clear.....	DS48	1.00	DSS48	1.00	DS48g	1.25
Blue.....	DS49	1.00	DSS49	1.00	DS49g	1.25

Vaportight Covers

For Condulets of the FS and FD Series, and FS Series 2-Gang Tandem With Switch Operating Mechanism Surface or Flush. Furnished with gasket.

*For External Operation of Double Push Button Switches
Furnished with Handle



No. DS108, Cast Feraloy.....each \$1.75

*For Momentary Contact Switches
Furnished with Handle



No. DS107, Cast Feraloy.....each \$1.75

*For External Operation of Tumbler Switches
For Standard Operation, On or Off



No. DS128, Cast Feraloy.....each \$1.75

For Momentary Contact Operation, Normally On



No. DS126, Cast Feraloy.....each \$1.75

For Momentary Contact Operation, Normally Off

No. DS127, Cast Feraloy.....each \$1.75

*Where the temperature exceeds 125°F., switches furnished with heat-resisting buttons should be used.

Vaportight Covers

For Condulets of the FS and FD Series, and FS Series 2-Gang Tandem With Switch Operating Mechanism

Surface or flush. Furnished with gasket.

*For Standard Tumbler Switches For Standard Operation On or Off



No. DS181, Cast Feraloy.....each \$1.75
For Momentary Contact Switches



No. DS183, Cast Feraloy.....each \$1.75
For External Operation of Tumbler Switches For Standard Operation On or Off



No. DS101



No. DS102



No. DS103

Furnished with switch operating mechanism but without switches. Surface or flush. Furnished with gasket and switch mounting plates.

No.	Each	No. of Switches	Material
DS101	\$1.75	1	Cast Feraloy
DS102	2.50	2	Cast Feraloy
DS103	3.25	3	Cast Feraloy

For Motor Control Push Button Switches



Furnished with buttons for operating motor. Control push button. Standard push. Button switches, surface or flush. Furnished with gasket.

No.	Each	Description	Switch Markings
DS171F	\$1.75	1 Button, Normally Open...	Start
DS171G	1.75	1 Button, Normally Closed..	Stop
DS171	1.75	2 Button, 1 Normally Open, 1 Normally Closed.....	Start, Stop

For Standard Flush Push Button Switches

DS171C \$1.75 2 Button, On and Off..... On, Off

Type DS Receptacles with Housings

For Condulets of the FS and FD Series, and FS Series 2-Gang Tandem

Take Standard Attachment Plugs

Surface or flush.

Housings are furnished with receptacles for standard attachment plug caps.

With Spring Door

15 Amperes, 125 Volts or 10 Amperes, 250 Volts



No.	Each	Material
DS83	\$3.20	Feraloy
DS84	\$3.90	Feraloy
DS91	\$3.90	Feraloy

Without Spring Door

15 Amperes, 125 Volts or 10 Amperes, 250 Volts



No.	Each	Material
DS85	\$1.60	Feraloy
DS86	\$2.30	Feraloy
DS92	\$2.30	Feraloy

*Where the temperature exceeds 125°F., switches furnished with heat-resisting buttons should be used.

†Third pole grounded.

Receptacles for housings listed above are furnished with fastening strap and screws.

Type DS Receptacles with Housings

For Condulets of the FS and FD Series, and FS Series 2-Gang Tandem

Surface or flush.

Housings are furnished with receptacles for standard attachment plug caps.

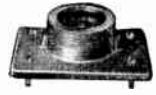
With Threaded Cap

15 Amperes, 125 Volts or 10 Amperes, 250 Volts



Without Threaded Cap

15 Amperes, 125 Volts or 10 Amperes, 250 Volts



Takes Crouse-Hinds Type WP Plug. Furnished with gasket.

No.	Each	Material	No.	Each	Material
DS81	\$2.50	Feraloy	DS87	\$1.75	Feraloy
DS82	\$3.45	Feraloy	DS88	\$2.70	Feraloy
DS90	\$3.45	Feraloy	DS93	\$2.70	Feraloy

Type WP Watertight Plugs



For use with Type DS and Type GS threaded receptacle housings, 15 amperes 125 volts, or 10 amperes 250 volts.

No.	Each	Style	Cord Size Inches
WP721	\$1.50	2-Pole, Tandem Blade.....	.375 to .500
WP821	1.50	2-Pole, Tandem Blade.....	.500 to .625
WP722	1.50	2-Pole, Parallel Blade.....	.375 to .500
WP822	1.50	2-Pole, Parallel Blade.....	.500 to .625
WP731	1.75	3-Pole.....	.375 to .500
WP831	1.75	3-Pole.....	.500 to .625

Plug Receptacle Housing with Receptacle



Plain Housing With Receptacle



Spring Door Housing With Receptacle



Threaded Cap Housing With Receptacle

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Hole in cover, 1/16 inches in diameter.

Receptacle Poles	Style	Plain		Door		Cap	
		No.	Each	No.	Each	No.	Each
2-W., 2-P.	Double T	DS325	\$1.00	DS332	\$1.75	DS339	\$1.50
2-W., 2-P.	Polarized	DS326	1.40	DS333	2.15	DS340	1.70
*2-W., 3-P.	Polarized	DS327	1.75	DS334	2.50	DS341	2.25
3-W., 3-P.	Polarized	DS328	2.00	DS335	2.75	DS342	2.50
2-W., 2-P.	Twistlock	DS329	1.30	DS336	2.05	DS343	1.80
*2-W., 3-P.	Twistlock	DS330	1.90	DS337	2.65	DS344	2.40
3-W., 3-P.	Twistlock	DS331	2.15	DS338	2.90	DS345	2.65

20 Amperes, 125 or 250 Volts

Hole in cover, 1/16 inches in diameter.

2-W., 2-P.	Polarized	DS346	\$1.80	DS354	\$2.55	DS362	\$2.55
*2-W., 3-P.	Polarized	DS347	2.10	DS355	2.85	DS135	4.00
3-W., 3-P.	Polarized	DS348	2.10	DS356	2.85	DS139	4.00
*3-W., 4-P.	Polarized	DS349	2.50	DS357	3.25	.....	.....
4-W., 4-P.	Polarized	DS350	2.50	DS358	3.25	.....	.....
2-W., 2-P.	Twistlock	DS351	1.45	DS359	2.20	DS365	2.20
*2-W., 3-P.	Twistlock	DS352	2.30	DS360	3.05	DS138	4.00
3-W., 3-P.	Twistlock	DS353	2.30	DS361	3.05	DS137	4.00

20 Amperes, 125 or 250 Volts

Hole in cover, 1/8 inches in diameter.

3-W., 4-P.	Twistlock	DS366	\$2.90	DS368	\$3.65	.....	.....
4-W., 4-P.	Twistlock	DS367	2.90	DS369	3.65	.....	.....

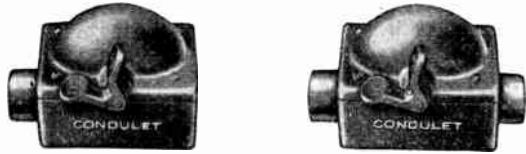
*Third pole grounded.

Receptacles for housings listed above are furnished with fastening strap and screws.

FS Series Push Button Station Condulets Vaportight and Weather Resistant (Raintight)

Furnished with motor control push button switches.
Dimensions over all, exclusive of hubs: Length, 4 1/2 inches;
width, 2 3/4 inches; and depth, 4 inches.

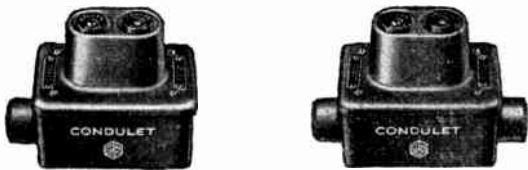
600 Volts, A.C. Maximum
With Rocker Type Operating Handles



Size Hub In.	Type FS				Plate Marking
	D120 Standard Duty		D113 Heavy Duty		
	No.	Each	No.	Each	
1/2	FS1810F	\$5.15	FS1813F	\$7.90	Start
3/4	FS2810F	5.25	FS2813F	8.00	
	One Circuit—Closed				
1/2	FS1810G	\$5.15	FS1813G	\$7.90	Stop
3/4	FS2810G	5.25	FS2813G	8.00	
	Two Circuits—One Open, One Closed				
1/2	FS1810	\$6.15	FS1813	\$8.90	{Start
3/4	FS2810	6.25	FS2813	9.00	
	Two Circuits—Universal				
1/2	FS1810U	\$6.90	FS1813U	\$9.65	{Must be Specified
3/4	FS2810U	7.00	FS2813U	9.75	

Size Hub In.	Type FSC				Plate Marking
	D120 Standard Duty		D113 Heavy Duty		
	No.	Each	No.	Each	
1/2	FSC1810F	\$5.25	FSC1813F	\$8.00	Start
3/4	FSC2810F	5.40	FSC2813F	8.15	
	One Circuit—Closed				
1/2	FSC1810G	\$5.25	FSC1813G	\$8.00	Stop
3/4	FSC2810G	5.40	FSC2813G	8.15	
	Two Circuits—One Open, One Closed				
1/2	FSC1810	\$6.25	FSC1813	\$9.00	{Start
3/4	FSC2810	6.40	FSC2813	9.15	
	Two Circuits—Universal				
1/2	FSC1810U	\$7.00	FSC1813U	\$9.75	{Must be Specified
3/4	FSC2810U	7.15	FSC2813U	9.90	

With Front Operated Push Buttons



Size Hub In.	Type FS				Plate Marking
	D120 Standard Duty		D113 Heavy Duty		
	No.	Each	No.	Each	
1/2	FS1910F	\$5.15	FS1913F	\$7.90	Start
3/4	FS2910F	5.25	FS2913F	8.00	
	One Circuit—Closed				
1/2	FS1910G	\$5.15	FS1913G	\$7.90	Stop
3/4	FS2910G	5.25	FS2913G	8.00	
	Two Circuits—One Open, One Closed				
1/2	FS1910	\$6.15	FS1913	\$8.90	{Start
3/4	FS2910	6.25	FS2913	9.00	
	Two Circuits—Universal				
1/2	FS1910U	\$6.90	FS1913U	\$9.65	{Must be Specified
3/4	FS2910U	7.00	FS2913U	9.75	

Size Hub In.	Type FSC				Plate Marking
	D120 Standard Duty		D113 Heavy Duty		
	No.	Each	No.	Each	
1/2	FSC1910F	\$5.25	FSC1913F	\$8.00	Start
3/4	FSC2910F	5.40	FSC2913F	8.15	
	One Circuit—Closed				
1/2	FSC1910G	\$5.25	FSC1913G	\$8.00	Stop
3/4	FSC2910G	5.40	FSC2913G	8.15	
	Two Circuits—One Open, One Closed				
1/2	FSC1910	\$6.25	FSC1913	\$9.00	{Start
3/4	FSC2910	6.40	FSC2913	9.15	
	Two Circuits—Universal				
1/2	FSC1910U	\$7.00	FSC1913U	\$9.75	{Must be Specified
3/4	FSC2910U	7.15	FSC2913U	9.90	

FS and FD Series Pilot Light Condulets Vaportight and Weather Resistant (Raintight) With Cast Feraloy Cover



Single Pilot Light

Furnished with jewel cover, candelabra type lamp receptacle, 120-volt, 6-watt, S-6 clear lamp, and 50-60 cycle transformer for circuit voltage above 110.

Size Hub Inches	Type FS		Type FSC		Circuit Voltage
	No.	Each	No.	Each	
1/2	*FS180	\$3.25	*FSC180	\$3.35	110
3/4	*FS280	3.35	*FSC280	3.50	110

Size Hub In.	Type FD		Type FDC		Circuit Voltage
	No.	Each	No.	Each	
1/2	*FD181	\$6.35	*FDC181	\$6.45	220
3/4	*FD281	6.45	*FDC281	6.65	220
1/2	*FD182	6.35	*FDC182	6.45	440
3/4	*FD282	6.45	*FDC282	6.65	440
1/2	*FD183	6.35	*FDC183	6.45	550
3/4	*FD283	6.45	*FDC283	6.65	550

*Add the following suffixes to number for jewel color: J1 for ruby; J3 for emerald; J4 for canary; J6 for amber; J10 for clear; J11 for blue; J12 for milky white; J13 for orange.

FS and FD Series Two-Gang Combination Push Button Station and Pilot Light Condulets



Furnished with D120 standard duty, 600-volt, a.c. maximum, start-stop push button switch with front operated push button cover; pilot light receptacle with jewel cover; candelabra type lamp receptacle, 120-volt, 6-watt, S-6 clear lamp; and 50-60 cycle transformer for circuit voltage above 110.

Size Hub Inches	Type FS		Type FSC		Circuit Voltage
	No.	Each	No.	Each	
1/2	*FS1635	\$9.90	*FSC1635	\$10.45	110
3/4	*FS2635	9.95	*FSC2635	10.55	110

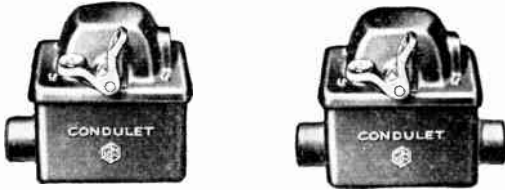
Size Hub Inches	Type FD		Type FDC		Circuit Voltage
	No.	Each	No.	Each	
1/2	*FD1637	\$13.10	*FDC1637	\$13.65	220
3/4	*FD2637	13.15	*FDC2637	13.75	220
1/2	*FD1638	13.10	*FDC1638	13.65	440
3/4	*FD2638	13.15	*FDC2638	13.75	440
1/2	*FD1639	13.10	*FDC1639	13.65	550
3/4	*FD2639	13.15	*FDC2639	13.75	550

*Add the following suffixes to number for jewel color: J1 for ruby; J3 for emerald; J4 for canary; J6 for amber; J10 for clear; J11 for blue; J12 for milky white; J13 for orange.



FD Series Vaportight Secondary Breaker Condulets

Rocker Type Operation
For D.C. or Single Phase A.C. Motors



For Arrow-H. & H.

Size Hub In.	Single Pole		Double Pole		Single Pole		Double Pole	
	No.	Each	No.	Each	No.	Each	No.	Each
1/2	*FD1031	\$6.50	*FD1032	\$7.00	*FDC1031	\$6.60	*FDC1032	\$7.10
3/4	*FD2031	6.60	*FD2032	7.10	*FDC2031	6.80	*FDC2032	7.30
1	*FD3031	6.75	*FD3032	7.25	*FDC3031	7.00	*FDC3032	7.50

For Bryant Type H

1/2	†FD1091	\$6.50	†FD1092	\$7.00	†FDC1091	\$6.60	†FDC1092	\$7.10
3/4	†FD2091	6.60	†FD2092	7.10	†FDC2091	6.80	†FDC2092	7.30
1	†FD3091	6.75	†FD3092	7.25	†FDC3091	7.00	†FDC3092	7.50

For Westinghouse Type H

1/2	†FD1021	\$6.50	†FD1022	\$7.00	†FDC1021	\$6.60	†FDC1022	\$7.10
3/4	†FD2021	6.60	†FD2022	7.10	†FDC2021	6.80	†FDC2022	7.30
1	†FD3021	6.75	†FD3022	7.25	†FDC3021	7.00	†FDC3022	7.50

*Price includes breaker with integral heater.
†Price includes breaker with one interchangeable heater.

Type FAR Arktite Plug Receptacle Housings
For FS and FD Series Condulets, and FS Series 2-Gang Tandem

Take Types AP and APJ Plugs
30 Amperes, 250 Volts D.C., 600 Volts A.C.

Style 1, grounded through shell.
Style 2, grounded through extra pole and shell.



Spring Door



Plain

30 Amperes, 250 Volts, D. C.

Receptacle Poles	Style	Spring Door		Plain	
		No.	Each	No.	Each
2-W., 2-P.	1	FAR321	\$6.25	FAR323	\$5.55
3-W., 3-P.	1	FAR331	6.75	FAR333	6.05
4-W., 4-P.	1	FAR341	7.55	FAR343	6.85
5-W., 5-P.	1	FAR351	8.75	FAR353	8.05

600 Volts A.C.

2-W., 3-P.	2	FAR332	\$7.75	FAR334	\$7.05
3-W., 4-P.	2	FAR342	8.55	FAR344	7.85
4-W., 5-P.	2	FAR352	10.30	FAR354	9.60



Threaded



With Cap

30 Amperes, 250 Volts, D. C.

Receptacle Poles	Style	Threaded		With Cap	
		No.	Each	No.	Each
2-W., 2-P.	1	FAR325	\$5.80	FAR327	\$5.60
3-W., 3-P.	1	FAR335	6.30	FAR334	7.10
4-W., 4-P.	1	FAR345	7.10	FAR347	7.90
5-W., 5-P.	1	FAR355	8.30	FAR357	9.10

600 Volts A.C.

2-W., 3-P.	2	FAR336	\$7.30	FAR338	\$8.10
3-W., 4-P.	2	FAR346	8.10	FAR348	8.90
4-W., 5-P.	2	FAR356	9.75	FAR358	10.55

Type BRD Plug Receptacle Housings
For Condulets of the FS and FD Series, and
FS Series 2-Gang Tandem

Take Type BP Plugs
*30 Amperes, 250 Volts, A.C.

Can be used on Condulets mounted either on the surface or flush with the wall.

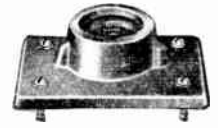
Two-pole housings are furnished with 30-ampere, 250-volt receptacle No. BR302; 3-pole housings are furnished with 30-ampere, 250-volt receptacle No. BR303; and 4-pole housings are furnished with 30-ampere, 250-volt receptacle No. BR304.

With Spring Door



No.	Each	Material
BRD6302	\$4.20	Feraloy
BRD6303	\$4.90	Feraloy
BRD6304	\$5.60	Feraloy

Without Spring Door



No.	Each	Material
BRD302	\$2.60	Feraloy
BRD303	\$3.10	Feraloy
BRD304	\$3.60	Feraloy

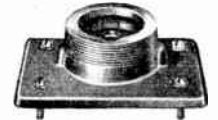
With Threaded Cap



Furnished with gaskets.

No.	Each	Material
BRD8302	\$3.75	Feraloy
BRD8303	\$4.70	Feraloy
BRD8304	\$5.65	Feraloy

Without Threaded Cap



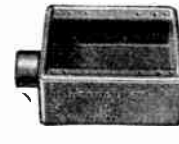
No.	Each	Material
BRD7302	\$2.80	Feraloy
BRD7303	\$3.35	Feraloy
BRD7304	\$3.90	Feraloy

*Can be used on 25-ampere, 125-volt d.c. circuits; or on 30-ampere, 250-volt d.c. circuits if circuit is broken before plug is withdrawn.

FS Series 2-Gang Shallow Type Condulets



Type FS



Type FSE



Type FSC

Take covers and shallow flush rectangular wiring device. Overall dimensions of body, exclusive of hubs: length, 4 1/2 inches; width, 4 5/8 inches; depth, 1 7/8 inches.

For wiring devices exceeding 1 5/8 inches in depth under the fastening ears, use Condulets of the FD series, 2-gang.

Condulets listed can be furnished with flat face (4 1/2 x 4 5/8 x 2 1/8 inches) to take standard wall plates at the same list prices; add suffix S24 to number.

Type FS

Size In.	Threaded Thick Wall		Threadless	
	No.	Each	No.	Each
1/2	FS12	\$1.20	FS192	\$1.25
3/4	FS22	1.30	FS292	1.40
1	FS32	1.40	FS392	1.55

Type FSE

1/2	FSE12	\$1.30	FSE192	\$1.40
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Type FSC

Size In.	Thick Wall		Thin Wall	
	No.	Each	No.	Each
1/2	FSC12	\$1.30	FSC192	\$1.40
3/4	FSC22	1.40	FSC292	1.60
1	FSC32	1.55	FSC392	1.85

FS Series 2-Gang Shallow Type Condulets

Continued



Type FSA



Type FSD



Type FSS

Take covers and shallow flush rectangular wiring devices. Overall dimensions of body, exclusive of hubs: length, $4\frac{1}{2}$ inches; width, $4\frac{5}{8}$ inches; depth, $1\frac{1}{8}$ inches.

For wiring devices exceeding $1\frac{5}{8}$ inches in depth under the fastening ears, use Condulets of the FD series, 2-gang.

Condulets listed can be furnished with flat face ($4\frac{1}{2} \times 4\frac{5}{8} \times 2\frac{1}{8}$ inches) to take standard wall plates at the same list prices; add suffix S24 to number.

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
$\frac{1}{2}$	FSA12	\$1.20	FSA192	\$1.25	FSA12-MT	\$1.25
$\frac{3}{4}$	FSA22	1.30	FSA292	1.40	FSA22-MT	1.40
1	FSA32	1.40	FSA392	1.55	FSA32-MT	1.55
Type FSD						
$\frac{1}{2}$	FSD12	\$1.45	FSD192	\$1.60	FSD12-MT	\$1.60
$\frac{3}{4}$	FSD212	1.55	FSD2192	1.75	FSD212-MT	1.75
*1	FSD312	1.65	FSD3192	1.90	FSD312-MT	1.90
Type FSS						
$\frac{3}{4}$	FSS222	\$1.40	FSS292	\$1.60	FSS22-MT	\$1.60

*The hubs at the top in the illustration are $\frac{1}{2}$ inch.

FD Series 2-Gang Deep Type Condulets



Type FD



Type FDA



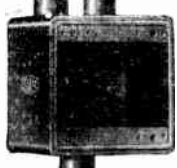
Type FDE



Type FDC



Type FDS



Type FDB

Take covers and deep or shallow flush rectangular wiring devices, or receptacles with housings.

Overall dimensions of body, exclusive of hubs: length, $1\frac{1}{2}$ inches; width, $2\frac{3}{4}$ inches; depth, $2\frac{3}{4}$ inches.

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
$\frac{1}{2}$	FD12	\$1.40	FD192	\$1.45	FD12-MT	\$1.45
$\frac{3}{4}$	FD22	1.50	FD292	1.60	FD22-MT	1.60
1	FD32	1.60	FD392	1.75	FD32-MT	1.75
Type FDA						
$\frac{1}{2}$	FDA12	\$1.40	FDA192	\$1.45	FDA12-MT	\$1.45
$\frac{3}{4}$	FDA22	1.50	FDA292	1.60	FDA22-MT	1.60
1	FDA32	1.60	FDA392	1.75	FDA32-MT	1.75
Type FDE						
$\frac{1}{2}$	FDE12	\$1.50	FDE192	\$1.60	FDE12-MT	\$1.60
Type FDC						
$\frac{1}{2}$	FDC12	\$1.50	FDC192	\$1.60	FDC12-MT	\$1.60
$\frac{3}{4}$	FDC222	1.60	FDC292	1.80	FDC222-MT	1.80
1	FDC32	1.75	FDC392	2.05	FDC32-MT	2.05
Type FDS						
$\frac{3}{4}$	FDS222	\$1.60	FDS292	\$1.80	FDS222-MT	\$1.80
Type FDE						
$\frac{1}{2}$	FDB12	\$1.65	FDB192	\$1.80	FDB12-MT	\$1.80
$\frac{3}{4}$	FDB212	1.75	FDB2192	1.95	FDB212-MT	1.95
*1	FDB312	1.85	FDB3192	2.10	FDB312-MT	2.10

*The hubs at the top in the illustration are $\frac{1}{2}$ -inch.

2-Gang Condulet Covers

For FS and FD Series Condulets, 2-Gang
For Tumbler Flush Switches with Square Handles



No.	Sheet Steel Each	Style
S322	\$.30	Surface Flush
SS322	.30	Surface Flush



No.	Cast Ferrel—Guarded	Style
S322g	\$.65	Surface Flush
SS322g	.65	Surface Flush



No.	Sheet Steel	Style
S32232	\$.50	Surface Flush
SS32232	.50	Surface Flush



No.	Sheet Steel	Style
S32212	\$.50	Surface Flush
SS32212	.50	Surface Flush



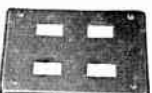
No.	Sheet Steel	Style
S32242	\$1.20	Surface Flush
SS32242	1.20	Surface Flush



No.	Sheet Steel	Style
S21242	\$1.25	Surface Flush
SS21242	1.25	Surface Flush



No.	Sheet Steel	Style
S712	\$.50	Surface Flush
SS712	.50	Surface Flush



No.	Sheet Steel	Style
S722	\$.50	Surface Flush
SS722	.50	Surface Flush



No.	Sheet Steel	Style
S732	\$.50	Surface Flush
SS732	.50	Surface Flush



No.	Sheet Steel	Style
S212	\$.30	Surface Flush
SS212	.30	Surface Flush



No.	Sheet Steel	Style
S232	\$.30	Surface Flush
SS232	.30	Surface Flush



No.	Sheet Steel	Style
S21232	\$.50	Surface Flush
SS21232	.50	Surface Flush



No.	Sheet Steel	Style
S23242	\$1.25	Surface Flush
SS23242	1.25	Surface Flush



No.	Sheet Steel	Style
S1002	\$.20	Surface Flush
SS1002	.20	Surface Flush



No.	Cast Ferrel—With Gasket	Style
S1002g	\$.50	Surface Flush
SS1002g	.50	Surface Flush

2-Gang Vaportight Covers

For FS and FD Series Condulets, 2-Gang With Switch Operating Mechanism

Surface or flush. Furnished with gasket.

***For External Operation of Double Push Button Switches**



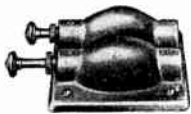
Furnished with Handle

No.	Each	Material
DS1082	\$3.00	Feraloy



***For Momentary Contact Switches**

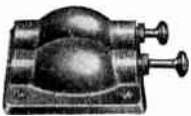
DS1072	\$3.00	Feraloy
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For External Tumbler Switches

For Standard Operation, On or Off

DS1282	\$3.00	Feraloy
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For Momentary Contact Operation Normally On

DS1262	\$3.00	Feraloy
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For Momentary Contact Operation Normally Off

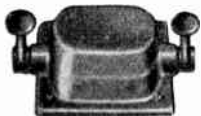
DS1272	\$3.00	Feraloy
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***For Standard Tumbler Switches**

For Standard Operation, On or Off

DS1812	\$3.00	Feraloy
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For Momentary Contact Switches

DS1832	\$3.00	Feraloy
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***For Standard Tumbler Switches**



No. DS1012, Feraloy, For 2 Switches.....each \$3.00
 No. DS1022, Feraloy, For 4 Switches.....each 4.50
 No. DS1032, Feraloy, For 6 Switches.....each 6.00

Type ExF 2-Gang Extensions

For FS and FD Series Condulets, 2-Gang

No.	Extension Depth Inches	Each
ExF12	1	\$1.05
ExF42	1 5/8	2.85



No. ExF 12

*Where the temperature exceeds 125°F., switches furnished with heat-resisting buttons should be used.



No. ExF 42

FS Series 3-Gang Shallow Type Condulets

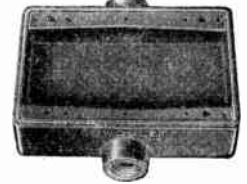
Take covers and shallow flush rectangular wiring devices. Overall dimensions of body, exclusive of hubs: length, 1 9/16 inches; width, 6 1/2 inches; depth, 1 7/8 inches.

Condulets listed can be furnished with flat face (1 1/2 x 6 1/2 x 2 1/16 inches) to take standard wall plates at the same list price; add suffix "S24" to number.

For wiring devices exceeding 1 5/8 inches in depth under the fastening ears, with Condulets of the FD series, 3 gang.



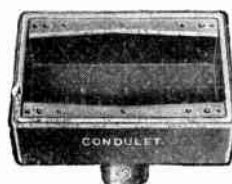
Type FS



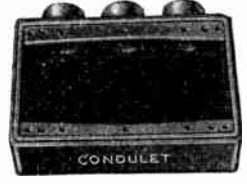
Type FSC

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FS23	\$1.80	FS293	\$1.90	FS23-MT	\$1.90
1	FS33	1.95	FS393	2.10	FS33-MT	2.10

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FSC23	\$1.90	FSC293	\$2.10	FSC23-MT	\$2.10
1	FSC333	2.05	FSC393	2.35	FSC333-MT	2.35
1 1/4	FSC43	2.20				



Type FSA



Type FSS

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FSA23	\$1.80	FSA293	\$1.90	FSA23-MT	\$1.90
1	FSA33	1.95	FSA393	2.10	FSA33-MT	2.10

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FSS23	\$2.05	FSS293	\$2.35	FSS23-MT	\$2.35

FD Series 3-Gang Deep Type Condulets

Take covers and deep or shallow flush rectangular wiring devices.

Overall dimensions of body, exclusive of hubs: length, 1 9/16 inches; width, 6 1/2 inches; depth, 2 3/4 inches.



Type FD



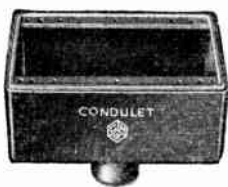
Type FDC

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FD23	\$2.10	FD293	\$2.20	FD23-MT	\$2.20
1	FD33	2.25	FD393	2.40	FD33-MT	2.40

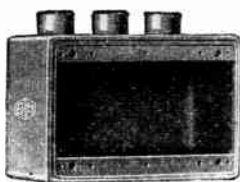
Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FDC23	\$2.20	FDC293	\$2.40	FDC 23-MT	\$2.40
1	FDC333	2.35	FDC393	2.65	FDC333-MT	2.65

FD Series 3-Gang Deep Type Condulets

Continued



Type FDA



Type FDS

Type FDA

Size In.	Threaded Thick Wall		Threadless Thick Wall		Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FDA23	\$2.10	FDA293	\$2.20	FDA23-MT	\$2.20
1	FDA33	2.25	FDA393	2.40	FDA33-MT	2.40

Type FDS

3/4	FDS223	\$2.45	FDS293	\$2.75	FDS223-MT	\$2.75
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3-Gang Condulet Covers

For FS and FD Series, Condulets, 3-Gang
For Tumbler Flush Switches with Square Handles

Sheet Steel



No.	Each	Style
S323	\$.45	Surface
SS323	.45	Flush



No.	Each	Style
S323g	\$1.00	Surface
S323g	1.00	Flush

Blank Metal Covers
Sheet Steel



No.	Each	Style
S1003	\$.40	Surface
SS1003	.40	Flush

Cast Feraloy—with Gasket



No.	Each	Style
S1003g	\$.75	Surface
S1003g	.75	Flush

3-Gang Vaportight Covers

For FS and FD Series Condulets, 3-Gang
With Switch Operating Mechanism
For External Operation of Tumbler Switches



Surface or flush; furnished with gasket.

Where the temperature exceeds 125°F., switches with heat-resisting buttons should be used.

Cast Feraloy

For Standard Operation
"On" and "Off"

No.	Each
DS1283	\$4.25

For Momentary
Contact Operation

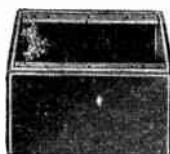
No.	Each	Normally
DS1263	\$4.25	"On"
DS1273	4.25	"Off"

Type ExF 3-Gang Extensions

For FS and FD Series Condulets, 3-Gang



No. ExF13



No. ExF 43

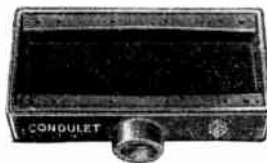
No.	Each	ExF13	ExF43
Each		\$1.45	3.75
Extension Depth		1 inches	4 5/8 inches

FS Series 4-Gang Shallow Type Condulets

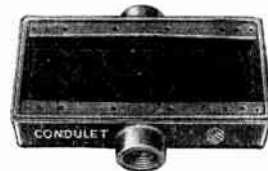
Take covers and shallow flush rectangular wiring devices. Overall dimensions of body, exclusive of hubs: Length, 4 1/2 inches; width, 8 3/8 inches; depth, 1 7/8 inches.

Condulets listed can be furnished with flat face (4 1/2 x 8 3/8 x 2 1/8 inches) to take standard wall plates at the same list prices; add suffix "S24" to number.

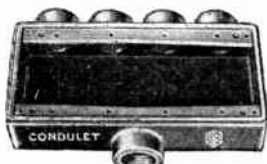
For wiring devices exceeding 1 5/8 inches in depth under the fastening ears, use Condulets of the FD series, 4 gang.



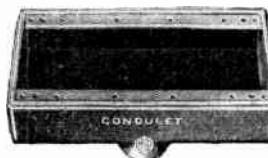
Type FS



Type FSC



Type FSD



Type FSA

Type FS

Size In.	Threaded Thick Wall		Threadless Thick Wall		Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FS24	\$2.20	FS294	\$2.30	FS24-MT	\$2.30
1	FS34	2.40	FS394	2.55	FS34-MT	2.55

Type FSC

Size In.	Threaded Thick Wall		Threadless Thick Wall		Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FSC24	\$2.35	FSC294	\$2.55	FSC24-MT	\$2.55
1	FSC34	2.50	FSC394	2.80	FSC34-MT	2.80

*Type FSD

Size In.	Threaded Thick Wall		Threadless Thick Wall		Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	FSD14	\$2.60	FSD194	\$2.85	FSD14 -MT	\$2.85
3/4	FSD214	2.85	FSD2194	3.15	FSD214-MT	3.15
1	FSD314	3.10	FSD3194	3.45	FSD314-MT	3.45

Type FSA

Size In.	Threaded Thick Wall		Threadless Thick Wall		Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FSA24	\$2.20	FSA294	\$2.30	FSA24-MT	\$2.30
1	FSA34	2.40	FSA394	2.55	FSA34-MT	2.55

*The hubs at the top in the illustration are 1/2-inch.

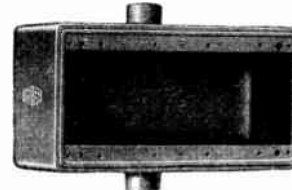
FD Series 4-Gang Deep Type Condulets

Take covers and deep or shallow flush rectangular wiring devices.

Overall dimensions of body, exclusive of hubs: length, 4 1/2 inches; width, 8 3/8 inches; depth, 2 3/4 inches.



Type FD



Type FDC

Type FD

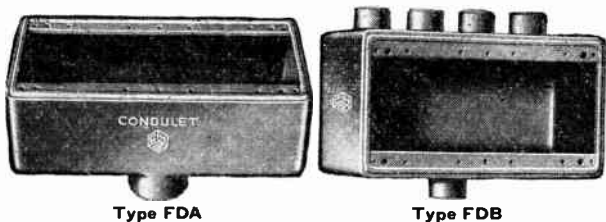
Size In.	Threaded Thick Wall		Threadless Thick Wall		Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FD24	\$2.60	FD294	\$2.70	FD24-MT	\$2.70
1	FD34	2.80	FD394	2.95	FD34-MT	2.95

Type FDC

Size In.	Threaded Thick Wall		Threadless Thick Wall		Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FDC24	\$2.75	FDC294	\$2.95	FDC24-MT	\$2.95
1	FDC34	2.90	FDC394	3.20	FDC34-MT	3.20

FD Series 4-Gang Deep Type Condulets

Continued



Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
3/4	FDA24	\$2.60	FDA294	\$2.70	FDA24-MT	\$2.70
1	FDA34	2.80	FDA394	2.95	FDA34-MT	2.95
*Type FDB						
1/2	FDB14	\$3.00	FDB194	\$3.25	FDB14 -MT	\$3.25
3/4	FDB214	3.25	FDB2194	3.55	FDB214-MT	3.55
1	FDB314	3.50	FDB3194	3.85	FDB314-MT	3.85

*The hubs at the top in the illustration are 1/2-inch.

4-Gang Condulet Covers

For FS and FD Series Condulets, 4-Gang Tumbler Flush Switches with Square Handles
Sheet Steel

No.	Each	Style
S324	\$.60	Surface
SS324	.60	Flush

Cast Feraloy—Guarded

No.	Each	Style
S324g	\$1.40	Surface
S324g	1.40	Flush

Blank Metal Covers

Sheet Steel

No.	Each	Style
S1004	\$.60	Surface
SS1004	.60	Flush

Cast Feraloy—With Gasket

No.	Each	Style
S1004g	\$1.00	Surface
S1004g	1.00	Flush

4-Gang Vaportight Covers



Surface or flush; furnished with gasket. Where the temperature exceeds 125°F., switches with heat-resisting buttons should be used.

For External Operation of Tumbler Switches
Cast Feraloy

For Standard Operation "On" and "Off"		For Momentary Contact Operation		Normally "On" "Off"
No.	Each	No.	Each	
DS1284	\$5.00	DS1264	\$5.00	
		DS1274	5.00	

Type ExF 4-Gang Extensions
For FS and FD Series Condulets 4-Gang

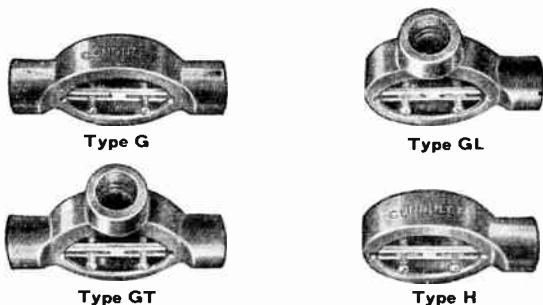


No.	Each	ExF14	ExF44
Extension Depth		inches	1 45/8

G-H Series Condulets

With Adjustable Bar

Take covers or round base wiring devices.



Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	G151	\$.55	G159	\$.65	G151-MT	\$.65
3/4	G252	.65	G259	.85	G252-MT	.85
1	G353	.90				
Form 10						
1/2	G1101	\$.55	G119	\$.65	G1101-MT	\$.65
3/4	G2102	.65	G219	.85	G2102-MT	.85
1	G3103	.90				
Form 20						
1/2	G1201	\$.90				
3/4	G2202	.95				
1	G3203	1.20				

Type GL Form 5

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	GL151	\$.60	GL159	\$.70	GL151-MT	\$.70
3/4	GL252	.70				
1	GL353	.95				
Form 10						
1/2	GL1101	\$.60	GL119	\$.70	GL1101-MT	\$.70
3/4	GL2102	.70				
1	GL3103	.95				
Form 20						
1/2	GL1201	\$.95				
3/4	GL2202	1.05				
1	GL3203	1.35				

Type GT Form 5

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	GT151	\$.75	GT159	\$.90	GT151-MT	\$.90
3/4	GT252	.85	GT259	1.15	GT252-MT	1.15
1	GT353	1.10				
Form 10						
1/2	GT1101	\$.75				
3/4	GT2102	.85				
1	GT3103	1.10				
Form 20						
1/2	GT1201	\$1.10				
3/4	GT2202	1.20				
1	GT3203	1.50				

Type H Form 5

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	H15	\$.45	H159	\$.50	H15-MT	\$.50
3/4	H25	.55	H259	.65		
1	H35	.80				
Form 10						
1/2	H110	\$.45	H119	\$.50	H110-MT	\$.50
3/4	H210	.55				
1	H310	.80				
Form 20						
1/2	H120	\$.80				
3/4	H220	.85				
1	H320	1.10				

Forms 5, 10, and 20 indicate sizes of Condulets which take covers and wiring devices correspondingly classified.

G-H Series Condulets With Adjustable Bar

Take covers or round base wiring devices.

Type GX



Form 5

Type HA



Form 5

Size In.	Threaded Thick Wall	
	No.	Each
1/2	GX151	\$.90
3/4	GX252	1.00
1	GX353	1.35
Form 10		
1/2	GX1101	\$.90
3/4	GX2102	1.00
1	GX3103	1.35
Form 20		
1/2	GX1201	\$1.25
3/4	GX2202	1.40
1	GX3203	1.80

Size In.	Threaded Thick Wall	
	No.	Each
1/2	HA15	\$.50
3/4	HA25	.60
1	HA35	.85
Form 10		
1/2	HA110	\$.50
3/4	HA210	.60
1	HA310	.85
Form 20		
1/2	HA120	\$.85
3/4	HA220	.90
1	HA320	1.20

Covers and Accessories

For G-H Series—With Adjustable Bar
Cover Gasket



Forms 5 and 10			Form 20		
No.	Each	Material	No.	Each	Material
51000	\$.10	Sheet Steel	2000	\$.25	Sheet Steel
51000g	.20	Feraloy	2000g	.35	Feraloy

Gaskets for use between Condulets or adapters, and wiring devices or covers.

G-H Series Condulets Without Adjustable Bar

Take covers or wiring devices.



Type G



Type GL

Size In.	Threaded Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each
1/2	G157	\$.40	G157-MT	\$.50
3/4	G257	.50	G257-MT	.70
1	G357	.75	G357-MT	1.05
Form 10				
1/2	G117	\$.40	G117-MT	\$.50
3/4	G217	.50	G217-MT	.70
1	G317	.75	G317-MT	1.05
Form 20				
1/2	G127	\$.70	G127-MT	\$.80
3/4	G227	.75	G227-MT	.90
1	G327	1.00	G327-MT	1.20

Type GL

Size In.	Threaded Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each
1/2	GL157	\$.45	GL157-MT	\$.55
3/4	GL257	.55	GL257-MT	.75
1	GL357	.80	GL357-MT	1.10
Form 10				
1/2	GL117	\$.45	GL117-MT	\$.55
3/4	GL217	.55	GL217-MT	.75
1	GL317	.80	GL317-MT	1.10
Form 20				
1/2	GL127	\$.75	GL127-MT	\$.85
3/4	GL227	.85	GL227-MT	1.05
1	GL327	1.15	GL327-MT	1.45

G-H Series Condulets Without Adjustable Bar

Take covers or wiring devices.



Type GT



Type H



Type GX



Type HA

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	GT157	\$.60	GT1597	\$.75	GT157-MT	\$.75
3/4	GT257	.70	GT2597	1.00	GT257-MT	1.00
1	GT357	.95	.....	.....	GT357-MT	1.40
Form 10						
1/2	GT117	\$.60	.....	.....	GT117-MT	\$.75
3/4	GT217	.70	.....	.....	GT217-MT	1.00
1	GT317	.95	.....	.....	GT317-MT	1.40
Form 20						
1/2	GT127	\$.90	.....	.....	GT127-MT	\$1.05
3/4	GT227	1.00	.....	.....	GT227-MT	1.30
1	GT327	1.30	.....	.....	GT327-MT	1.75
Type H Form 5						
1/2	H157	\$.30	H1597	\$.35	H157-MT	\$.35
3/4	H257	.40	H2597	.50	H257-MT	.50
1	H357	.65	.....	.....	H357-MT	.80
Form 10						
1/2	H117	\$.30	H1197	\$.35	H117-MT	\$.35
3/4	H217	.40	.....	.....	H217-MT	.50
1	H317	.65	.....	.....	H317-MT	.80
Form 20						
1/2	H127	\$.60	.....	.....	H127-MT	\$.65
3/4	H227	.65	.....	.....	H227-MT	.75
1	H327	.90	.....	.....	H327-MT	1.05

Type GX

Size In.	Threaded Thick Wall		Threadless Thick Wall	
	No.	Each	No.	Each
1/2	GX157	\$.75	.....	.....
3/4	GX257	.85	.....	.....
1	GX357	1.20	.....	.....
Form 10				
1/2	GX117	\$.75	.....	.....
3/4	GX217	.85	.....	.....
1	GX317	1.20	.....	.....
Form 20				
1/2	GX127	\$1.05	.....	.....
3/4	GX227	1.20	.....	.....
1	GX327	1.60	.....	.....

Type HA

Covers and Accessories
For G-H Series Condulets—Without Adjustable Bar



Forms 5 and 10			Form 20		
No.	Each	Material	No.	Each	Material
51000	\$.10	Sheet Steel	2000	\$.25	Sheet Steel
51000g	.20	Feraloy	2000g	.35	Feraloy

Gaskets

For use between Condulets or adapters, and wiring devices or covers.

Forms 5 and 10			Form 20		
No.	Each	Material	No.	Each	Material
Gask21	\$.10	.....	Gask22	\$.15	.....

Forms 5, 10 and 20 indicate sizes of Condulets which take covers and wiring devices correspondingly classified.

Covers and Accessories for G-H Series Condulets

**Without Adjustable Bar
Cast Feraloy Receptacle Covers**



No. H558



No. H559
For 2 1/2-Inch Shades

Takes lamp receptacle No. H557.

No.	Each	Description	Form
H1558	\$.50	No Shade Holder	5
H1559	\$.80	With Shade Holder	5

**No. H557 Lamp Receptacles
Without Connection Block
Without Shade Holder Groove**



No.	Each	Watts	RATING	Volts
H1557	\$.25	600		600

One-piece porcelain. Gasket, No. Gask182, can be used between the Condulet and lamp receptacle, and when so used makes installation weatherproof.

Gaskets



For use between Condulets and wiring devices or covers.

Form 5		Form 10		Form 20	
No.	Each	No.	Each	No.	Each
Gask120	\$.10	Gask121	\$.10	Gask107	\$.15
Gask182	.15				



**Midget Guard Fixtures Complete
Form 20
Weatherproof**

Consists of holder, GH120; guard receptacle, C337; and gaskets.

No.	Each	Length Guard Inches	Size Lamps Watts
GH125	\$2.65	5 1/4	60
GH26	3.10	6	100

**Type H Flexible Fixture Hangers
For Form 10 G-H Series Condulets
Without Adjustable Bar
For Pendant Fixtures**



Size of fixture stem, 1/2-inch.

No.	Each	Weight Pounds	No.	Each	Weight Pounds
H1064	\$.65	2-4	H1102	\$.90	2-4
H1066	.65	4-8	H1103	.90	4-8
H1067	.65	8-16	H1104	.90	8-16
H1068	.65	16-30	H1111	.90	16-30

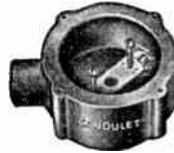
GS Series Condulets

With Fastening Strap for Wiring Devices

Take covers, fixtures, round base snap switches, vapor-tight fixtures, receptacles with housings, or connection blocks.

Type GS

Type GSA



Form 5



Form 5

Size In.	No.	Each	Size In.	No.	Each
1/2	GS15	\$.90	1/2	GSA15	\$.90
3/4	GS25	1.05	3/4	GSA25	1.05
1	GS35	1.25	1	GSA35	1.25
Form 10					
1/2	GS110	\$.90	1/2	GSA110	\$.90
3/4	GS210	1.05	3/4	GSA210	1.05
1	GS310	1.25	1	GSA310	1.25
Form 20					
1/2	GS120	\$1.50	1/2	GSA120	\$1.50
3/4	GS220	1.65	3/4	GSA220	1.65
1	GS320	1.85	1	GSA320	1.85

Type GSC

Type GSL



Form 5



Form 5

Size In.	No.	Each	Size In.	No.	Each
1/2	GSC15	\$1.00	1/2	GSL15	\$1.00
3/4	GSC25	1.15	3/4	GSL25	1.15
1	GSC35	1.35	1	GSL35	1.35
Form 10					
1/2	GSC110	\$1.00	1/2	GSL110	\$1.00
3/4	GSC210	1.15	3/4	GSL210	1.15
1	GSC310	1.35	1	GSL310	1.35
Form 20					
1/2	GSC120	\$1.60	1/2	GSL120	\$1.60
3/4	GSC220	1.75	3/4	GSL220	1.75
1	GSC320	1.95	1	GSL320	1.95

Type GST

Type GSX



Form 5



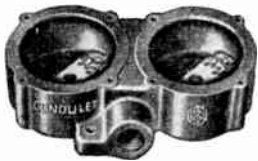
Form 5

Size In.	No.	Each	Size In.	No.	Each
1/2	GST15	\$1.20	1/2	GSX15	\$1.35
3/4	GST25	1.35	3/4	GSX25	1.50
1	GST35	1.55	1	GSX35	1.80
Form 10					
1/2	GST110	\$1.20	1/2	GSX110	\$1.35
3/4	GST210	1.35	3/4	GSX210	1.50
1	GST310	1.55	1	GSX310	1.80
Form 20					
1/2	GST120	\$1.80	1/2	GSX120	\$1.95
3/4	GST220	2.00	3/4	GSX220	2.20
1	GST320	2.30	1	GSX320	2.70

Forms 5, 10, and 20 indicate sizes of Condulets which take covers and wiring devices correspondingly classified. If specified on order, GS Series Condulets will be furnished with lugs, 15 cents extra.

GS Series 2-Gang Condulets with Lugs

Take covers, fixtures, round base snap switches, vapor-tight fixtures, plug receptacle housings, or connection blocks. Furnished with fastening straps for wiring devices.



Type GSB



Type GSD



Type GSE



Type GSC

Type GSB 2-Gang

Form	No.	Each	Size Inches
Form 5	GSB1529	\$2.10	1/2
	GSB2529	2.40	3/4
	GSB3529	2.80	1
Form 10	GSB1129	2.10	1/2
	GSB2129	2.40	3/4
	GSB3129	2.80	1
Form 20	GSB1229	3.30	1/2
	GSB2229	3.60	3/4
	GSB3229	4.00	1

Type GSD 2-Gang

Form	No.	Each	Size Inches
Form 5	GSD1529	\$2.30	1/2
	GSD2529	2.60	3/4
	GSD3529	3.00	1
Form 10	GSD1129	2.30	1/2
	GSD2129	2.60	3/4
	GSD3129	3.00	1
Form 20	GSD1229	3.50	1/2
	GSD2229	3.80	3/4
	GSD3229	4.20	1

Type GSE 2-Gang

Form	No.	Each	Size Inches
Form 5	GSE1529	\$2.10	1/2
	GSE2529	2.40	3/4
	GSE3529	2.80	1
Form 10	GSE1129	2.10	1/2
	GSE2129	2.40	3/4
	GSE3129	2.80	1
Form 20	GSE1229	3.30	1/2
	GSE2229	3.60	3/4
	GSE3229	4.00	1

Type GSC 2-Gang

Form	No.	Each	Size Inches
Form 5	GSC1529	\$2.30	1/2
	GSC2529	2.60	3/4
	GSC3529	3.00	1
Form 10	GSC1129	2.30	1/2
	GSC2129	2.60	3/4
	GSC3129	3.00	1
Form 20	GSC1229	3.50	1/2
	GSC2229	3.80	3/4
	GSC3229	4.20	1

Covers for GS Series Condulets

Vaportight Switch Covers

Furnished with gasket.



No.	Each	Form	Max. Diam. Base In.
GS58	\$1.30	5	2 1/16
GS108	1.30	10	2 11/16
GS208	2.00	20	3 7/8

Forms 5, 10 and 20 indicate sizes of Condulets which take covers and wiring devices correspondingly classified. Also available in GS 3-gang series.

Covers for GS Series Condulets

Blank Covers

Furnished with gasket.

No.	Each	Form
GS50	\$.50	5
GS100	.50	10
GS200	.90	20
Without Gasket		
GS50a	\$.40	5
GS100a	.50	10
GS200a	.75	20

Forms 5, 10, and 20 indicate sizes of Condulets which take covers and wiring devices correspondingly classified.

Lamp Receptacles for GS Series Condulets

Keyless—Composition

660 Watts, 600 Volts

No.	Without Lamp Grip Each	With Lamp Grip Each	Form
GS59	\$.50	...	5
GS569	...	\$.60	5

No. GS549 Key Receptacle

Armored—With Lamp Grip

250 Watts, 250 Volts

No.	Each	Form
GS549	\$2.00	5

No. GS1631 Midget Guard Fixtures

For GS Series Condulets

Consists of holder, guard, receptacle and gaskets.



No.	Each	Length Guard In.	Form
GS1631	\$3.40	5 1/4	10

Connection Blocks

For GS Series Condulets

Composition

20 Amperes, 125 Volts

No.	Each	Form
CF210	\$.65	10 and 20
CF209	\$.85	20

No. GS34 Fuse Block

For GS Series Condulets

Composition

Main Line, Two-Pole

30 Amperes, 250 Volts

No.	Each	Form
GS34	\$.75	20

Type GS Flexible Fixture Hangers

For GS Series Condulets

For Pendant Fixtures



Size of fixture stem, 1/2-inch.

No.	Each	Weight Pounds	No.	Each	Weight Pounds
GS1302	\$1.20	2-4	GS1064	\$.85	2-4
GS1303	1.20	4-8	GS1066	.85	4-8
GS1304	1.20	8-16	GS1067	.85	8-16
GS1311	1.20	16-30	GS1068	.85	16-30

Forms 5, 10, and 20 indicate sizes of Condulets which take covers and wiring devices correspondingly classified.

Type GS Plug Receptacles with Housings

**Cast Feraloy
For GS Series Condulets**

15 Amperes, 125 Volts or 10 Amperes, 250 Volts

For standard attachment plug caps.



With Spring Door



Without Spring Door



With Threaded Cap

With Spring Door

Form	2-Wire, 2-Pole		2-Wire, 3-Pole		3-Wire, 3-Pole	
	No.	Each	No.	Each	No.	Each
5	GS583	\$3.10	GS584	\$3.80	GS591	\$3.80
10	GS183	3.10	GS184	3.80	GS191	3.80
20	GS283	3.70	GS284	4.40	GS291	4.40

Without Spring Door

5	GS585	\$1.50	GS586	\$2.20	GS592	\$2.20
10	GS185	1.50	GS186	2.20	GS192	2.20
20	GS285	2.10	GS286	2.80	GS292	2.80

With Threaded Cap

Furnished with gasket.

5	GS581	\$2.65	GS582	\$3.35	GS590	\$3.35
10	GS181	2.65	GS182	3.35	GS190	3.35
20	GS281	3.25	GS282	3.95	GS290	3.95

*Third pole grounded.

†Take Type WP watertight plug.

Type BRG Plug Receptacle Housings

For GS Series Condulets

*30 Amperes, 250 Volts A.C.

These housings take type BP plugs.



With Spring Door



Without Spring Door



With Threaded Cap

With Spring Door

Form	2-Pole		3-Pole		4-Pole	
	No.	Each	No.	Each	No.	Each
5	BRG56302	\$4.10				
10	BRG16302	4.10	BRG16303	\$5.05	BRG16304	\$5.90
20	BRG26302	4.70	BRG26303	5.55	BRG26304	6.40

Without Spring Door

10	BRG1302	\$2.50	BRG1303	\$3.25	BRG1304	\$3.90
20	BRG2302	3.10	BRG2303	3.75	BRG2304	4.40

With Threaded Cap

Furnished with gasket.

10	BRG18302	\$3.65	BRG18303	\$4.85	BRG18304	\$5.95
20	BRG28302	4.25	BRG28303	5.35	BRG28304	6.45

For Flexible Conductor, Flexible Conduit, or

Armored Conductor

†Without Clamping Nut

*30 Amperes, 250 Volts A.C.



Furnished with cable clamp, cast aluminum handle (non-watertight).

Diam. Opening in Cable

Clamp, Inches	2-Pole		3-Pole		4-Pole	
	No.	Each	No.	Each	No.	Each
.500 to .875	BP532	\$2.85				
.625 to 1.125			BP533	\$3.75	BP534	\$4.50

*Can be used on 25-ampere, 125-volt, d.c. circuits; or on 30-ampere, 250-volt, d.c. circuits if circuit is broken before plug is withdrawn.

†Also available with clamping nut.

Type GS Vaportight Fixtures

For GS Series Form 20 Condulets

Screw Guard Type

Form 100 is furnished with No. V75 and No. V911 guard, and takes 50, 60, 75, or 100-watt lamps.

Form 200 is furnished with No. V200 globe and No. V912 guard, and takes 150 or 200-watt lamps.



Pendant Type



Bracket Type

Form	Pendant Type		Bracket Type	
	No.	Each	No.	Each
100	GS675	\$4.75	GS6	\$2.15
200	GS8200	5.50	GS8	2.45
100	GS775	\$4.75	GS7	\$2.15
200	GS9200	5.50	GS9	2.45

SE Series Condulets

Take 3/4-inch outlet box round base wiring devices.

Type SE



Size In.	No.	Each
1/2	SE1	\$.80
3/4	SE2	.90
1	SE3	1.10

Type SEC



Size In.	No.	Each
1/2	SEC1	\$.95
3/4	SEC2	1.05
1	SEC3	1.25

Type SET



Size In.	No.	Each
1/2	SET1	\$1.05
3/4	SET2	1.15
1	SET3	1.35

Type SEX



Size In.	No.	Each
1/2	SEX1	\$1.15
3/4	SEX2	1.25
1	SEX3	1.45

SEH Series Condulets

Take 4-inch outlet box round base wiring devices or SEH covers.

Type SEH



Size In.	No.	Each
1/2	SEH1	\$.80
3/4	SEH2	.90
1	SEH3	1.10

Type SEHC



Size In.	No.	Each
1/2	SEHC1	\$.95
3/4	SEHC2	1.05
1	SEHC3	1.25

Type SEHT



Size In.	No.	Each
1/2	SEHT1	\$1.05
3/4	SEHT2	1.15
1	SEHT3	1.35

Type SEHX



Size In.	No.	Each
1/2	SEHX1	\$1.15
3/4	SEHX2	1.25
1	SEHX3	1.45

Covers and Gaskets

For SE and SEH Series Condulets

Covers can be used with or without gaskets.

Blank Covers

No.	Each	No.	Each	Material	Size Hub In.
SE1000	\$.15	SE1100	.30	Sheet Steel	..
SE100	\$.65	SE1100	.30	Feraloy	..

Hub Covers

SE83	\$.70	SE1183	\$.65	Feraloy	3/8
SE84	.70	SE1184	.65	Feraloy	1/2

Gaskets

For use between condulets and covers or wiring devices.

Gask156	\$.20	Gask202	\$.20
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SK Series Condulets

For Concealed Installations in Concrete

Take covers, vaportight fixtures, or 2 1/4-inch outlet box round base wiring devices with 2 3/4-inch screw centers.

A gasket is made for use with blank covers, so that when used with SK Series Condulets, an excellent watertight junction is provided.

Type SK

Size In.	2-Inch Depth		3-Inch Depth	
	No.	Each	No.	Each
1/2	SK12	\$1.00	SK13	\$1.15
3/4	SK22	1.10	SK23	1.25
1	SK32	1.20	SK33	1.35

Type SKC

1/2	SKC12	\$1.10	SKC13	\$1.25
3/4	SKC22	1.20	SKC23	1.35
1	SKC32	1.30	SKC33	1.45

Type SKL

1/2	SKL12	\$1.10	SKL13	\$1.25
3/4	SKL22	1.20	SKL23	1.35
1	SKL32	1.30	SKL33	1.45

Type SKT

1/2	SKT12	\$1.20	SKT13	\$1.35
3/4	SKT22	1.30	SKT23	1.45
1	SKT32	1.40	SKT33	1.55

Type SKX

1/2	SKX12	\$1.30	SKX13	\$1.45
3/4	SKX22	1.40	SKX23	1.55
1	SKX32	1.50	SKX33	1.65

Covers and Gaskets

For SK Series Condulets

Blank Covers

No.	Each	Material	Size Hub In.
SK809	\$.30	Cast Feraloy	..

Hub Covers

SK83	\$.65	Cast Feraloy	3/8
SK84	.65	Cast Feraloy	1/2
SK86	.75	Cast Feraloy	3/4

Gaskets

For use between Condulets and wiring devices or covers.

Gask208	\$.25
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Type ARB Vaportight Industrial Lighting Fixtures

For SK Series Condulets, or 3/4 or 4-Inch Outlet Boxes

Screw Guard Type



Form 100 is furnished with No. V75 globe and No. V911 guard, and takes 50, 60, 75 or 100-watt lamps.

Form 200 is furnished with No. V200 globe and No. V912 guard, and takes 150 or 200-watt lamps.

Form	With Globe and Guard		Without Globe and Guard	
	No.	Each	No.	Each
100	ARB31	\$4.10	ARB32	\$1.50
200	ARB33	4.75	ARB34	1.70

Forms 100 and 200 indicate sizes of vaportight fixtures. Accessories and parts are correspondingly classified.

If specified, lamp receptacle with lamp grip will be furnished at an advance of 10 cents in list price.

If specified, pigtail receptacle will be furnished at an advance of 45 cents in list price.

GRF Series Condulets



Body Only With Lugs

GRF Series Condulets take flush or surface covers, vaportight lighting fixtures, fixture hangers and receptacles with housings.



Body Only Without Lugs

Bodies Only—Without Tapping Cast Feraloy

Inside Depth In.	Without Lugs		With Lugs	
	No.	Each	No.	Each
1 1/2	GRF1	\$.50	GRF19	\$.60
2 1/4	GRF2	.70	GRF29	.80
3	GRF3	1.20	GRF39	1.30

Brass

1 1/2	GRF1B	\$1.45	GRF19B	\$1.70
2 1/4	GRF2B	2.00	GRF29B	2.25
3	GRF3B	3.50	GRF39B	3.75

Indicate size and location of holes to be drilled and tapped. Add 5 cents each for 1/2 or 3/4-in. holes and 10 cents for 1-inch holes.

Covers for GRF Series Condulets

Blank Metal Covers

No.	Surface		No.	Flush		Material
	Each	Each		Each	Each	
GRF10	\$.30		GRF50	\$.40		Feraloy
GRF10B	.60		GRF50B	.80		Brass

Hub Covers

No.	Surface		No.	Flush		Material	Size Hub In.
	Each	Each		Each	Each		
GRF11	\$.40		GRF51	\$.50		Feraloy	1/8
GRF11B	.90		GRF51B	1.10		Brass	1/2
GRF12	.50		GRF52	.60		Feraloy	3/4
GRF12B	1.10		GRF52B	1.35		Brass	3/4

Gaskets

Gask643	\$.10		GRF643	\$.10		Rubber
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Type ARB Flexible Fixture Hangers

For Pendant Fixtures with 1/2-Inch Stems
Cushion Hanger

Image	Surface		Flush		Weight Pounds
	No.	Each	No.	Each	
	ARB142	\$.75	ARB144	\$.85	2 to 4
	ARB82	.75	ARB84	.85	4 to 8
	ARB102	.75	ARB104	.85	8 to 16
	ARB122	.75	ARB124	.85	16 to 30

Type ARB Receptacles with Housings



Take Type BP plugs.

With Spring Door

2-pole Surface		3-pole Surface		4-pole Surface		Material
No.	Each	No.	Each	No.	Each	
ARB321	\$4.45	ARB331	\$5.40	ARB341	\$6.25	Feraloy
ARB3021	8.00	ARB3031	9.50	ARB3041	10.80	Brass

Flush

ARB221	\$4.55	ARB231	\$5.50	ARB241	\$6.35	Feraloy
ARB2021	8.25	ARB2031	9.75	ARB2041	11.05	Brass

Without Spring Door

ARB323	\$2.85	ARB333	\$3.60	ARB343	\$4.25	Feraloy
ARB3023	4.40	ARB3033	5.50	ARB3043	6.30	Brass

Flush

ARB223	\$2.95	ARB233	\$3.70	ARB243	4.35	Feraloy
ARB2023	4.65	ARB2033	5.75	ARB2043	6.55	Brass

With Threaded Cap

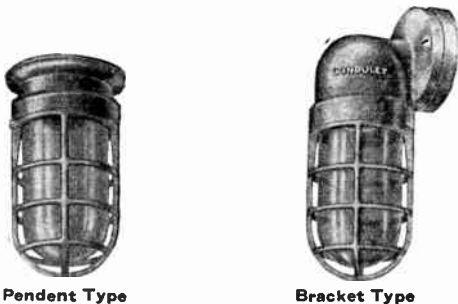
2-pole Surface		3-pole Surface		4-pole Surface		Material
No.	Each	No.	Each	No.	Each	
ARB327	\$4.00	ARB337	\$5.20	ARB347	\$6.30	Feraloy
ARB3027	5.85	ARB3037	7.40	ARB3047	8.95	Brass

Flush

ARB227	\$4.10	ARB237	\$5.30	ARB247	\$6.40	Feraloy
ARB2027	6.10	ARB2037	7.65	ARB2047	9.20	Brass

Type ARB Vaportight Industrial Lighting Fixtures

For Surface or Flush Mounted GRF Series Condulets
Screw Guard Type



Pendant Type

Bracket Type

Form 100 is furnished with No. V75 globe and No. V911 guard, and takes 50, 60, 75, or 100-watt lamps.

Form 200 is furnished with No. V200 globe and No. V912 guard, and takes 150 or 200-watt lamps.

Made of cast Feraloy.

Form	Style	With Globe and Guard			
		Pendant Type		Bracket Type	
		No.	Each	No.	Each
100	Surface	ARB91	\$4.75	ARB95	\$4.50
100	Flush	ARB58	4.75	ARB54	4.50
200	Surface	ARB93	5.50	ARB97	5.15
200	Flush	ARB59	5.50	ARB56	5.15

J-K Series Condulets



Type J

Type K

Take wiring devices or blank covers.

Size In.	Threaded Thick Wall		Threadless Thick Wall		Threadless Thin Wall	
	No.	Each	No.	Each	No.	Each
1/2	J1	\$.60	J19	\$.80	J1MT	\$.80
3/4	J2	.75	J29	1.00	J2MT	1.00
1	J3	1.05				
			Type K			
1/2	K1	\$.50	K19	\$.60	K1MT	\$.60
3/4	K2	.65				
1	K3	.95				

Wiring Devices for J-K Series Condulets

2-Pole Attachment Plug Receptacles

15 Amperes, 125 Volts or 10 Amperes, 250 Volts

No.	Each	Material
CC5	\$.50	Porcelain
CC35		
		IT-Slots
	\$.50	Porcelain

2-Pole Polarity Plug Receptacles

20 Amperes, 250 Volts

No.	Each	Material
CC20	\$.65	Porcelain

***3-Pole Attachment Plug Receptacles**

15 Amperes, 125 Volts or 10 Amperes, 250 Volts

No.	Each	Material
CC13	\$.70	Porcelain
		3-Wire
CC17	\$.75	Porcelain
		2-Wire

2-Pole Twist Lock Receptacles

20 Amperes, 250 Volts

No.	Each	Material
CC16	\$.75	Porcelain

Lamp Receptacles

660 Watts, 600 Volts

No.	Each	Material
CC227g	\$.45	Porcelain

Without Shade Holder Groove

CC227	\$.40	Porcelain
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Cord Rosettes

660 Watts, 250 Volts

No.	Each	Material
CC332	\$.50	Porcelain

*Extra pole grounded.

For lamp receptacle with lamp grip, add 10 cents.

Cover—Twistlock

15 Amperes, 125 Volts, or 10 Amperes, 250 Volts

No.	Each	Description
CC22	\$1.50	Cast aluminum cover, composition receptacle.
CC24	1.50	3-Wire, 3-Pole 2-Wire, 3-Pole (Extra pole grounded)

Cover—Blank

Feraloy.		
J100	\$.30	Gasket

For use between Condulets and wiring devices or covers.

Gask71	\$.10	
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Vaportight Industrial Lighting Condulets

V and VH Series—Clamp Guard Type

Cast aluminum guards. Cast Feraloy Condulets.
 Form 100 is furnished with No. V75 globe and No. V97 guard, and takes 50, 60, 75, or 100-watt lamps.
 Form 200 is furnished with No. V200 globe and No. VH99 guard, and takes 150 or 200-watt lamps.



Types V and VH

Type V Form 100

Size In.	With Globe and Guard		Without Globe and Guard	
	No.	Each	No.	Each
1/2	V189	\$4.50	V1	\$1.90
3/4	V289	4.55	V2	1.95
1	V389	4.60	V3	2.00

Type VH Form 200

1/2	VH189	\$5.40	VH1	\$2.35
3/4	VH289	5.45	VH2	2.40
1	VH389	5.50	VH3	2.45

Type VC Form 100

1/2	VC1189	\$4.60	VC11	\$2.00
3/4	VC2289	4.70	VC22	2.10
1	VC3389	4.80	VC33	2.20

Type VHC Form 200

1/2	VHC1189	\$5.50	VHC11	\$2.45
3/4	VHC2289	5.60	VHC22	2.55
1	VHC3389	5.65	VHC33	2.60

Type VL Form 100

1/2	VL1189	\$4.60	VL11	\$2.00
3/4	VL2289	4.70	VL22	2.10
1	VL3389	4.80	VL33	2.20

Type VHL Form 200

1/2	VHL1189	\$5.50	VHL11	\$2.45
3/4	VHL2289	5.60	VHL22	2.55
1	VHL3389	5.65	VHL33	2.60

Type VT Form 100

1/2	VT11189	\$4.75	VT111	\$2.15
3/4	VT22289	4.85	VT222	2.25
1	VT33389	5.05	VT333	2.45

Type VHT Form 200

1/2	VHT11189	\$5.60	VHT111	\$2.55
3/4	VHT22289	5.75	VHT222	2.70
1	VHT33389	5.85	VHT333	2.80

Type VDA Form 100

1/2	VDA189	\$4.50	VDA1	\$1.90
3/4	VDA289	4.55	VDA2	1.95
1	VDA389	4.60	VDA3	2.00

Type VHDA Form 200

1/2	VHDA189	\$5.40	VHDA1	\$2.35
3/4	VHDA289	5.45	VHDA2	2.40
1	VHDA389	5.50	VHDA3	2.45

Forms 100 and 200 indicate sizes of condulets. Accessories and parts are correspondingly classified.

If specified on the order, lamp receptacle with lamp grip will be furnished at an advance of 10 cents in the list price.

If specified on the order, pigtail receptacle will be furnished at an advance of 45 cents in the list price.

These Condulets can be equipped with externally operated switch at an advance of \$1.00 in the list price.

Vaportight Industrial Lighting Condulets

V and VH Series—Clamp Guard Type

Continued

Cast aluminum guards. Cast Feraloy Condulets.

Form 100 is furnished with No. V75 globe and No. V97 guard, and takes 50, 60, 75, or 100-watt lamps.

Form 200 furnished with No. V200 globe and No. VH99 guard, takes 150 or 200-watt lamps.

Type VJ Form 100

Size In.	With Globe and Guard		Without Globe and Guard	
	No.	Each	No.	Each
1/2	VJ1189	\$5.15	VJ11	\$2.55
3/4	VJ2289	5.25	VJ22	2.65
1	VJ3389	5.35	VJ33	2.75

Type VHJ Form 200

1/2	VHJ1189	\$5.90	VHJ11	\$2.85
3/4	VHJ2289	6.00	VHJ22	2.95
1	VHJ3389	6.10	VHJ33	3.05

Type VG Form 100

1/2	VG189	\$4.75	VG1	\$2.15
3/4	VG289	4.85	VG2	2.25
1	VG389	4.95	VG3	2.35

Type VHG Form 200

1/2	VHG189	\$5.50	VHG1	\$2.45
3/4	VHG289	5.60	VHG2	2.55
1	VHG389	5.70	VHG3	2.65

Type VE Form 100

1/2	VE189	\$4.75	VE1	\$2.15
3/4	VE289	4.85	VE2	2.25
1	VE389	4.95	VE3	2.35

Type VHE Form 200

1/2	VHE189	\$5.50	VHE1	\$2.45
3/4	VHE289	5.60	VHE2	2.55
1	VHE389	5.70	VHE3	2.65

V Series—Screw Guard Type

Form 100 is furnished with No. V75 globe and No. V911 guard, and takes 50, 60, 75, or 100-watt lamps.

Form 200 furnished with No. V200 globe and No. V912 guard, takes 150 or 200-watt lamps.

Type V Form 100

1/2	V1759	\$4.50	V175	\$1.90
3/4	V2759	4.55	V275	1.95
1	V3759	4.60	V375	2.00

Type V Form 200

1/2	V12009	\$5.40	V1200	\$2.35
3/4	V22009	5.45	V2200	2.40
1	V32009	5.50	V3200	2.45

Type VC Form 100

1/2	VC1759	\$4.60	VC175	\$2.00
3/4	VC2759	4.70	VC275	2.10
1	VC3759	4.80	VC375	2.20

Type VC Form 200

1/2	VC12009	\$5.50	VC1200	\$2.45
3/4	VC22009	5.60	VC2200	2.55
1	VC32009	5.65	VC3200	2.60

Type VL Form 100

1/2	VL1759	\$4.60	VL175	\$2.00
3/4	VL2759	4.70	VL275	2.10
1	VL3759	4.80	VL375	2.20

Type VL Form 200

1/2	VL12009	\$5.50	VL1200	\$2.45
3/4	VL22009	5.60	VL2200	2.55
1	VL32009	5.65	VL3200	2.60



Types VJ and VHJ



Types VG and VHG



Types VE and VHE



Type V



Type VC



Type VL

Vaportight Industrial Lighting Condulets

Accessories and Parts

V Series—Screw Guard Type

Continued



Type VT

Form 100

Size In.	With Globe and Guard		Without Globe and Guard	
	No.	Each	No.	Each
1/2	VT1759	\$4.75	VT175	\$2.15
3/4	VT2759	4.85	VT275	2.25
1	VT3759	5.05	VT375	2.45

Form 200

1/2	VT12009	\$5.60	VT1200	\$2.55
3/4	VT22009	5.75	VT2200	2.70
1	VT32009	5.85	VT3200	2.80



Type VX

Form 100

1/2	VX1759	\$4.85	VX175	\$2.25
3/4	VX2759	5.05	VX275	2.45
1	VX3759	5.20	VX375	2.60

Form 200

1/2	VX12009	\$5.70	VX1200	\$2.65
3/4	VX22009	5.90	VX2200	2.85
1	VX32009	6.05	VX3200	3.00



Type VDA

Form 100

1/2	VDA1759	\$4.50	VDA175	\$1.90
3/4	VDA2759	4.55	VDA275	1.95
1	VDA3759	4.60	VDA375	2.00

Form 200

1/2	VDA12009	\$5.40	VDA1200	\$2.35
3/4	VDA22009	5.45	VDA2200	2.40
1	VDA32009	5.50	VDA3200	2.45



Type VJ

Form 100

1/2	VJ1759	\$5.15	VJ175	\$2.55
3/4	VJ2759	5.25	VJ275	2.65
1	VJ3759	5.35	VJ375	2.75

Form 200

1/2	VJ12009	\$5.90	VJ1200	\$2.85
3/4	VJ22009	6.00	VJ2200	2.95
1	VJ32009	6.10	VJ3200	3.05



Type VG

Form 100

1/2	VG1759	\$4.75	VG175	\$2.15
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Form 200

1/2	VG12009	\$5.50	VG1200	\$2.45
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Type VE

Form 100

1/2	VE1759	\$4.75	VE175	\$2.15
3/4	VE2759	4.85	VE275	2.25

Form 200

1/2	VE12009	\$5.50	VE1200	\$2.45
3/4	VE22009	5.60	VE2200	2.55

For V and VH Series Condulets, Clamp Guard Type and V Series Condulets, Screw Guard Type

Globes



Description	Form 100		Form 200			
	No.	Each	No.	Each		
Clear	V15	\$0.80	V75	\$0.80	V200	\$0.80
Opal	VN51	1.10	VN71	1.10	VO201	1.70
Green	VN52	1.70	VN72	1.70	VO202	2.35
Blue	VN53	1.70	VN73	1.70	VO203	2.35
Orange	VN54	1.70	VN74	1.70	VO204	2.35
Ruby	VN55	1.70	VN75	1.70	VO205	2.35
Amber	VN56	1.70	VN76	1.70	VO206	2.35

Prismatic Diffusing Globes

Clear	V103	\$0.80		
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Heat Resisting Globes

Clear	V153	\$1.25	V63	\$1.25	V93	\$2.00
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For V and VH Series
Clamp Guard Type

Guards



Cast aluminum.

No.	Each	Form	For Globe In.	No.	Each	Form	For Globe In.
V95	\$1.80	100	5 7/8	V910	\$1.80	100	5 7/8
V97	1.80	100	6 3/4	V911	1.80	100	6 3/4
VH99	2.25	200	9 1/4	V912	2.25	200	9 1/4

Guards for Use with
Pear-Shaped Globes



Steel, tinned finish.

V948	\$1.80	100	...	V946	\$1.80	100	...
VH949	2.25	200	...	V947	2.25	200	...

Guards with Reflector
Holders



Cast aluminum.

V913	\$1.80	100	6 3/4	V911	\$1.80	100	6 3/4
VH914	2.25	200	9 1/4	V912	2.25	200	9 1/4

*Reflector Holders



V625	\$.50	100	...	V623	\$.50	100	...
VH626	.65	200	...	V624	.65	200	...

*For clamping reflector to Condulet when guard is not used.

Accessories and Parts

Continued

For V and VH Series Condulets, Clamp Guard Type and V Series Condulets, Screw Guard Type

Half Shades

Made of sheet aluminum.

Form 100



Clamp Guard Type No.	Each	Screw Guard Type		Each
		For Guard No.	No.	
SH11	\$.50	V97	.....	.....
SH17	.50	V95	.....	.....
.....	.....	V910	V916	\$.50
.....	.....	V911	V918	.50
Form 200				
SH2	1.00	V1199	.....	.....
.....	.....	*V912	*V919	\$1.00

*Made of sheet copper.

Receptacles—Keyless

600 Watts, 600 Volts
Forms 100 and 200



No.	Each	Material
V46	\$.65	Porcelain
GS126M2	.65	Composition

Receptacles—Shock-Absorbing

660 Watts, 600 Volts
Forms 100 and 200



No.	Each	Material
V56	\$1.25	Composition

No. V56 for use with Pear-Shaped Globes V105 and V205 only.

Pear-Shaped Globes

Clear globes. Cannot be used with straight guards.



No.	Each	Lamp Size Watts
V105	\$.80	50, 60, 75, 100
Form 200		
V205	\$.80	150
V205	.80	200

Dome Reflectors

Form 100



No.	Each	Lamp Size Watts	Diam. In.	Depth In.
SH27	\$2.75	50, 60, 75, 100	12	5 1/8
Form 200				
SH28	\$3.25	150	14	6 1/4
SH29	3.75	200	16	7 3/8

Shallow Bowl Reflectors



No.	Each	Lamp Size Watts	Diam. In.	Depth In.
SH57	\$2.25	50, 60, 75, 100	12	3 3/8
Form 200				
SH58	\$2.75	150	14	4 3/16
SH59	3.25	200	16	4 15/16

Deep Bowl Reflectors



No.	Each	Lamp Size Watts	Diam. In.	Depth In.
SH47	\$2.75	50, 60, 75, 100	8	5 9/16
Form 200				
SH48	\$3.25	150	10	7
SH49	3.75	200	10	7 1/4

30° Angle Reflectors



No.	Each	Lamp Size Watts	Diam. In.	Depth In.
†SH67	\$2.00	50, 60, 75, 100	10	8 1/4
Form 200				
†SH68	\$3.50	150	12	10 3/4
†SH68	3.50	200	12	10 3/4

†Center line of Condulet must be located 4 5/8 inches from the wall for mounting angle reflector.

‡Center line of Condulet must be located 4 7/8 inches from the wall for mounting angle reflector.

Reflectors are green porcelain enamel outside and white porcelain enamel inside.

Type VDB Vaportight Industrial Lighting Fixtures with Reflectors

Type VDB is a cast aluminum fixture of the vaportight type, designed to meet the need for a simple, effective, and inexpensive vaportight industrial lighting fixture.

Made so that dust or vapor cannot enter the conduit system even if the globe is removed or broken. The opening into the conduit system is entirely closed by the lamp receptacle.

Furnished with a clear, plain pear-shaped globe, and a porcelain enameled reflector. The reflector is held to the body by four screws.

Form 3

Furnished with No. VDB3 globe, reflector, and medium base lamp receptacle.



With Shallow Bowl Reflectors

Lamp Size Watts	Size In.	No.	Each
150	1/2	VDB13	\$6.75
150	3/4	VDB23	6.75
200	1/2	VDB17	8.25
200	3/4	VDB27	8.25

Reflectors Only

Lamp Size Watts	Size In.	No.	Each
150	14	VDB113	\$2.55
200	16	VDB117	4.05

With Dome Reflectors

Lamp Size Watts	Size In.	No.	Each
150	1/2	VDB138	\$6.75
150	3/4	VDB238	6.75
200	1/2	VDB139	8.25
200	3/4	VDB239	8.25

Reflectors Only

Lamp Size Watts	Size In.	No.	Each
150	14	VDB28	\$2.55
200	16	VDB29	4.05

Form 5

Furnished with No. VDB5 globe, reflector, and mogul base lamp receptacle.



With Dome Reflectors

Lamp Size Watts	Size In.	No.	Each
300, 500	1/2	VDB15	\$10.75
300, 500	3/4	VDB25	10.75

Reflectors Only

Lamp Size Watts	Size In.	No.	Each
300, 500	18	VDB115	\$5.15

With 30° Angle Reflectors

Lamp Size Watts	Size In.	No.	Each
300, 500	1/2	VDB145	\$10.00
300, 500	3/4	VDB245	10.00

Reflectors Only

Lamp Size Watts	Size In.	No.	Each
300, 500	14	VDB215	\$4.40

Unless otherwise specified, fixtures are shipped completely assembled.

Accessories for Vaportight Industrial Lighting Fixtures

Pear-Shaped Globes



Lamp Size Watts	Form 3		Heat Resisting	
	No.	Each	No.	Each
150, 200	VDB3	\$1.20	VDB6	\$2.70
300, 500	VDB5	\$1.60	VDB8	\$3.60

Basket Wire Guards



Steel, tinned finish.

For use with reflectors listed above; also with reflectors for V and VH series Condulets.

No.	V932	V934	V936	V938
Each	\$1.50	1.80	2.10	2.50
For Size Reflector, inches	12	14	16	18

Type VXHA Vaportight Industrial Lighting Condulets

Clamp Guard Type and Screw Guard Type

Has five hubs flush with the surface of the body. The hubs have integral bushings. Four of the hubs are spaced 90° apart around the side of the Condulet, while the fifth hub is placed in the center of the top of the Condulet. Condulet is furnished with four flush type threaded pipe plugs.

Furnished with V75 globe, and takes 50, 60, 75, or 100-watt lamps. (Clamp guard type has V97 guard; and screw guard type, V911 guard.)

Cast aluminum guards. Cast Feraloy condulets.



Clamp Guard Type

Form 100

Size In.	With Globe and Guard		Without Globe and Guard	
	No.	Each	No.	Each
1/2	VXHA112	\$4.85	VXHA11	\$2.25
3/4	VXHA212	5.05	VXHA21	2.45
1	VXHA312	5.20	VXHA31	2.60

Form 200

1/2	VXHA152	\$5.70	VXHA151	\$2.65
3/4	VXHA252	5.90	VXHA251	2.85
1	VXHA352	6.05	VXHA351	3.00

Screw Guard Type

Form 100

1/2	VXHA1199	\$4.85	VXHA119	\$2.25
3/4	VXHA2199	5.05	VXHA219	2.45
1	VXHA3199	5.20	VXHA319	2.60

Form 200

1/2	VXHA1299	\$5.70	VXHA129	\$2.65
3/4	VXHA2299	5.90	VXHA229	2.85
1	VXHA3299	6.05	VXHA329	3.00

Type VS Vaportight Portable Hand Lamps

Clamp Guard Type

Made of cast aluminum, with rubber handle.

Furnished with globe, guard, receptacle, gasket, and vaportight gland in handle.



100-Watt Size

No.	Each	Size Lamp Watts	Size Cable Inches	Size Globe Inches
VS20	\$6.15	60	.250 to .625	5 5/8
VS30	6.15	100	.250 to .625	6 3/4

Screw Guard Type

Made of cast aluminum with hardwood handle.

Furnished with globe, guard, receptacle, gasket, cord guard spring, and vaportight gland in handle.

Has additional binding screw terminal for grounding.



60-Watt Size

No.	Each	Size Lamp Watts	Size Cable Inches	Size Globe Inches
VS91	\$6.15	60	.250 to .625	5 5/8
VS92	6.15	100	.250 to .625	6 3/4

If specified on order, lamp receptacle with lamp grip will be furnished at an advance of 10 cents in price.

Guards for Type VS Vaportight Portable Hand Lamps

Made of steel wire.



Clamp Guard 100-Watt Size

Clamp Guard

No.	VS95	VS97
Each	\$2.00	2.00
For Globe.....inches	5 5/8	6 3/4

Globes for Type VS Vaportight Portable Hand Lamps

Clear



Size Inches	Plain		Heat-Resisting	
	No.	Each	No.	Each
5 5/8	V18	\$.80	V183	\$1.25
6 3/4	V75	.80	V63	1.25

Safety Hand Lamps

Types LPG and LPH

Takes 15 to 100-watt lamps.

Seasoned maple handle, black enameled.

Aluminum alloy guard and half shade.



Type LPG24



Type LPH24

No. LPG24, with Guard.....	each	\$3.00
No. LPH24, with Guard and Half-Shade.....	each	3.15

Type VS Vaportight Portable Hand Lamps

Handle and globe holder made of moulded rubber in one piece.

One end of the handle is provided with a tapered rubber bushing and moulded composition gland nut. Bushing clamps the cord and protects it where it leaves the handle.



Lamp Watts	Cord Inches	Without Hook		With Interchangeable Hook	
		No.	Each	No.	Each
100	.250 to .625	VS121	\$11.25	VS120	\$11.50
60	.250 to .625	VS126	12.75	VS125	13.00

Accessories

Clear Pear-Shaped Globes

Made of heat-resisting glass.

No. VS51, Heat-Resisting, For 100-Watt Lamps.....each \$2.00

No. VS52, Impact Resisting, For 60-Watt Lamps.....each 3.50

Guards

Made of steel wire with tinned finish. For 100 and 60-watt lamps.

No. VS931, Without Hook..... each \$2.25

No. VS930, With Interchangeable Hook.....each 2.50

No. VS110 Keyless Lamp Receptacles
660 Watts, 600 Volts

Made of composition.

No. VS110.....each \$.65



AL Series Flexible Fixture Hanger Condulets

For Pendent Fixtures

AL series Condulets provide a flexible suspension for electrical fixtures. The fixtures are suspended from a universal joint which assures that the fixture will hang plumb. It also prevents breaking the fixture stem at the point of suspension, due to strains set up by the wind or by accidental impact. This universal joint permits the fixture to swing through an angle of about 20 degrees in any direction from the perpendicular.

Type ALA Ball Hangers



Type ALA Ball

Thick Wall		Wt. Fixture Lbs.	Size, In.	
No.	Each		Fixture Stem	Conduit
ALA1	\$.65	.....	1/2	1/2
ALA21	.75	.....	1/2	3/4
ALA22	.85	.....	3/4	3/4

Type ALA Cushion Hangers



Type ALA Cushion

ALA14	\$1.40	3 to 6	1/2 to 3/4	1/2 to 3/4
ALA214	1.50			
ALA224	1.60			
ALA18	1.40	6 to 12	1/2 to 3/4	1/2 to 3/4
ALA218	1.50			
ALA228	1.60			
ALA116	1.40	12 to 24	1/2 to 3/4	1/2 to 3/4
ALA2116	1.50			
ALA2216	1.60			

Type ALC Ball Hangers



Type ALC Ball

ALC1	\$.75	.....	1/2	1/2
ALC21	.85	.....	1/2	3/4
ALC31	.95	.....	1/2	1
ALC22	.95	.....	3/4	3/4
ALC32	1.05	.....	3/4	1

Type ALC Cushion Hangers



Type ALC Cushion

ALC14	\$1.50	3 to 6	1/2 to 3/4	1/2 to 3/4
ALC214	1.60			
ALC314	1.70			
ALC224	1.70			
ALC324	1.80	6 to 12	1/2 to 3/4	1 to 3/4
ALC18	1.50			
ALC218	1.60			
ALC318	1.70			
ALC228	1.70	12 to 24	1/2 to 3/4	1 to 3/4
ALC328	1.80			
ALC116	1.50			
ALC2116	1.60			
ALC3116	1.70	12 to 24	1/2 to 3/4	1 to 3/4
ALC2216	1.70			
ALC3216	1.80			

Type ALL Ball Hangers



Ball

ALL1	\$.75	.....	1/2	1/2
ALL21	.85	.....	1/2	3/4
ALL22	.95	.....	3/4	3/4

Type ALL Cushion Hangers



Cushion

ALL14	\$1.50	3 to 6	1/2 to 3/4	1/2 to 3/4
ALL214	1.60			
ALL224	1.70			
ALL18	1.50	6 to 12	1/2 to 3/4	1 to 3/4
ALL218	1.60			
ALL228	1.70			
ALL216	1.50	12 to 24	1/2 to 3/4	1 to 3/4
ALL2116	1.60			
ALL2216	1.70			
ALL1132	1.50	24 to 48	1/2 to 3/4	1 to 3/4
ALL2132	1.60			
ALL2232	1.70			
ALL1164	1.50	48 to 64	1/2 to 3/4	1 to 3/4
ALL2164	1.60			
ALL2264	1.70			

AL Series Flexible Fixture Hanger Condulets

Type ALT Ball Hangers



Ball

No.	Each	Fixture Weight Pounds	Fixture Stem Inches	Conduit Inches
ALT1	\$.85	.....	1/2	1/2
ALT21	.95	.....	1/2	3/4
ALT31	1.05	.....	1/2	1
ALT22	1.05	.....	3/4	3/4
ALT32	1.15	.....	3/4	1

Type ALT Cushion Hangers



Cushion

ALT14	\$1.60	3 to 6	1/2 to 3/4	1/2 to 3/4
ALT214	1.70			
ALT314	1.80			
ALT224	1.80	6 to 12	1/2 to 3/4	1 to 3/4
ALT324	1.90			
ALT18	1.60			
ALT218	1.70	6 to 12	1/2 to 3/4	1 to 3/4
ALT318	1.80			
ALT228	1.80			
ALT328	1.90	12 to 24	1/2 to 3/4	1 to 3/4
ALT116	1.60			
ALT2116	1.70			
ALT3116	1.80	12 to 24	1/2 to 3/4	1 to 3/4
ALT2216	1.80			
ALT3216	1.90			
ALT132	1.60	24 to 48	1/2 to 3/4	1 to 3/4
ALT2132	1.70			
ALT3132	1.80			
ALT2232	1.80	24 to 48	1/2 to 3/4	1 to 3/4
ALT3232	1.90			
ALT1164	1.60			
ALT2164	1.70	48 to 64	1/2 to 3/4	1 to 3/4
ALT3164	1.80			
ALT2264	1.80			
ALT3264	1.90	48 to 64	1/2 to 3/4	1 to 3/4

Connection Block

For AL Series Fixture Hanger Condulets

2-Wire, 20 Amperes, 125 Volts

No. CB308 Porcelain.....each \$.30



Flexible Fixture Hangers

Type AHG Vaportight Cushion Hangers



No.	Each	Fixture Weight Pounds	Fixture Stem Inches	Male Nipple Inches
AGH11102	\$1.45	2 to 4	1/2	1/2
AGH21102	1.50	2 to 4	1/2	3/4
AGH11103	1.45	4 to 8	1/2	1/2
AGH21103	1.50	4 to 8	1/2	3/4
AGH11104	1.45	8 to 16	1/2	1/2
AGH21104	1.50	8 to 16	1/2	3/4
AGH11111	1.45	16 to 30	1/2	1/2
AGH21111	1.50	16 to 30	1/2	3/4

Type UNJ and UNJC

For supporting pendent fixtures so that they will always hang plumb, even though supported from an inclined surface. The hangers can be used in conjunction with Condulets. They will allow the fixture to swing through an angle of 20° in any direction from the perpendicular.

Type UNJ Ball Hangers



Type UNJ Ball

No.	Each	Stem In.	Hub In.
UNJ1308	\$.65	3/8	1/2
UNJ1	.65	1/2	1/2
UNJ2308	.75	3/8	3/4
UNJ21	.75	1/2	3/4
UNJ2	.75	3/4	3/4

Type UNJC Cushion Hangers

Provided with spring which carries the weight of the fixture and absorbs any shocks due to vibration or other causes.



Type UNJC Cushion

No.	Each	Stem In.	Hub In.	Fixture Weight Pounds
UNJC12	\$1.35	1/2	1/2	1 1/2-3
UNJC22	1.60	3/4	3/4	1 1/2-3
UNJC14	1.35	1/2	1/2	3-6
UNJC24	1.60	3/4	3/4	3-6
UNJC18	1.35	1/2	1/2	6-12
UNJC28	1.60	3/4	3/4	6-12
UNJC116	1.35	1/2	1/2	12-24
UNJC216	1.60	3/4	3/4	12-24
UNJC132	1.45	1/2	1/2	24-48
UNJC232	1.70	3/4	3/4	24-48

Type ARB Flexible Fixture Hangers

For use on concealed conduit systems. Provide flexible suspension for pendant fixtures with 1/2-inch conduit stem. Fastening screws spaced 3 1/2 inches center to center are provided for use on standard 4-inch outlet boxes.



Type ARB Ball



Type ARB Cushion

Ball Hangers			Size In.	
No.	Each			
ARB6	\$.55		1/2	
Cushion Hangers			Fixture Weight Pounds	
No.	Each			
ARB14	\$.65			2-4
ARB8	.65			4-8
ARB10	.65			8-16
ARB12	.65		16-30	

Type OFH Flexible Fixture Cushion Hangers

For Pendant Fixtures

Weatherproof

Has 1/2-inch hole for bolt or hook.



No.	Each	Weight Fixture Pounds	Size Fixture Stem, In.
OFH114	\$1.25	2 to 4	1/2
OFH124	1.25	2 to 4	3/4
OFH116	1.25	1 to 8	1/2
OFH126	1.25	1 to 8	3/4
OFH117	1.25	8 to 16	1/2
OFH127	1.25	8 to 16	3/4
OFH118	1.25	16 to 30	1/2
OFH128	1.25	16 to 30	3/4
OFH119	1.25	30 to 48	1/2
OFH129	1.25	30 to 48	3/4
OFH219	1.25	48 to 64	1/2
OFH229	1.25	48 to 64	3/4



Male

Type UNH Rigid Hangers

Male		Female	
No.	Each	No.	Each
UNH16	\$.30	UNH1	\$.25
UNH26	.35	UNH2	.30



Female

Type UNHC Cushion Hangers



No.	Each	Weight Fixture Pounds	Size Fixture Stem, In.
UNHC12	\$.75	1 1/2 to 3	1/2
UNHC22	.80	1 1/2 to 3	3/4
UNHC14	.75	3 to 6	1/2
UNHC24	.80	3 to 6	3/4
UNHC18	.75	6 to 12	1/2
UNHC28	.80	6 to 12	3/4
UNHC116	.75	12 to 24	1/2
UNHC216	.80	12 to 24	3/4
UNHC132	.75	24 to 48	1/2
UNHC232	.80	24 to 48	3/4
UNHC164	.75	48 to 64	1/2
UNHC264	.80	48 to 64	3/4



Male

Type UNE Fixture Loops

Male		Female	
No.	Each	No.	Each
UNE16	\$.30	UNE1	\$.25
UNE26	.35	UNE2	.30



Female

Type OSA Suspension Hangers



No.	Each	Size Conduit Inches	Max. Diam. Span Wire Inches	Support Rod Tap Inches
OSA3	\$.35	1/2	3/8	3/8-16
OSA3	.35	3/4	3/8	3/8-16
OSA3	.35	1	3/8	3/8-16
OSA4	.40	1 1/4	3/8	3/8-16

Type CHS Suspension Clamps



No.	Each	Size Conduit Inches	Max. Diam. Span Wire Inches
CHS143	\$.10	1/2	3/8
CHS243	.11	3/4	3/8
CHS343	.12	1	3/8

AR Series Condulets

AR Series Condulets take Arktite receptacle housings.

Type ARRH

Size In.	Form B Condulets Take 20 and 30-Ampere Housings		Form C Condulets Take 60-Ampere Housings	
	No.	Each	No.	Each
1/2	ARRH13	\$.90	ARRH16	\$1.30
3/4	ARRH23	1.00	ARRH26	1.40
1	ARRH33	1.10	ARRH36	1.50
1 1/4	.....	.....	ARRH46	1.60
1 1/2	.....	.....	ARRH56	1.70



Type ARRC

1/2	ARRC13	\$1.00	ARRC16	\$1.40
3/4	ARRC23	1.10	ARRC26	1.50
1	ARRC33	1.20	ARRC36	1.60
1 1/4	.....	.....	ARRC46	1.70
1 1/2	.....	.....	ARRC56	1.80



Type ARE

1/2	ARE13	\$1.00	ARE16	\$1.45
3/4	ARE23	1.10	ARE26	1.55
1	ARE33	1.20	ARE36	1.65
1 1/4	.....	.....	ARE46	1.75
1 1/2	.....	.....	ARE56	1.85



Type ARDF

1/2	ARDF13	\$1.15	ARDF16	\$1.60
3/4	ARDF23	1.25	ARDF26	1.70
1	ARDF33	1.35	ARDF36	1.80
1 1/4	.....	.....	ARDF46	1.90
1 1/2	.....	.....	ARDF56	2.00



Type ARJ

1/2	ARJ13	\$1.30	ARJ16	\$1.75
3/4	ARJ23	1.40	ARJ26	1.85
1	ARJ33	1.50	ARJ36	1.95
1 1/4	.....	.....	ARJ46	2.05
1 1/2	.....	.....	ARJ56	2.15



Type ARD

1/2	ARD13	\$1.45	ARD16	\$1.90
3/4	ARD23	1.55	ARD26	2.00
1	ARD33	1.65	ARD36	2.10
1 1/4	.....	.....	ARD46	2.20
1 1/2	.....	.....	ARD56	2.30



Type ARJG

1/2	ARJG13	\$1.20	ARJG16	\$1.70
3/4	ARJG23	1.30	ARJG26	1.80
1	ARJG33	1.40	ARJG36	1.90
1 1/4	.....	.....	ARJG46	2.00
1 1/2	.....	.....	ARJG56	2.10



Type ARJK

1/2	ARJK13	\$1.00	ARJK16	\$1.45
3/4	ARJK23	1.10	ARJK26	1.55
1	ARJK33	1.20	ARJK36	1.65
1 1/4	.....	.....	ARJK46	1.75
1 1/2	.....	.....	ARJK56	1.85



Type ARJP

1/2	ARJP13	\$1.00	ARJP16	\$1.45
3/4	ARJP23	1.10	ARJP26	1.55
1	ARJP33	1.20	ARJP36	1.65
1 1/4	.....	.....	ARJP46	1.75
1 1/2	.....	.....	ARJP56	1.85



Type ARRA

1/2	ARRA13	\$.90	ARRA16	\$1.30
3/4	ARRA23	1.00	ARRA26	1.40
1	ARRA33	1.10	ARRA36	1.50
1 1/4	.....	.....	ARRA46	1.60
1 1/2	.....	.....	ARRA56	1.70



15° Angle Adapters

For types ARRA, ARRC, and ARRH Condulets. Adapters listed below are furnished with gaskets and take Arktite receptacle housings.

Types AJ, AJA, and AJC Condulets are square, and therefore types AJ and AJC can be mounted with the hubs at top, bottom, right, or left.

AR30	\$1.50	AR60	\$2.00
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AJ Series Condulets and Conduit Hub Plates



Type AJ With 60-Ampere Straight Adapter, Form C		
Size, In.	No.	Each
3/4	AJ23	\$7.00
1	AJ33	7.05
1 1/4	AJ43	7.10
1 1/2	AJ53	7.15
2	AJ63	7.20



Type AJC With 60-Ampere Straight Adapter, Form C		
Size, In.	No.	Each
3/4	AJC 23	\$7.15
1	AJC 33	7.25
1 1/4	AJC43	7.35
1 1/2	AJC53	7.45
2	AJC 63	7.55



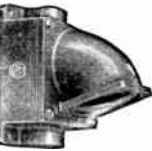
Type AJ With 100-Ampere Straight Adapter, Form D		
Size, In.	No.	Each
3/4	AJ24	\$7.40
1	AJ34	7.45
1 1/4	AJ44	7.50
1 1/2	AJ54	7.55
2	AJ64	7.60



Type AJC With 100-Ampere Straight Adapter, Form D		
Size, In.	No.	Each
3/4	AJC 24	\$7.55
1	AJC 34	7.65
1 1/4	AJC44	7.75
1 1/2	AJC54	7.85
2	AJC 64	7.95



Type AJ With 60 and 100-Amperes, Angle Adapter, Forms C and D		
Size, In.	No.	Each
3/4	AJ27	\$7.65
1	AJ37	7.70
1 1/4	AJ47	7.75
1 1/2	AJ57	7.80
2	AJ67	7.85

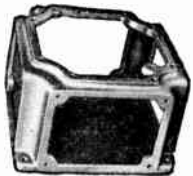


Type AJC With 60 and 100-Amperes, Angle Adapter, Forms C and D		
Size, In.	No.	Each
3/4	AJC 27	\$7.80
1	AJC 37	7.90
1 1/4	AJC47	8.00
1 1/2	AJC 57	8.10
2	AJC 67	8.20

Type AJ With 200-Ampere Angle Adapter, Form E		
Size, In.	No.	Each
1 1/2	AJ58	\$13.95
2	AJ68	14.05
2 1/2	AJ78	14.15

Type AJ With 400-Ampere Angle Adapter, Form F		
Size, In.	No.	Each
2	AJ69	\$31.55
2 1/2	AJ79	31.65
3	AJ89	31.75

Type AJX



Condulet



Adapter

Furnished with gaskets for hub plates. Takes four hub plates.

Condulet			
No.	Each	Rating Amps.	Series
AJX88	\$9.55	200	YYP8
AJX99	18.95	100	YYP9

Adapter		
No.	Each	
AJ45	\$6.05	
AJ245	11.05	

Hub Plates



Hub Plate



Blank Plate

Hub Plate		
Hub Size Inches	No.	Each
2 1/2	YYP87	\$1.15
YYP9 Series		
2 1/2	YYP97	\$3.75
3	YYP98	4.00

Blank Plate	
No.	Each
YYP800	\$.40
YYP900	\$2.75

Arktite Extension Cable Connectors

Style 1—Grounded Through Shell With Rubber Bushing—Watertight
20, 30, 60, 100, 200, and 400 Amperes
*250 Volts D.C., 600 Volts A.C.



20, 30, 60 or 100 Amperes

200 or 400 Amperes

Diam. Cable Inches	Complete No.	Each	Receptacle Only		Plug Only	
			No.	Each	No.	Each
†20 Amperes ‡2-Wire, 2-Pole						
.250 to .500	APC2251	\$13.60	APR2251	\$7.00	AP2271	\$6.50
.500 to .875	APC2253	13.60	APR2253	7.00	AP2273	6.60
†30 Amperes ‡2-Wire, 2-Pole						
.500 to .875	APC3253	\$15.00	APR3253	\$7.75	AP3273	\$7.25
‡3-Wire, 3-Pole						
.500 to .875	APC3353	\$16.20	APR3353	\$8.30	AP3373	\$7.90
‡4-Wire, 4-Pole						
.500 to .875	APC3453	\$17.80	APR3453	\$9.10	AP3473	\$8.70
‡5-Wire, 5-Pole						
.500 to .875	APC3553	\$20.25	APR3553	\$10.30	AP3573	\$9.95
†60 Amperes ‡2-Wire, 2-Pole						
.500 to .875	APC6253	\$23.85	APR6253	\$13.10	AP6273	\$10.75
.875 to 1.375	APC6255	23.85	APR6255	13.10	AP6275	10.75
‡3-Wire, 3-Pole						
.500 to .875	APC6353	\$25.60	APR6353	\$14.10	AP6373	\$11.50
.875 to 1.375	APC6355	25.60	APR6355	14.10	AP6375	11.50
‡4-Wire, 4-Pole						
.500 to .875	APC6453	\$28.60	APR6453	\$16.10	AP6473	\$12.50
.875 to 1.375	APC6455	28.60	APR6455	16.10	AP6475	12.50
†100 Amperes ‡2-Wire, 2-Pole						
.500 to .875	APC10253	\$35.00	APR10253	\$19.50	AP10273	\$15.50
.875 to 1.375	APC10255	35.00	APR10255	19.50	AP10275	15.50
1.375 to 1.875	APC10257	35.00	APR10257	19.50	AP10277	15.50
‡3-Wire, 3-Pole						
.500 to .875	APC10353	\$37.00	APR10353	\$20.50	AP10373	\$16.50
.875 to 1.375	APC10355	37.00	APR10355	20.50	AP10375	16.50
1.375 to 1.875	APC10357	37.00	APR10357	20.50	AP10377	16.50
‡4-Wire, 4-Pole						
.500 to .875	APC10453	\$41.00	APR10453	\$22.50	AP10473	\$18.50
.875 to 1.375	APC10455	41.00	APR10455	22.50	AP10475	18.50
1.375 to 1.875	APC10457	41.00	APR10457	22.50	AP10477	18.50
†200 Amperes ‡2-Wire, 2-Pole						
.875 to 1.375	APC20215	\$87.50	APR20215	\$47.50	AP20255	\$40.00
1.375 to 1.875	APC20217	87.50	APR20217	47.50	AP20257	40.00
1.875 to 2.500	APC20218	87.50	APR20218	47.50	AP20258	40.00
‡3-Wire, 3-Pole						
.875 to 1.375	APC20315	\$93.75	APR20315	\$50.75	AP20355	\$43.00
1.375 to 1.875	APC20317	93.75	APR20317	50.75	AP20357	43.00
1.875 to 2.500	APC20318	93.75	APR20318	50.75	AP20358	43.00
‡4-Wire, 4-Pole						
.875 to 1.375	APC20415	\$111.00	APR20415	\$60.00	AP20455	\$51.00
1.375 to 1.875	APC20417	111.00	APR20417	60.00	AP20457	51.00
1.875 to 2.500	APC20418	111.00	APR20418	60.00	AP20458	51.00
†400 Amperes ‡2-Wire, 2-Pole						
.875 to 1.375	APC40215	\$175.00	APR40215	\$110.00	AP40255	\$65.00
1.375 to 1.875	APC40217	175.00	APR40217	110.00	AP40257	65.00
1.875 to 2.500	APC40218	175.00	APR40218	110.00	AP40258	65.00
‡3-Wire, 3-Pole						
.875 to 1.375	APC40315	\$195.00	APR40315	\$125.00	AP40355	\$70.00
1.375 to 1.875	APC40317	195.00	APR40317	125.00	AP40357	70.00
1.875 to 2.500	APC40318	195.00	APR40318	125.00	AP40358	70.00
‡4-Wire, 4-Pole						
.875 to 1.375	APC40415	\$235.00	APR40415	\$153.00	AP40455	\$82.00
1.375 to 1.875	APC40417	235.00	APR40417	153.00	AP40457	82.00
1.875 to 2.500	APC40418	235.00	APR40418	153.00	AP40458	82.00

*Except 400-ampere size, which is rated at 200 amperes only, at 600 volts, a.c.

†The 20-ampere plugs and receptacles are interchangeable with former 15-ampere plugs and receptacles; 30-ampere (except the 2-wire, 2-pole), with former 15-ampere; 60-ampere, with former 30-ampere; 100-ampere, with former 60-ampere; 200-ampere, with former 100-ampere; 400 ampere, with former 200-ampere.

‡Has binding screw terminals, all others have soldered terminals.

Arktime Receptacle Housings

20, 30, 60, and 100-Ampere
250 Volts D.C., 600 Volts A.C.

Arktime Receptacle Housings



Spring Door



Plain

Types AP and APJ Plugs



With Cable Clamp



With Rubber Cable Grip

Receptacles will take any of the plugs grouped in the bracket opposite the receptacle listings.

Description	Spring Door		Plain		*20-Ampere For AR Series—Form B Style 1—Grounded through Shell With Cable Clamp			*20-Ampere For AR Series—Form B Style 1—Grounded through Shell With Rubber Cable Grip		
	No.	Each	No.	Each	Diam. Cable Inches	No.	Each	Diam. Cable Inches	No.	Each
2-Wire, 2-Pole	AR221	\$5.45	AR223	\$4.75	313 to 500	AP2211	\$4.85	250 to 500	APJ2251	\$5.50
2-Wire, 2-Pole					500 to 750	AP2212	4.85	500 to 875	APJ2253	5.50
3-Wire, 3-Pole	AR321	\$6.25	AR323	\$5.55	438 to 750	AP3212	\$5.50	500 to 875	APJ3253	\$6.15
3-Wire, 3-Pole					688 to 938	AP3214	5.50			
3-Wire, 3-Pole	AR331	6.75	AR333	6.05	438 to 750	AP3312	6.15	500 to 875	APJ3353	6.80
3-Wire, 3-Pole					688 to 938	AP3314	6.15			
3-Wire, 3-Pole					875 to 1 188	AP3315	6.15			
4-Wire, 4-Pole	AR341	7.55	AR343	6.85	438 to 750	AP3412	6.95	500 to 875	APJ3453	7.60
4-Wire, 4-Pole					688 to 938	AP3414	6.95			
4-Wire, 4-Pole					875 to 1 188	AP3415	6.95			
5-Wire, 5-Pole	AR351	8.75	AR353	8.05	500 to 875	AP3513	8.20	500 to 875	APJ3553	8.85
2-Wire, 3-Pole	AR332	\$7.75	AR334	\$7.05	438 to 750	AP3322	\$7.15	500 to 875	APJ3363	\$7.80
2-Wire, 3-Pole					688 to 938	AP3324	7.15			
2-Wire, 3-Pole					875 to 1 188	AP3325	7.15			
3-Wire, 4-Pole	AR342	8.55	AR344	7.85	438 to 750	AP3422	7.95	500 to 875	APJ3463	8.60
3-Wire, 4-Pole					688 to 938	AP3424	7.95			
3-Wire, 4-Pole					875 to 1 188	AP3425	7.95			
4-Wire, 5-Pole	AR352	10.30	AR354	9.60	500 to 875	AP3523	9.85	500 to 875	APJ3563	10.50
2-Wire, 2-Pole	AR621	\$10.00	AR623	\$8.75	500 to 875	AP6213	\$7.75	500 to 875	APJ6253	\$8.75
2-Wire, 2-Pole					750 to 1 188	AP6215	7.75	875 to 1 375	APJ6255	8.75
3-Wire, 3-Pole	AR631	11.00	AR633	9.75	500 to 875	AP6313	8.50	500 to 875	APJ6353	9.50
3-Wire, 3-Pole					750 to 1 188	AP6315	8.50	875 to 1 375	APJ6355	9.50
4-Wire, 4-Pole	AR641	13.00	AR643	11.75	688 to 1 000	AP6414	9.50	500 to 875	APJ6453	10.50
4-Wire, 4-Pole					938 to 1 469	AP6416	9.50	875 to 1 375	APJ6455	10.50
2-Wire, 3-Pole	AR632	\$12.25	AR634	\$11.00	500 to 875	AP6323	\$9.75	500 to 875	APJ6363	\$10.75
2-Wire, 3-Pole					750 to 1 188	AP6325	9.75	875 to 1 375	APJ6365	10.75
3-Wire, 4-Pole	AR642	14.25	AR644	13.00	688 to 1 000	AP6424	10.75	500 to 875	APJ6463	11.75
3-Wire, 4-Pole					938 to 1 469	AP6426	10.75	875 to 1 375	APJ6465	11.75
2-Wire, 2-Pole	AR1021	\$13.00	AR1023	\$11.50	750 to 1 188	AP10215	\$12.50	500 to 875	AP10253	\$14.00
2-Wire, 2-Pole					1 188 to 1 813	AP10217	12.50	875 to 1 375	AP10255	14.00
3-Wire, 3-Pole	AR1031	14.00	AR1033	12.50	750 to 1 188	AP10315	13.50	1 375 to 1 875	AP10257	14.00
3-Wire, 3-Pole					1 188 to 1 813	AP10317	13.50	500 to 875	AP10353	15.00
3-Wire, 3-Pole								875 to 1 375	AP10355	15.00
4-Wire, 4-Pole	AR1041	16.00	AR1043	14.50	938 to 1 313	AP10416	15.50	1 375 to 1 875	AP10357	15.00
4-Wire, 4-Pole					1 313 to 2 063	AP10417	15.50	500 to 875	AP10453	17.00
4-Wire, 4-Pole								875 to 1 375	AP10455	17.00
4-Wire, 4-Pole								1 375 to 1 875	AP10457	17.00
2-Wire, 3-Pole	AR1032	\$15.50	AR1034	\$14.00	750 to 1 188	AP10325	\$15.00	500 to 875	AP10363	\$16.50
2-Wire, 3-Pole					1 188 to 1 813	AP10327	15.00	875 to 1 375	AP10365	16.50
3-Wire, 4-Pole	AR1042	17.50	AR1044	16.00	938 to 1 313	AP10426	17.00	1 375 to 1 875	AP10367	16.50
3-Wire, 4-Pole					1 313 to 2 063	AP10427	17.00	500 to 875	AP10463	18.50
3-Wire, 4-Pole								875 to 1 375	AP10465	18.50
3-Wire, 4-Pole								1 375 to 1 875	AP10467	18.50

*20-ampere plugs and receptacles are interchangeable with former 15-ampere plugs and receptacles; 30-ampere (except the 2-wire, 2-pole), with former 15-ampere; 60-ampere, with former 30-ampere; 100-ampere, with former 60-ampere.

†100-ampere, also furnished with auxiliary metal cable clamp.

‡20-ampere, 2-pole plugs and receptacles have binding screw terminals, all others have soldered terminals.

Arktite Receptacle Housings

20, 30, 60, and 100-Ampere
250 Volts D.C., 600 Volts A.C.

Arktite Receptacle Housings



Threaded



With Cap

Types AP and APJ Plugs With Fastening Ring



With Cable Clamp



With Rubber Cable Grip

Receptacles will take any of the plugs grouped in the bracket opposite the receptacle listings.

*20-Ampere

For AR Series—Form B

Style 1—Grounded through Shell

Description	Threaded		With Cap		With Cable Clamp			With Rubber Cable Grip		
	No.	Each	No.	Each	Diam. Cable Inches	No.	Each	Diam. Cable Inches	No.	Each
2-Wire, 2-Pole	AR 225	\$5.00	AR 227	\$5.80	.500 to .750	AP2232	\$5.45	.250 to .500	APJ2271	\$6.10

*30-Ampere

For AR Series—Form B

Style 1—Grounded through Shell

2-Wire, 2-Pole	AR 325	\$5.80	AR 327	\$6.60	.438 to .750	AP 3232	\$6.10	.500 to .875	APJ3273	\$6.75
3-Wire, 3-Pole	AR 335	6.30	AR 337	7.10	.438 to .750	AP 3332	6.75	.500 to .875	APJ3373	7.40
4-Wire, 4-Pole	AR 345	7.10	AR 347	7.90	.438 to .750	AP 3432	7.55	.500 to .875	APJ3473	8.20
5-Wire, 5-Pole	AR 355	8.30	AR 357	9.10	.438 to .750	AP 3435	7.55	.500 to .875	APJ3573	9.45

Style 2—Grounded through Extra Pole and Shell

2-Wire, 3-Pole	AR 336	\$7.30	AR 338	\$8.10	.438 to .750	AP 3342	\$7.75	.500 to .875	APJ3383	\$8.40
3-Wire, 4-Pole	AR 346	8.10	AR 348	8.90	.438 to .750	AP 3442	8.55	.500 to .875	APJ3483	9.20
4-Wire, 5-Pole	AR 356	9.75	AR 358	10.55	.438 to .750	AP 3445	8.55	.500 to .875	APJ3583	11.10

*60-Ampere

For AR and AJ Series—Form C

Style 1—Grounded through Shell

2-Wire, 2-Pole	AR 625	\$9.10	AR 627	\$10.20	.500 to .875	AP 6233	\$8.75	.500 to .875	APJ6273	\$9.75
3-Wire, 3-Pole	AR 635	10.10	AR 637	11.20	.500 to .875	AP 6333	9.50	.500 to .875	APJ6373	10.50
4-Wire, 4-Pole	AR 645	12.10	AR 647	13.20	.688 to 1.000	AP 6434	10.50	.500 to .875	APJ6473	11.50

Style 2—Grounded through Extra Pole and Shell

2-Wire, 3-Pole	AR 636	\$11.35	AR 638	\$12.45	.500 to .875	AP 6343	\$10.75	.500 to .875	APJ6383	\$11.75
3-Wire, 4-Pole	AR 646	13.35	AR 648	14.45	.688 to 1.000	AP 6444	11.75	.500 to .875	APJ6483	12.75

*100-Ampere

For AJ Series—Form D

Style 1—Grounded through Shell

2-Wire, 2-Pole	AR1025	\$12.00	AR1027	\$14.00	.750 to 1.188	AP10235	\$14.00	.500 to .875	AP10273	\$15.50
3-Wire, 3-Pole	AR1035	13.00	AR1037	15.00	.750 to 1.188	AP10335	15.00	.500 to .875	AP10373	16.50
4-Wire, 4-Pole	AR1045	15.00	AR1047	17.00	.938 to 1.313	AP10436	17.00	.500 to .875	AP10473	18.50

Style 2—Grounded through Extra Pole and Shell

2-Wire, 3-Pole	AR1036	\$14.50	AR1038	\$16.50	.750 to 1.188	AP10345	\$16.50	.500 to .875	AP10383	\$18.00
3-Wire, 4-Pole	AR1046	16.50	AR1048	18.50	.938 to 1.313	AP10446	18.50	.500 to .875	AP10483	20.00

*20-ampere plugs and receptacles are interchangeable with former 15-ampere plugs and receptacles; 30-ampere (except the 2-wire, 2-pole), with former 15-ampere; 60-ampere, with former 30-ampere; 100-ampere, with former 60-ampere.

†100-ampere, also furnished with auxiliary metal cable clamp.

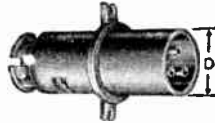
‡20-ampere, 2-pole plugs and receptacles have binding screw terminals, all others have soldered terminals.

Arktite Receptacle Housings

200 and 400 Amperes—250 Volts D.C., 600 Volts A.C.



With Cover



AP Plug With Cable Clamp



AP Plug With Rubber Cable Grip

Receptacles will take any of the plugs grouped opposite the receptacle listings. Style 1, grounded through shell. Style 2, grounded through extra pole and shell. Plugs are made of cast aluminum.

Receptacle Housings					†200 Amperes For AJ Series Form E			AP Plugs With Rubber Cable Grips				
DESCRIPTION		No. Poles	With Covers		AP Plugs With Cable Clamps		Diam. of Cable, In.	No.	Each	Diam. of Cable, In.	No.	Each
Style	No. Wires		No.	Each	Diam. of Cable, In.	No.							Each
1	2	2	AR2021	\$40.00	.938 to 1.469	AP20216	\$30.00	.875 to 1.375	AP20255	\$40.00		
					1.313 to 2.063	AP20217	30.00	1.375 to 1.875	AP20257	40.00		
1	3	3	AR2031	41.70	.938 to 1.469	AP20316	33.00	1.875 to 2.500	AP20258	40.00		
					1.313 to 2.063	AP20317	33.00	.875 to 1.375	AP20355	43.00		
1	4	4	AR2041	48.25	1.188 to 1.813	AP20417	41.00	1.375 to 1.875	AP20357	43.00		
					1.750 to 2.563	AP20418	41.00	1.875 to 2.500	AP20358	43.00		
2	2	3	AR2032	46.70	.938 to 1.469	AP20326	38.00	.875 to 1.375	AP20455	51.00		
					1.313 to 2.063	AP20327	38.00	1.375 to 1.875	AP20457	51.00		
2	3	4	AR2042	54.00	1.188 to 1.813	AP20427	46.00	1.875 to 2.500	AP20458	51.00		
					1.750 to 2.563	AP20428	46.00	.875 to 1.375	AP20465	56.00		
								1.375 to 1.875	AP20467	56.00		
								1.875 to 2.500	AP20468	56.00		
†400 Amperes—250 Volts D.C. or A.C., †200 Amperes—600 Volts A.C. For AJ Series Form F												
1	2	2	AR4021	\$90.00	1.188 to 1.813	AP40217	\$55.00	.875 to 1.375	AP40255	\$65.00		
					1.750 to 2.563	AP40218	55.00	1.375 to 1.875	AP40257	65.00		
1	3	3	AR4031	93.00	1.188 to 1.813	AP40317	60.00	1.875 to 2.500	AP40258	65.00		
					1.750 to 2.563	AP40318	60.00	.875 to 1.375	AP40355	70.00		
1	4	4	AR4041	115.00	1.313 to 2.063	AP40417	72.00	1.375 to 1.875	AP40357	70.00		
					2.000 to 3.250	AP40419	72.00	1.875 to 2.500	AP40358	70.00		
2	2	3	AR4032	103.00	1.188 to 1.813	AP40327	70.00	.875 to 1.375	AP40455	82.00		
					1.750 to 2.563	AP40328	70.00	1.375 to 1.875	AP40457	82.00		
2	3	4	AR4042	125.00	1.313 to 2.063	AP40427	82.00	1.875 to 2.500	AP40458	82.00		
					2.000 to 3.250	AP40429	82.00	.875 to 1.375	AP40465	92.00		
								1.375 to 1.875	AP40467	92.00		
								1.875 to 2.500	AP40468	92.00		

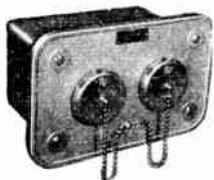
Dimension D—Outside Diameter of Plug in Inches

Present Rating.....	amperes	20	30	60	100	200	400
Former Rating.....	amperes	15	15	30	60	100	200
2-Wire, 2-Pole.....		1 7/16	1 7/8	2 1/4	2 1/2	3 3/4	4 1/16
2-Wire, 3-Pole; 3-Wire, 3-Pole.....			1 7/8	2 1/4	2 1/2	3 3/4	4 1/16
3-Wire, 4-Pole; 4-Wire, 4-Pole.....			1 7/8	2 9/16	2 3/4	4 1/8	5 1/16
1-Wire, 5-Pole; 5-Wire, 5-Pole.....			2 3/16				

*Except 400-ampere size, which is rated at 200 amperes only at 600 volts a.c.
 †200-ampere plugs and receptacles are interchangeable with former 100-ampere plugs and receptacles; 400-ampere, with former 200-ampere.

Type AEQ Receptacle Equipment with Caps

Take Type APJ Plugs with rubber cable grip and fastening ring.



DESCRIPTION	No. Wires	No. Poles	30 Amperes		Two-Gang	
			No.	Each	No.	Each
1	2	2	AEQ1327	\$14.50	AEQ2327	\$25.45
1	3	3	AEQ1337	15.00	AEQ2337	26.45
1	4	4	AEQ1347	15.80	AEQ2347	28.05
1	5	5	AEQ1357	17.00	AEQ2357	30.45
2	2	3	AEQ1338	16.00	AEQ2338	28.45
2	3	4	AEQ1348	16.80	AEQ2348	30.05
2	4	5	AEQ1358	18.45	AEQ2358	33.35
60 Amperes						
1	2	2	AEQ1627	\$21.10	AEQ2627	\$35.90
1	3	3	AEQ1637	22.10	AEQ2637	37.90
1	4	4	AEQ1647	24.10	AEQ2647	41.90
2	2	3	AEQ1638	23.35	AEQ2638	40.40
2	3	4	AEQ1648	25.35	AEQ2648	44.40

Covers

For Type AEQ Receptacle Equipment
 Cast Feroloy—Blank

No.	Description	Each	30-Amperes	60-Amperes
No. AEQ011	each	\$2.00	.....
No. AEQ021	each	3.00	.....
No. AEQ031	each	.....	\$3.25
No. AEQ041	each	.....	4.50

Type BP Plugs

For use with types BRB, BRD, BRG, BRM, BRME, BRMF, BRP, BRY, GSP, and QE plug receptacle housings. The 30-ampere plugs are arranged for soldered terminals. The 20-ampere plugs are equipped with binding screw terminals. Plugs so equipped with binding screw will not take wires larger than No. 12; consequently, these plugs are rated at 20 amperes. Otherwise, the 20 and 30-ampere plugs are exactly alike.

GROUNDING.—Provision is made on these plugs for an extra grounding wire in the cable for grounding the frame of the portable device to the shell of the plug. The grounding or safety circuit is completed through the shell of the plug, the detent spring, the receptacle housing, and the conduit system. The detent spring in the receptacle has three branches two of which make contact before and break contact after the main circuit contacts. This method of grounding is N. E. C. standard.

For Flexible Cable Without Clamping Nut

Furnished with cable clamp. With composition handle (non-watertight)



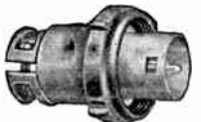
*20 Amperes, 250 Volts A.C.		2-Pole		Each	
Diam. Opening in Cable Clamp, In.		No.	Each	No.	Each
†.500 to .844		BP22	\$3.60		
‡30 Amperes, 250 Volts A.C.		BP32	\$3.60		
†.500 to .844					

For Flexible Conductor, Flexible Conduit, or Armored Conductor



Without Clamping Nut
Furnished with cable clamp, east aluminum handle (non-watertight).

Diam. Opening in Cable Clamp, In.		*20 Amperes, 250 Volts A.C.		3-Pole		4-Pole	
		No.	Each	No.	Each	No.	Each
\$.500 to .875		BP522	\$2.85				
‡30 Amperes, 250 Volts A.C.				BP523	\$3.75	BP524	\$4.50
‡.625 to 1.125							
\$.500 to .875		BP532	\$2.85				
‡.625 to 1.125				BP533	\$3.75	BP534	\$4.50



†With Clamping Nut
Furnished with cable clamp, east aluminum handle (non-watertight).

Diam. Rigid Conduit, In.		*20-Amperes, 250 Volts A.C.		3-Pole		4-Pole	
		No.	Each	No.	Each	No.	Each
\$.500 to .875		BP722	\$3.35				
‡.625 to 1.125				BP723	\$4.50	BP724	\$5.50
		‡30 Amperes, 250 Volts A.C.					
\$.500 to .875		BP732	\$3.35				
‡.625 to 1.125				BP733	\$4.50	BP734	\$5.50

For Rigid Conduit



Without Clamping Nut
Furnished with east aluminum handles.

Diam. Rigid Conduit, In.		*20-Amperes, 250 Volts A.C.		3-Pole		4-Pole	
		No.	Each	No.	Each	No.	Each
1/2		BP5122	\$2.75	BP5123	\$4.00	BP5124	\$4.75
3/4		BP5222	2.85	BP5223	4.10	BP5224	4.85
1		BP5322	2.95	BP5323	4.20	BP5324	4.95
		‡30 Amperes, 250 Volts A.C.					
1/2		BP5132	\$2.75	BP5133	\$4.00	BP5134	\$4.75
3/4		BP5232	2.85	BP5233	4.10	BP5234	4.85
1		BP5332	2.95	BP5333	4.20	BP5334	4.95



†With Clamping Nut
Furnished with east aluminum handles (watertight).

Diam. Rigid Conduit, In.		*20 Amperes, 250 Volts A.C.		3-Pole		4-Pole	
		No.	Each	No.	Each	No.	Each
1/2		BP7122	\$3.25	BP7123	\$4.75	BP7124	\$5.75
3/4		BP7222	3.35	BP7223	4.85	BP7224	5.85
1		BP7322	3.45	BP7323	4.95	BP7324	5.95
		‡30 Amperes, 250 Volts A.C.					
1/2		BP7132	\$3.25	BP7133	\$4.75	BP7134	\$5.75
3/4		BP7232	3.35	BP7233	4.85	BP7234	5.85
1		BP7332	3.45	BP7333	4.95	BP7334	5.95

For Flexible Cable Without Clamping Nut



Furnished with gland nut, tapered rubber bushing, and east aluminum handles.

Diam. Opening in Cable Clamp, In.		*20 Amperes, 250 Volts A.C.		3-Pole		4-Pole	
		No.	Each	No.	Each	No.	Each
.375 to .500		BP6422	\$3.40	BP6423	\$4.15	BP6424	\$4.90
.500 to .625		BP6522	3.60	BP6523	4.35	BP6524	5.10
.625 to .750		BP6622	3.80	BP6623	4.55	BP6624	5.30
.750 to .875		BP6722	4.00	BP6723	4.75	BP6724	5.50
.875 to 1.000				BP6823	4.95	BP6824	5.70
		‡30 Amperes, 250 Volts A.C.					
.375 to .500		BP6432	\$3.40	BP6433	4.15	BP6434	\$4.90
.500 to .625		BP6532	3.60	BP6533	4.35	BP6534	5.10
.625 to .750		BP6632	3.80	BP6633	4.55	BP6634	5.30
.750 to .875		BP6732	4.00	BP6733	4.75	BP6734	5.50
.875 to 1.000				BP6833	4.95	BP6834	5.70



†With Clamping Nut
Furnished with gland nut, tapered rubber bushing, and east aluminum handles (watertight).

Diam. Opening in Cable Clamp, In.		*20 Amperes, 250 Volts A.C.		3-Pole		4-Pole	
		No.	Each	No.	Each	No.	Each
.375 to .500		BP8422	\$3.90	BP8423	\$4.90	BP8424	\$5.90
.500 to .625		BP8522	4.10	BP8523	5.10	BP8524	6.10
.625 to .750		BP8622	4.30	BP8623	5.30	BP8624	6.30
.750 to .875		BP8722	4.50	BP8723	5.50	BP8724	6.50
.875 to 1.000				BP8823	5.70	BP8824	6.70
		‡30 Amperes, 250 Volts A.C.					
.375 to .500		BP8432	\$3.90	BP8433	\$4.90	BP8434	\$5.90
.500 to .625		BP8532	4.10	BP8533	5.10	BP8534	6.10
.625 to .750		BP8632	4.30	BP8633	5.30	BP8634	6.30
.750 to .875		BP8732	4.50	BP8733	5.50	BP8734	6.50
.875 to 1.000				BP8833	5.70	BP8834	6.70

**Gaskets

For Type BP Plugs



For use between plug receptacle housings and flange on all 30-ampere, 250-volt a.c. watertight plugs.

No.	Size		
	2-Pole Gask 131	3-Pole Gask 141	4-Pole Gask 141
Each	\$.05	.10	.10

*Can be used on 20-ampere, 125-volt d.c. circuits; or on 20-ampere, 250-volt d.c. circuits if circuit is broken before plug is withdrawn.

†Clamp opening 1/2 to 3/8-inch takes most of the 2-wire and 3-wire rubber sheathed, fabric sheathed, and deck cables No. 14 to No. 8.

‡Can be used on 25-ampere, 125-volt d.c. circuits; or on 30-ampere, 250-volt d.c. circuits if circuit is broken before plug is withdrawn.

§Clamp opening 1/2 to 7/8-inch takes 3/8 and 1/2-inch flexible conduit, No. 14 to No. 8 two or three-conductor armored cable, and most of the 2-wire and 3-wire rubber sheathed, fabric sheathed, and deck cables No. 14 to No. 8.

||Clamp opening 5/8 to 1 1/8-inch takes 1/2 and 3/4-inch flexible conduit, No. 10 to No. 6 three-conductor armored cable, and most of the 3-wire and 4-wire rubber sheathed, fabric sheathed, and deck cables No. 12 to No. 6.

¶Also for use with type BR connector receptacles.

**Prices will be given for gaskets of the same catalog number in quantities of 500 or more.

Type BRC Extension Cable Connectors
With Rubber Bushing (Watertight)—Cast Aluminum

*30 Amperes, 250 Volts, A.C.



Take Type BP plugs.

Diameter Cable, In.	Complete No.	2-Pole		Plug Only	
		Each	Receptacle No. Only	Each	No. Each
.375 to .500	BRC8432	\$7.40	BRM70432	\$3.50	BP8432 \$3.90
.500 to .625	BRC8532	7.65	BRM70532	3.55	BP8532 4.10
.625 to .750	BRC8632	8.05	BRM70632	3.75	BP8632 4.30
.750 to .875	BRC8732	8.45	BRM70732	3.95	BP8732 4.50

Diameter Cable, In.	Complete No.	3-Pole		Plug Only	
		Each	Receptacle No. Only	Each	No. Each
.375 to .500	BRC8433	\$8.85	BRM70433	\$3.95	BP8433 \$4.90
.500 to .625	BRC8533	9.10	BRM70533	4.00	BP8533 5.10
.625 to .750	BRC8633	9.50	BRM70633	4.20	BP8633 5.30
.750 to .875	BRC8733	9.90	BRM70733	4.40	BP8733 5.50
.875 to 1.000	BRC8833	10.30	BRM70833	4.60	BP8833 5.70

Diameter Cable, In.	Complete No.	4-Pole		Plug Only	
		Each	Receptacle No. Only	Each	No. Each
.375 to .500	BRC8434	\$10.30	BRM70434	\$4.40	BP8434 \$5.90
.500 to .625	BRC8534	10.55	BRM70534	4.45	BP8534 6.10
.625 to .750	BRC8634	10.95	BRM70634	4.65	BP8634 6.30
.750 to .875	BRC8734	11.35	BRM70734	4.85	BP8734 6.50
.875 to 1.000	BRC8834	11.75	BRM70834	5.05	BP8834 6.70

Type BRME 30° Angle Receptacle Condulets



With Spring Door Without Spring Door With Threaded Cap

Take Type BP plugs.

Size In. Poles	No.	With Spring Door		Without Spring Door		With Threaded Cap	
		No.	Each	No.	Each	No.	Each
1/2	2	BRME61302	\$3.75	BRME1302	\$2.50	BRME81302	\$3.65
3/4	2	BRME62302	3.85	BRME2302	2.60	BRME82302	3.75
3/4	3	BRME62303	4.45	BRME2303	3.20	BRME82303	4.80
1	3	BRME63303	4.55	BRME3303	3.30	BRME83303	4.90
3/4	4	BRME62304	6.15	BRME2304	3.90	BRME82304	5.75
1	4	BRME63304	6.25	BRME3304	4.00	BRME83304	5.85

Type BRP Plug Receptacle Housings

For Outlet Boxes—Surface or Flush Mounting



With Spring Door Without Spring Door With Threaded Cap

Take Type BP plugs.

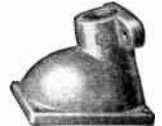
Outlet Box Size In.	No. Poles	Without Spring Door		With Spring Door		With Threaded Cap	
		No.	Each	No.	Each	No.	Each
3/4	2	BRP3023	\$2.50	BRP63023	\$4.10	BRP83023	\$3.65
3/4	3	BRP3033	3.25	BRP63033	5.05	BRP83033	4.85
3/4	4	BRP3043	3.90	BRP63043	5.90	BRP83043	5.95
4	2	BRP3024	2.65	BRP63024	4.25	BRP83024	3.80
4	3	BRP3034	3.40	BRP63034	5.20	BRP83034	5.00
4	4	BRP3044	4.05	BRP63044	6.05	BRP83044	6.10

*Can be used on 25-ampere, 125-volt d.c. circuits; or on 30-ampere, 250-volt d.c. circuits if circuit is broken before plug is withdrawn.

The 2-pole connectors are furnished with 30-ampere, 250-volt receptacle, No. BR2302; 3-pole condulets are furnished with 30-ampere, 250-volt receptacle, No. BR2303; and 4-pole condulets are furnished with 30-ampere, 250-volt receptacle, No. BR2304.

QE Series Condulets

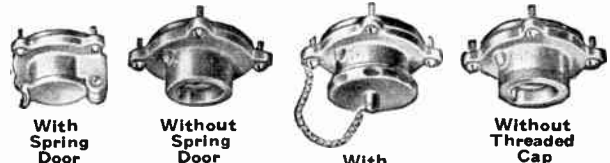
Take housings for snap switches and plug receptacles.



Form	Size In.	Type QE		Size In.	Type QEE	
		No.	Each		No.	Each
10	1/2	QE110	\$0.90	1/2	QEE110	\$1.00
10	3/4	QE210	1.00	3/4	QEE210	1.10
10	1	QE310	1.10	1	QEE310	1.20
20	1/2	QE120	1.30	1/2	QEE120	1.45
20	3/4	QE220	1.40	3/4	QEE220	1.55
20	1	QE320	1.50	1	QEE320	1.65

Type QE Plug Receptacle Housings

Take Type BP 30 Amperes, 250-Volt A.C.



Two-pole housings are furnished with 30-ampere, 250-volt a.c. receptacle BR302. Three-pole housings are furnished with 30-ampere, 250-volt a.c. receptacle BR303. Threaded housings are also furnished with gaskets.

Form	Description	2-Pole		3-Pole	
		No.	Each	No.	Each
10	With Spring Door	QE6302	\$4.60	QE6303	\$5.30
10	Without Spring Door	QE302	3.00	QE303	3.50
10	With Threaded Cap	QE8302	4.15	QE8303	5.10
10	Without Threaded Cap	QE7302	3.20	QE7303	3.75

Take Type BP 60-Ampere, 600-Volt Plugs

Furnished with 3-pole, 60-ampere, 600-volt receptacle BR6036. Threaded housings are also furnished with gaskets.

Form	Description	No.	Each
20	With Spring Door	QE66036	\$7.95
20	Without Spring Door	QE6036	6.45
20	With Threaded Cap	QE86036	8.95
20	Without Threaded Cap	QE76036	6.70

Take Type RQ 30-Ampere, 250-Volt Plugs



With Spring Door

Without Spring Door

Two-pole housings are furnished with 30-ampere, 250-volt receptacle RQH302. Three-pole housings are furnished with 30-ampere, 250-volt receptacle RQH303. Two-wire, 3-pole housings are furnished with 30-ampere, 250-volt receptacle RQH2302.

Form	Description	2-Pole		*2-Wire, 3-Pole		3-Pole	
		No.	Each	No.	Each	No.	Each
10	With Spring Door	QE1066	\$3.60	QE1266	\$3.90		
20	With Spring Door					QE2066	\$5.10
10	Without Spring Door	QE106	2.80	QE126	3.10		
20	Without Spring Door					QE206	4.10

*Third pole grounded.

Type RQ Plugs

30 Amperes, 250 Volts

For Type QE housings.

No. Pole	No.	Each
2	RQ302	\$3.50
*3	RQ2302	3.50
3	RQ303	5.00

*Third pole grounded.

RS Series Junction Condulets



Take conduit hub plates. Furnished with cast Feraloy cover, screws and gaskets for cover and hub plates.

Type	Approx. Inside Dimen. Inches	No.	Each
RS	8 1/2 x 8 1/2 x 4	RS 1	\$9.25
RSM	8 1/2 x 4 1/2 x 4	RSM1	7.85
RSS	4 1/2 x 4 1/2 x 4	RSS 1	6.75

RSP Series Conduit Hub Plates

For RS Series Condulets

For 8 1/2 x 4-Inch Sides of Types RS and RSM Condulets

Approximate outside dimensions, 8 1/2 x 3 1/2 inches. Cap screws and gaskets furnished with Condulet.

With One Hub



*Size Inches	No.	Each
1/2	RSP1	\$1.00
3/4	RSP2	1.05
1	RSP3	1.10
1 1/4	RSP4	1.15
1 1/2	RSP5	1.20
2	RSP6	1.25
2 1/2	RSP7	1.40
3	RSP8	1.65
3 1/2	RSP9	1.90

With Two Hubs



*Size Inches	No.	Each
1/2-1/2	RSP11	\$1.10
3/4-3/4	RSP22	1.20
1-1/2	RSP31	1.30
1-1	RSP33	1.30
1 1/4-3/4	RSP42	1.40
1 1/4-1	RSP43	1.50
1 1/4-1 1/4	RSP44	1.40
1 1/2-3/4	RSP52	1.55
1 1/2-1	RSP53	1.55
1 1/2-1 1/4	RSP54	1.55
1 1/2-1 1/2	RSP55	1.55
2-3/4	RSP62	1.75
2-1	RSP63	1.75
2-1 1/4	RSP64	1.75
2-1 1/2	RSP65	1.75
2-2	RSP66	1.75
2 1/2-1	RSP73	1.95

Blank



RSP0 \$.95

*Sizes are given from left to right in illustrations.

RSMP Series Conduit Hub Plates

For 4 1/2 x 4-Inch Sides of Types RSM and RSS Condulets

Approximate outside dimensions, 3 1/2 x 3 1/2 inches. Cap screws and gaskets furnished with Condulet.

With One Hub



Size In.	No.	Each
1/2	RSMP1	\$.50
3/4	RSMP2	.55
1	RSMP3	.60
1 1/4	RSMP4	.65
1 1/2	RSMP5	.70
2	RSMP6	.75
2 1/2	RSMP7	.90

With Two Hubs



Size In.	No.	Each
1/2-1/2	RSMP11	\$.60
3/4-3/4	RSMP22	1.70
Blank	RSMP0	\$.45



GR Series Junction Condulets



Type GRC



Type GRCA



Type GRL



Type GRT



Type GRX



Type GRB

Form #	Outside Diameter Inches	Size Hub Inches	Type GRC With Wedge-Nut Cover and Gasket		With Screw Cover	
			No.	Each	No.	Each
*4	2 1/2	1/2	GRC146	\$.75	GRC14	\$.95
	2 1/2	3/4	GRC246	.80	GRC24	1.00
	3 1/2	1/2	GRC176	1.00	GRC17	1.45
	3 1/2	3/4	GRC276	1.05	GRC27	1.50
7	3 1/2	1	GRC376	1.10	GRC37	1.55
	4	3/4	GRC286	1.40	GRC28	1.85
	4	1	GRC386	1.45	GRC38	1.90
	4	1 1/4	GRC486	1.50	GRC48	1.95
*4	2 1/2	1/2	Type GRCA GRC A146	\$.80	GRCA14	1.00
	2 1/2	3/4	GRC A246	.85	GRCA24	1.05
	3 1/2	1	GRC A376	1.15	GRCA37	1.60
*4	2 1/2	1/2	Type GRL GRL146	\$.75	GRL14	\$.95
	2 1/2	3/4	GRL246	.80	GRL24	1.00
	3 1/2	1/2	GRL176	1.00	GRL17	1.45
	3 1/2	3/4	GRL276	1.05	GRL27	1.50
7	3 1/2	1	GRL376	1.10	GRL37	1.55
	4	3/4	GRL286	1.40	GRL28	1.85
	4	1	GRL386	1.45	GRL38	1.90
	4	1 1/4	GRL486	1.50	GRL48	1.95
*4	2 1/2	1/2	Type GRT GRT146	\$.80	GRT14	\$1.00
	2 1/2	3/4	GRT246	.85	GRT24	1.05
	3 1/2	1/2	GRT176	1.05	GRT17	1.50
	3 1/2	3/4	GRT276	1.10	GRT27	1.55
7	3 1/2	1	GRT376	1.15	GRT37	1.60
	4	3/4	GRT286	1.45	GRT28	1.90
	4	1	GRT386	1.50	GRT38	1.95
	4	1 1/4	GRT486	1.55	GRT48	2.00
*4	2 1/2	1/2	Type GRX GRX146	\$.85	GRX14	\$1.05
	2 1/2	3/4	GRX246	.90	GRX24	1.10
	3 1/2	1/2	GRX176	1.10	GRX17	1.55
	3 1/2	3/4	GRX276	1.15	GRX27	1.60
7	3 1/2	1	GRX376	1.20	GRX37	1.65
	4	3/4	GRX286	1.50	GRX28	1.95
	4	1	GRX386	1.55	GRX38	2.00
	4	1 1/4	GRX486	1.60	GRX48	2.05
*4	2 1/2	1/2	Type GRB GRB146	\$.75	GRB14	\$.95
	2 1/2	3/4	GRB246	.80	GRB24	1.00
	3 1/2	1	GRB376	1.10	GRB37	1.55

*Do not take connection blocks.

Connection Blocks

For GR Series Condulets



Style	No.	Each	Rating
4-Wire	CB1124	\$.90	20 Amps.-125 V.
6-Wire	CB304	1.40	20 Amps.-250 V.



Conduit Size Forms 7 and 8 Form 8

Gaskets

For GR Series Condulets



Conduit Size	For Screw Covers		For Wedge-Nut Covers	
	No.	Each	No.	Each
Form 4	Gask 316	\$.05	Gask 338	\$.05
Form 7	Gask 210	.10	Gask 332	.10
Form 8	Gask 314	.15	Gask 339	.15



Y Series Condulets
For Cutouts



Type Y



Type YC

Take main line fuse cutouts. Furnished with sheet steel door and cutout fastening plate.

Size Inches	Type Y 30 Amperes, 250 Volts		Type YC 30 Amperes, 250 Volts	
	No.	Each	No.	Each
1/2	Y1302	\$2.35	YC1303	\$3.00
3/4	Y2302	2.45	YC2303	3.10
1	Y3302	2.70	YC3303	3.20
1 1/4	Y4302	2.80	YC4303	3.30
60 Amperes, 250 Volts				
3/4	YC2602	\$3.80	YC2603	\$4.20
1	YC3602	3.90	YC3603	4.30
1 1/4	YC4602	4.40	YC4603	4.40

Type YYC Condulets
For Cutouts

30 Amperes, 250 Volts

Take main line fuse cutouts. Furnished with cast Feraloy door, removable conduit hub plates, and cutout fastening plate.



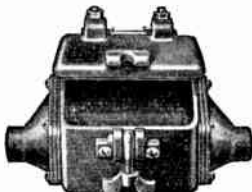
2-Wire

Size In.	No.	Each
1/2	YYC1302	\$4.30
3/4	YYC2302	4.50
3-Wire		
3/4	YYC2303	\$5.40
1	YYC3303	5.60

Type YWC Weatherproof Condulets
For Cutouts

30 Amperes, 250 Volts

Take main line fuse cutouts. Furnished with cast Feraloy door, removable conduit hub plates, gaskets and cutout fastening plate.



2-Wire

Size In.	No.	Each
1/2	YWC1302	\$5.30
3/4	YWC2302	5.50
3-Wire		
3/4	YWC2303	\$6.55
1	YWC3303	6.75

Weatherproof Condulets
For Cutouts

2-Wire, 30 Amperes, 250 Volts

Take connection blocks, or 2-wire, 30-ampere, 250-volt main line fuse cutouts. Cast feraloy door.



Type YAC

Size In.	No.	Each
1/2	YAC1302	\$4.00
3/4	YAC2302	4.10
1	YAC3302	4.20

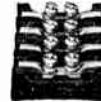
YA Series



Type YAJ

Size Inches	No.	Each
1/2	YAJ1302	\$3.00

Connection Blocks Type YA Connection Blocks



Nos. YA3 and YA4 take 2-wire, 30-ampere, 250-volt main line cutouts. No. YA6 takes 3-wire, 60-ampere, 25-volt main line cutouts.

Description	Rating	For 2-Wire, 3-Wire 2-Gang or 3-Gang Condulets		For 3-Wire or 3-Gang Condulets	
		No.	Each	No.	Each
3-Wire	30 Amps.-250V.	YA3	\$1.50	.....	.....
4-Wire	30 Amps.-250V.	YA4	2.00	.....	.....
6-Wire	30 Amps.-250V.	.....	.....	YA6	\$3.00

Type YKC Condulets

For Fusible Knife Switches

2-Pole, 30 Amperes, 250 Volts

Take fusible knife switches. Furnished with sheet steel door, and with switch fastening plate.

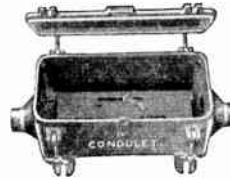


Size In.	No.	Each
1/2	YKC1302	\$4.15
3/4	YKC2302	4.30
1	YKC3302	4.45
1 1/4	YKC4302	4.60
1 1/2	YKC5302	4.75

Type YKWC Weatherproof Condulets

For Fusible Knife Switches

Furnished with gasketed cast Feraloy door, and with removable switch fastening plate.



Size In.	30 Amperes, 250 Volts		3-Pole	
	No.	Each	No.	Each
1/2	YKWC1302	\$9.75	YKWC1303	\$10.65
3/4	YKWC2302	9.90	YKWC2303	10.80
1	YKWC3302	10.05	YKWC3303	10.95
1 1/4	YKWC4302	10.20	YKWC4303	11.10
1 1/2	YKWC5302	10.35	YKWC5303	11.25
60 Amperes, 250 Volts				
3/4	YKWC2602	\$12.70	YKWC2603	\$14.70
1	YKWC3602	12.85	YKWC3603	14.85
1 1/4	YKWC4602	13.00	YKWC4603	15.00
1 1/2	YKWC5602	13.15	YKWC5603	15.15
2	YKWC6602	13.30	YKWC6603	15.30

Type YKK Knife Switches

For Types YKC and YKWC Condulets



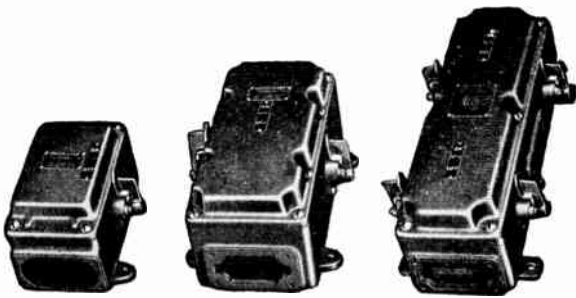
Cap. Amp.	No.	Each
30	YKK302	\$2.25
60	YKK602	3.50

Type YSW Condulets

Without Hub Plates

For Circuit Breakers

Vaportight—Weather Resistant (Raintight)



Take YYP7 Series removable conduit hub plates. Furnished with Westinghouse "Flipon" circuit breakers, connection block, and gaskets for hub plates.

YSW Form 1

Style	Amperes	With Circuit Breakers		*Without Circuit Breakers	
		Single-Pole No.	Each	Double-Pole No.	Each
	15	YSW1115	\$16.70	YSW1215	\$24.90
1	20	YSW1120	16.70	YSW1220	24.90
Circuit	25	YSW1125	16.70	YSW1225	24.90
Breaker	35	YSW1135	17.70	YSW1235	24.90
	2	YSW2115	25.40		YSW21
Circuit	20	YSW2120	25.40		YSW21
Breakers	25	YSW2125	25.40		YSW21

YSW Form 2

	15		YSW1152	\$31.90	YSW102	\$18.00
†1	20		YSW1202	31.90	YSW102	18.00
Circuit	25		YSW1252	31.90	YSW102	18.00
Breaker	35		YSW1352	31.90	YSW102	18.00
	50		YSW1502	31.90	YSW102	18.00
	15	YSW2151	\$32.40		YSW201	21.00
	20	YSW2201	32.40		YSW201	21.00
Circuit	25	YSW2251	32.40		YSW201	21.00
Breakers	35	YSW2351	34.40		YSW201	21.00

YSW Form 3

	15		YSW2215	\$53.80	YSW22	\$26.00
†2	20		YSW2220	53.80	YSW22	26.00
Circuit	25		YSW2225	53.80	YSW22	26.00
Breakers	35		YSW2235	53.80	YSW22	26.00
	15	YSW4115	\$54.80		YSW41	32.00
	20	YSW4120	54.80		YSW41	32.00
Circuit	25	YSW4125	54.80		YSW41	32.00
Breakers	35	YSW4135	58.80		YSW41	32.00

YSW Form 4

	15		YSW2152	\$63.80	YSW202	\$36.00
†2	20		YSW2202	63.80	YSW202	36.00
Circuit	25		YSW2252	63.80	YSW202	36.00
Breakers	35		YSW2352	63.80	YSW202	36.00
	50		YSW2502	63.80	YSW202	36.00
	15	YSW4151	\$64.80		YSW401	42.00
	20	YSW4201	64.80		YSW401	42.00
Circuit	25	YSW4251	64.80		YSW401	42.00
Breakers	35	YSW4351	68.80		YSW401	42.00
	50	YSW4501	68.80		YSW401	42.00

*Take single and double pole circuit breakers.

†Handles on right side.

Overall Dimensions of Body

Form	Style	Width Inches	Height Inches	Depth Inches
1	For 1 Circuit Breaker	6 ⁵ / ₈	8	5 ³ / ₈
1	For 2 Circuit Breakers	6 ³ / ₄	8	5 ³ / ₈
2	For 1 Circuit Breaker	8	12	5 ³ / ₄
2	For 2 Circuit Breakers	8 ¹ / ₈	12	5 ³ / ₄
3	For 2 Circuit Breakers	7 ¹ / ₄	16	5 ⁵ / ₈
3	For 4 Circuit Breakers	7 ¹ / ₂	16	5 ⁵ / ₈
4	For 2 Circuit Breakers	8 ¹ / ₂	20 ¹ / ₄	5 ³ / ₄
4	For 4 Circuit Breakers	8 ¹ / ₄	20 ¹ / ₄	5 ³ / ₄

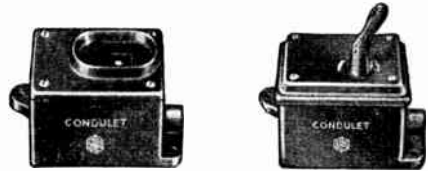
FA Series Safety Switch Condulets

FA Series Condulets are furnished with Crouse-Hinds tumbler switch, cover and gasket.

Type FA

With Guarded Cover

With Watertight Cover



2-Pole, 30-Ampere, 250-Volt or 5-Ampere, 600-Volt

2-Pole, 30-Ampere, 250-Volt or 5-Ampere, 600-Volt

"On" AND "Off"

Size In.	No.	Each
1/2	FA129	\$6.25
3/4	FA229	6.35
1	FA329	6.45

"On" AND "Off"

Size In.	No.	Each
1/2	FA128	\$8.90
3/4	FA228	9.00
1	FA328	9.10

3-Way, 20-Ampere, 125-Volt or 10-Ampere, 250-Volt

3-Way, 20-Ampere, 125-Volt or 10-Ampere, 250-Volt

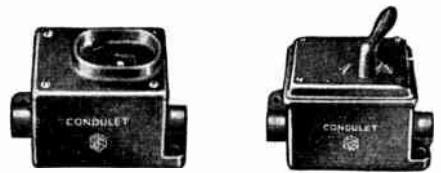
1/2	FA169	\$6.50
3/4	FA269	6.60
1	FA369	6.70

1/2	FA168	\$9.15
3/4	FA268	9.25
1	FA368	9.35

Type FAC

With Guarded Cover

With Watertight Cover



2-Pole, 30-Ampere, 250-Volt or 5-Ampere, 600-Volt

2-Pole, 30-Ampere, 250-Volt or 5-Ampere, 600-Volt

"On" AND "Off"

Size In.	No.	Each
1/2	FAC129	\$6.35
3/4	FAC229	6.45
1	FAC329	6.55

"On" AND "Off"

Size In.	No.	Each
1/2	FAC128	\$9.00
3/4	FAC228	9.10
1	FAC328	9.20

3-Way, 20-Ampere, 125-Volt or 10-Ampere, 250-Volt

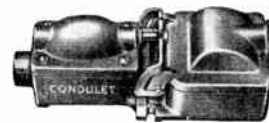
3-Way, 20-Ampere, 125-Volt or 10-Ampere, 250-Volt

1/2	FAC169	\$6.60
3/4	FAC269	6.70
1	FAC369	6.80

1/2	FAC168	\$9.25
3/4	FAC268	9.35
1	FAC368	9.45

Type FSQ Interlocking Safety Switch Condulets

Furnished with tumbler switch, vaportight cover, Hubbell 3-pole twist lock receptacle, and Hubbell 3-pole twist lock plug.



Size In. 3/4

No. FSQ28

Each \$12.00

Type FHRC Thermostat Condulets



Furnished with thermostat, thermometer, and mercury tube switch.

Has 3/4-inch hub, through feed.

No.	Each	Range of Thermostat Degrees F.	Use
FHRC226	\$15.50	25 to 60	Refrigeration
FHRC237	15.50	38 to 70	Heating
FHRC258	15.50	56 to 80	Heating
FHRC269	15.50	65 to 90	Air Conditioning

Crouse-Hinds Enclosed Safety Switch Condulets

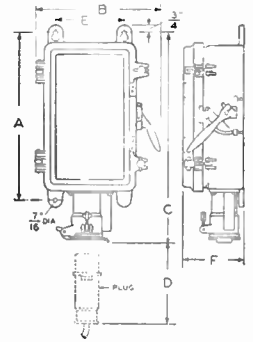
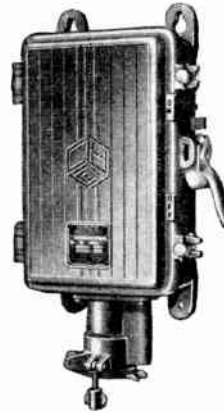
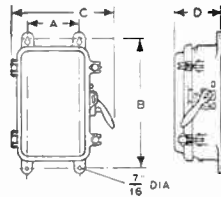
**Weather Resistant
(Raintight)**

Type WMKS

**With Interlocking Plug
Receptacle**



Type WMK



Type WMK condulets are furnished with switches and are especially suited to locations where a strong, durable case and switch mechanism are required. May be used indoors or outdoors, and in all places except hazardous locations.

Listed with 2 threaded conduit openings of the same size, one at the top and one at the bottom. Other arrangements and sizes of conduit openings can be furnished and prices will be quoted upon request, if accompanied by a full explanation of requirements. An interlock is provided which prevents the opening of the enclosure except when the switch is in the off position.

Approximate Dimensions

Amperes.....	30	60	100	200
A Dimen..... inches	6 ³ / ₄	6 ³ / ₄	10 ¹ / ₄	10 ¹ / ₄
B Dimen..... inches	16 ¹ / ₂	16 ¹ / ₂	24 ³ / ₄	24 ³ / ₄
C Dimen..... inches	13	13	16 ¹ / ₂	16 ¹ / ₂
D Dimen..... inches	6 ¹ / ₈	6 ¹ / ₈	8 ³ / ₄	8 ³ / ₄

2-Pole—Not Fusible

		230 Volts A.C.—250 Volts D.C.		575 Volts A.C.—600 Volts D.C.	
		HP. RATING		HP. RATING	
		230- 250-		*575- 600-	
		V. V.		V. V.	
Hub Size	No.	Each A.C. D.C.	No.	Each A.C. D.C.	No.
30 3/4	WMK30254-1-22	\$34.40 3	5 WMK30254-1-22	\$34.40	7 1/2
60 1 1/4	WMK60254-1-44	36.70 7 1/2	10 WMK60254-1-44	36.70	15
100 1 1/2	WMK10254-1-55	94.60 15	15 WMK10254-1-55	94.60	25
200 2	WMK20254-1-66	130.70 25	30 WMK20254-1-66	130.70	50

3-Pole—Not Fusible

30 1	WMK30354-1-33	\$37.85 5	.. WMK30354-1-33	\$37.85	10
60 1 1/4	WMK60354-1-44	40.15 10	.. WMK60354-1-44	40.15	25
100 1 1/2	WMK10354-1-55	100.90 20	.. WMK10354-1-55	100.90	40
200 2 1/2	WMK20354-1-77	137.55 40	.. WMK20354-1-77	137.55	50

†2-Pole—Fusible

30 3/4	WMK302-1-22	\$33.85 2	5 WMK3025-1-22	\$42.45	7 1/2
60 1 1/4	WMK602-1-44	36.15 5	10 WMK6025-1-44	44.70	15
100 1 1/2	WMK1002-1-55	93.45 10	15 WMK10025-1-55	100.30	25
200 2	WMK2002-1-66	137.55 15	30 WMK20025-1-66	144.45	50

†3-Pole—Fusible

30 1	WMK303-1-33	\$37.85 3	.. WMK3035-1-33	\$45.85	7 1/2
60 1 1/4	WMK603-1-44	41.85 7 1/2	.. WMK6035-1-44	49.30	20
100 1 1/2	WMK1003-1-55	102.60 15	.. WMK10035-1-55	107.75	30
200 2 1/2	WMK2003-1-77	147.90 30	.. WMK20035-1-77	151.30	50

*Also applies for 440-480-volts a.c. service.

†Cartridge fuses are not included in the catalog number or price.

The receptacle is so interlocked with the switch that the plug cannot be withdrawn unless the switch is open and the switch cannot be closed unless the plug is fully inserted.

Approximate Dimensions, Inches

Item	A	B	C	D	E	F
1	16 ¹ / ₂	13	21	6	6 ³ / ₄	6 ¹ / ₈
2	16 ¹ / ₂	13	21	7	6 ³ / ₄	6 ¹ / ₈
3	24 ³ / ₄	16 ¹ / ₂	30	7 1/2	10 ¹ / ₄	8 ³ / ₄
4	24 ³ / ₄	16 ¹ / ₂	32	12	10 ¹ / ₄	8 ³ / ₄
5	16 ¹ / ₂	13	32	8 1/4	6 ³ / ₄	6 ¹ / ₈
6	24 ³ / ₄	16 ¹ / ₂	30	9	10 ¹ / ₄	8 ³ / ₄

†2-Pole Fusible Switch With 2-Wire, 2-Pole, Style 1 Receptacle

		HP. RATING		HP. RATING	
		230- 250-		*575- 600-	
		V., V., sional		V., V.	
Amp. In.	No.	Each A.C. D.C.	Item	No.	Each A.C. D.C.
30 3/4	WMKS1632	\$49.00 2 5 1			
60 1 1/4	WMKS1662	56.00 5 10 2			
100 1 1/2	WMKS16102	118.00 10 15 3			
200 2	WMKS16202	173.00 15 30 4			

†2-Pole Fusible Switch With 2-Wire, 3-Pole, Style 2 Receptacle

30 3/4	WMKS16323	\$50.00 2 5 2	WMKS163235	\$58.00	7 1/2
60 1 1/4	WMKS16623	57.00 5 10 2	WMKS166235	66.00	15
100 1 1/2	WMKS161023	119.00 10 15 3	WMKS1610235	126.00	25
200 2	WMKS162023	178.00 15 30 4	WMKS1620235	184.00	50

†3-Pole Fusible Switch With 3-Wire, 3-Pole, Style 1 Receptacle

30 1	WMKS1633	\$54.00 3	.. 1 WMKS16335	\$62.00	7 1/2
60 1 1/4	WMKS1663	63.00 7 1/2	.. 2 WMKS16635	70.00	20
100 1 1/2	WMKS16103	129.00 15	.. 3 WMKS161035	134.00	30
200 2 1/2	WMKS16203	188.00 30	.. 4 WMKS162035	191.00	50

†3-Pole Fusible Switch With 3-Wire, 4-Pole, Style 2 Receptacle

30 1	WMKS16334	\$56.00 3	.. 5 WMKS163345	\$64.00	7 1/2
60 1 1/4	WMKS16634	65.00 7 1/2	.. 5 WMKS166345	73.00	20
100 1 1/2	WMKS161034	131.00 15	.. 6 WMKS1610345	136.00	30

*Also applies for 440-480-volt a.c. service.

†Style 1—grounded through shell. Style 2—grounded through extra pole and shell.

Type DP Interlocking Plugs

For Use with Type WMKS Safety Switch and Interlocking Receptacle Condulets
30 Amperes—250 Volts



**Type DP
30 to 100
Amperes**

Diameter Cable, Inches	†Style 1				†Style 2			
	2-W., 2-P.		3-W., 3-P.		2-W., 3-P.		3-W., 4-P.	
.500 to .875	No.	Each	No.	Each	No.	Each	No.	Each
.750 to 1.188	DP132	\$6.50	DP133	\$7.00	Use 600-volt Plugs			
	DP332	6.50	DP333	7.00	Use 600-volt Plugs			
30 and 60 Amperes—600 Volts								
.750 to 1.188	DP162	\$7.50	DP163	\$8.00	DP1623	\$9.25		
1.188 to 1.400	DP362	7.50	DP363	8.00	DP3623	9.25		
.500 to .875							DP164	\$11.50
.875 to 1.400							DP364	11.50
100 Amperes—600 Volts								
.938 to 1.469	DP1102	\$14.00	DP1103	\$15.00	DP11023	\$16.50		
1.469 to 1.800	DP3102	14.00	DP3103	15.00	DP31023	16.50		
1.000 to 1.500							DP1104	\$18.50
1.500 to 1.800							DP3104	18.50
200 Amperes—600 Volts								
1.188 to 1.813	DP1202	\$40.00	DP1203	\$43.00	DP12023	\$48.00		
1.750 to 2.563	DP3202	40.00	DP3203	43.00	DP32023	48.00		

†Style 1—grounded through shell. Style 2—grounded through extra pole and shell.



**Type DP
200-Ampere**

Type LG Gauge Lamps

Take lamps in A17, S14, or S17 bulb.
Made of cast aluminum.
Furnished with tapered rubber bushing and gland nut.



Water Glass Lamps

Vertical Slot

No.	1/2-Inch Hub for Rigid Conduit	.375 to .438-Inch O.D. of Round Cord or Cable
.....	LG21	LG23
Each.....	\$3.50	3.50



Lubricator Lamps

13-Inch Slot

No.	1/2-Inch Hub for Rigid Conduit	.375 to .438-Inch O.D. of Round Cord or Cable
.....	LG31	LG33
Each.....	\$5.00	5.00



Single Steam and Air Gauge Lamps

Round Opening

No.	1/2-Inch Hub for Rigid Conduit	.375 to .438-Inch O.D. of Round Cord or Cable
.....	LG11	LG13
Each.....	\$3.50	3.50

Multiple Steam and Air Gauge Lamps

Rectangular Opening

Furnished with tapered split lead sleeve and gland nut.



No.	Each	Size Hub Inches	O.D. Round Cord or Cable Inches	O.D. Flexible Conduit or Armored Cable Inches
LG161	\$4.25	1/2	.....	.....
LG1601	4.25	.....	.220 to .260	.....
LG162	4.25	.....	.313 to .375	.....
LG163	4.25	.....	.375 to .438	.....
LG164	4.25	.....	.469 to .560	.....
LG1629	4.25	.....	.....	.406 to .453
LG1632	4.25	.....	.....	.453 to .500
LG1635	4.25	.....	.....	.500 to .547

Mine Signal Switches

Types AF and AFB



Operated by a pull rope. Weight of pull rope supported by a spring packed in grease.

Furnished with single-pole, double-make switches; heavy duty push button switch, or a spring contact switch. Operated by spring plunger when rope is pulled.

Normal position of Type AF is open; of Type AFB, closed. Wires enter through clearance holes in the flange on switch mechanism.

Type AF	Type AFB	No.	Each	*Initial Pull Lb.	†Final Pull Lb.	Total Wt. Pounds Pull Rope Including Moisture	Additional Pull Req. to Operate Switch Pounds
AF7	AFB7		\$10.00	7	10	7 to 0	3 to 10
AF10	AFB10		10.00	10	15	10 to 0	5 to 15
AF15	AFB15		10.00	15	25	15 to 0	10 to 25
AF25	AFB25		10.00	25	50	25 to 0	25 to 50

*Spring will support the weight shown, without starting to operate the switch.

†Weight shown is required to operate the switch, but this includes the weight of the pull rope.

Type CGB Connectors

Straight—Male Thread



The smaller sizes of connectors are made of steel; larger sizes, of cast Feraloy.

With Tapered Rubber Bushing

*Schedule 1

For connecting round flexible cord or cable to Condulets, outlet boxes, plug handles, or rigid conduit. Cord or cable will pass entirely through the connector without removing outer covering.

No.	Each	DIMENSIONS, INCHES		
		†A	§B	||C
CGB3892	\$.65	.125 to .250	3/8	15/32
CGB192	.65	.125 to .250	1/2	19/32
CGB292	.65	.125 to .250	3/4	11/16
CGB3893	.65	.250 to .375	3/8	15/32
CGB193	.65	.250 to .375	1/2	19/32
CGB293	.65	.250 to .375	3/4	11/16
CGB194	.65	.375 to .500	1/2	19/32
CGB294	.65	.375 to .500	3/4	11/16
CGB295	.65	.500 to .625	3/4	11/16
CGB395	1.00	.500 to .625	1	15/16
CGB396	1.00	.625 to .750	1	15/16

*Schedule 2

For connecting round flexible cord or cable to Condulets, outlet boxes, or rigid conduit. Cord or cable will not pass through the connector without removing outer covering.

CGB195	\$.65	.500 to .625	1/2	1/2
CGB196	1.00	.625 to .750	1/2	1/2
CGB296	1.00	.625 to .750	3/4	11/16
CGB297	1.00	.750 to .875	3/4	11/16
CGB398	1.45	.875 to 1.000	1	29/32

With Tapered Split Lead Sleeves

*Schedule 3

For connecting armored cable or flexible conduit to Condulets, outlet boxes, plug handles, or rigid conduit. Armored cable or flexible conduit will pass entirely through the connector.

No.	Each	DIMENSIONS, INCHES		
		†A	§B	||C
CGB184	\$.65	.375 to .500	1/2	19/32
CGB185	.65	.500 to .563	1/2	19/32
CGB285	.65	.500 to .625	3/4	11/16
CGB386	1.00	.625 to .781	1	15/16
CGB387	1.00	.781 to .938	1	15/16
CGB489	1.45	.938 to 1.156	1 1/4	1 7/32
CGB589	1.45	.938 to 1.156	1 1/2	1 11/16

*Schedule 4

For connecting armored cable or flexible conduit to Condulets, outlet boxes, plug handles, or rigid conduit. Armored cable or flexible conduit will not pass through the connector without removing outer covering.

CGB186	\$1.00	.625 to .781	1/2	1/2
CGB286	1.00	.625 to .781	3/4	11/16
CGB187	1.00	.781 to .938	1/2	1/2
CGB287	1.00	.781 to .938	3/4	11/16
CGB289	1.45	.938 to 1.156	3/4	11/16
CGB389	1.45	.938 to 1.156	1	29/32

*Use schedule numbers for identification of connectors when consulting Underwriters' Laboratories' list of inspected electrical appliances.

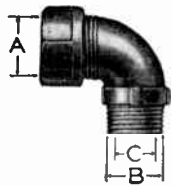
†A—Inside diameter in inches of rubber bushing which takes round flexible cord or cable.

†A—Inside diameter in inches of split lead sleeve which takes armored cable, or flexible conduit.

§B—Size in inches of Condulet hub with which connectors can be used.

||C—Inside diameter of hole through nipple of connectors.

Type CGE Connectors



90° Angle—Male Thread

With Tapered Rubber Bushing

The smaller sizes of connectors are made of steel; larger sizes of cast Feraloy.

***Schedule 1**

For connecting round flexible cord or cable to Condulets, outlet boxes, plug handles, or rigid conduit. Cord or cable will pass entirely through the connector without removing outer covering.

No.	Each	DIMENSIONS, INCHES		
		†A	†B	‡C
CGE192	\$.65	.125 to .250	1/2	1/2
CGE292	.65	.125 to .250	3/4	1 1/16
CGE193	.65	.250 to .375	1/2	1/2
CGE293	.65	.250 to .375	3/4	1 1/16
CGE194	.65	.375 to .438	1/2	1/2
CGE294	.65	.375 to .500	3/4	1 1/16
CGE295	.65	.500 to .625	3/4	1 1/16
CGE395	1.00	.500 to .625	1	2 3/32
CGE396	1.00	.625 to .750	1	2 3/32
CGE397	1.00	.750 to .813	1	2 3/32
CGE498	1.45	.875 to 1.000	1 1/4	1 7/32

***Schedule 2**

For connecting round flexible cord or cable to Condulets, outlet boxes, or rigid conduit. Cord or cable will not pass through the connector without removing outer covering.

No.	Each	DIMENSIONS, INCHES		
		†A	†B	‡C
CGE195	\$.65	.500 to .625	1/2	1/2
CGE196	1.00	.625 to .750	1/2	1/2
CGE296	1.00	.625 to .750	3/4	1 1/16
CGE197	1.00	.750 to .875	1/2	1/2
CGE297	1.00	.750 to .875	3/4	1 1/16
CGE397	1.00	.813 to .875	1	2 3/32
CGE398	1.45	.875 to 1.000	1	2 3/32

*Use schedule numbers for identification of connectors when consulting Underwriters' Laboratories' list of inspected electrical appliances.

†A—Inside diameter in inches of rubber bushing which takes round flexible cord or cable.

†B—Size in inches of Condulet hub with which connectors can be used.

‡C—Inside diameter of hole through nipple of connectors.

CC Series Flexible Conduit Couplings

For connecting flexible conduit to Condulets.

A—Size flexible conduit with which coupling can be used.

B—Size Condulet hub with which coupling can be used.

C—Inside diameter of hole through nipple of coupling.



No.	Each	DIMENSIONS, IN.		
		A	B	C
CCB30838	\$.30	3/8	3/4	1 1/32
CCB138	.30	3/8	1	7/16
CCB11	.30	1/2	1 1/2	7/16
CCB21	.40	1/2	3/4	5/8
CCB22	.40	3/4	3/4	5/8
*CCB33	.50	1 S.S.	1	1 1/16
†CCB332	.50	1 D.S.	1	1 1/16



No.	Each	DIMENSIONS, IN.		
		A	B	C
CCK138	\$.30	3/8	1/2	1 1/32
CCK11	.30	1/2	1 1/2	5/8
CCK22	.40	3/4	3/4	2 1/32
*CCK33	.50	1 S.S.	1	1
†CCK332	.50	1 D.S.	1	1

*Takes 1-inch Flexsteel single strip, 1-inch Triangle single strip, and 1-inch Federal metal hose.

†Takes 1-inch Greenfield single and double strip, and 1-inch Flexsteel double strip.

Type CG Watertight Stuffing Boxes



A watertight stuffing box for the passage of conduit through the decks or bulkheads of ships, or where vapor, moisture, or gases are present.

Furnished with nuts, washer, double canvas gasket, and flax packing.

No.	CG1	CG2	CG3	CG4	CG5	CG6	CG7
Each	\$1.25	1.50	1.75	2.50	3.25	4.50	6.25
Size, inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2

Type UCE Conduit End Bushings

For bushing the end of threadless conduit.



Size In.	Threaded		Threadless	
	For Thick Wall No.	Each	For Thick Wall No.	For Thin Wall No.
1/2	UCE1	\$.25	UCE19	\$.35
3/4	UCE2	.35	UCE29	.45
1	UCE3	.50	UCE39	.65
1 1/4	UCE4	.65	UCE49	.90
1 1/2	UCE5	.90	UCE59	1.25
2	UCE6	1.20	UCE69	1.80
2 1/2	UCE7	1.65	UCE79	2.55
3	UCE8	4.00	UCE89	5.15

Condulet Unions

Type UNY—Male

For connecting conduit to a Condulet.



Size Inches	Length In.	Diam. In.	No.	Each
1/2	2 1/16	1 1/2	UNY1	\$.45
3/4 to 1/2	2 1/8	1 3/4	UNY21	.45
3/4	2 3/8	1 3/4	UNY2	.50
1	2 3/8	2 1/16	UNY3	.75
1 1/4	2 5/16	2 13/16	UNY4	1.20
1 1/2	3 1/8	3 1/8	UNY5	1.80
2	3 1/4	3 11/16	UNY6	2.75

Type UNF—Female

For connecting conduit to conduit.



Size	Length	Diam.	No.	Each
1/2	1 3/4	1 1/2	UNF1	\$.45
3/4 to 1/2	1 3/4	1 3/4	UNF21	.45
3/4	1 3/4	1 3/4	UNF2	.50
1	1 15/16	2 1/16	UNF3	.75
1 1/4	2	2 13/16	UNF4	1.20
1 1/2	2 3/16	3 3/8	UNF5	1.80
2	2 5/16	3 11/16	UNF6	2.75

*Male end is given first.

Type UNA Universal Unions

Schedule CE

A convenient union for conduit joints made at angles from 90° to 180°. A single clamping nut provides easy adjustment to required angles.

Unless a Type UNA universal union is placed at or near an outlet, or unless it is installed at an angle of about 140° to 180°, it may prove to be difficult to fish wires through union. For this reason, these devices are not approved as conduit unions for general use.

For use only if adjacent to a Condulet. Explosion-proof and dust-tight.



let. Size In.	Length In.	Width In.	No.	Each
1/2	4	2 11/32	UNA16	\$1.45
3/4	4 1/2	2 27/32	UNA26	1.75
1	5 1/4	3 15/32	UNA36	2.00
1 1/2	3 3/4	2 11/32	UNA1	1.30
3/4	3 7/8	2 27/32	UNA2	1.45
1	4 5/8	3 15/32	UNA3	1.75

Type CCT Self-Threading Connectors



No.	Each	Size Inches
CCT1	\$.25	1/8
CCT2	.30	3/4
CCT3	.35	1
CCT4	1.10	1 1/4
CCT5	1.40	1 1/2

Threaded Condulet Reducers



Used to reduce condulets from larger to smaller sizes.

Size In.	No.	Per 100	Size In.	No.	Per 100
1/4 - 1/8	RE2818	\$15.00	2 1/2 - 2	RE76	\$88.80
3/8 - 1/8	RE3818	15.00	3 - 1/2	RE81	119.85
3/8 - 1/4	RE3828	15.00	3 - 3/4	RE82	119.85
1/2 - 1/8	RE1108	15.00	3 - 1	RE83	119.85
1/2 - 1/4	RE1208	15.00	3 - 1 1/4	RE84	119.85
1/2 - 3/8	RE1308	10.80	3 - 1 1/2	RE85	119.85
3/4 - 1/2	RE21	10.80	3 - 2	RE86	119.85
1 - 1/2	RE31	14.30	3 - 2 1/2	RE87	119.85
1 - 3/4	RE32	14.30	3 1/2 - 1/2	RE91	158.25
1 1/4 - 1/2	RE41	21.65	3 1/2 - 3/4	RE92	158.25
1 1/4 - 3/4	RE42	21.65	3 1/2 - 1	RE93	158.25
1 1/4 - 1	RE43	21.65	3 1/2 - 1 1/4	RE94	158.25
1 1/2 - 1/2	RE51	31.70	3 1/2 - 1 1/2	RE95	158.25
1 1/2 - 3/4	RE52	31.70	3 1/2 - 2	RE96	158.25
1 1/2 - 1	RE53	31.70	3 1/2 - 2 1/2	RE97	158.25
1 1/2 - 1 1/4	RE54	31.70	3 1/2 - 3	RE98	158.25
2 - 1/2	RE61	44.40	4 - 1/2	RE101	217.05
2 - 3/4	RE62	44.40	4 - 3/4	RE102	217.05
2 - 1	RE63	44.40	4 - 1	RE103	217.05
2 - 1 1/4	RE64	44.40	4 - 1 1/4	RE104	217.05
2 - 1 1/2	RE65	44.40	4 - 1 1/2	RE105	217.05
2 1/2 - 1/2	RE71	88.80	4 - 2	RE106	217.05
2 1/2 - 3/4	RE72	88.80	4 - 2 1/2	RE107	217.05
2 1/2 - 1	RE73	88.80	4 - 3	RE108	217.05
2 1/2 - 1 1/4	RE74	88.80	4 - 3 1/2	RE109	217.05
2 1/2 - 1 1/2	RE75	88.80			

Threadless Condulet Reducers

For Threadless Condulets



Size Inches	Thick Wall		Thin Wall EMT			
	No.	Per 100	External Nut Type No.	Per 100	MT Type No.	Per 100
3/4 - 1/2	RE291	\$29.00	RE241	\$29.00	RE251	\$29.00
1 - 1/2	RE391	38.00	RE341	38.00	RE351	38.00
1 - 3/4	RE392	43.00	RE342	43.00	RE352	43.00
1 1/4 - 1/2	RE491	51.00	RE441	51.00	RE451	51.00
1 1/4 - 3/4	RE492	54.00	RE442	54.00	RE452	54.00
1 1/4 - 1	RE493	58.00	RE443	58.00	RE453	58.00
1 1/2 - 1/2	RE591	57.00	RE541	57.00	RE551	57.00
1 1/2 - 3/4	RE592	64.00	RE542	64.00	RE552	64.00
1 1/2 - 1	RE593	67.00	RE543	67.00	RE553	67.00
1 1/2 - 1 1/4	RE594	81.00	RE544	81.00	RE554	81.00
2 - 1/2	RE691	75.00	RE641	75.00	RE651	75.00
2 - 3/4	RE692	85.00	RE642	85.00	RE652	85.00
2 - 1	RE693	92.00	RE643	92.00	RE653	92.00
2 - 1 1/4	RE694	102.00	RE644	102.00	RE654	102.00
2 - 1 1/2	RE695	108.00	RE645	108.00	RE655	108.00

Type UCT Adapters



For electrical metallic tubing which has the same inside diameter as the corresponding size of standard rigid conduit; therefore, the outside diameter of E.M.T. is considerably less than corresponding sizes of standard rigid conduit. This gives an opportunity for use of an adapter in standard Condulet threaded hubs. Type UCT screws into tapered threaded hub of Condulet and securely grips E.M.T.

No.	UCT1	UCT2	UCT3
Per 100	\$4.50	6.80	11.20
Size	1/2 inches	3/4	1

Type EL Condulet Elbows

Schedule CE

Explosion-Proof and Dust-Tight

45° Female



45° Female



90° Male



90° Female



90° Male and Female

Size In.	Dimen.		No.	Each
	A In.			
1/2	1 3/8		EL1	\$.20
3/4	1 5/8		EL2	.25
1	1 7/8		EL3	.30
1 1/4	2 1/8		EL4	.65
1 1/2	2 3/8		EL5	.75
2	2 7/8		EL6	1.20
2 1/2	3 1/8		EL7	2.70
3	3 3/8		EL8	3.15
3 1/2	3 7/8		EL9	4.95
4	4 1/8		EL10	5.55
90° Male				
1/2	1 1/2		EL195	\$.25
3/4	1 5/8		EL295	.35
1	1 7/8		EL395	.45
1 1/4	2 1/8		EL495	.75
90° Female				
1/2	1 1/8		EL19	\$.25
3/4	1 3/8		EL29	.35
1	1 5/8		EL39	.45
1 1/4	2 1/8		EL49	.75
1 1/2	2 3/8		EL59	1.50
2	3		EL69	2.50
2 1/2	3 5/8		EL79	4.75
90° Male and Female				
1/2	1 1/2		EL196	\$.25
3/4	1 5/8		EL296	.35
1	1 7/8		EL396	.45
1 1/4	2 1/8		EL496	.75

Tees



Short Radius Bend



Large Radius Bend

Where these tees are used, junctions in the conduit system may be made at concealed or inaccessible points. Hubs have an integral bushing and tapered thread.

Size Inches	Short Radius Bend No.	Each	Large Radius Bend No.	Each
1/2 - 1/2 - 1/2	ET219	\$.80	ET1	\$1.25
3/4 - 1/2 - 1/2	ET229	.85	ET21	1.45
3/4 - 3/4 - 3/4				
1 - 1/2 - 1/2			ET31	1.55
1 - 3/4 - 3/4	ET329	.90	ET32	1.90
1 - 1 - 1	ET339	.95		
1 1/4 - 1 - 1	ET439	1.05		

†Size of largest hub given first.

Type PLG Pipe Plugs

Schedule CE

Recessed



Square Head



Size Inches	No.	Each	Size Inches	No.	Each
1/2	PLG1	\$.06	1/2	PLG15	\$.06
3/4	PLG2	.08	3/4	PLG25	.08
1	PLG3	.10	1	PLG35	.10
1 1/4	PLG4	.15	1 1/4	PLG45	.15
1 1/2	PLG5	.20	1 1/2	PLG55	.20
2	PLG6	.30	2	PLG65	.30
2 1/2	PLG7	.50	2 1/2	PLG75	.50
3	PLG8	.80	3	PLG85	.80

Type CUC Sign Condulets

Used for lighting a bracket support on sign posts or arms. Has bushing that extends into the pipe through a 1/16-inch hole drilled in the pipe.

Malleable iron clamp is held by two screws for securing the Condulet to the pipe. The gasket provided makes a watertight joint between the Condulet and the pipe.

A threaded dome cover provides access to wires and splices and makes a watertight enclosure.



SIZE, INCHES		No.	Each
Support Pipe	Bracket Arms		
1	1/2	CUC13	\$1.00
1 1/4	1/2	CUC14	1.05
1 1/2	1/2	CUC15	1.10
2	1/2	CUC16	1.15
2 1/2	1/2	CUC17	1.20
1	3/4	CUC23	1.10
1 1/4	3/4	CUC24	1.15
1 1/2	3/4	CUC25	1.20
2	3/4	CUC26	1.25

Type CUH Hub Plates

For Type CUC Sign Condulets

Used for connection of 3/4-inch conduit to sign standards for leading circuit wires into or out of the sign standard.

Has bushing that extends into the pipe through a 1/16-inch hole drilled in the pipe.

Fastened to the pipe with two 12-24 machine screws, requiring two tapped holes in the pipe, 2 3/4 inches on centers.



SIZE, INCHES		No.	Each
Support Pipe	Conduit		
2, 2 1/2, 3	3/4	CUH28	\$2.25

Type PED Condulet Pedestals



Threaded



Not Threaded

Rigid support for Condulets mounted on conduit that projects through the floor.

Threaded		No.	Each
Size In.	Height In.		
3/4	3	PED223	\$1.20
1	3	PED333	1.45
1 1/4	3	PED443	1.70
Not Threaded			
1/2	3	PED13	\$.95
3/4	3	PED23	1.20
1	3	PED33	1.45
1 1/4	3	PED43	1.70
1 1/2	3	PED53	1.95
2	3	PED63	2.20
2 1/2	3	PED73	2.45
1/2	6	PED16	1.75
3/4	6	PED26	2.00
1	6	PED36	2.25
1 1/4	6	PED46	2.50
1 1/2	6	PED56	2.75
2	6	PED66	3.00
2 1/2	6	PED76	3.25

Type WH Industrial Signal Condulets

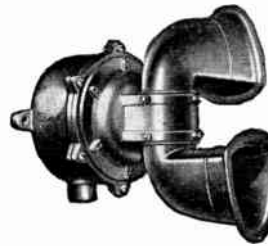
With Vibratory Horn Unit



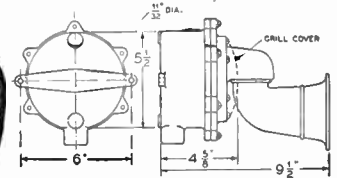
Type WH With Grill



Type WH With Single Projector



Type WH With Double Projector



Type WH Dimensions

Used as code or call signals, alarms, and for various other signalling applications in industrial plants, warehouses, mines, etc.

Raintight and suitable for use inside in non-hazardous locations or outside where exposed to the weather.

Housings have mounting feet with fastening holes and a hub for 1/2-inch threaded conduit.

With Grill

No.	Each	Volts	Current	*Cycles	at Six Yards	Max. Watts	Volume
WH130A	\$8.45	6-250	A.C.	50-60	92	18.5	Standard
WH131	14.00	6-250	A.C.	50-60	104	49	High Power
WH140A	10.70	6-250	D.C.	50-60	92	19.8	Standard
WH141	16.30	6-250	D.C.	50-60	102	30	High Power

With Single Projector

WH130	\$11.25	6-250	A.C.	50-60	92	18.5	Standard
WH132	16.85	6-250	A.C.	50-60	104	49	High Power
WH140	13.50	6-250	D.C.	50-60	92	19.8	Standard
WH142	19.10	6-250	D.C.	50-60	102	30	High Power

With Double Projector

WH150	\$15.20	6-250	A.C.	50-60	92	18.5	Standard
WH133	21.40	6-250	A.C.	50-60	104	49	High Power
WH151	17.40	6-250	D.C.	50-60	92	19.8	Standard
WH143	23.60	6-250	D.C.	50-60	102	30	High Power

*If supply circuit is a.c., specify the frequency when ordering. Available in 25 to 40-cycle range.

Crouse Hinds Explosion-Proof Equipment

Used in locations which are hazardous because of the presence of explosive atmospheres which require different electrical wiring and apparatus than in locations in which such hazards do not exist. Explosive atmospheres may exist because of the presence of such gases as:

Hydrogen	Ethylene	Gasoline Vapors
Natural Gas	Butane	Ethyl Ether
Manufactured Gas	Cyclopropane	Acetone
Alcohol	Lacquer Solvents	

Many dusts, when thrown into the air, create explosive atmospheres. Among the more common dusts are those of certain metals, notably aluminum and magnesium; those of carbon black, coal, and coke. All of the foregoing have the further hazard of being electrically conductive; therefore, they must be prevented from being deposited on live parts of electrical apparatus where they would form short circuits and consequent explosions.

Dusts of all cereals, because of their lightness and highly combustible natures, form atmospheres, which, when ignited, explode with great violence.

In addition to the flammable gases, vapors, and combustible dusts are easily ignitable fibers, which, while they do not create explosive atmospheres, they do introduce the danger of flash fires which are near explosive in violence.

In all of the above locations, fires from electrical causes may occur because of exposed arcs, flames, sparks or particles of burning material escaping from enclosures. Also, apparatus operating at temperatures sufficient to ignite the gas, vapor, dust or fibers may be the cause.

National Electrical Code

Article 500 of the National Electrical Code is devoted exclusively to locations deemed hazardous because of the expected continual or occasional presence of explosive gases, vapors, combustible dusts, and easily ignitable fibers. In the code, these locations are classified substantially as follows:

Class I—Locations hazardous because of dangerous concentrations of flammable gases or vapors.

Class II—Locations hazardous because combustible dusts may be present in the atmospheres in dangerous amounts.

Class III—Locations in which easily ignitable fibers are present in sufficient quantities to create a hazardous condition.

All of the above classes are divided into two divisions. In general, Division 1 includes localities where the hazardous material is used or processed, while Division 2 includes localities of lesser hazard such as storage areas, or where dangerous conditions are not likely to exist because of other precautions.

In locations where the danger is due to flammable gases or vapors (Class I), the Code requires explosion-proof equipment. This does not mean vaportight.

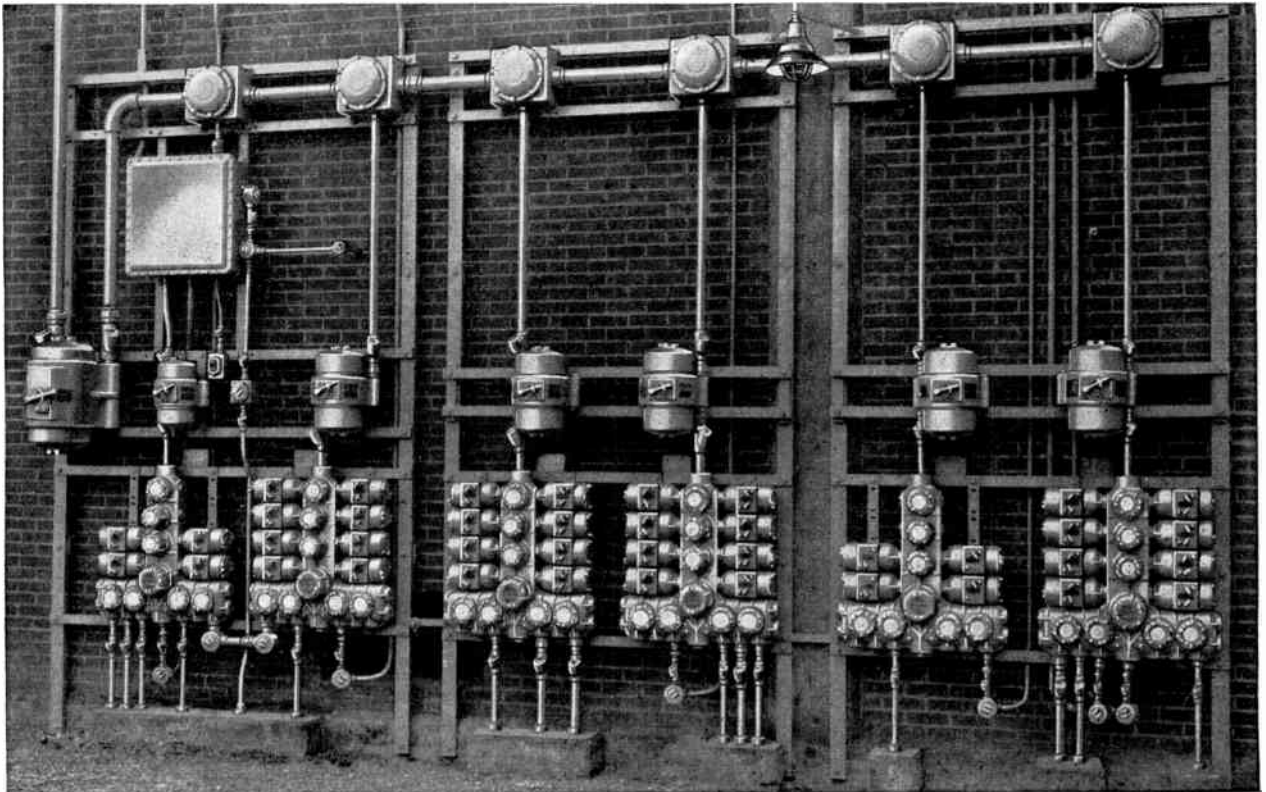
Explosion-Proof Equipment is designed on the supposition that the enclosure will become filled with the explosive mixture. To be explosion-proof, then, the enclosure must be strong enough to withstand an explosion of the trapped gas or vapor mixture. Furthermore, all joints in explosion-proof enclosures must prevent the issuance of flames. In addition, these devices must operate at temperatures which will not ignite the surrounding atmosphere. Vaportight equipment is not built to withstand the conditions stated above and is, therefore, not safe for use in Class I locations.

Dust-Tight Enclosures are required for Class II locations according to the Code. Enclosures intended for ordinary non-hazardous locations are not dust-tight and should not be used where the Code specifically requires dust-tight construction.

Apparatus such as motors and lighting units, which operate at appreciable temperatures, must be designed so as not to reach dangerous temperatures even when blanketed by heavy deposits of dusts. Ordinary vaporproof fixtures do not have sufficient radiating ability to make them acceptable for use where combustible dusts are likely to collect on them.

Condulets intended for use in hazardous locations are manufactured to the exacting standards of the Underwriters' Laboratories, Inc. Conformity with those standards is assured by careful design, workmanship, and inspection.

The Condulet line is so complete that there is never any difficulty in choosing the proper Condulet for a particular purpose.



An Installation Of Crouse-Hinds Explosion-Proof Equipment

GUA Series Junction Condulets

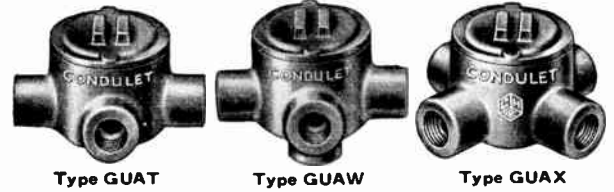
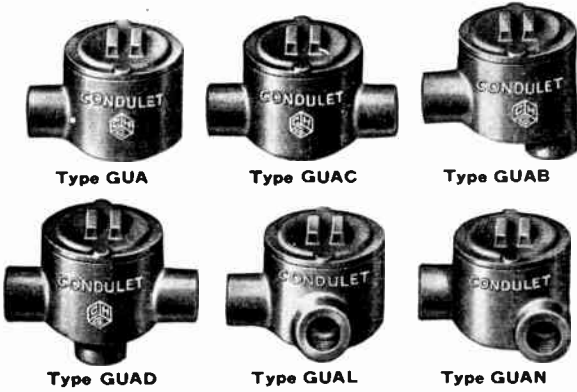
Schedule CE

Explosion-Proof and Dust-Tight

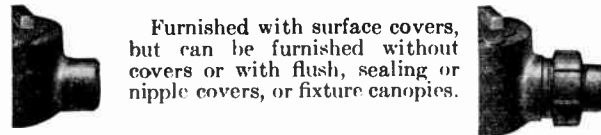
GUA Series Junction Condulets

Schedule CE

Explosion-Proof and Dust-Tight



Furnished with surface covers, but can be furnished without covers or with flush, sealing or nipple covers, or fixture canopies.



Furnished with surface covers, but can be furnished without covers or with flush, sealing or nipple covers, or fixture canopies.

With Threaded Hubs

With Union Hubs

Size In.	Nom. Diam. Cover In. Open.	OUTSIDE DIMEN. OF BODY, IN.		Type GUA		Type GUAC		Type GUAB		Type GUAD		Type GUAL		Type GUAN	
		Diam.	Depth	Threaded No.	Hubs Each	Threaded No.	Hubs Each	Threaded No.	Hubs Each	Threaded No.	Hubs Each	Threaded No.	Hubs Each	Threaded No.	Hubs Each
1/2	2	2 1/2	1 3/4	GUA14	\$1.45	GUAC14	\$1.55	GUAB14	\$1.55	GUAD14	\$1.65	GUAL14	\$1.55	GUAN14	\$1.55
1/2	2	2 1/2	2	.....	.....	GUAC24	1.65	GUAB24	1.65	.....	.....	.....	.....	GUAN24	1.65
3/4	2	2 1/2	2	GUA24	1.50	GUAC24	1.65	GUAB24	1.65	.....	.....	.....	.....	GUAN24	1.65
1/2	3	3 1/2	2	GUA16	1.80	GUAC16	1.90	GUAB16	1.90	.....	.....	.....	.....	GUAN16	1.80
3/4	3	3 1/2	2	GUA26	1.85	GUAC26	2.00	GUAB26	2.00	.....	.....	.....	.....	GUAN26	2.00
1	3	3 1/2	2 3/8	GUA36	1.90	GUAC36	2.10	GUAB36	2.10	.....	.....	.....	.....	GUAN36	2.10
1 1/4	3 5/8	4 1/4	2 1/2	GUA47	3.15	GUAC47	3.40	GUAB47	3.40	.....	.....	.....	.....	GUAN47	3.40
1/2	2	2 1/2	1 3/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1/2	2	2 1/2	2	.....	.....	GUAC645	\$2.25	GUAB645	\$2.25	.....	.....	GUAD645	\$2.70	GUAN645	\$2.25
3/4	2	2 1/2	2	.....	.....	GUAC745	2.25	GUAB745	2.25	.....	.....	.....	.....	GUAN745	2.25
1/2	3	3 1/2	2	.....	.....	.....	.....	GUAB665	2.60	.....	.....	.....	.....	.....	.....
3/4	3	3 1/2	2	.....	.....	.....	.....	GUAB765	2.60	.....	.....	.....	.....	.....	.....
1	3	3 1/2	2 3/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1 1/4	3 5/8	4 1/4	2 1/2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1 1/2	5	5 5/8	3 7/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Prices for combinations of threaded and union hubs upon request.

Type GUAT

Nom. Size In.	Diam. Cover In. Open.	OUTSIDE DIMEN. OF BODY, IN.		With Threaded Hubs		With Union Hubs	
		Diam.	Depth	No.	Each	No.	Each
1/2	2	2 1/2	1 3/4	GUAT14	\$1.65	GUAT645	\$2.70
1/2	2	2 1/2	2	.....	.....	GUAT745	2.70
3/4	2	2 1/2	2	GUAT24	1.80	GUAT665	3.05
1/2	3	3 1/2	2	GUAT16	2.00	GUAT765	3.05
3/4	3	3 1/2	2	GUAT26	2.15	GUAT875	5.00
1	3 5/8	4 1/4	2 3/8	GUAT37	3.50	.....	.....
1 1/4	5	5 5/8	3 7/8	GUAT49	7.25	GUAT995	11.00
1 1/4	5	5 5/8	3 7/8	.....	.....	.....	.....

Type GUAW

Nom. Size In.	Diam. Cover In. Open.	OUTSIDE DIMEN. OF BODY, IN.		Type GUAW		Type GUAX	
		Diam.	Depth	No.	Each	No.	Each
1/2	2	2 1/2	1 3/4	GUAW14	\$1.75	GUAX14	\$1.75
1/2	2	2 1/2	2	.....	.....	GUAX645	\$3.15
3/4	2	2 1/2	2	GUAW24	1.95	GUAX745	3.15
1/2	3	3 1/2	2	GUAW16	2.10	GUAX665	3.50
3/4	3	3 1/2	2	GUAW26	2.30	GUAX765	3.50

Type GUAX

Nom. Size In.	Diam. Cover In. Open.	OUTSIDE DIMEN. OF BODY, IN.		Type GUAX		Type GUAX	
		Diam.	Depth	No.	Each	No.	Each
1/2	2	2 1/2	1 3/4	GUAX14	\$1.75	GUAX645	\$3.15
1/2	2	2 1/2	2	.....	.....	GUAX745	3.15
3/4	2	2 1/2	2	GUAX24	1.95	GUAX665	3.50
1/2	3	3 1/2	2	GUAX16	2.10	GUAX765	3.50
3/4	3	3 1/2	2	GUAX26	2.30	GUAX875	5.70
1	3 5/8	4 1/4	2 3/8	GUAX37	3.70	.....	.....
1 1/4	5	5 5/8	3 7/8	GUAX49	7.50	GUAX995	12.50
1 1/4	5	5 5/8	3 7/8	.....	.....	.....	.....

Prices for combinations of threaded and union hubs upon request.

GUF Series Junction Condulets

Schedule CE

Explosion-Proof and Dust-Tight

Furnished with surface cover and threaded hubs.



Type GUFC

Cover Size In.	Opening In.	DIMENSIONS OF BODY, IN.		No.	Each
		Diam.	Depth		
1/2	3	3 1/2	1 15/16	GUFC16	\$2.30
3/4	3	3 1/2	1 15/16	GUFC26	2.40
1	3	3 1/2	2 1/4	GUFC36	2.60
1	5	5 5/8	2 1/4	GUFC39	7.75

Type GUFL

1/2	3	3 1/2	1 15/16	GUFL16	\$2.30
3/4	3	3 1/2	1 15/16	GUFL26	2.40

Type GUFT

1/2	3	3 1/2	1 15/16	GUFT16	\$2.50
3/4	3	3 1/2	1 15/16	GUFT26	2.60
1	3	5 1/4	2 3/8	GUFT36	2.80
1	5	7 1/2	3 3/4	GUFT39	7.95

Type GUFX

1/2	3	3 1/2	1 15/16	GUFX16	\$2.70
3/4	3	3 1/2	1 15/16	GUFX26	2.80
1	3	5 1/4	2 3/8	GUFX36	3.00
1	5	7 1/2	3 3/4	GUFX39	8.15

GUA Series Junction Condulets

Schedule CE
With Union Hubs
Explosion-Proof and Dust-Tight



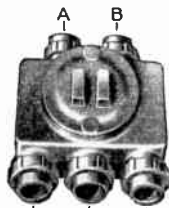
Type GUAG



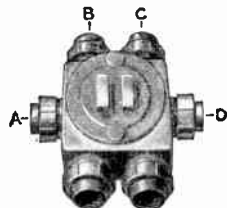
Type GUAH



Type GUAP



Type GUAG



Type GUAF

Outside dimensions of body: length, 3 3/4 inches; depth, 1 1/8 inches at corners, 3 1/8 inches over covers; nominal diameter of cover opening, 3 inches; width, type GUAQ, 5 5/8 inches; other types 3 3/4 inches.

HUB SIZES INCHES			Type GUAG Without Nuts and Sleeves		Type GUAG With Nuts and Sleeves	
A	B	C	No.	Each	No.	Each
1/2	1/2	1/2			GUAG6665	\$3.50
3/4	3/4	3/4			GUAG7775	3.50
1/2	3/4	3/4			GUAG6775	3.50
3/4	1/2	1/2			GUAG7665	3.50
1/2	3/4	1/2			GUAG6765	3.50

HUB SIZES INCHES				Type GUAH Without Nuts and Sleeves		Type GUAH With Nuts and Sleeves	
A	B	C	D	No.	Each	No.	Each
1/2	1/2	1/2	1/2			GUAH66665	\$3.95
3/4	3/4	3/4	3/4			GUAH7775	3.95
1/2	1/2	3/4	3/4			GUAH66775	3.95
1/2	1/2	3/4	1/2			GUAH66765	3.95

HUB SIZES INCHES					Type GUAP Without Nuts and Sleeves		Type GUAP With Nuts and Sleeves	
A	B	C	D	E	No.	Each	No.	Each
1/2	1/2	1/2	3/4	1/2			GUAP666765	\$4.40
1/2	1/2	1/2	1/2	1/2			GUAP666865	4.40
1/2	1/2	3/4	3/4	3/4			GUAP667775	4.40
1/2	1/2	3/4	1/2	3/4			GUAP667875	4.40
3/4	3/4	3/4	3/4	3/4			GUAP777775	4.40
3/4	3/4	3/4	1/2	3/4			GUAP777875	4.40
1/2	1/2	1/2	1/2	1/2			GUAP668885	4.90
3/4	3/4	1/2	1/2	1/2			GUAP778885	4.90

HUB SIZES INCHES					Type GUAQ Without Nuts and Sleeves		Type GUAQ With Nuts and Sleeves	
A	B	C	D	E	No.	Each	No.	Each
1/2	1/2	1/2	3/4	1/2			GUAQ666765	\$4.95
1/2	1/2	1/2	1/2	1/2			GUAQ666865	4.95
1/2	1/2	3/4	3/4	3/4			GUAQ667775	4.95
1/2	1/2	3/4	1/2	3/4			GUAQ667875	4.95
3/4	3/4	3/4	3/4	3/4			GUAQ777775	4.95
3/4	3/4	3/4	1/2	3/4			GUAQ777875	4.95

HUB SIZES INCHES						Type GUAF Without Nuts and Sleeves		Type GUAF With Nuts and Sleeves	
A	B	C	D	E	F	No.	Each	No.	Each
1/2	1/2	1/2	1/2	1/2	1/2			GUAF6666665	\$5.40
1/2	3/4	3/4	1/2	3/4	3/4			GUAF6776775	5.40
1/2	1/2	1/2	1/2	3/4	3/4			GUAF6666775	5.40
3/2	3/4	3/4	3/4	3/4	3/4			GUAF7777775	5.40
3/4	1/2	1/2	3/4	1/2	1/2			GUAF7667665	5.40
3/4	1/2	1/2	3/4	3/4	3/4			GUAF7667775	5.40

*The D hub requires the use of a 1-inch nut for 1/2, 3/4, and 1-inch sleeve.
†The C, D, and E hubs require the use of a 1-inch nut for 1/2, 3/4, and 1-inch sleeve.

Union Hubs Nuts and Sleeves

Schedule CE
For GUA Series Condulets



Size Nut Inches	Size Sleeve Inches	No.	Each
3/4	1/2	GUH215	\$.25
3/4	3/4	GUH25	.25
1	1/2	GUH315	.35
1	3/4	GUH325	.35
1	1	GUH35	.35
1 1/4	3/4	GUH425	.75
1 1/4	1 1/4	GUH45	.75
1 1/2	3/4	GUH525	1.25
1 1/2	1 1/2	GUH55	1.25
2	1	GUH635	2.25
2	2	GUH65	2.25
2 1/2	2 1/2	GUH75	3.25
3	3	GUH85	4.25

Threaded Blank Caps

For GUA Series Condulets without Nuts and Sleeves



Size In.	No.	Each
3/4	GUH20	\$.15
1	GUH30	.20

Threaded Covers, Canopies and Adapters

For GUA and GUF Series Condulets
Used interchangeably on Condulets of GUA and GUF series.

Surface Covers



Diam. Open. In.	No.	Each
2	GUA04	\$.65
3	GUA06	.75
3 5/8	GUA07	1.10
5	GUA09	3.35

Fixture Canopies



Diam. Open. In.	Fix. Stem In.	No.	Each
3	3/4	GUA068	\$3.50
3	1 1/4	*GUA0684	3.50
5	1 1/4	GUA098	6.10

Flush Covers



Diam. Open. In.	No.	Each
2	GUA049	\$.65
3	GUA069	.75
3 5/8	GUA079	1.10
5	GUA099	3.35

Fixture Covers



Diam. Open. In.	Fix. Stem In.	No.	Each
3	1/2	GUA0686	\$2.75
3	3/4	GUA0687	2.75

Sealing Covers



Diam. Open. In.	No.	Each
2	GUA041	\$.80
3	GUA062	1.00
3 5/8	GUA072	1.30
5	GUA092	3.75

Nipple Covers



Diam. Open. In.	Fix. Stem In.	No.	Each
2	1/2	GUA0471	\$1.20
3	1/2	GUA0671	1.55
3	3/4	GUA0672	1.75

Adapters

3 5/8	GUA0760	\$1.55
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*For 500-watt Type EVA.

Type GUA Extensions

For flush mounted GUA Series with 3-inch cover opening to make one or more exposed extensions.

Furnished with 3 pipe plugs.



Size In.	No.	Each
1/2	GUAX166	\$2.20
3/4	GUAX266	2.20

Type GUP Junction Condulets

Schedule CE

Explosion-Proof and Dust-Tight



Suitable for gasoline pump installations that are to be rewired to comply with the new inspection requirements for hazardous locations.

Hubs are tapped for 3/4-inch conduit.

Cover opening is 3 5/8 inches in diameter.

No. GUP215 has 6 hubs; 2 in top, 1 in each side, 2 in bottom, and none in back. No. GUP214 has 10 hubs; 2 in top, 1 in each side, 2 in bottom, and 4 in back.

Dimensions of body exclusive of hubs: length, 4 1/8 inches; width, 4 1/8 inches; depth, 2 1/2 inches.

No.	GUP214	GUP215
Each.....	\$2.90	2.70
No. of Hubs.....	10	6

GUJ Series Junction Condulets

Explosion-Proof and Dust-Tight



Type GUJ



Type GUJC



Type GUJL

Hub Size Inches	Type GUJ		Type GUJC		Type GUJL	
	No.	Each	No.	Each	No.	Each
1/2	GUJ16	\$1.80	GUJC16	\$1.90	GUJL16	\$1.90
3/4	GUJ26	1.85	GUJC26	2.00	GUJL26	2.00
1	GUJ36	1.90	GUJC36	2.10	GUJL36	2.10



Type GUJB



Type GUJT



Type GUJX

Hub Size Inches	Type GUJB		Type GUJT		Type GUJX	
	No.	Each	No.	Each	No.	Each
1/2	GUJB16	\$1.90	GUJT16	\$2.00	GUJX16	\$2.10
3/4	GUJB26	2.00	GUJT26	2.15	GUJX26	2.30
1	GUJB36	2.10	GUJT36	2.30	GUJX36	2.50

Threaded Covers



Flat



Dome



Fixture Union Hub Type

Flat		Dome		Fixture	
No.	Each	No.	Depth Inches	No.	Size Stem, In
GUJ06	\$.75	GUJ0611	1	GUJ0686	1/2
.....	.....	GUJ0612	2	GUJ0687	3/4
					Each
					\$2.75
					2.75

CPS Series Junction Condulets

Schedule CE

With Hub Cover

Explosion-Proof and Dust-Tight

Outside dimensions of body, exclusive of hubs: diameter, Form 10, 3 1/2 inches; diameter, Form 20, 4 5/8 inches; depth, Form 10, 1 7/8 inches; depth, Form 20, 1 7/8 inches.

Dead End



Hub Size, In. Conduit Cover	Form 10		Form 20		
	No.	Each	No.	Each	
1/2	1/2	CPS10181	\$1.40	CPS10281	\$2.25
3/4	1/2	CPS20181	1.45	CPS20281	2.30
3/4	3/4	CPS20182	1.50	CPS20282	2.35
1	1/2	CPS30181	1.50	CPS30281	2.35
1	3/4	CPS30182	1.55	CPS30282	2.40

Through Feed



1/2	1/2	CPS11181	\$1.50	CPS11281	\$2.35
3/4	1/2	CPS21181	1.60	CPS21281	2.45
3/4	3/4	CPS21182	1.65	CPS21282	2.50
1	1/2	CPS31181	1.70	CPS31281	2.55
1	3/4	CPS31182	1.75	CPS31282	2.60

Type L



1/2	1/2	CPS12181	\$1.50	CPS12281	\$2.35
3/4	1/2	CPS22181	1.60	CPS22281	2.45
3/4	3/4	CPS22182	1.65	CPS22282	2.50
1	1/2	CPS32181	1.70	CPS32281	2.55
1	3/4	CPS32182	1.75	CPS32282	2.60

Type T



1/2	1/2	CPS13181	\$1.60	CPS13281	\$2.45
3/4	1/2	CPS23181	1.75	CPS23281	2.60
3/4	3/4	CPS23182	1.80	CPS23282	2.65
1	1/2	CPS33181	1.90	CPS33281	2.75
1	3/4	CPS33182	1.95	CPS33282	2.80

Type X



1/2	1/2	CPS14181	\$1.70	CPS14281	\$2.55
3/4	1/2	CPS24181	1.90	CPS24281	2.75
3/4	3/4	CPS24182	1.95	CPS24282	2.80
1	1/2	CPS34181	2.15	CPS34281	2.95
1	3/4	CPS34182	2.20	CPS34282	3.00

Furnished with Blank Covers

Dead End



Hub Size Inches	Form 10		Form 20	
	No.	Each	No.	Each
1/2	CPS10185	\$1.25	CPS10286	\$2.10
3/4	CPS20185	1.30	CPS20286	2.15
1	CPS30185	1.35	CPS30286	2.20

Through Feed



1/2	CPS11185	\$1.35	CPS11286	\$2.20
3/4	CPS21185	1.45	CPS21286	2.30
1	CPS31185	1.55	CPS31286	2.40

Type L



1/2	CPS12185	\$1.35	CPS12286	\$2.20
3/4	CPS22185	1.45	CPS22286	2.30
1	CPS32185	1.55	CPS32286	2.40

Type T



1/2	CPS13185	\$1.45	CPS13286	\$2.30
3/4	CPS23185	1.60	CPS23286	2.45
1	CPS33185	1.75	CPS33286	2.60

Type X



1/2	CPS14185	\$1.55	CPS14286	\$2.40
3/4	CPS24185	1.75	CPS24286	2.60
1	CPS34185	1.95	CPS34286	2.80

If specified on the order, CPS Series Condulets will be furnished with fastening lugs at an advance of 10 cents in the list prices.

Type ESC Junction Condulets

Schedule CE

Explosion-Proof and Dust-Tight
For Pulling In or Splicing Conductors
 Class I, Group D; and Classes II and III



For use in hazardous locations, and designed to afford a convenient opening in the conduit system for pulling in or splicing conductors. They have threaded hubs for rigid conduit.

The body is cylindrical with a long and wide opening in the front between the threaded end portions.

Hub Size In.	No.	Each	OVERALL LENGTH, IN.	
			Conduit Pulled Open	Opening Only
1/2	ESC1	\$5.50	16	6
3/4	ESC2	5.50	16	6
1	ESC3	10.25	23	10
1 1/4	ESC4	10.25	23	10
1 1/2	ESC5	19.50	37	16
2	ESC6	19.50	37	16
2 1/2	ESC7	30.00	53	24
3	ESC8	30.00	53	24
3 1/2	ESC9	65.00	81	38
4	ESC10	65.00	81	38

Type EJH Junction Condulets

Explosion-Proof and Dust-Tight
For Pulling In or Splicing Conductors



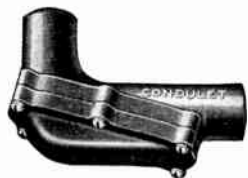
Condulet body has four bosses located 90° apart around the sides and one boss in the center back. These bosses can be drilled and tapped for 1/2 or 3/4 inch conduit.

When ordering include sketch showing location of holes to be drilled and tapped and size desired. Price of condulet includes drilling and tapping.

Inside Depth Inches	With Flat Cover	
	No.	Each
2 1/4	EJH50	\$8.00
3 3/8	With 1 1/4-Inch Dome Cover	
	EJH51	\$8.40
4 3/8	With 2 1/2-Inch Dome Cover	
	EJH52	\$8.80
7 1/8	With 5-Inch Dome Cover	
	EJH55	\$9.90

Type LBH Condulets

For Pulling Cables
Explosion-Proof and Dust-Tight



Particularly well suited for pulling large conductors or conductors that are stiff because of their lead sheathing.

Covers are domed, which provides room for an easy bend in the conductor, thus avoiding undue strain upon the insulation or lead sheath.

Hub Size In.	No.	Each	Overall	
			Length Inches	Width Inches
1/2	LBH10	\$2.80	4	2 3/4
3/4	LBH20	3.00	4	2 3/4
1	LBH30	7.70	7	4
1 1/4	LBH40	8.00	7	4
1 1/2	LBH50	11.50	10	5
2	LBH60	12.00	10	5
2 1/2	LBH70	25.00	14	6 7/16
3	LBH80	25.60	14	6 7/16

Universal Junction Condulets

Schedule CE

Explosion-Proof and Dust-Tight
 Types GU, GUE, and GUB



Type GU



Type GUB01

Equipped with threaded or union hubs located as required. When ordering, furnish a sketch showing the size, location, and type of hubs required on each Condulet. Add price of hubs to price of Condulet. Types GU and GUE Condulets take CBI124, four-wire connection block.

No.	Each	OVERALL DIMENSIONS IN INCHES OF BODY INCLUDING COVER			Diam. Cover Opening Inches
		Width	Height	Depth	
GU	\$2.00	4 1/8	4 1/8	3 3/16	3 5/8
GUE	2.00	4 5/8	4 5/8	4 1/4	3 5/8
GUB01	12.70	6 1/2	7	5 1/2	5 1/2
GUB02	18.50	8	10	5 1/2	7
GUB06	23.00	8 1/2	10	6 1/2	7
GUB03	40.00	11	12	9	9 5/8
GUB04	40.00	11	12	9	9 5/8

Symbol Nos. and Letters for Max. Size Hubs That Can be Used

No.	Number of Hubs	ON TOP AND BOTTOM			ON BACK	
		1	2	3	1	2
GU	Threaded	4	4	1	4	4
	Union	Y	Y	.	R	Y
GUE	Threaded	6	5	2	4	5
	Union	T	Y	W	R	R
GUB01	Threaded	7	6	4	10	7
	Union	U	S	Y	V	T
GUB02	Threaded	7	7	5	10	9
	Union	U	T	Y	V	V
GUB06	Threaded	8	7	5	10	9
	Union	V	T	Y	V	V
GUB03	Threaded	10	9	6	10	10
	Union	XD	V	S	XD	V
GUB04	Threaded	10	8	5	10	10
	Union	XD	U	S	XD	V

Threaded and Union Hubs

Hub Size Inches	Threaded		Union	
	Symbol	Each	Symbol	Each
1/2	1	\$.60	W	\$1.00
3/4	2	.65	X	1.00
	3	.75	Y	1.20
1 1/4	4	.90	R	1.75
1 1/2	5	1.15	S	3.00
2	6	1.50	T	4.00
2 1/2	7	2.25	U	5.50
3	8	3.25	V	7.00
3 1/2	9	4.50	WD	9.00
4	10	6.00	XD	11.00

Type GUB Dome Covers

When splices in heavy conductors are to be made and enclosed, dome covers are more suitable as the conductors may be pulled in with the ends well out beyond the body opening for splicing.

In ordering dome covers for GUB Condulets deduct the cost of the flat cover which is shown in the listing below, from the cost of the complete Condulet listed above, then add the cost of dome cover selected from the listing below.

Body No.	Flat Cover		Nominal Depth Inches	Dome Cover	
	No.	Each		No.	Each
GUB01	GUB0101	\$3.20	2	GUB712	\$5.90
			4	GUB714	6.70
			10	GUB7110	9.10
			3	GUB723	9.15
GUB02	GUB0102	6.50	6	GUB726	11.40
			9	GUB729	13.65
			12	GUB7212	15.90
			17	GUB7217	19.65
GUB03	GUB0103	9.30	4	GUB734	11.40
			10	GUB738	16.50
			12	GUB7311	18.20
			14	GUB7313	19.90
GUB04			17	GUB7316	22.45

Industrial Signal Condulets

Schedule CE

Explosion-Proof and Dust-Tight

Class I, Group D; and Classes II and III

Housings for each of these signals have sealing hubs at the bottom. Leads from the signal operating means are sealed in these hubs and brought through short pieces of conduit into GUA series junction Condulets where they can be spliced to the line wires.



Type ETR Bell Signals

**Continuous Vibration
110-Volt Universal Motor Operation**

Hub Size In.	Diam. Bell In.	No.	Each
3/4	6	ETR283	\$71.00
3/4	8	ETR285	71.00

**Single Stroke
110-Volt, 60-Cycle A.C. Solenoid Operation**

Hub Size In.	Diam. Bell In.	No.	Each
3/4	6	ETR284	\$71.00
3/4	8	ETR286	71.00



Type ETH Howler Signals

Also for use as telephone call signal units.

6 to 250-Volt A.C. Vibrator Type
Specify number of cycles desired.

Hub Size In.	Volume of Sound in Decibels at 6 Yards	No.	Each
3/4	92	ETH230	\$58.00

6 to 250-Volt D.C. Vibrator Type

Hub Size In.	Volume of Sound in Decibels at 6 Yards	No.	Each
3/4	92	ETH240	\$70.00

Nos. ETH 230 and ETH 240



6 to 250-Volt A.C. Vibrator Type

Hub Size In.	Volume of Sound in Decibels at 6 Yards	No.	Each
3/4	104	ETH231	\$70.00

6 to 250-Volt D.C. Vibrator Type

Hub Size In.	Volume of Sound in Decibels at 6 Yards	No.	Each
3/4	102	ETH241	\$80.00

Nos. ETH 231 and ETH 241



Type ETH Siren Signals

**Motor Operated
*6 to 250-Volt A.C. or D.C.
For Plain Signals**

Hub Size In.	No.	Each
3/4	ETH260	\$175.00

For Code Signals

Hub Size In.	No.	Each
3/4	ETH280	\$225.00

*Specify voltage desired.

Type ECT Transformer Condulets

Explosion-Proof and Dust-Tight

Class I, Group D, and Classes II and III

Particularly adapted for use in connection with the EFS Series explosion-proof pilot light Condulets, when the supply current is 230, 460, or 575 volts, 50 to 133 cycles.

Outside dimensions, exclusive of hubs: length, 7 inches; width, 6 1/2 inches; depth, 5 1/2 inches; diameter of cover opening, 5 1/2 inches



Hub Size In.	Rating Watts	No.	Each
3/4	15	ECT211	\$14.80
3/4	50	ECT215	28.50

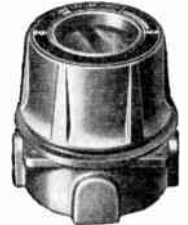
Type EMH Instrument Condulets

Schedule CE

Explosion-Proof and Dust-Tight



Surface



Flush

Furnished with mounting plate and supports for instruments. Four mounting lugs with fastening holes are provided at the back for surface mounting or at the front for flush mounting.

Bodies are equipped with mounting plates and posts to support the instruments near the cover window. This arrangement leaves ample space in back of the instruments for wires and connections. General Electric, Westinghouse, and Weston instruments can be mounted in Type EMH Condulets. Overall Dimensions: diameter of body, 5 3/4 inches; depth of body, 2 3/4 inches; height of cover, 3 inches.

Hub Size Inches	Conduit Openings	No.	Each
1/2	One in Side	EMH521-10000	\$17.00
3/4	One in Side	EMH521-20000	17.00
1/2	One in Back	EMH521-00001	17.00
3/4	One in Back	EMH521-00002	17.00
1/2	Two in Sides	EMH521-10100	17.25
3/4	Two in Sides (Through Feed)	EMH521-20200	17.25
1/2	One in Side	EMH511-10000	18.00
3/4	One in Side	EMH511-20000	18.00
1/2	One in Back	EMH511-00001	18.00
3/4	One in Back	EMH511-00002	18.00
1/2	Two in Sides	EMH511-10100	18.25
3/4	Two in Sides (Through Feed)	EMH511-20200	18.25

Type EVH Explosion-Proof Hand Lamps

*Schedule R
Class I, Group D*



Globe with Holder



Guard

Furnished with lamp receptacle, globe, and guard. Designed to provide the utmost safety, durability, and ease of wiring.

Non-sparking metals are used. Laminated bakelite handle is firmly secured to the cast aluminum body, in which is mounted a keyless, composition lamp receptacle.

Cast aluminum globe holder; clear heat-resisting globe. Diameter of cord, .375 to .625 inch.

40-Watt, Takes 25 or 40-Watt Lamps

No.	Description	Each
*EVH140M3	EVH Hand Lamp	\$22.00
EVH5	†Clear Globe with Holder	8.30
	Credit for Holder	4.00
	‡Difference	4.30
EVH084M3	Guard	2.75

100-Watt, Takes 50, 60, 75 or 100-Watt Lamps

No.	Description	Each
EVH100	EVH Hand Lamp	\$45.00
EVH10	†Clear Globe with Holder	12.00
	Credit for Holder	6.50
	‡Difference	5.50
EVH087	Guard	3.50

*Also dust-tight; Class II, Group G, and Class III.
†Globes must be assembled in threaded holder at factory.
Order "Globe with Holder" by number.
‡Cost of globe replacement.

Type EVS Explosion-Proof Portable Lamps

Schedule R
Class I, Group D

Furnished with lamp receptacle, globe, and guard. Same construction as the Type EVA fixtures, with a handle assembly added.

Handle assembly includes a hook and cable clamp. A third terminal is provided in Type EVS for connection to a third wire in the portable cord for grounding the non-current-carrying metal parts of the unit.

Diameter of cable, .250 to .625 inch.



Globe with Holder

No. of Watts	Portable Lamps		*Globes and Holders		Replacement	
	No.	Each	No.	Each	Cr. for Holder	†Difference
100	EVS80	\$23.00	EV710	\$12.00	\$6.50	\$5.50
150	EVS81	23.00	EV715	12.00	6.50	5.50
200	EVS82	32.00	EV720	20.00	10.00	10.00

*Globes must be assembled in threaded holder at factory. Order "Globe with Holder" by number. †Cost of globe replacement.

DL Series Dust-Tight Lighting Fixture Condulets

Schedule R

For Class II, Group G Hazardous Locations when Mounted Vertically

For Classes III and IV Hazardous Locations when Mounted in Any Position

Bodies and hoods are of cast aluminum.

Type DLA pendent type fixtures may be suspended from CPS series Condulets with hub covers.

Type DLC ceiling type is made to mount directly on CPS series Condulets.

With Shock-Absorbing Lamp Receptacle DL66 and Globe



Hub Size In.	100-Watt Lamps			
	Type DLA No.	Each	Type DLC No.	Each
1/2	DLA101	\$9.70	DLC50F	\$9.70
3/4	DLA201	9.70		
150 and 200-Watt Lamps				
1/2	DLA121	\$11.35	DLC20F	\$11.35
3/4	DLA221	11.35		

Type DLA Pendent Type



Type DLC Ceiling Type

With Porcelain Enamelled Steel Reflector

Type DLA Dome—Pendent Type

Type DLC Dome—Ceiling Type



Reflector is green porcelain enamel outside; and white porcelain enamel inside.

100-Watt Lamps

Hub Size In.	Type DLA		Type DLC		Reflector—Diam., In.	
	No.	Each	No.	Each	No.	In.
1/2	DLA1020	\$11.50	DLC720F	\$11.50	DL23	12
3/4	DLA2020	11.50			DL23	12
150 or 200-Watt Lamps						
1/2	DLA1022	\$16.50	DLC722F	\$16.50	DL24	18
3/4	DLA2022	16.50			DL24	18

EV Series Lighting Fixture Condulets

Schedule R
Explosion-Proof
Class I, Groups C and D

Hoods are cast aluminum with etched/azlak aluminum inner reflectors. Globe holder assembly consists of clear, heat-resisting, impact-resisting, glass globe, equipped with sheet aluminum gasket and cast aluminum mounting and retaining rings. Cast aluminum guards are held to globe mounting rings by machine screws. Furnished without reflectors.

Available in polished aluminum finish for hospital use. For the A-21 standard lamp. Cannot be used with 100-watt A-23 lamp. Should there be a requirement for A-23, 100-watt lamp, use suffix S261 on number. No extra charge for lighting fixture so arranged.

Type EVA—Pendent Type

Complete with a Condulet body for pendent mounting on a conduit stem. A set screw in hub may be tightened against unthreaded part of conduit to prevent unscrewing from conduit when relamping. May be suspended by a conduit stem from GUA or GUF series Condulets with three-inch cover opening and GUA fixture covers or canopies.



Watts	OVERALL DIMEN., IN.			With Guard		Without Guard	
	Hub	Lgth.	Width	No.	Each	No.	Each
60	1/2	...	...	EVA140	\$13.00	EVA104	\$12.25
	3/4	10 3/8	5 3/4	EVA240	13.10	EVA204	12.35
	100	1/2	...	EVA110	19.40	EVA101	18.40
150	3/4	12 3/16	6 7/8	EVA210	19.50	EVA201	18.50
	1/2	...	...	EVA115	19.40	EVA105	18.40
	3/4	12 3/16	7 1/8	EVA215	19.50	EVA205	18.50
200	1/2	...	...	EVA120	27.90	EVA102	26.40
	3/4	14 9/16	8 1/2	EVA220	28.00	EVA202	26.50
	300	3/4	17 1/16	10	EVA230	62.50	EVA203	56.75
500	1 1/4	17 3/4	14	EVA450	73.50	EVA406	69.20

Type EVCX—Ceiling Type

For use where it is necessary to mount the fixture close to the ceiling.

Has exposed or concealed conduit.

Has four threaded hubs, three of which are furnished with pipe plugs.



Watts	OVERALL DIMEN., IN.			With Guard		Without Guard	
	Hub	Lgth.	Width	No.	Each	No.	Each
60	1/2	...	...	EVCX140	\$17.20	EVCX104	\$16.45
	3/4	10 9/16	5 3/4	EVCX240	17.50	EVCX204	16.75
	100	1/2	...	EVCX110	23.70	EVCX101	22.70
150	3/4	12 1/8	6 7/8	EVCX210	24.00	EVCX201	23.00
	1/2	...	...	EVCX115	23.70	EVCX105	22.70
	3/4	13	7 7/8	EVCX215	24.00	EVCX205	23.00
200	1/2	...	...	EVCX120	32.20	EVCX102	30.70
	3/4	14 11/32	8 1/2	EVCX220	32.50	EVCX202	31.00
	300	1/2	...	EVCX136	67.00	EVCX163	61.25
500	3/4	16 1/4	10	EVCX236	67.10	EVCX263	61.35
	1/2	...	...	EVCX150	78.00	EVCX106	73.70
	3/4	17 9/16	14	EVCX250	78.10	EVCX206	73.80

Type EVBX—Bracket Type

For side wall mounting. Four hubs tapped for rigid conduit are provided, three of which are equipped with threaded pipe plugs. This arrangement permits the Condulet to be used as a dead end, through feed, L, T, or X.

*Take deep bowl and 30 degree angle reflectors only.



Watts	OVERALL DIMEN., IN.			With Guard		Without Guard	
	Hub	Lgth.	Width	No.	Each	No.	Each
60	1/2	...	...	EVBX140	\$19.20	EVBX104	\$18.45
	3/4	13	11 5/8	EVBX240	19.50	EVBX204	18.75
	100	1/2	...	EVBX110	25.70	EVBX101	24.70
150	3/4	15	12 1/4	EVBX210	26.00	EVBX201	25.00
	1/2	...	...	EVBX115	25.70	EVBX105	24.70
	3/4	15 5/8	12 3/8	EVBX215	26.00	EVBX205	25.00
*200	1/2	...	...	EVBX120	34.20	EVBX102	32.70
	3/4	17 1/8	13	EVBX220	34.50	EVBX202	33.00

Reflectors for EV Series Lighting Fixture Condulets

Schedule R



Reflectors are porcelain enameled steel, green outside and white inside.

Available in all white enamel for hospital use.

Fixture Watts	Style	Diam. In.	No.	Each
60	Dome	10 1/4	EV481	\$2.50
	Deep	8 1/4	EV483	2.75
	Shallow	10 1/4	EV485	2.25
	30° Angle	8 1/4	EV487	2.75
100	Dome	12 3/8	EV181	2.75
	Deep	9 1/4	EV183	3.00
	Shallow	12 3/8	EV185	2.50
	30° Angle	10 1/4	EV187	3.00
150	Dome	13 3/4	EV581	3.25
	Deep	10 1/4	EV583	3.50
	Shallow	13 3/4	EV585	3.00
	30° Angle	12 1/8	EV587	3.50
200	Dome	16 1/16	EV281	3.75
	Deep	12 3/8	EV283	4.00
	Shallow	16 1/16	EV285	3.50
	30° Angle	13 3/4	EV287	4.50
300	Dome	20 7/16	EV381	6.50
	30° Angle	16 1/16	EV387	4.50
	Dome	20 1/2	EV681	6.50

Type ELG Gauge Lighting Fixture Condulets

Schedule CE

Explosion-Proof

For Medium Screw Base, Lumiline, and Fluorescent Lamps Class I, Group D



Style 1 One-Light Less Hood



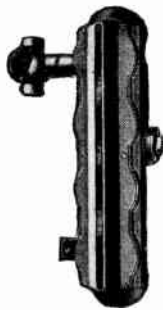
Style 1 One-Light With Hood



Style 2 and 3 Less Hood



Style 1 Two-Light With Hood



Style 2 and 3 With Hood

Style 1

For Medium Screw Base Incandescent Lamps 25-Watt, T10 Bulb

Hub Size In.	No. of Lamps	Less Hood		With Hood	
		No.	Each	No.	Each
1/2	1	ELG1250	\$16.75	ELG125	\$17.75
3/4	1	ELG2250	16.85	ELG225	17.85
1/2	2	ELG1500	27.75	ELG150	29.75
3/4	2	ELG2500	27.85	ELG250	29.85

Style 2

For 18-Inch Incandescent Lumiline Lamp 60-Watt, T8 Bulb

1/2	1	ELG1060	\$36.75	ELG106	\$39.50
3/4	1	ELG2060	36.85	ELG206	39.60

Style 3

For 18-Inch Fluorescent Lamp With Ballast and Starter 15-Watt, T8 Bulb

1/2	1	ELG1150	\$43.25	ELG115	\$46.00
3/4	1	ELG2150	43.35	ELG215	46.10

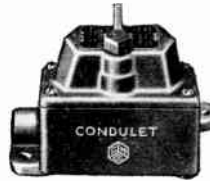
EFS Series Tumbler Switch Condulets

Schedule CE

Explosion-Proof and Dust-Tight

For the control of lighting, appliance, and small motor circuits, or for push button remote control of magnetically operated motor controllers.

Meets requirements of the Underwriters' Laboratories for devices for Class 1 (explosion-proof) locations. Furnished with tumbler switches.



Type EFS

Outside dimensions, exclusive of hubs: Length, 5 1/2 inches; width, 3 1/2 inches; depth, 4 1/16 inches.

Style	AMPERES 125-V. 250-V.		Hp.	Hub Size In.	No.	Each	Form
1-Pole	20	10	.....	1/2	EFS1129	\$5.45	29
2-Pole	20	20	2	1/2	EFS118	5.55	8
3-Way	15	10	.....	1/2	EFS1130	5.85	30
1-Pole	20	10	.....	3/4	EFS2129	5.50	29
2-Pole	20	20	2	3/4	EFS218	5.60	8
3-Pole	10	10	1/4 A.C.	3/4	EFS2123	8.60	23
3-Way	15	10	.....	3/4	EFS2130	5.90	30

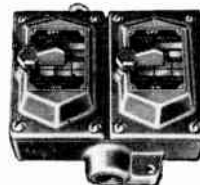


Type EFSC

Outside dimensions, exclusive of hubs: Length, 5 3/8 inches; width, 3 1/2 inches; depth, 4 1/16 inches.

1-Pole	20	10	.....	1/2	EFSC1129	\$5.55	29
2-Pole	20	20	2	1/2	EFSC118	5.65	8
3-Pole	10	10	1/4 A.C.	1/2	EFSC1123	8.65	23
3-Way	15	10	.....	1/2	EFSC1130	5.95	30
1-Pole	20	10	.....	3/4	EFSC2129	5.65	29
2-Pole	20	20	2	3/4	EFSC218	5.75	8
3-Pole	10	10	1/4 A.C.	3/4	EFSC2123	8.75	23
3-Way	15	10	.....	3/4	EFSC2130	6.05	30

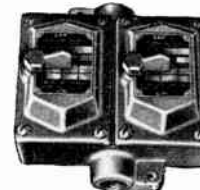
*†Type EFS 2-Gang



Outside dimensions, exclusive of hubs: Length, 5 1/8 inches; width, 7 1/4 inches; depth, 4 1/16 inches.

1-Pole	20	10	.....	1/2	EFS1229	\$10.90	29
1-Pole	20	10	.....	3/4	EFS2229	11.00	29
2-Pole	20	20	2	3/4	EFS228	11.20	8
3-Way	15	10	.....	3/4	EFS2230	11.80	30
3-Pole	10	10	1/4 A.C.	1	EFS3223	17.30	23

*†Type EFSC 2-Gang



Outside dimensions, exclusive of hubs: Length, 5 3/8 inches; width, 7 1/4 inches; depth, 4 1/16 inches.

1-Pole	20	10	.....	1/2	EFSC1229	\$11.10	29
2-Pole	20	20	2	1/2	EFSC128	11.30	8
3-Way	15	10	.....	1/2	EFSC1230	11.90	30
1-Pole	20	10	.....	3/4	EFSC2229	11.30	29
2-Pole	20	20	2	3/4	EFSC228	11.50	8
3-Pole	10	10	1/4 A.C.	3/4	EFSC2223	17.50	23
3-Way	15	10	.....	3/4	EFSC2230	12.10	30

*Combinations can be furnished, if specified.

†May be obtained in one-inch conduit size. Change first figure of number to 3. Add 10 cents per hub to list price of Type EFS 2-gang and 20 cents per hub to list price of Type EFSC 2-gang.

‡Order by catalog number. Use type and form number (rather than catalog number) for identification of Condulets for hazardous locations, when consulting Underwriters' Laboratories' list of inspected electrical appliances.

EFS Series Tumbler Switch Condulets

Schedule CE

Explosion-Proof and Dust-Tight

For flush or surface mounting.

Meets requirements of the Underwriters' Laboratories for devices for Class I (explosion-proof) locations.

Provides controls for 1 or 2 circuits in a single-gang EFS series Condulet.

Furnished with tumbler switches.

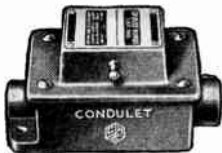
Outside dimensions, exclusive of hubs: Length, 5 $\frac{1}{8}$ inches; width, 4 inches; depth, 3 $\frac{1}{2}$ inches.

Type EFS Single



Style	AMPERES 125-V. 250-V.	Hub Size In.	Cast Ferrol Cover		Cast Brass Cover, Chromium-Plated		Form
			No.	Each	No.	Each	
1-Pole	10	5	1/2	EFS1101 \$5.45	EFS1121 \$9.70	31	
2-Pole	10	10	1/2	EFS1100 5.55	EFS1120 9.80	32	
3-Way	10	5	1/2	EFS1107 5.85	EFS1119 10.10	33	
1-Pole	10	5	3/4	EFS2101 5.50	EFS2121 9.75	31	
2-Pole	10	10	3/4	EFS2100 5.60	EFS2120 9.85	32	
3-Way	10	5	3/4	EFS2107 5.90	EFS2119 10.15	33	
4-Way	5	2	3/4	EFS2108 8.80	EFS2124 13.05	34	

†Type EFSC Single



1-Pole	10	5	1/2	EFSC1101 \$5.55	EFSC1121 \$9.80	31	
2-Pole	10	10	1/2	EFSC1100 5.65	EFSC1120 9.90	32	
3-Way	10	5	1/2	EFSC1107 5.95	EFSC1119 10.20	33	
1-Pole	10	5	3/4	EFSC2101 5.65	EFSC2121 9.90	31	
2-Pole	10	10	3/4	EFSC2100 5.75	EFSC2120 10.00	32	
3-Way	10	5	3/4	EFSC2107 6.05	EFSC2119 10.30	33	

*Type EFS Duplex



For 2 like switches, but on special order any combination of 2 switches can be furnished.

1-Pole	10	5	1/2	EFS1109 \$6.95	EFS1125 \$11.20	31	
1-Pole	10	5	3/4	EFS2109 7.00	EFS2125 11.25	31	
2-Pole	10	5	3/4	EFS2110 7.80	EFS2126 12.05	32	
3-Way	10	5	3/4	EFS2113 7.90	EFS2127 12.15	33	

*Type EFSC Duplex



1-Pole	10	5	1/2	EFSC1109 \$7.05	EFSC1125 \$11.30	31	
2-Pole	10	10	1/2	EFSC1110 7.85	EFSC1126 12.10	32	
3-Way	10	5	1/2	EFSC1113 7.95	EFSC1127 12.20	33	
1-Pole	10	5	3/4	EFSC2109 7.15	EFSC2125 11.40	31	
2-Pole	10	10	3/4	EFSC2110 7.95	EFSC2126 12.20	32	
3-Way	10	5	3/4	EFSC2113 8.05	EFSC2127 12.30	33	

*Combinations can be furnished, if specified.

†May be obtained in one-inch conduit size. Change first figure of number to 3 and add 20 cents to list price.

EFS Series Push Button Switch Condulets

Schedule CE

With Rocker Type Operating Handle

Explosion-Proof and Dust-Tight

Meets requirements of the Underwriters' Laboratories for devices for Class I (explosion-proof) locations.

Furnished with double push button switches.

Can be furnished with attachment for rod operation at no extra charge. Add suffix S33 to number.

Type EFS

Outside dimensions, exclusive of hubs: Length, 5 $\frac{1}{8}$ inches; width, 3 $\frac{1}{2}$ inches; depth, 4 inches.



Style	AMPERES 125-V. 250-V.		Hp.	Hub Size In.	No.	Each	Form
	20	10					
1-Pole	20	10	..	1/2	EFS1138	\$5.45	38
2-Pole	20	20	2	1/2	EFS114	5.55	4
3-Way	15	10	..	1/2	EFS1139	5.85	39
1-Pole	20	10	..	3/4	EFS2138	5.50	38
2-Pole	20	20	2	3/4	EFS214	5.60	4
3-Way	15	10	..	3/4	EFS2139	5.90	39

Type EFSC

Outside dimensions, exclusive of hubs: Length, 5 $\frac{1}{8}$ inches; width, 3 $\frac{1}{2}$ inches; depth, 4 inches.



1-Pole	20	10	..	1/2	EFSC1138	\$5.55	38
2-Pole	20	20	2	1/2	EFSC114	5.65	4
3-Way	15	10	..	1/2	EFSC1139	5.95	39
1-Pole	20	10	..	3/4	EFSC2138	5.65	38
2-Pole	20	20	2	3/4	EFSC214	5.75	4
3-Way	15	10	..	3/4	EFSC2139	6.05	39

*†Type EFS 2-Gang

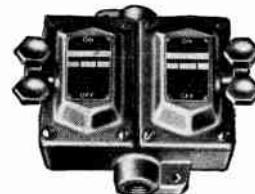
Outside dimensions, exclusive of hubs: Length, 5 $\frac{1}{8}$ inches; width, 7 $\frac{1}{4}$ inches; depth, 4 inches.



1-Pole	20	10	..	1/2	EFS1238	\$10.90	38
1-Pole	20	10	..	3/4	EFS2238	11.00	38
2-Pole	20	20	2	3/4	EFS2204	11.20	4
3-Way	15	10	..	3/4	EFS2239	11.80	39

*†Type EFSC 2-Gang

Outside dimensions, exclusive of hubs: Length, 5 $\frac{1}{8}$ inches; width, 7 $\frac{1}{4}$ inches; depth, 4 inches.



1-Pole	20	10	..	1/2	EFSC1238	\$11.10	38
2-Pole	20	20	2	1/2	EFSC1204	11.30	4
3-Way	15	10	..	1/2	EFSC1239	11.90	39
1-Pole	20	10	..	3/4	EFSC2238	11.30	38
2-Pole	20	20	2	3/4	EFSC2204	11.50	4
3-Way	15	10	..	3/4	EFSC2239	12.10	39

*Combinations can be furnished, if specified.

†May be obtained in one-inch conduit size. Change first figure of number to 3. Add 10 cents per hub to list price of Type EFS 2-gang and 20 cents per hub to list price of Type EFSC 2-gang.

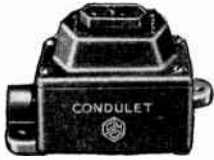
EFS Series Push Button Switch Condulets

Schedule CE

Explosion-Proof and Dust-Tight

Meets more exacting requirements of the Underwriters' Laboratories for devices for Class I (explosion-proof) locations.

Furnished with front operated double push button switches.



Type EFS

Outside dimensions, exclusive of hubs: Length, 5 1/8 inches; width, 3 1/2 inches; depth, 4 1/4 inches.

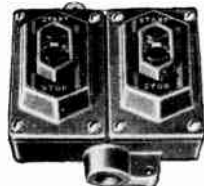
Style	—AMPERES—		Hp.	Hub Size In.	No.	Each	Form
	125-V.	250-V.					
1-Pole	20	10	..	1/2	EFS1141	\$5.45	41
2-Pole	20	20	2	1/2	EFS1142	5.55	42
3-Way	15	10	..	1/2	EFS1143	5.85	43
1-Pole	20	10	..	3/4	EFS2141	5.50	41
2-Pole	20	20	2	3/4	EFS2142	5.60	42
3-Way	15	10	..	3/4	EFS2143	5.90	43



Type EFSC

Outside dimensions, exclusive of hubs: Length, 5 1/8 inches; width, 3 1/2 inches; depth, 4 1/4 inches.

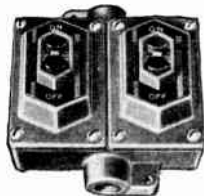
1-Pole	20	10	..	1/2	EFSC1141	\$5.55	41
2-Pole	20	20	2	1/2	EFSC1142	5.65	42
3-Way	15	10	..	1/2	EFSC1143	5.95	43
1-Pole	20	10	..	3/4	EFSC2141	5.65	41
2-Pole	20	20	2	3/4	EFSC2142	5.75	42
3-Way	15	10	..	3/4	EFSC2143	6.05	43



***†Type EFS 2-Gang**

Outside dimensions, exclusive of hubs: Length, 5 1/8 inches; width, 7 1/4 inches; depth, 4 1/4 inches.

1-Pole	20	10	..	1/2	EFS1241	\$10.90	41
1-Pole	20	10	..	3/4	EFS2241	11.00	41
2-Pole	20	20	2	3/4	EFS2242	11.20	42
3-Way	15	10	..	3/4	EFS2243	11.80	43



***†Type EFSC 2-Gang**

Outside dimensions, exclusive of hubs: Length, 5 1/8 inches; width, 7 1/4 inches; depth, 4 1/4 inches.

1-Pole	20	10	..	1/2	EFSC1241	\$11.10	41
2-Pole	20	20	2	1/2	EFSC1242	11.30	42
3-Way	15	10	..	1/2	EFSC1243	11.90	43
1-Pole	20	10	..	3/4	EFSC2241	11.30	41
2-Pole	20	20	2	3/4	EFSC2242	11.50	42
3-Way	15	10	..	3/4	EFSC2243	12.10	43

*Combinations can be furnished, if specified.

†May be obtained in one-inch conduit size. Change first figure of number to 3. Add 10 cents per hub to list price of Type EFS 2-gang and 20 cents per hub to list price of Type EFSC 2-gang.

‡Order by catalog number. Use type and form number (rather than catalog number) for identification of Condulets for hazardous locations, when consulting Underwriters Laboratories' list of inspected electrical appliances.

EFS Series Push Button Station Condulets

Schedule CE

Explosion-Proof and Dust-Tight

15 Amperes, 230 Volts A.C.; 10 Amperes, 460 Volts A.C.; and 5 Amperes, 600 Volts A.C.

Meets more exacting requirements of the Underwriters' Laboratories for devices for Class I (explosion-proof) locations.

Furnished with motor control push button switches, front operated, with start and stop push buttons.

All two-button push button switches are furnished with a removable line connection jumper.

Types EFS and EFSC



Type EFS

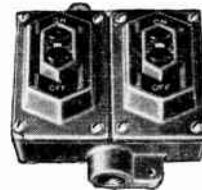


Type EFSC

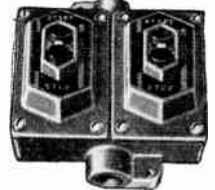
Outside dimensions, exclusive of hubs: Length, 5 1/8 inches; width, 3 1/2 inches; depth, 4 1/4 inches.

Style	Plate Marking	Hub Size In.	—Type EFS—		—Type EFSC—		Form
			No.	Each	No.	Each	
1 Button (Normally Open).....	Start	1/2	EFS111	\$7.15	EFSC111	\$7.25	1
			EFS211	7.20	EFSC211	7.35	1
1 Button (Normally Closed).....	Stop	3/4	EFS1102	7.15	EFSC1102	7.25	2
			EFS212	7.20	EFSC212	7.35	2
2 Buttons (1 Normally Open, 1 Normally Closed).....	Start	1/2	EFS115	8.40	EFSC115	8.50	5
			EFS215	8.45	EFSC215	8.60	5
2 Buttons (Both Normally Open).....	Start	1/2	EFS1103	8.40	EFSC1103	8.50	3
			EFS213	8.45	EFSC213	8.60	3
2 Buttons (Both Normally Closed).....	Stop	1/2	EFS1105	8.40	EFSC1105	8.50	05
			EFS2105	8.45	EFSC2105	8.60	05

***†Types EFS 2-Gang and EFSC 2-Gang**



Type EFS



Type EFSC

Outside dimensions, exclusive of hubs: Length, 5 1/8 inches; width, 7 1/4 inches; depth, 4 1/4 inches.

Style	Plate Marking	Hub Size In.	—Type EFS—		—Type EFSC—		Form
			No.	Each	No.	Each	
1 Button (Normally Open).....	Start	1/2	EFS121	\$14.30	EFSC121	\$14.50	1/2
			EFS221	14.40	EFSC221	14.70	1/2
1 Button (Normally Closed).....	Stop	1/2	EFS122	14.30	EFSC122	14.50	1/2
			EFS222	14.40	EFSC222	14.70	1/2
2 Buttons (1 Normally Open, 1 Normally Closed).....	Start	3/4	EFS225	16.80	EFSC125	17.00	1/2
			EFS325	16.90	EFSC225	17.20	1/2
2 Buttons (Both Normally Open).....	Start	3/4	EFS2203	16.80	EFSC123	17.00	1/2
			EFS323	16.90	EFSC223	17.20	1/2
2 Buttons (Both Normally Closed).....	Stop	3/4	EFS2205	16.80	EFSC1205	17.00	05
			EFS3205	16.90	EFSC2205	17.20	05

*Combinations can be furnished, if specified.

†May be obtained in one-inch conduit size. Change first figure of number 2 to 3. Add 10 cents per hub to list price of Type EFS 2-gang and 20 cents per hub to list price of Type EFSC 2-gang.

‡Order by catalog number. Use type and form number (rather than catalog number) for identification of Condulets for hazardous locations, when consulting Underwriters Laboratories' list of inspected electrical appliances.

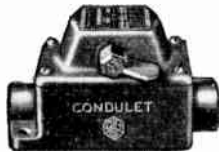
EFS Series Control Station Condulets

Schedule CE

Explosion-Proof—Dust-Tight

Standard Duty: 600 Volts A.C.—Heavy Duty: 600 Volts A.C.

Center position marked OFF. Specify other position markings such as AUTOMATIC—OFF—HAND; HOIST—OFF—LOWER; or REVERSE—OFF—FORWARD.



Type EFS

Style	Hub Size In.	Standard Duty			Heavy Duty		
		No.	Each	Form	No.	Each	Form
1 Circuit (Open)	1/2	EFS1554	\$7.15	554	EFS1556	\$9.90	556
	3/4	EFS2554	7.20	554	EFS2556	9.95	556
1 Circuit (Closed)	1/2	EFS1557	7.15	557	EFS1559	9.90	559
	3/4	EFS2557	7.20	557	EFS2559	9.95	559
2 Circuits (Both Open)	1/2	EFS1551	8.40	551	EFS1553	11.15	553
	3/4	EFS2551	8.45	551	EFS2553	11.20	553
2 Circuits (Both Closed)	1/2	EFS1573	8.40	573	EFS1575	11.15	575
	3/4	EFS2573	8.45	573	EFS2575	11.20	575
4 Circuits (Universal)	1/2	EFS1576	9.15	576	EFS1578	11.90	578
	3/4	EFS2576	9.20	576	EFS2578	11.95	578

Type EFSC

Style	Hub Size In.	Standard Duty			Heavy Duty		
		No.	Each	Form	No.	Each	Form
1 Circuit (Open)	1/2	EFSC1554	\$7.25	554	EFSC1556	\$10.00	556
	3/4	EFSC2554	7.35	554	EFSC2556	10.10	556
1 Circuit (Closed)	1/2	EFSC1557	7.25	557	EFSC1559	10.00	559
	3/4	EFSC2557	7.35	557	EFSC2559	10.10	559
2 Circuits (Both Open)	1/2	EFSC1551	8.50	551	EFSC1553	11.25	553
	3/4	EFSC2551	8.60	551	EFSC2553	11.35	553
2 Circuits (Both Closed)	1/2	EFSC1573	8.50	573	EFSC1575	11.25	575
	3/4	EFSC2573	8.60	573	EFSC2575	11.35	575
4 Circuits (Universal)	1/2	EFSC1576	9.25	576	EFSC1578	12.00	578
	3/4	EFSC2576	9.35	576	EFSC2578	12.10	578

EFS Series Push Button Station Condulets

Explosion-Proof and Dust-Tight



Type EFS

Normal Positions	Plate Markings	Hub Size In.	Standard Duty			Heavy Duty		
			No.	Each	Form	No.	Each	Form
2 Buttons (1 Open 1 Closed)	{Start (Stop)	1/2	EFS1155	\$8.40	55	EFS1155F	\$11.15	55F
			3/4	EFS2155	8.45	55	EFS2155F	11.20	55F
2 Buttons (Both Open)	{Start	1/2	EFS1155B	8.40	55B	EFS1155G	11.15	55G
			3/4	EFS2155B	8.45	55B	EFS2155G	11.20	55G
2 Buttons (Both Closed)	{Stop	1/2	EFS1155D	8.40	55D	EFS1155H	11.15	55H
			3/4	EFS2155D	8.45	55D	EFS2155H	11.20	55H

Type EFSC

2 Buttons (1 Open 1 Closed)	{Start (Stop)	1/2	EFSC1155	\$8.50	55	EFSC1155F	\$11.25	55F
			3/4	EFSC2155	8.60	55	EFSC2155F	11.35	55F
2 Buttons (Both Open)	{Start	1/2	EFSC1155B	8.50	55B	EFSC1155G	11.25	55G
			3/4	EFSC2155B	8.60	55B	EFSC2155G	11.35	55G
2 Buttons (Both Closed)	{Stop	1/2	EFSC1155D	8.50	55D	EFSC1155H	11.25	55H
			3/4	EFSC2155D	8.60	55D	EFSC2155H	11.35	55H

Type OFC Push Button Station Condulets

Schedule CE

With Motor Control Push Button Switches and Rocker Type Operating Handles Explosion-Proof—Dust-Tight

For Oil Immersed or Air Break Switches Class I, Group D; and Classes II and III 600 Volts A.C.



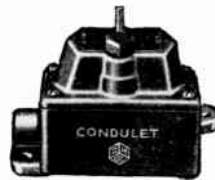
Normal Positions	Operating Handles	Handle Marking	Condulet		Hub Size In.	Condulet With Switch	
			No.	Each		No.	Each
1 Button (Open-A)	Single	Start	D125F	\$3.25	3/4	OFC2101	\$13.50
						OFC3101	13.70
1 Button (Closed-A)	Single	Stop	D125G	3.25	3/4	OFC2102	13.50
						OFC3102	13.70
2 Buttons (1 Open-A 1 Closed-B)	Double	Start (Stop)	D125	4.25	3/4	OFC2103	14.50
						OFC3103	14.70
2 Buttons (Open-A-B)	Double	Start (Stop)	D125B	4.25	3/4	OFC2104	14.50
						OFC3104	14.70
2 Buttons (Closed-A-B)	Double	Start (Stop)	D125D	4.25	3/4	OFC2105	14.50
						OFC3105	14.70
2 Buttons (Universal)	Double	Must be Specified	D125U	5.00	3/4	OFC2133	15.25
						OFC3133	15.45
2 Buttons (Open)	Single	Start	D125B	4.25	3/4	OFC2131	14.50
						OFC3131	14.70
2 Buttons (Closed)	Both Buttons Together	Stop	D125D	4.25	3/4	OFC2132	14.50
						OFC3132	14.70
2 Buttons (Universal)	Both Buttons Together	Must be Specified	D125U	5.00	3/4	OFC2139	15.25
						OFC3139	15.45

EFS Series Manual Motor Starting Switch Condulets

Schedule CE

Explosion-Proof and Dust-Tight

Class I, Groups C and D; and Classes II, III and IV



Furnished with G-E CR1061 motor starting switches (tumbler type) single phase motors, and take interchangeable heater units.

Outside dimensions, exclusive of hubs: length, 5 1/8 inches; width, 3 1/2 inches; depth, 4 1/8 inches.

Poles Hp.	Switch Volts	Hub Size In.	Type EFS		Type EFSC	
			No.	*Each	No.	*Each
1 3/4	115-220 A.C.	1/2	EFS1185	\$9.85	EFSC1185	\$9.95
			3/4	EFS2185	9.90	EFSC2185
1 3/4	115-220 A.C.	1	EFS3185	10.00	EFSC3185	10.20
			3/4	EFS1187	9.85	EFSC1187	9.95
1 1/2	115-230 D.C.	3/4	EFS2187	9.90	EFSC2187	10.05
			1	EFS3187	10.00	EFSC3187	10.20
2 3/4	110-220 A.C.	1/2	EFS1186	10.35	EFSC1186	10.45
			3/4	EFS2186	10.40	EFSC2186	10.55
2 3/4	110-220 A.C.	1	EFS3186	10.50	EFSC3186	10.70
			1/2	EFS1188	10.35	EFSC1188	10.45
2 3/4	115-230 D.C.	3/4	EFS2188	10.40	EFSC2188	10.55
			1	EFS3188	10.50	EFSC3188	10.70

*Price includes switch with one interchangeable heater.

EFS Series Condulets

Schedule CE

With Covers for Push Button Station and Pilot Light
Explosion-Proof and Dust-Tight
Standard Duty: 230, 460, and 600 Volts A. C.
Heavy Duty: 600 Volts A.C.



Type EFS, Two-Gang



Type EFSC, Two-Gang

Type EFS, Dead End

Normal Positions	Plate Mark-ings	Hub Size In.	Standard Duty			Heavy Duty		
			No.	Each	Form	No.	Each	Form
1 Button (Open)	Start	1/2	EFS121	\$15.50	1J	EFS1606	\$18.25	506J
	Start	3/4	EFS221	15.55	1J	EFS2606	18.30	506J
	Start	1	EFS321	15.65	1J	EFS3606	18.40	506J
1 Button (Closed)	Stop	1/2	EFS122	15.50	2J	EFS1607	18.25	507J
	Stop	3/4	EFS2202	15.55	2J	EFS2607	18.30	507J
	Stop	1	EFS322	15.65	2J	EFS3607	18.40	507J
2 Buttons (1 Open 1 Closed)	Start	1/2	EFS125	16.55	5J	EFS1600	19.30	500J
	Start	3/4	EFS225	16.60	5J	EFS2600	19.35	500J
	Start	1	EFS325	16.70	5J	EFS3600	19.40	500J
2 Buttons (Both Open)	Start	1/2	EFS123	16.55	3J	EFS1602	19.30	502J
	Start	3/4	EFS223	16.60	3J	EFS2602	19.35	502J
	Start	1	EFS323	16.70	3J	EFS3602	19.45	502J
2 Buttons (Both Closed)	Stop	1/2	EFS1205	16.55	05J	EFS1604	19.30	504J
	Stop	3/4	EFS2205	16.60	05J	EFS2604	19.35	504J
	Stop	1	EFS3205	16.70	05J	EFS3604	19.45	504J

Type EFSC, Through Feed

Normal Positions	Plate Mark-ings	Hub Size In.	Standard Duty			Heavy Duty		
			No.	Each	Form	No.	Each	Form
1 Button (Open)	Start	1/2	EFSC121	\$15.60	1J	EFSC1606	\$18.35	506J
	Start	3/4	EFSC221	15.70	1J	EFSC2606	18.45	506J
	Start	1	EFSC321	15.90	1J	EFSC3606	18.65	506J
1 Button (Closed)	Stop	1/2	EFSC122	15.60	2J	EFSC1607	18.35	507J
	Stop	3/4	EFSC2202	15.70	2J	EFSC2607	18.45	507J
	Stop	1	EFSC322	15.90	2J	EFSC3607	18.65	507J
2 Buttons (1 Open 1 Closed)	Start	1/2	EFSC125	16.65	5J	EFSC1600	19.40	500J
	Start	3/4	EFSC225	16.75	5J	EFSC2600	19.50	500J
	Start	1	EFSC325	16.95	5J	EFSC3600	19.70	500J
2 Buttons (Both Open)	Start	1/2	EFSC123	16.65	3J	EFSC1602	19.40	502J
	Start	3/4	EFSC2203	16.75	3J	EFSC2602	19.50	502J
	Start	1	EFSC323	16.95	3J	EFSC3602	19.70	502J
2 Buttons (Both Closed)	Stop	1/2	EFSC1205	16.65	05J	EFSC1604	19.40	504J
	Stop	3/4	EFSC2205	16.75	05J	EFSC2604	19.50	504J
	Stop	1	EFSC3205	16.95	05J	EFSC3604	19.70	504J

EFS Series Pilot Light Condulets

Schedule CE

Explosion-Proof and Dust-Tight



Furnished with candelabra base receptacle; 6-watt, 115 volts, Type S-6 clear bulb lamp; jewel; and guard.
Outside dimensions, exclusive of hubs: length, 5 1/8 inches; width, 3 1/2 inches; depth, 4 1/16 inches.

Color of Jewel	Hub Size In.	With Single Pilot Light			With Double Pilot Light		
		No.	Each	Form	No.	Each	Form
Ruby	1/2	EFSC1524	\$8.10	524	EFSC1561	\$11.60	561
Emerald	1/2	EFSC1541	8.10	524	EFSC1563	11.60	561
Clear	1/2	EFSC1548	8.10	524	EFSC1570	11.60	561
Ruby	3/4	EFSC2524	8.20	524	EFSC2561	11.70	561
Emerald	3/4	EFSC2541	8.20	524	EFSC2563	11.70	561
Clear	3/4	EFSC2548	8.20	524	EFSC2570	11.70	561
Ruby	1	EFSC3524	8.40	524	EFSC3561	11.90	561
Emerald	1	EFSC3541	8.40	524	EFSC3563	11.90	561
Clear	1	EFSC3548	8.40	524	EFSC3570	11.90	561

EFS Series Secondary Breaker Condulets

Schedule CE

Single-Gang

Explosion-Proof and Dust-Tight

For D.C. or Single-Phase A.C. Motors



Type EFS



Type EFSC

Outside dimensions, exclusive of hubs: Length, 5 1/8 inches; width, 3 1/2 inches; depth, 1 1/16 inches.

With Secondary Breaker

Type EFS

Arrow-H&H Secondary Breaker

Hub Size In.	Single-Pole			Double-Pole		
	No.	Each	Form	No.	Each	Form
1/2	EFS1171	\$7.60	*51	EFS1172	\$8.10	*72
3/4	EFS2171	7.65	*71	EFS2172	8.15	*72
1	EFS3171	7.75	*71	EFS3172	8.25	*72

Bryant Type H Secondary Breaker

1/2	EFS1151-BR	\$7.60	*51	EFS1152-BR	\$8.10	*52
3/4	EFS2151-BR	7.65	*51	EFS2152-BR	8.15	*52
1	EFS3151-BR	7.75	*51	EFS3152-BR	8.25	*52

Westinghouse Type H Secondary Breaker

1/2	EFS1151-W	\$7.60	*51	EFS1152-W	\$8.10	*52
3/4	EFS2151-W	7.65	*51	EFS2152-W	8.15	*52
1	EFS3151-W	7.75	*51	EFS3152-W	8.25	*52

Type EFSC

Arrow-H&H Secondary Breaker

1/2	EFSC1171	\$7.70	*71	EFSC1172	\$8.20	*72
3/4	EFSC2171	7.80	*71	EFSC2172	8.30	*72
1	EFSC3171	7.95	*71	EFSC3172	8.45	*72

Bryant Type H Secondary Breaker

1/2	EFSC1151-BR	\$7.70	*51	EFSC1152-BR	\$8.20	*52
3/4	EFSC2151-BR	7.80	*51	EFSC2152-BR	8.30	*52
1	EFSC3151-BR	7.95	*51	EFSC3152-BR	8.45	*52

Westinghouse Type H Secondary Breaker

1/2	EFSC1151-W	\$7.70	*51	EFSC1152-W	\$8.20	*52
3/4	EFSC2151-W	7.80	*51	EFSC2152-W	8.30	*52
1	EFSC3151-W	7.95	*51	EFSC3152-W	8.45	*52

Without Breaker—Take 1 and 2-Pole Breakers

For Arrow-H&H Secondary Breaker

Hub Size In.	Type EFS			Type EFSC		
	No.	Each	Form	No.	Each	Form
1/2	EFS1172-B	\$4.35	72B	EFSC1172-B	\$4.45	72B
3/4	EFS2172-B	4.40	72B	EFSC2172-B	4.55	72B
1	EFS3172-B	4.50	72B	EFSC3172-B	4.70	72B

For Bryant Type H Secondary Breaker

1/2	EFS1152-B	\$4.35	52B	EFSC1152-B	\$4.45	52B
3/4	EFS2152-B	4.40	52B	EFSC2152-B	4.55	52B
1	EFS3152-B	4.50	52B	EFSC3152-B	4.70	52B

For Westinghouse Type H Secondary Breaker

1/2	EFS1152-B	\$4.35	52B	EFSC1152-B	\$4.45	52B
3/4	EFS2152-B	4.40	52B	EFSC2152-B	4.55	52B
1	EFS3152-B	4.50	52B	EFSC3152-B	4.70	52B

*Price includes breaker with one interchangeable heater.

†Price includes breaker with integral heater. Add symbol number of heater or breaker as a suffix to number of complete Condulet.

Type GUSC Condulets

Schedule CE
Explosion-Proof and Dust-Tight
Group D; and Classes II and III



Type GUSC motor control Condulets have a rectangular body with a round, threaded opening in the front which is equipped with a threaded cover.

Furnished with through feed hubs for threaded conduit, and external mounting lugs with fastening holes.

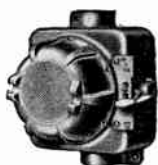
With Manual Across-The-Line Motor Starting Switches

Poles	Phase	HORSEPOWER RATING				Hub Size In.	No.	Each
		110-V. A.C.	220-V. A.C.	115 V. D.C.	230 V. D.C.			
1	1	1	1 1/2	1 1/2	3/4	GUSC2081-AH	\$14.00	
2	1	1	1 1/2	1 1/2	3/4	GUSC2092-AH	19.00	
3	3 and 2	1 1/2	2	...	3/4	GUSC2123-AH	22.00	
4	2	1 1/2	2	...	3/4	GUSC2124-AH	28.00	

With Tumbler Switches

Style	Rating	Hub Size In.	No.	Each
1-Pole	30-Amp., 250-V.	1/2	GUSC1061-AH	\$7.50
		3/4	GUSC2061-AH	7.65
2-Pole	2 Hp., 115-230-V., A.C. ; 1 Hp., 460-V., A.C.	1/2	GUSC1052-AH	7.95
		3/4	GUSC2052-AH	8.10
3-Pole	20-Amp., 600-V. ; 2 Hp., 115-575-V., A.C.	3/4	GUSC2013-AH	10.95
		3/4	GUSC2024-AH	11.90
4-Pole	2 Hp., 115-230-V., A.C. ; 1 Hp., 460-V., A.C.	3/4	GUSC2073-AH	13.15
		3/4	GUSC2073-AH	13.15

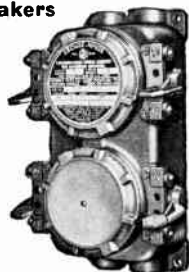
With Electro-Magnetic Auxiliary Breaker



Poles	Volts	Rating Amperes	Hub Size In.	No.	Each
1	115 A.C.	1/4 to 1	3/4	GUSC-2041-11	\$15.75
		1 to 35	3/4	GUSC-2041-13	15.00
	230 A.C.	1/4 to 1	3/4	GUSC-2041-31	15.75
		1 to 35	3/4	GUSC-2041-33	15.00
1	250 D.C.	1/4 to 1	3/4	GUSC-2041-51	16.50
		1 to 35	3/4	GUSC-2041-53	15.75

Type GUSC Circuit Breaker Condulets

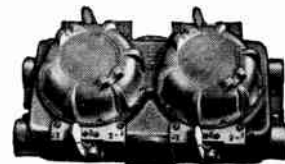
Schedule CE
With Multi-Breakers



No. of Breakers	Poles	Rating Amperes	Hub Size In.	Neutral Connection Block			
				Grounded		Ungrounded	
1	1	15	3/4	GUSC2251	\$17.00	GUSC2252	\$17.00
1	1	20	3/4	GUSC2261	17.00	GUSC2262	17.00
1	1	25	3/4	GUSC2271	17.00	GUSC2272	17.00
2	1	15	3/4	GUSC2281	21.00	GUSC2282	21.00
2	1	20	3/4	GUSC2291	21.00	GUSC2292	21.00
2	1	25	3/4	GUSC2311	21.00	GUSC2312	21.00
2	1	1-15, 1-20	3/4	GUSC2321	21.00	GUSC2322	21.00
1	2	15	3/4	GUSC2331	18.00	GUSC2332	18.00
1	2	20	3/4	GUSC2341	18.00	GUSC2342	18.00
1	2	25	3/4	GUSC2351	18.00	GUSC2352	18.00
				Two-Gang			
3	1	15	3/4	GUSC2361	\$36.00	GUSC2362	\$36.00
3	1	20	3/4	GUSC2371	36.00	GUSC2372	36.00
3	1	25	3/4	GUSC2381	36.00	GUSC2382	36.00
4	1	15	3/4	GUSC2471	40.00	GUSC2472	40.00
4	1	20	3/4	GUSC2481	40.00	GUSC2482	40.00
4	1	25	3/4	GUSC2491	40.00	GUSC2492	40.00
2	2	15	3/4	GUSC2571	34.00	GUSC2572	34.00
2	2	20	3/4	GUSC2581	34.00	GUSC2582	34.00
2	2	25	3/4	GUSC2591	34.00	GUSC2592	34.00

Type GUSC Circuit Breaker Condulets

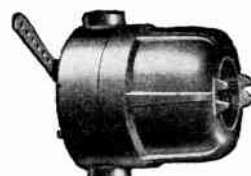
Schedule CE
With Quicklag Breakers



No. of Breakers	Poles	Rating Amperes	Hub Size In.	Neutral Connection Block			
				Grounded		Ungrounded	
1	1	10	1	GUSC3110-10	\$17.00	GUSC3111-10	\$17.00
1	1	15	1	GUSC3110-15	17.00	GUSC3111-15	17.00
1	1	20	1	GUSC3110-20	17.00	GUSC3111-20	17.00
1	1	25	1	GUSC3110-25	17.00	GUSC3111-25	17.00
1	1	35	1	GUSC3110-35	17.00	GUSC3111-35	17.00
2	1	10	1	GUSC3210-10	21.00	GUSC3211-10	21.00
2	1	15	1	GUSC3210-15	21.00	GUSC3211-15	21.00
2	1	20	1	GUSC3210-20	21.00	GUSC3211-20	21.00
2	1	25	1	GUSC3210-25	21.00	GUSC3211-25	21.00
2	1	35	1	GUSC3210-35	21.00	GUSC3211-35	21.00
1	2	10	1	GUSC3120-10	18.00	GUSC3121-10	18.00
1	2	15	1	GUSC3120-15	18.00	GUSC3121-15	18.00
1	2	20	1	GUSC3120-20	18.00	GUSC3121-20	18.00
1	2	25	1	GUSC3120-25	18.00	GUSC3121-25	18.00
1	2	35	1	GUSC3120-35	18.00	GUSC3121-35	18.00
				Two-Gang			
3	1	10	1	GUSC3310-10	\$36.00	GUSC3311-10	\$36.00
3	1	15	1	GUSC3310-15	36.00	GUSC3311-15	36.00
3	1	20	1	GUSC3310-20	36.00	GUSC3311-20	36.00
3	1	25	1	GUSC3310-25	36.00	GUSC3311-25	36.00
4	1	10	1	GUSC3410-10	40.00	GUSC3411-10	40.00
4	1	15	1	GUSC3410-15	40.00	GUSC3411-15	40.00
4	1	20	1	GUSC3410-20	40.00	GUSC3411-20	40.00
4	1	25	1	GUSC3410-25	40.00	GUSC3411-25	40.00
2	2	10	1	GUSC3220-10	34.00	GUSC3221-10	34.00
2	2	15	1	GUSC3220-15	34.00	GUSC3221-15	34.00
2	2	20	1	GUSC3220-20	34.00	GUSC3221-20	34.00
2	2	25	1	GUSC3220-25	34.00	GUSC3221-25	34.00

Type EMS Mercury Limit Switch Condulet Parts

Condulet housing with operating mechanism only.



Size	Direct Action		Snap Action		Spring Return Clockwise (Facing Cover)	
	No.	Each	No.	Each	No.	Each
1	EMS33-M2	\$10.00	EMS330-M2	\$12.50	EMS332	\$11.60
2	EMS34-M2	10.80	EMS340-M2	13.30	EMS342	12.40
Spring Return Counter-Clockwise (Facing Cover)						
Size	No.		No.		Spring Return to Center of Travel	
	No.	Each	No.	Each	No.	Each
1	EMS335	\$11.60	EMS333	\$11.60		
2	EMS345	12.40				

Connection Block

No.	Each	Material	No. of Terminals
CB641	\$.70	Bakelite	3 for No. 14-10 Wire

Mercury Switches and Carriers



Nominal RATINGS, AMPERES Maximum	Glass Tube Switch		Metal Clad Switch		Switch Carriers			
	No.	Each	No.	Each	No.	Each		
Size of (NON-INDUCTIVE) Switch 110-V. 220-V. 110-V. 110-V.								
Am- peres	A.C.	A.C.	A.C.	A.C.	A.C.	A.C.		
4	4	2	1	1/6	SWM241	\$1.60	*EMS4-M2	\$1.20
10	10	5	3	1	SWM210	2.85	EMS10-M2	1.20
25	25	12 1/2	6	2	SWM225	5.75	EMS25	1.85
4	4	2	1	1/6	†SWM242	3.00	*EMS4-M2	1.20
Metal Clad Switch								
5	5	5	3	1/6	SWM15	\$1.60	*EMS5-M2	\$1.20
10	10	10	6	1	SWM110	2.15	*EMS5-M2	1.20
20	20	20	12	1 1/2	SWM120	3.25	EMS20	1.20

*With vernier adjustment.

†Double-throw. All other switches are single-throw.

Type EGP Condulets

Schedule CE

For Panel Mounting
Explosion-Proof, Dust-Tight and Vaportight
 Class I, Groups C and D; and Classes II and III

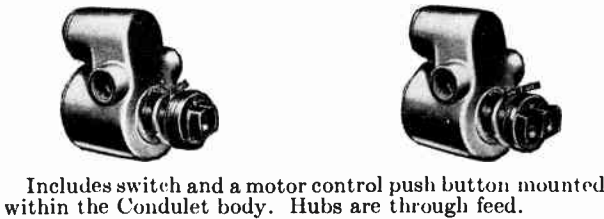
*Equipped with candelabra lamp receptacles and 120-volt, 6-watt type S-6 clear bulb lamps and colored or clear glass jewels.

Pilot Light Condulets



Size Hub Inches	With One Pilot Light	With Two Pilot Lights Straight Hubs	With Three Pilot Lights Tangential Hubs
1	EGP311	EGP312	EGP313
1	EGP322		

Push Button Station Condulets
 D 120, 5 Amperes, Standard Duty

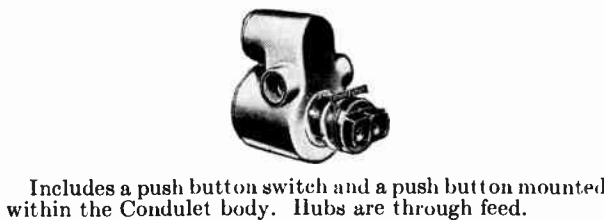


Includes switch and a motor control push button mounted within the Condulet body. Hubs are through feed.

Normal Position	Plate Marking	Size Hub Inches	With One Operating Button		With Two Operating Buttons	
			No.	Each	No.	Each
1 Circuit Open	Start	1	EGP3101	\$17.75		
1 Circuit Closed	Stop	1	EGP3102	17.75		
2 Circuits 1 Open	Start	1	EGP3103	18.75	EGP3107	\$19.25
2 Circuits 1 Closed	Stop	1	EGP3104	18.75	EGP3108	19.25
2 Circuits Open	Start	1	EGP3105	18.75	EGP3109	19.25
2 Circuits Closed	Stop	1	EGP3106	19.50	EGP3110	20.00
2 Circuits Universal	Must be Specified	1				

Also available in 30 amperes, heavy duty.

Push Button Switch Condulets



Includes a push button switch and a push button mounted within the Condulet body. Hubs are through feed.

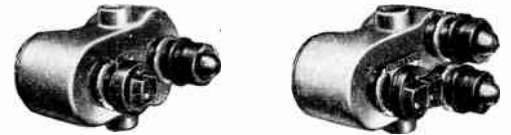
Style	Hub Size Inches	125 Volts	250 Volts	Horse-power	Plate Marking	No.	Each
1-Pole	1	20	10	..	On-Off	EGP3141	\$16.05
2-Pole	1	20	20	..	On-Off	EGP3142	16.15
3-Way	1	15	10	..	.....	EGP3143	16.45
4-Way	1	4	2	..	.....	EGP3144	19.35

†For jewels add suffix: J1 for ruby; J3 for emerald; J6 for amber; J8 for opal; J10 for clear; J11 for blue.
 *For 220-volt lamps, add suffix V2 and \$.35 to prices.

Type EGP Condulets

Schedule CE

For Panel Mounting
Explosion-Proof, Dust-Tight, and Vaportight
 Class I, Groups C and D; and Classes II and III
Combination Push Button Station and Pilot Light Condulets
 D 120, 5 Amperes, Standard Duty



Normal Position	Hub Size Inches	Plate Marking	No. Pilot Lights	With One Operating Button		With Two Operating Buttons	
				No.	Each	No.	Each
1 Circuit Open	1	Start	1	EGP3601	\$24.75		
1 Circuit Closed	1	Stop	1	EGP3602	24.75		
2 Circuits Open	1	Start	2	EGP3704	33.75	EGP3608	\$26.75
2 Circuits Closed	1	Stop	2	EGP3605	25.75	EGP3609	26.75
2 Circuits 1 Open	1	Start	1			EGP3607	26.75
2 Circuits 1 Closed	1	Stop	2			EGP3707	34.75
2 Circuits Universal	1	Must be Specified	2	EGP3606	26.50	EGP3610	27.50
				EGP3706	34.50	EGP3710	35.50

Mercury Switch Condulets

Hubs are through feed.

Style	Hub Size In.	Poles	No. of Tubes	No.	Each
On-Off	1	1	1	EGP317	\$24.50
On-Off	1	2	2	EGP327	27.00
On-Off	1	3	3	EGP337	33.50
Double Throw (With Off Position)	1	1	2	EGP319	27.00
		2	4	EGP329	35.00
Momentary Contact	1	1	1	EGP318	24.50
		2	2	EGP328	27.00
		3	3	EGP338	33.50

Type ESP Panelboards

Explosion-Proof, Dust-Tight, Vaportight and Weatherproof

Furnished with branch circuit breakers, main lugs, and terminal connection blocks.

Available with 20, 25, 35, and 50-ampere breakers or combinations of these breakers. Any combination of breakers of 15, 20, or 25-ampere size furnished at \$5.00 extra.

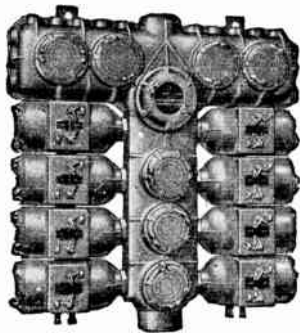


Branch Circuits

Main Lug Size	Circuits	Ampere Rating	No.	Each
4	2	15	ESP102-15	\$127.00
			Mains—3-Wire, 125-250-Volt A.C. or D.C. Branches—3-Wire, 125-250-Volt A.C. or D.C. Breakers—2-Pole	
4	2	15	ESP202-15	127.00
			Mains—3-Wire, 125-250-Volt A.C. or D.C. Branches—3-Wire, 125-250-Volt A.C. or D.C. Breakers—3-Pole	
4	2	15	ESP602-15	143.00
			Mains—3-Wire, 125-250-Volt A.C. or D.C. Branches—2-Wire, 125-Volt, A.C. or D.C. Solid Neutral Breakers—Single-Pole	
4	4	15	ESP404-15	117.00
			Mains—3-Wire, 125-250-Volt A.C. or D.C. Branches—3-Wire, 125-250-Volt A.C. or D.C. Solid Neutral Breakers—2-Pole	
4	2	15	ESP302-15	127.00
			Mains—4-Wire, 120-208-Volt, 3-Phase Branches—2-Wire, 120-Volt, Single-Phase Solid Neutral Breakers—Single-Pole	
4	4	15	ESP504-15	122.00

Type EDP Panelboards

Schedule CE
With Circuit Breakers
Class I, Group D; and Classes II and III



Designed for use in hazardous locations. May also be used in non-hazardous locations where corrosive vapors, non-combustible dusts, or moisture are present.

Wired complete. Connections between terminal blocks and circuit breakers are made at the factory. Each circuit breaker compartment is sealed from the T section.

Branch Circuits

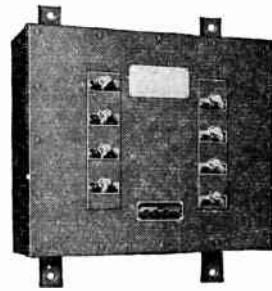
Mains—3-Wire, 125-250 Volt A.C. or D.C.
Branches—3-Wire, 125-250-Volt A.C. or D.C.
Breakers—3-Pole

Main Lug Size	Circuits	Ampere Rating	No.	Each
1	4	15	EDP604-15	\$281.00
1	6	15	EDP606-15	389.00
Mains—3-Wire, 125-Volt, 3-Phase				
Branches—2-Wire, 125-Volt, Single-Phase				
Breakers—2-Pole				
1	6	15	EDP906-15	\$276.00
1	8	15	EDP908-15	358.00
Mains—4-Wire, 120-208-Volt, 3-Phase				
Branches—2-Wire, 120-Volt, Single-Phase				
Solid Neutral, Breakers—Single-Pole				
1	6	15	EDP506-15	\$203.00
1	8	15	EDP508-15	234.00
1	10	15	EDP510-15	265.00
1	12	15	EDP512-15	296.00
1	14	15	EDP514-15	357.00
1	16	15	EDP516-15	387.00
Mains—4-Wire, 120-208-Volt, 3-Phase				
Branches—3-Wire, 120-208-Volt, Single Phase				
Solid Neutral, Breakers—2-Pole				
1	4	15	EDP804-15	\$222.00
1	6	15	EDP806-15	276.00
1	8	15	EDP808-15	358.00
Mains—4-Wire, 120-208-Volt, 3-Phase				
Branches—4-Wire, 120-208-Volt, 3-Phase				
Solid Neutral, Breakers—3-Pole				
1	4	15	EDP1104-15	\$281.00
1	6	15	EDP1106-15	389.00
Mains—2-Wire, 125-Volt A.C. or D.C.				
Branches—2-Wire, 125-Volt A.C. or D.C.				
Breakers—2-Pole				
1	4	15	EDP104-15	\$224.00
1	6	15	EDP106-15	276.00
0000	8	15	EDP108-15	358.00
Mains—3-Wire, 125-250 Volt A.C. or D.C.				
Branches—2-Wire, 125-Volt, A.C. or D.C.				
Solid Neutral, Breakers—Single-Pole				
1	6	15	EDP406-15	\$203.00
1	8	15	EDP408-15	234.00
1	10	15	EDP410-15	265.00
1	12	15	EDP412-15	296.00
0000	14	15	EDP414-15	357.00
0000	16	15	EDP416-15	388.00
Mains—3-Wire, 125-250-Volt A.C. or D.C.				
Branches—2-Wire, 125-Volt A.C. or D.C.				
Breakers—2-Pole				
1	4	15	EDP204-15	\$224.00
1	6	15	EDP206-15	276.00
1	8	15	EDP208-15	358.00
Mains—3-Wire, 125-250-Volt A.C. or DC.				
Branches—3-Wire, 125-250-Volt A.C. or D.C.				
Solid Neutral Breakers—2-Pole				
1	4	15	EDP304-15	\$224.00
1	6	15	EDP306-15	276.00
0000	8	15	EDP308-15	358.00

Available with 20, 25, 35, and 50-ampere breakers or any combination of these breakers. Any combination of breakers of 15, 20, or 25-ampere size furnished at \$5.00 extra.

Type DVP Panelboards

Schedule CE
With Circuit Breakers
Vaportight
Class II, Groups E, F, and G; and Class III



Designed to meet requirements for hazardous locations and for locations requiring vaportight equipment.

Circuit breakers and main lug housing are made of cast aluminum with hub plates in two sizes. The smaller unit takes 4 double-pole or 8 single-pole breakers. The larger unit takes 8 double-pole or 16 single-pole breakers.

Panelboards are equipped with 15-ampere, single or double-pole breakers.

15-Ampere Branch Circuit Breakers

Mains—3-Wire, 125-250-Volt Solid Neutral
Branches—2-Wire, 125-Volt Solid Neutral

Circuits	Poles	Ampere Capacity Mains	No.	Each
4	1	50	DVP404	\$92.60
6	1	50	DVP406	111.40
8	1	50	DVP408	134.30
10	1	50	DVP410	183.20

Mains—4-Wire, 125-216-Volt 3-Phase
Branches—2-Wire, 125-Volt Single-Phase
Solid Neutral

3	1	50	DVP503	\$86.85
6	1	50	DVP506	112.40
9	1	50	DVP509	177.45
12	1	50	DVP512	211.00
15	1	50	DVP515	245.40

Mains—2-Wire, 125-Volt
Branches—2-Wire, 125-Volt

4	2	50	DVP104	\$115.60
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Mains—3-Wire, 125-250-Volt
Branches—2-Wire, 125-Volt

4	2	50	DVP204	\$116.60
6	2	50	DVP206	198.40
8	2	50	DVP208	226.30
10	2	50	DVP210	319.20

Mains—3-Wire, 125-Volt 3-Phase
Branches—2-Wire, 125-Volt Single-Phase

3	2	50	DVP903	\$104.10
6	2	50	DVP906	198.40
9	2	50	DVP912	306.70

Mains—3-Wire, 125-250-Volt Solid Neutral
Branches—3-Wire, 125-250-Volt
Solid Neutral

4	2	50	DVP304	\$119.60
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Orders for panelboards should be accompanied by a sketch showing the number, sizes, and location of hub plates. Any practical arrangement of hub plates will be furnished without extra cost.

Panelboards are also available in larger sizes for 100 and 225-ampere capacity mains.

Special panelboards for 20 or 25-ampere circuit breakers or with mixed capacity breakers can be furnished.

Can also be furnished in cast Feraloy at same prices.

Type FLF Manual Motor Starting Switch Condulets

With Starter

Through Feed—Two at Bottom

Explosion-Proof, Dust-Tight, and Weather Resistant



Type FLF

Across-the-line starting type with thermal overload trip.

Listed for 1-inch threaded hub arrangements.

Other hub arrangements can be furnished.

Size	Pole	MAXIMUM HORSEPOWER			No. of Hubs	No.	With Starter Each
		110 Volts	208-220 Volts	440-550 Volts			
0	2 (1 Ph.)	1	1½	1½	2	FLF103-D21 \$30.70 FLF303-D21 30.70	
0	3 (3 Ph.)	1½	2	2	2	FLF103-D33 30.70 FLF303-D33 30.70	
0	2 (D.C.)	1	1	...	2	FLF103-D20 30.70 FLF303-D20 30.70	
1	2 (1 Ph.)	1½	3	5	2	FLF189-D21 33.65 FLF389-D21 33.65	
1	3 (3 Ph.)	3	5	7½	2	FLF189-D33 33.65 FLF389-D33 33.65	
1	2 (D.C.)	1½	2	...	2	FLF189-D20 33.65 FLF389-D20 33.65	

Type GUB Magnetic Motor Starting Switch Condulets

With Starter

3-Phase—60 Cycle

Explosion-Proof, Dust-Tight, and Weather Resistant



110 Volts

Size	Maximum Horsepower	No.	Each
0	1½	GUB182-D6130	\$54.95
1	2	GUB182-D6131	54.95
208-220 Volts			
0	2	GUB182-D6230	54.95
1	5	GUB182-D6231	54.95
440-480 Volts			
0	2	GUB182-D6430	54.95
1	7½	GUB182-D6431	54.95
550 Volts			
0	2	GUB182-D6530	54.95
1	7½	GUB182-D6531	54.95

Type EPC Magnetic Motor Starting Switch Condulets

With Starter

3-Phase—60 Cycle

Explosion-Proof, Dust-Tight, Vaportight, and Weather Resistant

Class I, Group D; and Classes II and III



Has across-the-line magnetic motor switch for starting polyphase a.c. induction motors.

Available with oil-immersed starter and for 110 and 550 volts.

208-220 Volts

Size	Maximum Horsepower	No.	Each
0	2	EPC615-D623	\$68.05
1	5	EPC615-D623	69.75
2	15	EPC616-D623	114.35
3	30	EPC617-D623	190.80
4	50	EPC627-D623	263.95
440-480 Volts			
0	2	EPC615-D643	68.05
1	7½	EPC615-D643	69.75
2	25	EPC616-D643	114.35
3	50	EPC617-D643	190.80
4	100	EPC627-D643	263.95

Type EPC Combination Line Starter Condulets

With Thermal Air Circuit Breakers and Starters

Explosion-Proof, Dust-Tight, Vaportight, and Weather-Resistant

Class I, Group D; and Classes II and III

For use in hazardous locations.

The combination starter provides circuit breaker disconnect with short circuit and overload protection for the motor circuit plus undervoltage release and overload protection for the motor.

Available with oil-immersed starter and for 110 or 550 volts.

208-220 Volts

Size	Maximum Horsepower	Ampere Rating	No.	Each
0	2	15	EPC1099-TT15-D623	\$101.00
1	5	35	EPC1099-TT35-D623	105.30
2	10	50	EPC10100-TT50-D623	144.90
2	15	70	EPC1026-TT70-D623	157.95
3	30	100	EPC1028-TT100-D623	249.40
3	30	125	EPC1037-TT125-D623	324.30
4	50	225	EPC1070-TT225-D623	397.45

440-480 Volts

Size	Maximum Horsepower	Ampere Rating	No.	Each
0	2	15	EPC1025-TT15-D643	114.00
1	3	15	EPC1025-TT15-D643	115.70
1	7½	25	EPC1025-TT25-D643	115.70
2	10	35	EPC1026-TT35-D643	157.95
2	25	50	EPC1026-TT50-D643	157.95
2	25	70	EPC1026-TT70-D643	166.75
3	50	100	EPC1028-TT100-D643	258.20
3	50	125	EPC1037-TT125-D643	341.55
4	75	150	EPC1070-TT150-D643	414.70
4	100	200	EPC1070-TT200-D643	414.70

Type FLS Motor Circuit Switch Condulets
With Switch—Not Fusible
Explosion-Proof—Dust-Tight
 Class I, Group D; and Classes II and III



For motor disconnects to comply with code requirements for installation of a disconnect switch within sight of the motor.

The fuseless switch is the sliding action quick-make quick-break type with double break positive pressure contacts.

Hub Size In.	Amps.	Poles	HORSEPOWER RATING			No.	Each
			230 Volts A.C.	250 Volts D.C.	575 Volts A.C.		
3/4	30	2	5	5	5	FLS30254-1-22	\$50.00
1	30	3	7 1/2	..	10	FLS30354-1-33	53.75
1 1/4	60	2	10	10	15	FLS60254-1-44	59.30
1 1/4	60	3	20	..	25	FLS60354-1-44	67.85
1 1/2	100	2	10	20	15	FLS10254-1-55	170.00
1 1/2	100	3	30	..	30	FLS10354-1-55	179.95
2	200	2	25	30	50	FLS20254-1-66	173.00
2 1/2	200	3	30	..	50	FLS20354-1-77	182.95

Type FLB Circuit Breaker Condulets
 Concluded
Explosion-Proof—Dust-Tight
For Feeder and Branch Circuit Protection
225-Ampere Frame Size
With Interchangeable Thermal-Magnetic Trip

Hub Size, In.	Voltage Rating	Poles	Amperes	No.	Each	
2 1/2	250 Volts A.C. or 125-250 Volts D.C.	2	125	FLB22-TT125-2	\$196.65	
		2	150	FLB22-TT150-2	196.65	
		2	175	FLB22-TT175-2	196.65	
	2 1/2	600 Volts A.C. or 250 Volts D.C.	2	200	FLB22-TT200-2	196.65
			2	225	FLB22-TT225-2	196.65
			2	125	FLB226-TT125-2	209.00
2 1/2	250 Volts A.C. or 125-250 Volts D.C.	2	150	FLB226-TT150-2	209.00	
		2	175	FLB226-TT175-2	209.00	
		2	200	FLB226-TT200-2	209.00	
	2 1/2	600 Volts A.C. or 250 Volts D.C.	2	225	FLB226-TT225-2	209.00
			3	125	FLB23-TT125-3	211.15
			3	150	FLB23-TT150-3	211.15
2 1/2	125-250 Volts D.C.	3	175	FLB23-TT175-3	211.15	
		3	200	FLB23-TT200-3	211.15	
		3	225	FLB23-TT225-3	211.15	

Type FLB Circuit Breaker Condulets
For Feeder and Branch Circuit Protection
Explosion-Proof—Dust-Tight
 Class I, Group D; and Classes II and III



For service entrance, feeder, or branch circuit protection; for lighting, appliance, and motor circuits.

Not recommended as a substitute for motor running protective devices.

For all hazardous locations. Complete protection where exposed to corrosive vapors, abrasive dusts or weather.

50-Ampere Frame Size
With Non-Interchangeable Thermal Trip

Hub Size, In.	Voltage Rating	Poles	Amperes	No.	Each
3/4	125 Volts A.C. or D.C.	1	15	FLB41-TT15-1	\$21.60
		1	20	FLB41-TT20-1	21.60
		1	25	FLB41-TT25-1	21.60
		1	35	FLB41-TT35-1	22.45
		1	50	FLB41-TT50-1	22.45
		1	15	FLB42-TT15-2	26.10
1	250 Volts A.C. or 125-250 Volts D.C.	2	20	FLB42-TT20-2	26.10
		2	25	FLB42-TT25-2	26.10
		2	35	FLB42-TT35-2	27.95
		2	50	FLB42-TT50-2	27.95
		3	15	FLB43-TT15-3	40.95
		3	20	FLB43-TT20-3	40.95
1 1/4	250 Volts A.C. or 125-250 Volts D.C.	3	25	FLB43-TT25-3	40.95
		3	35	FLB43-TT35-3	43.55
		3	50	FLB43-TT50-3	43.55

100-Ampere Frame Size
With Non-Interchangeable Thermal Trip and Non-Adjustable Magnet Trip

Hub Size, In.	Voltage Rating	Poles	Amperes	No.	Each
1 1/4	250 Volts A.C. or 125-250 Volts D.C.	2	15	FLB132-TT15-2	50.10
		2	20	FLB132-TT20-2	50.10
		2	25	FLB132-TT25-2	50.10
		2	35	FLB132-TT35-2	52.00
		2	50	FLB132-TT50-2	52.00
		2	70	FLB132-TT70-2	60.00
1 1/2	250 V. A.C. or 125-150 V. D.C.	2	90	FLB232-TT90-2	77.00
		2	100	FLB232-TT100-2	77.00
		2	15	FLB1326-TT15-2	58.75
		2	20	FLB1326-TT20-2	58.75
		2	25	FLB1326-TT25-2	58.75
		2	35	FLB1326-TT35-2	60.40
1 1/2	600 V. A.C. or 250 V. D.C.	2	50	FLB1326-TT50-2	60.40
		2	70	FLB1326-TT70-2	68.25
		2	90	FLB2326-TT90-2	85.25
		2	100	FLB2326-TT100-2	85.25
		3	15	FLB133-TT15-3	54.50
		3	20	FLB133-TT20-3	54.50
1 1/4	250 Volts A.C. or 125-250 Volts D.C.	3	25	FLB133-TT25-3	54.50
		3	35	FLB133-TT35-3	57.25
		3	50	FLB133-TT50-3	57.25
		3	70	FLB133-TT70-3	66.60
		3	90	FLB233-TT90-3	83.60
		3	100	FLB233-TT100-3	83.60



Type EPC Circuit Breaker Condulets

Explosion-Proof, Dust-Tight, Vaportight, and Weather-Resistant

For service entrance, feeder or branch circuit protection; for lighting, appliance, and motor circuit conductors.

For manual closing, opening, or resetting, an external handle is provided.

100-Ampere Frame Size
With Non-Interchangeable Thermal Trip and Non-Adjustable Magnetic Trip
250 Volts A.C. or 125-250 Volts D.C.

Hub Size, In.	In. Amperes	2-Pole		3-Pole	
		No.	Each	No.	Each
1 1/4	15	EPC450-TT15-2	\$57.10	EPC450-TT15-3	\$61.50
		20 EPC450-TT20-2	57.10	EPC450-TT20-3	61.50
		25 EPC450-TT25-2	57.10	EPC450-TT25-3	61.50
		35 EPC450-TT35-2	59.00	EPC450-TT35-3	64.25
		50 EPC450-TT50-2	59.00	EPC450-TT50-3	64.25
		70 EPC422-TT70-2	82.00	EPC422-TT70-3	88.60
2	100	EPC422-TT100-2	82.00	EPC422-TT100-3	88.60
		600 Volts A.C. or 250-Volts D.C.			
		15 EPC436-TT15-2	\$65.75	..	..
		20 EPC436-TT20-2	65.75	..	..
		25 EPC436-TT25-2	65.75	..	..
		35 EPC436-TT35-2	67.40	..	..
1 1/4	15	50 EPC436-TT50-2	67.40	..	..
		70 EPC423-TT70-2	90.25	..	..
		100 EPC423-TT100-2	90.25	..	..

225-Ampere Frame Size
With Interchangeable Thermal-Magnetic Trip
250 Volts A.C. or 125-250 Volts D.C.

Hub Size, In.	Amperes	No.	Each	No.	Each
3	125	EPC420-TT125-2	\$201.60	EPC420-TT125-3	\$218.50
		150 EPC420-TT150-2	201.60	EPC420-TT150-3	218.50
		200 EPC420-TT200-2	201.60	EPC420-TT200-3	218.50
		225 EPC420-TT225-2	201.60	EPC420-TT225-3	218.50
3	125	600 Volts A.C. or 250 Volts D.C.			
		EPC442-TT125-2	\$213.90	..	..
		150 EPC442-TT150-2	213.90	..	..
		200 EPC442-TT200-2	213.90	..	..
3	225	EPC442-TT225-2	213.90	..	..

600-Ampere Frame Size
With Interchangeable Thermal-Magnetic Trip
250 Volts A.C. or 125-250 Volts D.C.

Hub Size, In.	Amperes	No.	Each	No.	Each	
4	250	EPC446-TT250-2	\$457.90	EPC446-TT250-3	\$511.05	
		300 EPC446-TT300-2	457.90	EPC446-TT300-3	511.05	
		325 EPC446-TT325-2	457.90	EPC446-TT325-3	511.05	
		350 EPC446-TT350-2	457.90	EPC446-TT350-3	511.05	
		400 EPC446-TT400-2	457.90	EPC446-TT400-3	511.05	
		500 EPC446-TT500-2	486.25	EPC446-TT500-3	547.85	
	4	250	550 EPC446-TT550-2	486.25	EPC446-TT550-3	547.85
			600 EPC446-TT600-2	486.25	EPC446-TT600-3	547.85
			600 Volts A.C. or 250 Volts D.C.			
			250 EPC460-TT250-2	\$469.65
			300 EPC460-TT300-2	469.65
			325 EPC460-TT325-2	469.65
4	300	350 EPC460-TT350-2	469.65	..	..
		400 EPC460-TT400-2	469.65	..	..
		500 EPC460-TT500-2	497.75	..	..
		550 EPC460-TT550-2	497.75	..	..
		600 EPC460-TT600-2	497.75	..	..

Type DVS Circuit Breaker Condulets



Classes II and III

For service entrance or branch circuit protection; for lighting, appliance, heating and motor circuits.

Provides maximum safety and convenience of installation in hazardous locations.

Gives complete protection where exposed to corrosive vapors, abrasive dusts, or weather.

50-Ampere Frame Size

With Non-Interchangeable Thermal Trip

Hub Size Inches	Voltage Rating	Poles	Amperes	No.	Each
3/4	125 Volts A.C. or D.C.	1	15	DVS1-TT15-1	\$17.60
		1	20	DVS1-TT20-1	17.60
		1	25	DVS1-TT25-1	17.60
		1	35	DVS1-TT35-1	18.45
		1	50	DVS1-TT50-1	18.45
1	250 Volts A.C. or 125-250 Volts D.C.	2	15	DVS2-TT15-2	26.60
		2	20	DVS2-TT20-2	26.60
		2	25	DVS2-TT25-2	26.60
		2	35	DVS2-TT35-2	28.45
		2	50	DVS2-TT50-2	28.45
1 1/4	250 Volts A.C. or 125-250 Volts D.C.	3	15	DVS3-TT15-3	33.95
		3	20	DVS3-TT20-3	33.95
		3	25	DVS3-TT25-3	33.95
		3	35	DVS3-TT35-3	36.55
		3	50	DVS3-TT50-3	36.55

100-Ampere Frame Size

With Non-Interchangeable Thermal Trip and Non-Adjustable Magnetic Trip

1 1/4	250 Volts A.C. or 125-250 Volts D.C.	2	15	DVS53-TT15-2	\$37.10
		2	20	DVS53-TT20-2	37.10
		2	25	DVS53-TT25-2	37.10
		2	35	DVS53-TT35-2	39.00
		2	50	DVS53-TT50-2	39.00
1 1/2	250V. A.C. or 125-250V. D.C.	2	70	DVS53-TT70-2	47.00
		2	100	DVS104-TT100-2	62.00
1 1/4	250 Volts A.C. or 125-250 Volts D.C.	2	15	DVS536-TT15-2	45.75
		2	20	DVS536-TT20-2	45.75
		2	25	DVS536-TT25-2	45.75
		2	35	DVS536-TT35-2	47.40
		2	50	DVS536-TT50-2	47.40
1 1/2	250V. A.C. or 125-250V. D.C.	2	70	DVS536-TT70-2	55.25
		2	100	DVS164-TT100-2	70.25
1 1/4	250 Volts A.C. or 125-250 Volts D.C.	3	15	DVS53-TT15-3	41.50
		3	20	DVS53-TT20-3	41.50
		3	25	DVS53-TT25-3	41.50
		3	35	DVS53-TT35-3	44.25
		3	50	DVS53-TT50-3	44.25
1 1/2	250V. A.C. or 125-250V. D.C.	3	70	DVS53-TT70-3	53.60
		3	100	DVS104-TT100-3	68.60

225-Ampere Frame Size

With Interchangeable Thermal Magnetic Trip

2 1/2	250 Volts A.C. or 125-250 Volts D.C.	2	125	DVS23-TT125-2	\$166.65
		2	150	DVS23-TT150-2	166.65
		2	175	DVS23-TT175-2	166.65
		2	200	DVS23-TT200-2	166.65
		2	225	DVS23-TT225-2	166.65
2 1/2	600 Volts A.C. or 250 Volts D.C.	2	125	DVS236-TT125-2	179.00
		2	150	DVS236-TT150-2	179.00
		2	175	DVS236-TT175-2	179.00
		2	200	DVS236-TT200-2	179.00
		2	225	DVS236-TT225-2	179.00
2 1/2	250 Volts A.C. or 125-250 Volts D.C.	3	125	DVS23-TT125-3	181.15
		3	150	DVS23-TT150-3	181.15
		3	175	DVS23-TT175-3	181.15
		3	200	DVS23-TT200-3	181.15
		3	225	DVS23-TT225-3	181.15

Type FLS General Use Switch Condulets

Schedule CE
Explosion-Proof and Dust-Tight



Used as motor disconnects in hazardous locations.

The single throw, and the double throw switch Condulets with no off positions, are furnished with tumbler type quick make and break switches.

The double throw and motor reversing switches with off positions are slow-make and quick-break. The slow-make permits proper control for jogging service.

Single Throw-Tumbler

Hub Size In.	2-Pole		3-Pole		
	No.	Each	No.	Each	
1/2	FLS102-11	\$22.00	2	FLS103-11	\$30.00
3/4	FLS102-22	22.00	2	FLS103-22	30.00
1	FLS102-33	22.00	2	FLS103-33	30.00
1 1/4	FLS102-44	22.00	2	FLS103-44	30.00

100 Amperes, 600 Volts, A.C.; 100 Amperes, 250 Volts, 15 Amperes, 600 Volts, D.C.

1	FLS106-33	\$60.00	6	FLS107-44	\$70.00
1 1/4	FLS106-44	60.00	6	FLS107-55	70.00
1 1/2	FLS106-55	60.00	6	FLS107-66	70.00
2	FLS108-55	\$75.00	8	FLS109-55	\$185.00
2	FLS108-66	75.00	8	FLS109-66	185.00

200 Amperes, 125 Volts, D.C.; 200 Amperes, 230 Volts, A.C.

Double Throw-Tumbler-No "Off" Position

Hub Size In.	No.	Each	No.	Each	
1/2	FLS101-11	\$30.00	1	FLS113-11	\$38.00
3/4	FLS101-22	30.00	1	FLS113-22	38.00
1	FLS101-33	30.00	1	FLS113-33	38.00
1 1/4	FLS101-44	30.00	1		

30 Amperes, 250 Volts-5 Amperes, 600 Volts, D.C.

*Double Throw-With "Off" Position

1/2	FLS112-11	\$36.00	12	FLS113-11	\$38.00
3/4	FLS112-22	36.00	12	FLS113-22	38.00
1	FLS112-33	36.00	12	FLS113-33	38.00

*Motor Reversing-With "Off" Position

1/2	FLS110-11	\$38.00	10	FLS111-11	\$40.00
3/4	FLS110-22	38.00	10	FLS111-22	40.00
1	FLS110-33	38.00	10	FLS111-33	40.00

*Table of ratings:

Description	-HP. RATINGS AT 20 AMPERES-			
	115-V.	230-V.	460-V.	575-V.
3-Pole, 2 or 3-Phase	2	5	5	5
2-Pole, 1-Phase	1 1/2	3	5	5

Type HRC and HR Thermostat Condulets

Explosion-Proof-Dust-Tight

With Thermostat, Thermometer, and Mercury Tube Switch Class I, Group D; and Classes II and III



Meet the requirements of the National Electrical Code for control electrical devices used in Class I hazardous locations.

The explosion-proof housing of the Type HRC is cast aluminum and is provided with two hand holes, one on the side for making connections and one on the back for access to the mercury tube.

Union hubs on each end make installation and removal of the entire device a matter of minutes.

Type HRC Condulet consists of a body and cover. The temperature element is mounted upon the front of the cover while the switch is located within the Condulet. The body has two mounting feet and one 3/4-inch hub for conduit. The hub may be at top or bottom as desired.

Type HRC

Hub Size Inches	Use	Range of Temperature Degrees Fahr.	No.	Each
1/2	Refrigeration	25 to 60	HRC126	\$30.00
	Heating	38 to 70	HRC137	30.00
	Heating	56 to 80	HRC158	30.00
	Air Conditioning	65 to 90	HRC169	30.00

Type HR

3/4	Refrigeration	25 to 55	HR42A-21	.....
	Heating	45 to 75	HR42A-23	\$30.00
	Heating	55 to 85	HR42A-24	.....
	Air Conditioning	65 to 95	HR42B-25	30.00

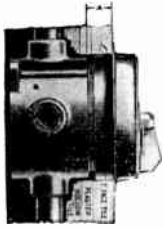
Type EHS Switch Condulets

Explosion-Proof
Class I, Groups C and D

For flush mounting in hospital operating rooms and similar hazardous locations.

Consists of a body and a switch unit. Available with one, two or three switches.

Design permits either hand or elbow operation. Chromium plated.



Single Switch



Style	AMPERES		Hub Size Inches	Complete		Switch Only	
	125 Volts	250 Volts		No.	Each	No.	Each
Single-Pole	20	10	1	EHS3121	\$22.50	EHS121	\$18.00
2-Pole	20	20	1	EHS3122	22.60	EHS122	18.10
3-Way	15	10	1	EHS3123	22.85	EHS123	18.35
4-Way	10	5	1	EHS3124	25.30	EHS124	20.80
Nurses Call	..	..	..	EHS3218	30.00	EHS218	25.50

Duplex Switch

Single-Pole	10	5	1	EHS321	25.50	EHS210	21.00
2-Pole	10	10	1	EHS322	25.60	EHS220	21.10
3-Way	10	5	1	EHS323	25.85	EHS230	21.35
4-Way	5	2	1	EHS324	28.30	EHS240	23.80

Triple Switch

Single-Pole	10	5	1	EHS331	28.50	EHS310	24.00
2-Pole	10	10	1	EHS332	28.60	EHS320	24.10
3-Way	10	5	1	EHS333	28.85	EHS330	24.35
4-Way	5	2	1	EHS334	31.30	EHS340	26.80

Type EHS Adjustable Delayed Action Plug Receptacle Condulets

Explosion-Proof
Takes Type CPP Plugs



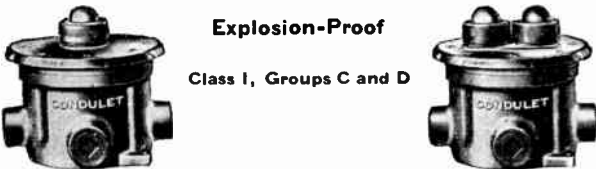
STYLE	Wire Pole	AMPERES		HORSEPOWER		Hub Size In.	No.	Each
		115 or 230 Volts	460 Volts	115 or 230 Volts	460 Volts			
2	3	15	7	1	1/2	1	EHS3152	\$26.30
2	3	30	7	1 1/2	1/2	1	EHS3352	34.80
3	4	30	7	3	1	1	EHS3372	36.30

Also available in plain finish; deduct \$6.00 from prices.

Type EHS Signal Light Condulets

Explosion-Proof

Class I, Groups C and D



For flush mounting in hospital operating rooms and other similar hazardous locations.

Includes candelabra base receptacle and 6-watt, 120-volt type S-6 clear bulb lamp with colored glass hood, face plate, and adjustable threaded adapter. Chromium plated.

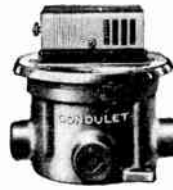
No. of Signals	Hood Colors	Hub Size Inches	With Signal Light	
			No.	Each
1	Green	1	EHS315	\$30.00
2	{ Amber Green }	1	EHS325	30.00

Also available in plain finish; deduct \$4.75 from prices. For 220-volt lamp add suffix V2 to number and \$.35 to prices.

Type EHS Thermostat Condulets

Explosion-Proof
Chromium plated.

For Heating



Hub Size Inches	Range of Temperature Degrees Fabr.	With Thermostat	
		No.	Each
1	45 to 75	EHS338	\$39.25

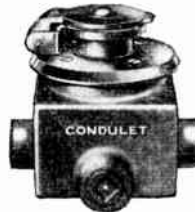
For Air Conditioning

1	65 to 95	EHS365	43.00
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Also available in plain finish, deduct \$4.75 from prices.

Type CPS Adjustable Delayed Action Plug Receptacle Condulets

Explosion-Proof
Class I, Groups C and D



Chromium plated.



Wire	STYLE Pole	Adjustment Inches	Hub Size Inches	With Thermostat	
				No.	Each
2	3	0 to 5/8	1	CPS61271	\$21.00
2	3	1/4 to 1 1/4	1	CPS61272	21.00
2	3	1/4 to 2 1/4	1	CPS61273	22.25
30 Amperes, 115 or 230 Volts, A.C., 1 1/2 Hp.					
7 Amperes, 460 Volts A.C., 1/2 Hp.					
30 Amperes, 115 or 230 Volts A.C., 3 Hp.					
7 Amperes, 460 Volts A.C., 1 Hp.					
2	3	0 to 7/8	1	CPS3353	30.40
3	4	0 to 7/8	1	CPS3372	33.40

Also available in plain finish; prices on request.

Type CPS Non-Adjustable Plug Receptacle Condulets

For Thin Partitions
Takes Type CPP Plugs



Chromium plated.

115 or 230 Volts A.C.

Wire	STYLE Pole	Amperes	Horse-Power	Hub Size Inches	With Receptacle	
					No.	Each
2	3	15	1	3/4	CPS212	\$20.00

Also available in plain finish; deduct \$6.00 from price.

Type CPS Receptacle Equipment

For Rectangular Opening Wall Boxes

Takes Type CPP Plugs



For replacement of non-explosion-proof convenience outlets.

A GR terminal is provided for connection to a copper grounding conductor.

No.	CPS212-S33
Each	\$18.50

Type CPP Plugs

For Types EHS and CPS Plug Receptacle Units

Explosion-Proof

Class I, Groups C and D



Bakelite



Aluminum

Furnished with cable grip and bushing.

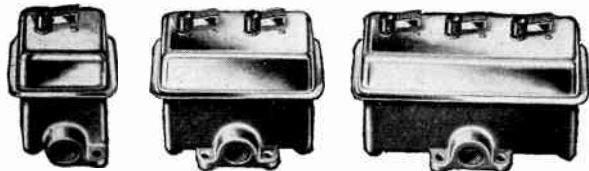
Wire	STYLE Pole	Horse-power	Bakelite		No.	Each
			Cable Diam. In.			
2	3	1	250 to 375		CPP312	\$5.00
2	3	1	375 to 500		CPP412	5.00
2	3	1	500 to 625		CPP512	5.00

Polished Aluminum

Wire	STYLE Pole	Horse-power	Cable Diam. In.	Polished Aluminum	
				No.	Each
2	3	..	375 to 500	CPP453	\$11.00
2	3	..	500 to 625	CPP553	11.00
2	3	..	625 to 750	CPP653	11.00
2	3	..	750 to 875	CPP753	11.00
3	4	..	375 to 500	CPP472	11.75
3	4	..	500 to 625	CPP572	11.75
3	4	..	625 to 750	CPP672	11.75
3	4	..	750 to 875	CPP772	11.75

Type ESW Tumbler Switch Condulets

Schedule CE
Explosion-Proof
Class I, Groups C and D



For flush or surface mounting in hospital operating rooms and similar hazardous locations.

Primarily for installation where conduit is run on the surface of walls or partitions. May also be used with concealed conduit.

Consists of a body, a switch unit with cover and attached switch enclosure. The switch unit is reversible on body.

Outside dimensions of body exclusive of hubs: single-gang, 3 1/4 x 3 1/4 x 3 1/8 inches; 2-gang, 5 3/4 x 3 1/4 x 3 1/8 inches; 3-gang, 8 1/4 x 3 1/4 x 3 1/8 inches.

Also available in plain finish for flush mounting and plain finish only for surface mounting.

Flush Mounting—Chromium Plated Cover

Style	AMPERES		Hub Size	No.	Each
	125 Volts	250 Volts			
Single-Gang					
Single-Pole	10	5	One 3/4-Inch Top and Bottom	ESW2113	\$10.70
2-Pole	10	10		ESW2123	10.80
3-Way	10	5		ESW2133	11.10
*Single-Pole	10	5		ESW2153	12.10
†Single-Pole	10	5		ESW2163	12.10
2-Gang					
Single-Pole	10	5	Two 3/4-Inch Top and One 3/4-Inch Bottom	ESW2213	\$15.45
2-Pole	10	10		ESW2223	15.65
3-Way	10	5		ESW2233	16.25
*Single-Pole	10	5		ESW2253	18.25
†Single-Pole	10	5		ESW2263	18.25
3-Gang					
Single-Pole	10	5	Two 3/4-Inch and One 1-Inch at Top and One 1-Inch at Bottom	ESW3313	\$21.70
2-Pole	10	10		ESW3323	22.00
3-Way	10	5		ESW3333	22.90
*Single-Pole	10	5		ESW3353	25.90
†Single-Pole	10	5		ESW3363	25.90

*Momentary contact: M.O., normally open.
†Momentary contact: M.C., normally closed.

Type ERS Replacement Switch Units

For Replacement of Non-Explosion-Proof Switches



An explosion-proof switch which can be used to replace ordinary wall switches previously installed.

Includes tumbler switch with sealed housing and cover.

Style	AMPERES		Single-Gang		2-Gang		3-Gang	
	125 Volts	250 Volts	No.	Each	No.	Each	No.	Each
Single-Pole	10	5	ERS41	\$9.00	ERS412	\$13.25	ERS413	\$18.00
2-Pole	10	10	ERS42	9.10	ERS422	13.45	ERS423	18.30
3-Way	10	5	ERS43	9.40	ERS432	14.05	ERS433	19.20
†Single-Pole	10	5	ERS45	10.40	ERS452	16.05	ERS453	22.20
‡Single-Pole	10	5	ERS46	10.40	ERS462	16.05	ERS463	22.20

*Combinations of different switches can be furnished if specified when ordering.

†Momentary contact: M.O., normally open.

‡Momentary contact: M.C., normally closed.

Available in 4 and 5-gang and in plain finished covers.

Delayed Action Arktite Plugs and Receptacles

Schedule CE
Explosion-Proof
Type CES Receptacle Equipment
Style 2—Grounded through Extra Pole and Shell
230-460 Volts, 60 Cycles, A.C.



Includes Condulet, receptacle, and receptacle housing.

Has three hubs, two of which are furnished with threaded pipe plugs.

STYLE	Wire	Pole	Phase	Maximum Horsepower	Maximum Amperes	Hub Size Inches	No.	Each
2	3	1		1/2, 1 1/2	7, 30	3/4	CES2213	\$23.50
3	4	3		1, 3	7, 30	3/4	CES2214	25.00
2	3	1		3	30, 60	1 1/4	CES4233	29.50
3	4	3		5	30, 60	1 1/4	CES4234	33.00

Type CPH Plugs
230-460 Volts



For Type CES receptacle equipment. Made of aluminum.

Furnished with cable grip and rubber bushing.

STYLE	Wire	Pole	Phase	Maximum Horsepower	Maximum Amperes	Cable Diam. Inches	No.	Each
2	3	1		1/2, 1 1/2	7, 30	.375 to .500	CPH7413	\$11.00
2	3	1		1/2, 1 1/2	7, 30	.500 to .875	CPH7713	11.00
3	4	3		1	7, 30	.375 to .500	CPH7414	11.75
3	4	3		3	7, 30	.500 to .875	CPH7714	11.75
2	3	1		3	30, 60	.500 to .875	CPH7733	13.00
2	3	1		3	30, 60	.875 to 1.188	CPH7933	13.00
3	4	3		5	30, 60	.500 to .875	CPH7734	14.00
3	4	3		5	30, 60	.875 to 1.188	CPH7934	14.00

FSQ Series Interlocked Plug Receptacle and Switch Condulets

Explosion-Proof and Dust-Tight
Class I, Groups C and D; Class II, Group G; and Classes III and IV



Type FSQC, with Threaded Housing



Type FSQC, with Spring Door

Furnished with tumbler type switch and receptacle, either with threaded housing or spring door housing.

Takes FP and BP plugs.



Type FSQ



Type FSQC

STYLE	Wire	Pole	*Form	Hub Size Inches	Type FSQ		Type FSQC	
					No.	Each	No.	Each
2	3	E		3/4	FSQ232	\$23.00	FSQC232	\$23.00
2	3	E	1		FSQ332	23.20	FSQC332	23.20
30-Amp., 250-V. or 20-Amp., 460-V. A.C. or D.C.								
3	4	F		3/4	FSQ233	\$26.00	FSQC233	\$26.00
3	4	F	1		FSQ333	26.20	FSQC333	26.20
2-Hp., 230-V., 1-Hp., 460-V. A.C.								
With Spring Door Housing								
30-Ampere, 250-V. A.C. or D.C.								
2	3	B		3/4	FSQ230	\$23.00	FSQC230	\$23.00
2	3	B	1		FSQ330	23.20	FSQC330	23.20
2-Hp., 230-V., 1-Hp., 460-V. A.C.								

*Order by number.

Plugs for FSQ Series Condulets

Schedule CE



Type FP

Furnished with cable grip and rubber bushing. Grounded through extra pole and shell. Made of cast aluminum.



Type BP

Type FP—For Threaded Housings

Wire	Pole	Cable Diam., In.	No.	Each
2	3	.500 to .875	FP323	\$6.00
3	4	.500 to .875	FP334	7.00

Type BP—For Spring Door Housings

2	3	.375 to .500	BP49	\$6.00
2	3	.500 to .625	BP59	6.00
2	3	.625 to .750	BP69	6.00
2	3	.750 to .875	BP79	6.00

Type EYS Sealing Condulets



Explosion-Proof

For Sealing Vertical Runs of Conduit

In hazardous locations, Class I, the conduit system should be sectionalized by sealing at frequent intervals. Furnished with pipe plug.



With Female Hub Top and Bottom

Hub Size Inches	Length Inches	Turning Radius Inches	Approx. Internal Volume Cu. In.	No.	Each
1/2	3 3/8	1 5/8	1	EYS1	\$.65
3/4	3 1/16	1 29/32	1 3/4	EYS2	.80
1	4 5/16	2 3/8	4	EYS3	1.05
1 1/4	5 1/16	1 23/32	6 1/2	EYS4	1.30
1 1/2	5 1/2	2 1/16	8 1/2	EYS5	1.95
2	6 1/4	2 5/16	18	EYS6	2.55
2 1/2	7 1/2	2 11/16	30	EYS7	4.00
3	8 1/2	3 5/16	64	EYS8	5.00

*Male and Female Hub

Hub Size Inches	Length Inches	Turning Radius Inches	Approx. Internal Volume Cu. In.	No.	Each
1/2	3 3/8	1 5/8	1	EYS16	\$.65
3/4	3 1/16	1 29/32	1 3/4	EYS26	.80
1	4 5/16	2 3/8	4	EYS36	1.05
1 1/4	5 1/16	1 23/32	6 1/2	EYS46	1.30
1 1/2	5 1/2	2 1/16	8 1/2	EYS56	1.95
2	6 1/4	2 5/16	18	EYS66	2.55
2 1/2	7 1/2	2 11/16	30	EYS76	4.00
3	8 1/2	3 5/16	64	EYS86	5.00

Type EZS Sealing Condulets

Explosion-Proof

For Sealing Vertical or Horizontal Runs of Conduit

Condulets have round cover openings and provide ample room for placing dams around and between conductors.

Hub Size Inches	Length Inches	Turning Radius Inches	Approx. Int. Vol. Cu. In.	No.	Each
1/2	4 3/16	1 3/4	5 1/2	EZS1	\$1.15
3/4	4 3/16	1 3/4	6	EZS2	1.45
1	4 15/16	2 1/16	9	EZS3	1.85
1 1/4	5 1/16	2 3/16	12 1/2	EZS4	2.35
1 1/2	5 3/16	2 1/4	14	EZS5	3.50
2	7 1/16	3 3/16	46	EZS6	4.60
2 1/2	7 1/16	3 3/8	55	EZS7	7.40
3	8 5/8	3 3/4	88	EZS8	10.70

*Male and Female Hub

Hub Size Inches	Length Inches	Turning Radius Inches	Approx. Int. Vol. Cu. In.	No.	Each
1/2	4 3/16	1 3/4	5 1/2	EZS16	\$1.15
3/4	4 3/16	1 3/4	6	EZS26	1.45
1	4 15/16	2 1/16	9	EZS36	1.85
1 1/4	5 1/16	2 3/16	12 1/2	EZS46	2.35
1 1/2	5 3/16	2 1/4	14	EZS56	3.50
2	7 1/16	3 3/16	46	EZS66	4.60
2 1/2	7 1/16	3 3/8	55	EZS76	7.40
3	8 5/8	3 3/4	88	EZS86	10.70

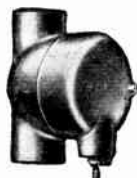
*Male and female hub listings include a close conduit nipple which may be used interchangeably in top or bottom hub.
†With cover removed.

Type EZD Inspection and Drain Sealing Condulets

Schedule CE

Explosion-Proof

For Sealing Vertical Runs of Conduit



Provides conduit systems in Class I hazardous locations with a means by which the systems can be drained of water, if there is a likelihood of water accumulation.

Inspection Seal Condulets

Hub Size Inches	Length Inches	*Turning Radius Inches	Internal Volume Cu. In.	No.	Each
1/2	4 3/16	2 1/16	5	EZD10	\$1.35
3/4	4 3/16	2 3/16	6	EZD20	1.70
1	4 15/16	2 1/16	10	EZD30	2.20
1 1/4	4 15/16	2 3/16	11	EZD40	2.75
1 1/2	5 3/16	2 11/16	13	EZD50	4.10
2	7 1/4	3 11/16	40	EZD60	5.40
2 1/2	8	3 7/8	50	EZD70	6.50

Drain Seal Condulets

1/2	4 3/16	2 1/16	5	EZD111	\$2.85
3/4	4 3/16	2 3/16	6	EZD211	3.20
1	4 15/16	2 1/16	10	EZD311	3.70
1 1/4	4 15/16	2 3/16	11	EZD411	4.25
1 1/2	5 3/16	2 11/16	13	EZD511	5.60
2	7 1/4	3 11/16	40	EZD611	6.90
2 1/2	8	3 7/8	50	EZD711	8.00

*With cover removed.

Chico A Sealing Compound

Not affected by gasoline, alcohol, acetone, etc. Put up in air-tight and moisture proof packages.

No.	A2	A3	A4	A23	A24	A44	A8
Each.....	\$.40	.65	1.00	1.10	1.90	1.80	3.60
*Volume...cu. in.	8	16	16	32	32	64	1.28
Package No....	2	3	4	23	24	44	8
Weight...pounds	1/2	1	1	2	2	4	8

*Number of cubic inches volume this amount fills when set.
†With 3/4-ounce Chico X Fiber.
‡With 2-ounce Chico X Fiber.

Chico X Fiber

No.	X1	X2	X3	X4	X5	X6	X7
Per Package.....	\$.25	.40	.50	.90	1.70	2.90	4.80
Amount Grams...	10	6	21	28	3	56	5
Package No.....	1	2	3	4	5	6	7
Weight....ounces	3/8	3/4	1	2	4	8	16

Approximate amount of fiber required per Conduit hub:
Size Hub...inches 1/2 3/4 1 1 1/4 1 1/2 2 2 1/2 3
Grams Required... 4 6 8 10 15 21 40 90

Type ECD Drain and Breather Valves

Explosion-Proof

Class I, Group D



For Water Only Automatic



For Water Under Oil, Manual



For Air Only Automatic

Type ECD breather valve is similar to Type ECD drain but is designed to be installed in the top of explosion-proof housings, allowing air to pass in or out as conditions vary. The labyrinth handle is a rotating cap to prevent dirt from interfering with the action of the valve.

Size Pipe Thread Inches	For Water Only		For Water Under Oil		For Air Only	
	No.	Each	No.	Each	No.	Each
1/4	ECD282	\$1.65	ECD282	\$1.65	ECD283	\$1.65
3/8	ECD381	1.65	ECD382	1.65	ECD383	1.65
1/2	ECD11	1.65	ECD12	1.65	ECD13	1.65

Type EC Flexible Couplings

Schedule CE

Explosion-Proof, Dust-Tight, and Weatherproof
Class I Group D, and Classes II and III

For use in hazardous locations where it is necessary to employ flexible fittings, as at motor terminals. Suitable for switchboard and other wiring in refineries, for gasoline pumps, and explosion-proof floodlights.

Also watertight, and are, therefore, suitable for use in damp locations or under water, such as connections to underwater floodlights and fountain lights.



Type ECJ			Type ECG			Type ECH		
Size Inches	No.	Overall Length Each Inches	No.	Each	Overall Length Inches	No.	Each	Overall Length Inches
4 Inches								
1/2	ECJ14	\$4.75 7	ECG14	\$4.75 7	7 1/2	ECH14	\$4.75 8	8
3/4	ECJ24	5.70 7	ECG24	5.70 7 1/2	7 1/2	ECH24	5.70 8	8
10 Inches								
1/2	ECJ110	6.25 13	ECG110	6.25 13 1/2	13 1/2	ECH110	6.25 14	14
3/4	ECJ210	7.80 13	ECG210	7.80 13 1/2	13 1/2	ECH210	7.80 14	14
1	ECJ310	13.50 14 7/8	ECG310	13.50 14 1/2	14 1/2	ECH310	13.50 14 1/2	14 1/2
18 Inches								
1/2	ECJ118	8.25 21	ECG118	8.25 21 1/2	21 1/2	ECH118	8.25 22	22
3/4	ECJ218	10.60 21	ECG218	10.60 21 1/2	21 1/2	ECH218	10.60 22	22
1	ECJ318	17.50 22 7/8	ECG318	17.50 22 1/2	22 1/2	ECH318	17.50 22 1/2	22 1/2
1 1/4	ECJ418	25.40 23 7/8	ECG418	25.40 23 3/8	23 3/8	ECH418	25.40 23 3/8	23 3/8
1 1/2	ECJ518	34.30 23 7/8	ECG518	34.30 23 5/8	23 5/8	ECH518	34.30 23 5/8	23 5/8
2	ECJ618	44.00 22 7/8	ECG618	44.00 22 5/8	22 5/8	ECH618	44.00 22 3/8	22 3/8
27 Inches								
1/2	ECJ127	10.50 30	ECG127	10.50 30 1/2	30 1/2	ECH127	10.50 31	31
3/4	ECJ227	13.75 30	ECG227	13.75 30 1/2	30 1/2	ECH227	13.75 31	31
1	ECJ327	22.00 31 7/8	ECG327	22.00 31 1/2	31 1/2	ECH327	22.00 31 1/2	31 1/2
1 1/4	ECJ427	31.25 32 3/8	ECG427	31.25 32 1/4	32 1/4	ECH427	31.25 32 1/8	32 1/8
1 1/2	ECJ527	41.50 32 7/8	ECG527	41.50 32 5/8	32 5/8	ECH527	41.50 32 3/8	32 3/8
2	ECJ627	53.00 35 1/8	ECG627	53.00 33 1/4	33 1/4	ECH627	53.00 31 3/8	31 3/8
36 Inches								
1/2	ECJ136	12.75 39	ECG136	12.75 39 1/2	39 1/2	ECH136	12.75 40	40
3/4	ECJ236	16.90 39	ECG236	16.90 39 1/2	39 1/2	ECH236	16.90 40	40
1	ECJ336	26.50 40 7/8	ECG336	26.50 40 1/2	40 1/2	ECH336	26.50 40 1/2	40 1/2
1 1/4	ECJ436	37.10 41 3/8	ECG436	37.10 41 1/4	41 1/4	ECH436	37.10 41 1/8	41 1/8
1 1/2	ECJ536	48.70 41 7/8	ECG536	48.70 41 5/8	41 5/8	ECH536	48.70 41 3/8	41 3/8
2	ECJ636	62.00 44 1/8	ECG636	62.00 42 1/4	42 1/4	ECH636	62.00 40 3/8	40 3/8

Type ECL			Type ECK		
Size Inches	No.	Overall Length Each	No.	Each	Overall Length
4 Inches					
1/2	ECL14	\$5.15 7 3/4	ECK14	\$5.15 8 1/4	8 1/4
3/4	ECL24	6.10 7 3/4	ECK24	6.10 8 1/4	8 1/4
10 Inches					
1/2	ECL110	\$6.65 13 3/4	ECK110	\$6.65 14 1/4	14 1/4
3/4	ECL210	8.20 13 3/4	ECK210	8.20 14 1/4	14 1/4
1	ECL310	14.50 15 1/8	ECK310	14.50 14 15/16	14 15/16
18 Inches					
1/2	ECL118	\$8.65 21 3/4	ECK118	\$8.65 22 1/4	22 1/4
3/4	ECL218	11.00 21 3/4	ECK218	11.00 22 1/4	22 1/4
1	ECL318	18.50 23 3/8	ECK318	18.50 22 15/16	22 15/16
1 1/4	ECL418	26.90 23 1/16	ECK418	26.90 23 9/16	23 9/16
1 1/2	ECL518	36.05 24 3/16	ECK518	36.05 23 15/16	23 15/16
2	ECL618	47.50 24 3/8	ECK618	47.50 23 5/8	23 5/8
27 Inches					
1/2	ECL127	\$10.90 30 3/4	ECK127	\$10.90 31 1/4	31 1/4
3/4	ECL227	14.15 30 3/4	ECK227	14.15 31 1/4	31 1/4
1	ECL327	23.00 32 3/8	ECK327	23.00 31 15/16	31 15/16
1 1/4	ECL427	32.75 32 1/16	ECK427	32.75 32 9/16	32 9/16
1 1/2	ECL527	43.25 33 1/16	ECK527	43.25 32 15/16	32 15/16
2	ECL627	56.50 34 3/4	ECK627	56.50 32 5/8	32 5/8
36 Inches					
1/2	ECL136	\$13.15 39 3/4	ECK136	\$13.15 40 1/4	40 1/4
3/4	ECL236	17.30 39 3/4	ECK236	17.30 40 1/4	40 1/4
1	ECL336	27.50 41 1/8	ECK336	27.50 41 15/16	41 15/16
1 1/4	ECL436	38.60 41 1/16	ECK436	38.60 41 9/16	41 9/16
1 1/2	ECL536	50.45 42 3/16	ECK536	50.45 41 15/16	41 15/16
2	ECL636	65.50 43 3/4	ECK636	65.50 41 5/8	41 5/8

Also available in standard lengths of 6, 8, 12, 15, 21, 24, 30 and 33 inches.

Conduit Unions
Explosion-Proof and Dust-Tight

Type UNY—Male



Size Inches	DIMEN., IN.		No.	Each
	Length	Diam.		
1/2	2 1/16	1 1/2	UNY105	\$1.50
3/4	2 1/8	1 3/4	UNY215	.50
1	2 1/8	1 3/4	UNY205	.65
1 1/4	2 9/16	2 1/16	UNY305	.95
1 1/2	2 15/16	2 13/16	UNY405	1.90
2	3 1/8	3 1/8	UNY505	2.30
	3 1/4	3 1/16	UNY605	3.65

Type UNF—Female

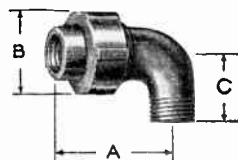


Size Inches	DIMEN., IN.		No.	Each
	Length	Diam.		
1/2	1 3/4	1 1/2	UNF105	\$1.50
3/4	1 3/4	1 3/4	UNF215	.50
1	1 3/4	1 3/4	UNF205	.65
1 1/4	1 15/16	2 1/16	UNF305	.95
1 1/2	2	2 3/16	UNF405	1.90
2	2 3/16	3 1/8	UNF505	2.30

Type UNL 90° Angle Unions

Schedule CE

Explosion-Proof and Dust-Tight



Size Inches	DIMENSIONS, INCHES			No.	Each
	A	B	C		
1/2 to 3/4	2 3/4	1 3/4	1 5/8	UNL125	\$1.40
3/4 to 1 1/2	2 7/8	1 3/4	1 5/8	UNL215	1.40
3/4 to 1 1/2	2 7/8	1 3/4	1 5/8	UNI205	1.40

*Size of right end is given first.

Type UNA Connectors and Unions

A convenient coupling or union for conduit joints made at angles from 90° to 180°. A single clamping nut provides a union feature as well as easy adjustment to required angles.

Unless a Type UNA universal union is placed at or near an outlet, or unless it is installed at an angle of about 140° to 180°, it may prove to be difficult to fish wires through union. For this reason, these devices are not approved as conduit unions for general use.

Box Connectors—Male



For use only if adjacent to a Conduit.
Explosion-proof and dust-tight.

Size Inches	DIMENSIONS, INCHES		No.	Each
	Length	Width		
1/2	4	2 1/2	UNA16	\$1.45
3/4	4 1/2	2 7/8	UNA26	1.75
1	5 1/4	3 1/2	UNA36	2.00

Universal Unions—Female



Size Inches	DIMENSIONS, INCHES		No.	Each
	Length	Width		
1/2	3 3/8	2 11/32	UNA1	\$1.30
3/4	3 3/8	2 27/32	UNA2	1.45
1	4 5/8	3 1/32	UNA3	1.75

R & S Watertight Air Break Cast Circuit Breakers



Frame ratings are from 15 to 50 amperes, 15 to 100 amperes, 50 to 100 amperes, 70 to 125 to 600 amperes either 250 volts a.c.—125/250 volts d.c. or 600 volts a.c.—250 volts d.c. The maximum rating of each frame size indicates the maximum continuous current-carrying capacity of that frame. On all frames except the 15 to 50-ampere and the 15 to 100-ampere sizes, the thermal and magnetic trip is built into a separate unit, so that the breaker rating can be changed by changing the trip unit. Within the capacity limitations of the various frames, trip units are available in ratings corresponding to standard wire and cable sizes. The breaker unit comes complete with the trip unit assembled to it and requires no adjusting on installation.

Made of cast iron. Corrosion resisting finish.

Furnished with or without circuit breaker.

Enclosures are provided with heavy pads for conduit tapping. **When ordering**, specify size and location of outlets. Catalog numbers determine size of frame, ampere trip rating and voltage, and should also be given.

50-Ampere Frame With Non-Interchangeable Trip—5000 Amp. I. R. C.

Amp.	Single Pole 250 V. A.C.—125 V. D.C.		2-Pole 250 V. A.C.—125/250 V. D.C.		3 Pole 250 V. A.C.—125, 250 V. D.C.	
	COMPLETE BREAKER AND ENCLOSURE No.	*ENCLOSURE WITHOUT BREAKER Each	COMPLETE BREAKER AND ENCLOSURE No.	*ENCLOSURE WITHOUT BREAKER Each	COMPLETE BREAKER AND ENCLOSURE No.	*ENCLOSURE WITHOUT BREAKER Each
15	WP4296-15	\$23.00	WP4297-15	\$29.50	WP4258-15	\$41.00
20	WP4296-20	23.00	WP4297-20	29.50	WP4258-20	41.00
25	WP4296-25	23.00	WP4297-25	29.50	WP4258-25	41.00
35	WP4296-35	24.50	WP4297-35	31.00	WP4258-35	44.00
50	WP4296-50	24.50	WP4297-50	31.00	WP4258-50	44.00

WP4296 \$18.00 WP4297 \$18.00 WP4258 \$25.00

100 Ampere Frame With Non-Interchangeable Trip—15,000 Amp. I. R. C.

Amp.	2 Pole 250 V. A.C.—125/250 V. D.C.		*ENCLOSURE WITHOUT BREAKER		3 Pole 250 V. A.C.—125 V. D.C.—600 V. A.C.		ENCLOSURE WITHOUT BREAKER	
	COMPLETE BREAKER AND ENCLOSURE No.	Each	No.	Each	COMPLETE BREAKER AND ENCLOSURE No.	Each	No.	Each
15	WP42092-15	\$47.00	WP42096-15	\$56.50	WP42572-15	\$51.50	WP42576-15	\$63.00
20	WP42092-20	47.00	WP42096-20	56.50	WP42572-20	51.50	WP42576-20	63.00
25	WP42092-25	47.00	WP42096-25	56.50	WP42572-25	51.50	WP42576-25	63.00
35	WP42092-35	49.25	WP42096-35	58.75	WP42572-35	55.00	WP42576-35	66.50
50	WP42092-50	49.25	WP42096-50	58.75	WP42572-50	55.00	WP42576-50	66.50
70	WP42092-70	56.00	WP42096-70	66.00	WP42572-70	64.00	WP42576-70	74.00
90	WP4209A2-90	65.00	WP4209A6-90	75.00	WP4257A2-90	73.00	WP4257A6-90	83.00
100	WP4209A2-100	65.00	WP4209A6-100	75.00	WP4257A2-100	73.00	WP4257A6-100	83.00

WP4209 \$30.00 WP4209A 39.00 WP4257 \$30.00 WP4257A 39.00

100 Ampere Frame with Interchangeable Trip Units—15,000 Amp. I. R. C.

Amp.	2 Pole 250 V. A.C.—125/250 V. D.C.		*ENCLOSURE WITHOUT BREAKER		3 Pole 250 V. A.C.—125/250 V. D.C.—600 V. A.C.		ENCLOSURE WITHOUT BREAKER	
	COMPLETE BREAKER AND ENCLOSURE No.	Each	No.	Each	COMPLETE BREAKER AND ENCLOSURE No.	Each	No.	Each
50	WP42192-50	\$122.00	WP42196-50	\$130.00	WP42592-50	\$132.00	WP42596-50	\$145.00
70	WP42192-70	122.00	WP42196-70	130.00	WP42592-70	132.00	WP42596-70	145.00
90	WP42192-90	122.00	WP42196-90	130.00	WP42592-90	132.00	WP42596-90	145.00
100	WP42192-100	122.00	WP42196-100	130.00	WP42592-100	132.00	WP42596-100	145.00

WP4219 \$85.00 WP4259 \$85.00

225 Ampere Frame With Interchangeable Trip Units—15,000 Amp. I. R. C.

70	WP42292-70	\$190.00	WP42296-70	\$205.00	WP42692-70	\$210.00	WP42696-70	\$230.00
90	WP42292-90	190.00	WP42296-90	205.00	WP42692-90	210.00	WP42696-90	230.00
100	WP42292-100	190.00	WP42296-100	205.00	WP42692-100	210.00	WP42696-100	230.00
125	WP42292-125	190.00	WP42296-125	205.00	WP42692-125	210.00	WP42696-125	230.00
150	WP42292-150	190.00	WP42296-150	205.00	WP42692-150	210.00	WP42696-150	230.00
175	WP42292-175	190.00	WP42296-175	205.00	WP42692-175	210.00	WP42696-175	230.00
200	WP42292-200	190.00	WP42296-200	205.00	WP42692-200	210.00	WP42696-200	230.00
225	WP42292-225	190.00	WP42296-225	205.00	WP42692-225	210.00	WP42696-225	230.00

WP4229 \$100.00 WP4269 \$100.00

600 Ampere Frame With Interchangeable Trip Units—25,000 Amp. I. R. C.

125	WP42392-125	\$460.00	WP42396-125	\$490.00	WP42792-125	\$540.00	WP42796-125	\$570.00
150	WP42392-150	460.00	WP42396-150	490.00	WP42792-150	540.00	WP42796-150	570.00
175	WP42392-175	460.00	WP42396-175	490.00	WP42792-175	540.00	WP42796-175	570.00
200	WP42392-200	460.00	WP42396-200	490.00	WP42792-200	540.00	WP42796-200	570.00
225	WP42392-225	460.00	WP42396-225	490.00	WP42792-225	540.00	WP42796-225	570.00
250	WP42392-250	460.00	WP42396-250	490.00	WP42792-250	540.00	WP42796-250	570.00
275	WP42392-275	460.00	WP42396-275	490.00	WP42792-275	540.00	WP42796-275	570.00
300	WP42392-300	460.00	WP42396-300	490.00	WP42792-300	540.00	WP42796-300	570.00
325	WP42392-325	460.00	WP42396-325	490.00	WP42792-325	540.00	WP42796-325	570.00
350	WP42392-350	460.00	WP42396-350	490.00	WP42792-350	540.00	WP42796-350	570.00
400	WP42392-400	460.00	WP42396-400	490.00	WP42792-400	540.00	WP42796-400	570.00
450	WP42392-450	500.00	WP42396-450	530.00	WP42792-450	590.00	WP42796-450	620.00
500	WP42392-500	500.00	WP42396-500	530.00	WP42792-500	590.00	WP42796-500	620.00
550	WP42392-550	500.00	WP42396-550	530.00	WP42792-550	590.00	WP42796-550	620.00
600	WP42392-600	500.00	WP42396-600	530.00	WP42792-600	590.00	WP42796-600	620.00

WP4239 \$220.00 WP4279 \$220.00

*Customer's breakers will be assembled in the above housing at an additional charge.

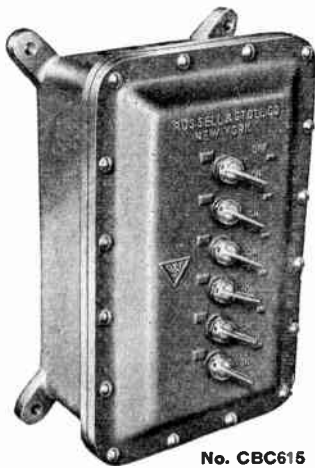
†Can be furnished in No. WP4209 or WP4257 enclosure (small size) at \$9.00 reduction in list.

‡Can be furnished in No. WP4209A or WP4257A enclosure (large size) at \$9.00 list additional.

R&S Air Break Circuit Breaker Cabinets

Vaportight and Dust-Tight

Class II, Groups E, F, and G



No. CBC615

Furnished with terminal block, on which is mounted a neutral bus with wire terminals, so that circuit breakers may be used independently or as a panel board.

Enclosure is made of cast iron with corrosion resisting finish.

Outlets: maximum, 2 inches. Specify size and location when ordering.

Can be furnished with 35-ampere or 50-ampere breakers at additional cost.

Type CBC

With Single-Pole, 125 Volts D.C.—250 Volts A.C. Branch Circuit Breakers

No. of Circuit Breakers	15 Amperes		20 Amperes		25 Amperes	
	No.	Each	No.	Each	No.	Each
2	CBC215	\$45.00	CBC220	\$45.00	CBC225	\$45.00
3	CBC315	60.00	CBC320	60.00	CBC325	60.00
4	CBC415	75.00	CBC420	75.00	CBC425	75.00
5	CBC515	85.00	CBC520	85.00	CBC525	85.00
6	CBC615	90.00	CBC620	90.00	CBC625	90.00

Type DBC

With 2-Pole, 250 Volt Branch Circuit Breakers

2	DBC215	\$70.00	DBC220	\$70.00	DBC225	\$70.00
3	DBC315	80.00	DBC320	80.00	DBC325	80.00

R & S Watertight Connectors Standard Service



No. 3720 Male End



No. 3913 Female End

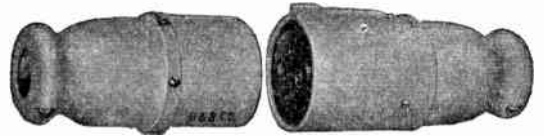
10 Amperes, 440 Volts A.C.—250 Volts D.C.
20 Amperes, 125 Volts D.C.

Style Wire Pole	Max. Cable Inches	COMPLETE MALE AND FEMALE		MALE END ONLY		FEMALE END ONLY	
		No.	Each	No.	Each	No.	Each
*2	2	27/32	3902 \$6.50	3710 \$3.00	3912 \$3.50		
2	3	27/32	3903 7.50	3720 3.50	3913 4.00		
3	4	27/32	3904 8.50	3730 4.00	3914 4.50		
20 Amperes, 440 Volts A.C. 30 Amperes, 250 Volts D.C.							
*2	2	1 1/16	3922 \$7.50	3740 \$3.50	3932 \$4.00		
2	3	1 1/16	3923 8.50	3750 4.00	3933 4.50		
3	4	1 1/16	3924 9.50	3760 4.50	3934 5.00		

*Has no provision for equipment grounding. All others have equipment ground through separate pole.

R & S Type A Cable Connectors

15 to 200 Amperes—2, 3, and 4-Wire—Polarized
250 Volts D.C.—440 Volts A.C.



15 Amperes

Style	No.	Complete Connector		Male End Only		Female End Only	
		No.	Each	No.	Each	No.	Each
2-W. 2-P.	3202	\$9.30	3106	\$3.90	3206	\$5.40	
†2-W. 3-P.	3203	10.50	3107	4.50	3207	6.00	
3-W. 3-P.	3203W	10.50	3107W	4.70	3207W	6.20	
†3-W. 4-P.	3204	11.70	3108	5.10	3208	6.60	
4-W. 4-P.	3204W	12.10	3108W	5.30	3208W	6.80	
30 Amperes							
2-W. 2-P.	3212	\$9.90	3116	\$3.90	3216	\$6.00	
†2-W. 3-P.	3213	11.10	3117	4.50	3217	6.60	
3-W. 3-P.	3213W	11.50	3117W	4.70	3217W	6.80	
†3-W. 4-P.	3214	12.30	3118	5.10	3218	7.20	
4-W. 4-P.	3214W	12.70	3118W	5.30	3218W	7.40	
60 Amperes							
2-W. 2-P.	3222	\$15.60	3126	\$5.40	3226	\$10.20	
†2-W. 3-P.	3223	16.80	3127	6.00	3227	10.80	
3-W. 3-P.	3223W	17.30	3127W	6.25	3227W	11.05	
†3-W. 4-P.	3224	18.00	3128	6.60	3228	11.40	
4-W. 4-P.	3224W	18.50	3128W	6.85	3228W	11.65	
100 Amperes							
2-W. 2-P.	3232	\$34.00	3136	\$12.00	3236	\$22.00	
†2-W. 3-P.	3233	36.00	3137	13.00	3237	23.00	
3-W. 3-P.	3233W	38.00	3137W	14.00	3237W	24.00	
†3-W. 4-P.	3234	38.00	3138	14.00	3238	24.00	
4-W. 4-P.	3234W	40.00	3138W	15.00	3238W	25.00	
200 Amperes							
2-W. 2-P.	3242	\$90.00	3146	\$30.00	3246	\$60.00	
†2-W. 3-P.	3243	100.00	3147	35.00	3247	65.00	
3-W. 3-P.	3243W	104.00	3147W	37.00	3247W	67.00	
†3-W. 4-P.	3244	110.00	3148	40.00	3248	70.00	
4-W. 4-P.	3244W	114.00	3148W	42.00	3248W	72.00	

†Equipment grounded through separate pole. All others have equipment ground through shell only.

R & S Type B Watertight Cable Connectors

15 to 200 Amperes—2, 3, and 4-Pole—Polarized
250 Volts D.C.—440 Volts A.C.



15 Amperes

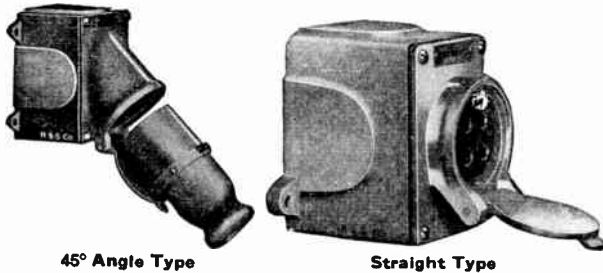
Style	No.	Complete Connector		Male End Only		Female End Only	
		No.	Each	No.	Each	No.	Each
*2-W. 2-P.	3402	\$14.70	3306	\$6.60	3406	\$8.10	
2-W. 3-P.	3403	15.90	3307	7.20	3407	8.70	
3-W. 4-P.	3404	17.10	3308	7.80	3408	9.30	
30 Amperes							
*2-W. 2-P.	3412	\$15.60	3316	\$6.60	3416	\$9.00	
2-W. 3-P.	3413	16.80	3317	7.20	3417	9.60	
3-W. 4-P.	3414	18.00	3318	7.80	3418	10.20	
60 Amperes							
*2-W. 2-P.	3422	\$23.40	3326	\$8.10	3426	\$15.30	
2-W. 3-P.	3423	24.60	3327	8.70	3427	15.90	
3-W. 4-P.	3424	25.80	3328	9.30	3428	16.50	
100 Amperes							
*2-W. 2-P.	3432	\$39.00	3336	\$16.00	3436	\$23.00	
2-W. 3-P.	3433	41.00	3337	17.00	3437	24.00	
3-W. 4-P.	3434	43.00	3338	18.00	3438	25.00	
200 Amperes							
*2-W. 2-P.	3442	\$100.00	3346	\$35.00	3446	\$65.00	
2-W. 3-P.	3443	110.00	3347	40.00	3447	70.00	
3-W. 4-P.	3444	120.00	3348	45.00	3448	75.00	

*Has no provision for equipment grounding. All others have equipment ground through separate pole.

Plugs (male ends) listed will also fit wall receptacles. These connectors can also be furnished in 600 volts.

Type A R&S Weathertight Angle Type Receptacles

2, 3, and 4-Wire—Polarized
250 Volts D.C.—440 Volts A.C.



45° Angle Type

Straight Type

Box and receptacle housing are heavy castings provided with gaskets and a cast, hinged spring flap cover.

Has positive polarization to insure assembly of contact members. Provision is made for grounding to meet Underwriters' requirements.

Plug housing is light in weight and easy to handle.

Outlets: maximum, 15 amperes, 1-inch; 30-60 amperes, 1½-inch; 100 amperes, 2½-inch; 200 amperes, 3-inch.

Specify size and location of outlets when ordering.

Corrosion resisting finish.

Also available for 600 volts a.c.

Straight type: numbers shown are for 45° angle type; for straight type, add prefix RA to number.

15 Amperes

Wire	Pole	Receptacles without Plugs				Plugs Only	
		Single-Gang		2-Gang		No.	Each
2	2	3102	\$5.40	3109	\$12.80	3106	\$3.90
*2	3	3103	6.00	3110	12.00	3107	4.50
3	3	3103W	6.00	3110W	12.00	3107W	4.50
*3	4	3104	6.60	3111	13.20	3108	5.10
4	4	3104W	6.60	3111W	13.20	3108W	5.30

30 Amperes

2	2	3112	\$6.00	3119	\$12.00	3116	\$3.90
*2	3	3113	6.60	3120	13.20	3117	4.50
3	3	3113W	6.60	3120W	13.20	3117W	4.70
*3	4	3114	7.20	3121	14.40	3118	5.10
4	4	3114W	7.20	3121W	14.40	3118W	5.30

60 Amperes

2	2	3122	\$10.20	3129	\$20.40	3126	\$5.40
*2	3	3123	10.80	3130	21.60	3127	6.00
3	3	3123W	10.80	3130W	21.60	3127W	6.25
*3	4	3124	11.40	3131	22.80	3128	6.60
4	4	3124W	11.40	3131W	22.80	3128W	6.85

100 Amperes

2	2	3132	\$22.00	3139	\$44.00	3136	\$12.00
2	3	3133	23.00	3140	46.00	3137	13.00
*3	3	3133W	23.00	3140W	46.00	3137W	14.00
3	4	3134	24.00	3141	48.00	3138	14.00
*4	4	3134W	24.00	3141W	48.00	3138W	15.00

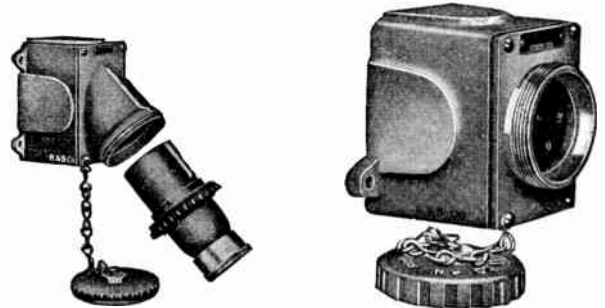
200 Amperes

2	2	3142	\$60.00	3149	\$120.00	3146	\$30.00
*2	3	3143	65.00	3150	130.00	3147	35.00
3	3	3143W	65.00	3150W	130.00	3147W	37.00
*3	4	3144	70.00	3151	140.00	3148	40.00
4	4	3144W	70.00	3151W	140.00	3148W	42.00

*Equipment grounded through separate pole; all others have equipment ground through shell only.

Type B R&S Watertight Angle Type Receptacles

2, 3, and 4-Pole—Polarized
250 Volts D.C.—440 Volts A.C.



45° Angle Type

Straight Type

Box and receptacle housing are heavy castings provided with a screw thread to take gasketed brass cap and plug collar.

Has positive polarization to insure assembly of contact members. Provision for grounding to meet Underwriters' requirements. External rib to provide visual indication for plug insertion. Large conduit bosses and ample space for wiring.

Plug housing is light in weight and convenient to handle.

Maximum outlets: 15 amperes, 1-inch; 30-60 amperes, 1½-inch; 100 amperes, 2½-inch; 200 amperes, 3-inch.

Specify size and location of outlets when ordering.

Also available for 600 volts a.c.

Furnished with a rubber gland cable outlet.

Corrosion resisting finish.

Straight type: numbers shown are for 45° angle type receptacles; for straight type, add prefix RA to numbers.

15 Amperes

Wire	Pole	Receptacles Without Plugs				Plugs Only	
		Single-Gang		2-Gang		No.	Each
*2	2	3302	\$8.10	3309	\$16.20	3306	\$6.60
2	3	3303	8.70	3310	17.40	3307	7.20
3	4	3304	9.30	3311	18.60	3308	7.80

30 Amperes

*2	2	3312	9.00	3319	\$18.00	3316	\$6.60
2	3	3313	9.60	3320	19.20	3317	7.20
3	4	3314	10.20	3321	20.40	3318	7.80

60 Amperes

*2	2	3322	\$15.30	3329	\$30.60	3326	\$8.10
2	3	3323	15.90	3330	31.80	3327	8.70
3	4	3324	16.50	3331	33.00	3328	9.30

100 Amperes

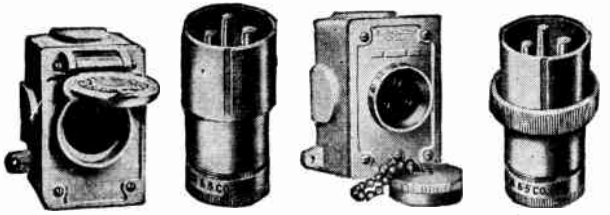
*2	2	3332	\$23.00	3339	\$46.00	3336	\$16.00
2	3	3333	24.00	3340	48.00	3337	17.00
3	4	3334	25.00	3341	50.00	3338	18.00

200 Amperes

*2	2	3342	\$65.00	3349	\$130.00	3346	\$35.00
2	3	3343	70.00	3350	140.00	3347	40.00
3	4	3344	75.00	3351	150.00	3348	45.00

*Have no provision for equipment grounding; all others have equipment ground through separate pole.

Types FS and FD R&S Receptacles and Plugs
For Standard Service



No. 3746 Weathertight No. 3819 Weathertight No. 3743 Weathertight No. 3720 Weathertight
Finish: cast iron, corrosion resisting finish; cast brass, bright dip. Outlets: maximum, 1-inch 4-way; specify size and location when ordering.

Weathertight

10 Amperes, 440V. A.C.—20 Amperes, 125V. D.C.
Without Plugs

Wire	STYLE Pole	Cast Iron		Cast Brass		Plugs Only	
		With Box No. 3701 No. Each	3701 No. Each	With Box No. 3721 No. Each	3721 No. Each	No. Each	Each
*2	2	3745	\$3.30	3765	\$6.30	3818	\$3.00
2	3	3746	3.80	3766	6.80	3819	3.50
3	4	3747	4.30	3767	7.30	3820	4.00
20 Amperes, 440V. A.C.—30 Amperes 125V. D.C.							
*2	2	3755	\$4.80	3768	\$7.80	3828	\$3.50
2	3	3756	5.30	3769	8.30	3829	4.00
3	4	3757	5.80	3770	8.80	3830	4.50

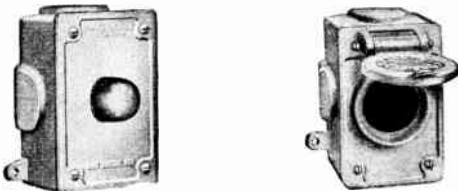
Watertight

10 Amperes, 440V. A.C.—20 Amperes, 125V. D.C.

Wire	STYLE Pole	Cast Iron		Cast Brass		Plugs Only	
		With Box No. 3701 No. Each	3701 No. Each	With Box No. 3721 No. Each	3721 No. Each	No. Each	Each
*2	2	3742	\$3.30	3762	\$6.30	3710	\$3.00
2	3	3743	3.80	3763	6.80	3720	3.50
3	4	3744	4.30	3764	7.30	3730	4.00
20 Amperes, 440V. A.C.—30 Amperes, 125V. D.C.							
*2	2	3752	\$4.80	3772	\$7.80	3740	\$3.50
2	3	3753	5.30	3773	8.30	3750	4.00
3	4	3754	5.80	3774	8.80	3760	4.50

*No provision for equipment grounding. All others have equipment ground through separate pole.
†Also rated at 30 amperes, 250 volts d.c.

Types FS & FD R&S Conduit Box Fittings



Maximum outlets, 1 inch, 4-way. Specify size and location when ordering.

Cast iron boxes have corrosion resisting finish; cast brass, bright dip. Covers and other exposed parts are finished to match boxes.

Watertight Pilot Light Indicators

Complete with 120-Volt Lamp

Description	Cast Iron		Cast Brass	
	With Box No. 3701 No. Each	3701 No. Each	With Box No. 3721 No. Each	3721 No. Each
1-Light with Clear Lens...	3801	\$5.00	3811	\$8.00
1-Light with Ruby Lens...	3801R	5.00	3811R	8.00
1-Light with Green Lens...	3801G	5.00	3811G	8.00
1-Light with Amber Lens...	3801A	5.00	3811A	8.00
2-Light, Any Above Lens...	3807	8.00	3817	11.00

Weathertight Convenience Receptacles

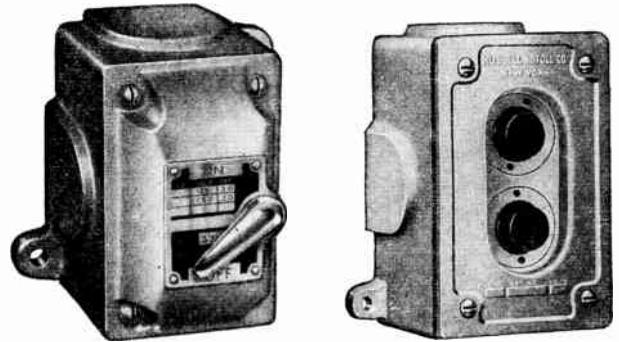
15 Amperes, 125 Volts

Description	Cast Iron		Cast Brass	
	With Box No. 3701 No. Each	3701 No. Each	With Box No. 3721 No. Each	3721 No. Each
2-Pole.....	3908	\$3.00	3918	\$6.00

Adapter plates for flush mounting.

Types FS and FD R&S Switches
Watertight

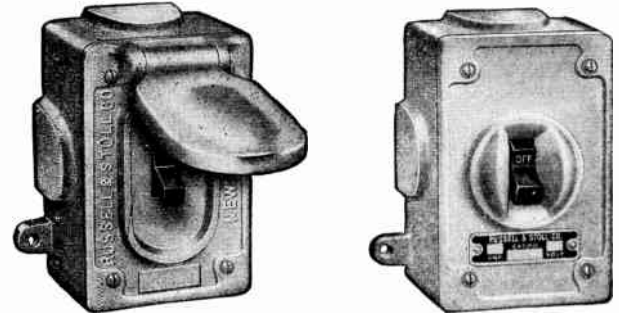
Outlets: maximum, 1-inch, 4-way. Specify size and location when ordering. Finish: cast iron, corrosion resisting finish; cast brass, bright dip.



Style	Cast Iron		Cast Brass		*Amperes Rating	
	With Box No. 3701 No. Each	3701 No. Each	With Box No. 3721 No. Each	3721 No. Each	125 Volts	250 Volts
Single Pole.....	3705	\$4.00	3725	\$7.00	10	5
2-Pole.....	3706	5.00	3726	8.00	10	10
3-Pole.....	3707	8.00	3727	11.00	15	15
3-Way.....	3708	6.00	3728	9.00	10	5
4-Way.....	3709	10.00	3729	13.00	10	5

Start (Normally Open).....	Cast Iron		Cast Brass		*Amperes Rating	
	With Box No. 3701 No. Each	3701 No. Each	With Box No. 3721 No. Each	3721 No. Each	125 Volts	250 Volts
Stop (Normally Closed).....	3741	\$6.00	3751	\$9.00	..	..
Start and Stop....	3748	6.00	3758	9.00	..	..
	3749	7.50	3759	10.50	..	..

Weathertight and Protected



Style	Cast Iron		Cast Brass		*Amperes Rating	
	With Box No. 3701 No. Each	3701 No. Each	With Box No. 3721 No. Each	3721 No. Each	125 Volts	250 Volts
Single-Pole	3802	\$4.00	3832	\$3.50	3812	.... 3852 \$6.50 10 5
2-Pole	3803	5.00	3833	4.50	3813	.... 3853 7.50 10 10
3-Pole	3804	8.00	3834	7.50	3814	.... 3854 10.50 15 15
3-Way	3805	6.00	3835	5.50	3815	.... 3855 8.50 10 5
4-Way	3806	10.00	3836	9.50	3816	.... 3856 12.50 10 5

*Also available in ratings of 20 and 30 amperes. Prices on request.

Explosion-Proof Equipment

Russell & Stoll Co., Inc.

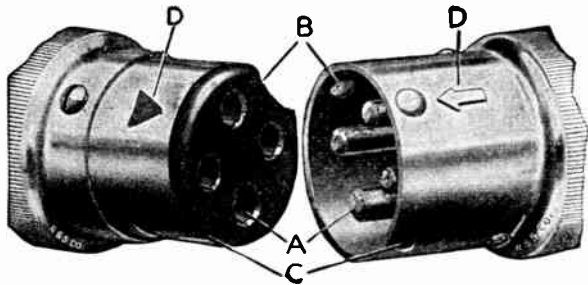
are in a position to furnish a complete line of

Explosion-Proof Equipment.

Lighting — Switches — Panelboards

A detailed catalog is available upon application to our nearest office.

R & S Ever-Lok Receptacles, Plugs, and Cord Connectors



One Large and 3 Smaller Contacts

The large (grounded) contact A will not fit into any but the one large hole A. The three smaller contacts fit into their corresponding holes. The staggered lugs B and C in the plug shell, will fit only into the corresponding staggered grooves in the shell of the connector or receptacle. (B to B only and C to C only.)

The interiors of molded bakelite are grooved to fit upset lugs on the shells so that improper assembly or alignment of the interior is impossible. Shell caps are fiber lined to prevent stray wire ends touching the shell.

Terminals of the 4-pole devices are marked X, Y, Z, and G (ground). Terminals of 3-pole devices are marked 1, 2, and G. These markings maintain identity of polarity throughout.

Double Locking and Balanced Support

The outer shell of the plug floats on the inner shell and turns within the limits allowed by two screws in two slots on opposite sides of the shell. As the plug is inserted in a connector or receptacle, the lugs on outer shell ride diagonally down into the funnel-shaped grooves until they strike the bottom. The outer shell automatically turns on its axis by means of a spring in its base, and the lugs snap into position.

This double locking arrangement (on opposite sides of the shell) provides balanced support and prevents poor alignment.

Locks in Place

To unlock, it is necessary to grasp the plug firmly and give it a short reverse twist to bring the lugs back to where they will pull out of the grooves. Outer shoulders are knurled to facilitate this action, but the lock is positive and the plug cannot be withdrawn without first giving it this reverse twist.

Unit Assembly

Casings are positively grounded by double phosphor bronze springs. Equipment grounding is secured by a separate set of contacts which make first and break last (as required by Underwriters' Laboratories).

Positive Grounding

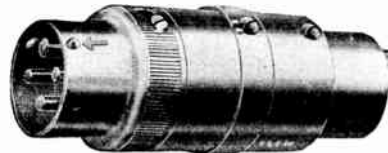
Contacts and terminals are permanently assembled in bakelite body permitting removal of interior only as a unit for wiring. All connections are entirely enclosed, thus obviating accidental short circuits and tampering by inexperienced persons.

R&S Ever-Lok Fusible Plugs and Connectors

3 and 4-Pole—Polarized
20 Amperes, 250 Volts D.C.—30 Amperes, 125 Volts D.C.

For protection of branch circuit extensions or for motor overload protection of small motors.

No. 9114 Standard N.E.C. Fusible Type Plugs

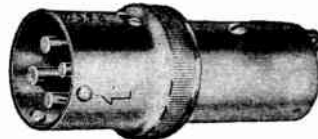


No. 9114

Safety bakelite holder for Standard N.E.C. fuses or Fusetrons.

No. 9114, 3 Fused and 1 Grounded Pole each \$5.50

No. 9144 Midget Fusible Type Plugs



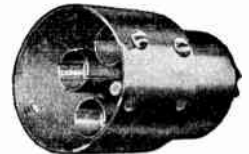
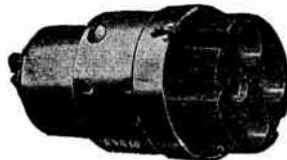
For Midget fuses or Midget Fusetrons.

Enclosure is made of steel. Maximum cable, 5/8-inch diameter. Cadmium plated finish.

No. 9144, 3 Fused and 1 Grounded Pole each \$4.50

No. 9124 Standard N.E.C. Fusible Connectors

3 and 4-Pole—Polarized
20 Amperes, 250 Volts D.C.—30 Amperes, 125 Volts D.C.

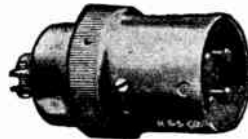


Complete with safety bakelite holder for N.E.C. fuses. For disconnect use only. Enclosure is made of steel. Maximum cable, 5/8-inch diameter. Cadmium plated finish. Fuses not included.

No. 9124, 3 Fused and 1 Grounded Pole each \$5.00

R&S Ever-Lok Plugs and Receptacles

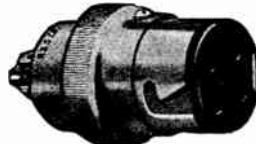
2, 3, and 4-Pole—Polarized



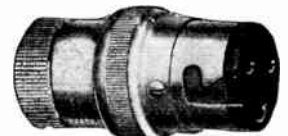
No. 8014 Plug—Male End With Clamp Type Cable Grip



No. 8153 Plug—Male End With Bushing Type Cable Grip



No. 8024 Connector—Female End With Clamp Type Cable Grip



No. 8093 Connector—Female End With Bushing Type Cable Grip

Plug is steel-clad with encased locking spring in non-separable housing, and has adjustable cord grip. Contacts are machined, self-wiping, and self-aligning.

Connector is steel-clad and has adjustable grip. Contacts are machined, self-wiping, and self-aligning. Cadmium plated finish.

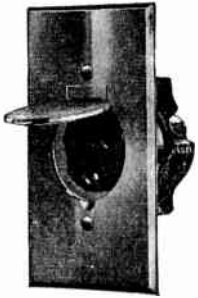
10 Amperes, 250 Volts D.C.—440 Volts A.C.
20 Amperes, 125 Volts D.C.

STYLE	Wire	Pole	With Clamp Type Cable Grip			With Bushing Type Cable Grip			Max. Cable Inches		
			Plug Male End No.	Connector Female End No.	Each	Plug Male End No.	Connector Female End No.	Each			
2	2	8012	\$1.60	8022	\$2.35	1/2	8152	\$2.10	8092	\$2.85	13/16
2	3	8013	1.70	8023	2.45	1/2	8153	2.20	8093	2.95	13/16
3	4	8018	1.80	8028	2.50	1/2	8158	2.30	8098	3.05	13/16
20 Amperes, 440 Volts A.C. 30 Amperes, 250 Volts D.C.											
2	2	8016	\$1.65	8026	\$2.55	5/8	8156	\$2.15	8096	\$3.05	1
2	3	8015	1.75	8025	2.65	5/8	8155	2.25	8095	3.15	1
3	4	8014	1.85	8024	2.75	5/8	8154	2.35	8094	3.25	1

R&S Ever-Lok Flush Type Receptacles

2, 3, and 4-Pole—Polarized

For Standard Outlet Box 3/4-Inch Raised Covers



No. 8043
With Double Hinged Door



No. 8070
Without Door

Plate: brass; brushed finish standard.

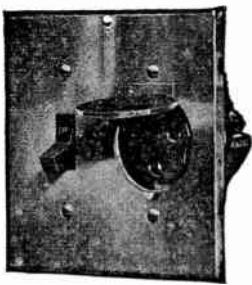
Standard package, 100 assorted receptacles, plugs and connectors.

10 Amperes, 250 Volts D.C.—440 Volts A.C.
20 Amperes, 125 Volts D.C.

STYLE	Wire Pole	Single-Gang		2-Gang		Plug No.
		With Double Hinged Door	Without Door	With Double Hinged Door	Without Door	
2	2	8042 \$4.25	8069 \$3.00	*8066 \$8.50	*8062 \$6.00	8012
2	3	8043 4.35	8070 3.10	*8067 8.70	*8063 6.20	8013
3	4	8044 4.45	8071 3.20	*8068 8.90	*8064 6.40	8018
20 Amperes, 440 Volts A.C. 30 Amperes, 250 Volts D.C.						
2	2	8048 \$5.25	8019 \$3.15	†8102 \$10.50	†8055 \$6.70	8016
2	3	8049 5.35	8020 3.25	†8103 10.70	†8056 6.90	8015
3	4	8050 5.45	8021 3.35	†8104 10.90	†8057 7.10	8014

*Requires standard 2-gang outlet box raised covers.
†Requires standard 3-gang outlet box raised covers.
Can also be furnished in any number of gangs.
Plugs not included.

For Combination with Toggle Switch



No. 8053
With Double Hinged Door



No. 8113
Without Door

For standard 2-gang outlet box raised covers. Any standard type of toggle switch may be used.

Plate: brass; brushed finish standard.

Switches and plugs are not included.

10 Amperes, 250 Volts D.C.—440 Volts A.C.
20 Amperes, 125 Volts D.C.

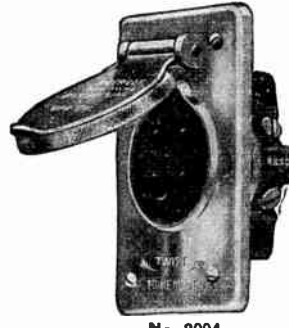
Wire	Pole	With Double Hinged Door		Without Door		Takes Plug No.
		No.	Each	No.	Each	
2	2	8052	\$6.75	8112	\$5.00	8012
2	3	8053	6.85	8113	5.10	8013
3	4	8054	6.95	8114	5.20	8018
20 Amperes, 440 Volts A.C. 30 Amperes, 250 Volts D.C.						
2	2	8106	\$7.75	8109	\$5.15	8016
2	3	8107	7.85	8110	5.25	8015
3	4	8108	7.95	8111	5.35	8014

Other combinations are available upon request.

R&S Ever-Lok Conduit Box Type Receptacles

2, 3, and 4-Pole—Polarized

For Type FS and Similar Conduit Fittings



No. 8004



No. 8138

Outlets: maximum, 1-inch conduit. Specify size and location when ordering.

Covers measure 4 5/16 x 2 1/16 inches; struck up steel, .063 inches. Furnished with four retained, cadmium plated screws for mounting on box. Standard finish; cadmium plated. Other finishes available at extra cost. Also available with cast iron box with corrosion resisting finish (No. 8009) for surface mounting at additional cost.

10 Amperes, 250 Volts D.C.—440 Volts A.C.
20 Amperes, 125 Volts D.C.

STYLE	Wire Pole	With Spring Hinged Door		Without Door		Takes Plug No.
		No.	Each	No.	Each	
2	2	8002	\$2.50	8133	\$2.30	8012
2	3	8003	2.60	8134	2.40	8013
3	4	8008	2.70	8135	2.50	8018
20 Amperes, 440 Volts A.C. 30 Amperes, 250 Volts D.C.						
2	2	8006	\$2.65	8136	\$2.45	8016
2	3	8005	2.75	8137	2.55	8015
3	4	8004	2.85	8138	2.65	8014

Plugs are not included.



No. 8091 Adapter Sub-Plate

For Ever-Lok Conduit Box Type Receptacles

Permits the use of Ever-Lok conduit box type receptacles in any standard switch box with raised cover.

No. 8091.....each \$.50

R&S Ever-Lok Conduit Type Box Receptacles

2, 3, and 4-Pole—Polarized

Mounted on Single or Gang Type FS Conduit Boxes

With Spring Hinged Door



No. 8083

Outlets: maximum, 1-inch. Single-gang, 4-way; multi-gang, one outlet on one side, one per gang on opposite side and one on each end. Specify size and location when ordering.

Cover finish: cadmium plated standard. Cast iron boxes, corrosion resisting finish. Other finishes at extra cost.

Plugs are not included.

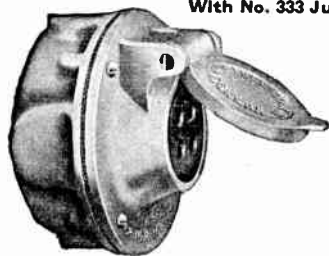
10 Amperes, 250 Volts D.C.—440 Volts A.C.
20 Amperes, 125 Volts D.C.

STYLE	Wire Pole	Single-Gang		2-Gang		3-Gang		4-Gang		Takes Plug No.
		No.	Each	No.	Each	No.	Each	No.	Each	
2	2	8082	\$3.30	8127	\$6.60	8159	\$10.40	8171	\$14.20	8012
2	3	8083	3.40	8128	6.80	8160	10.70	8172	14.60	8013
3	4	8084	3.50	8129	7.00	8161	11.00	8173	15.00	8018
20 Amperes, 440 Volts A.C. 30 Amperes, 250 Volts D.C.										
2	2	8029	\$3.45	8130	\$6.90	8162	\$10.85	8174	\$14.80	8016
2	3	8030	3.55	8131	7.10	8163	11.15	8175	15.20	8015
3	4	8031	3.65	8132	7.30	8164	11.45	8176	15.60	8014

R&S Ever-Lok Weathertight Type Receptacles

2, 3, and 4-Pole—Polarize d

Regular Service—Female Receptacle for Male Plug
With No. 333 Junction Box



Conduit: maximum, 3/4-inch. Specify size and location when ordering.

Box and cover are made of cast iron with corrosion resisting finish. Screw cap and chain are brass.

Plugs not included.

No. 8047

10 Amperes, 250 Volts D.C.—440 Volts A.C.
20 Amperes, 125 Volts D.C.

Wire	STYLE		With Spring Door		With Screw Cap and Chain		Takes Plug No.
	Pole	No.	Each	No.	Each		
2	2	8035	\$4.10	8121	\$4.75	8012	
2	3	8036	4.20	8122	4.85	8013	
3	4	8037	4.30	8123	4.95	8018	
20 Amperes, 440 Volts A.C. 30 Amperes, 250 Volts D.C.							
2	2	8045	\$4.25	8124	\$4.90	8016	
2	3	8046	4.35	8125	5.00	8015	
3	4	8047	4.45	8126	5.10	8014	

Reverse Service—Male Receptacle for Female Plug
With No. 2401 Junction Box



Conduit: maximum, 1-inch. Specify size and location when ordering.

Box and cover are made of cast iron with corrosion resisting finish. Screw cap and chain made of brass.

Plugs not included.

No. 8221

10 Amperes, 250 Volts D.C.—440 Volts A.C.
20 Amperes, 125 Volts D.C.

Wire	STYLE		With Spring Door		With Screw Cap and Chain		Takes Plug No.
	Pole	No.	Each	No.	Each		
2	2	8238	\$5.50	8216	\$6.15	8022	
2	3	8239	5.60	8217	6.25	8023	
3	4	8240	5.70	8218	6.35	8028	
20 Amperes, 440 Volts A.C. 30 Amperes, 250 Volts D.C.							
2	2	8241	\$6.00	8219	\$6.65	8026	
2	3	8242	6.10	8220	6.75	8025	
3	4	8243	6.20	8221	6.85	8024	

R&S Ever-Lok Conduit Box Type Receptacles

2, 3, and 4-Pole—Polarized

For Type W and Similar Conduit Fittings



Cover is flanged to fit any Type W or similar conduit fittings.

Outlets: maximum, 3/4-inch. Specify size and location when ordering.

Furnished with four screw-hole knockouts.

Finish: cadmium plated standard. Also available with cast iron box, (No. 8039) at \$0.65 additional.

Plugs not included.

No. 8033

10 Amperes, 260 Volts D.C.—440 Volts A.C.
20 Amperes, 125 Volts D.C.

Wire	STYLE		With Spring Hinged Door		Without Spring Hinged Door		Takes Plug No.
	Pole	No.	Each	No.	Each		
2	2	8032	\$2.50	8139	\$2.30	8012	
2	3	8033	2.60	8140	2.40	8013	
3	4	8034	2.70	8141	2.50	8018	

R&S Ever-Lok Weathertight Heavy Service Receptacles and Plugs

30, 60, 100, and 200 Amperes—250 Volts D.C.
30, 60, 100, and 200 Amperes—440 Volts A.C.
2, 3, and 4-Pole—Polarized



45° Angle Type

Outlets: maximum, 30 and 60 amperes, 1 1/2 inches; 100 amperes, 2 1/2 inches; 200 amperes, 3 inches. Specify size and location when ordering.

Box and cover is made of cast iron with corrosion resisting finish. Composition interior.

Plugs not included.

30 Amperes

Wire	STYLE		No.	Each	Takes Plug No.
	Pole	No.			
*2	2	2	8402	\$9.00	8406
2	3	3	8403	9.60	8407
3	4	4	8404	10.20	8408
60 Amperes					
*2	2	2	8412	\$15.30	8416
2	3	3	8413	15.90	8417
3	4	4	8414	16.50	8418
100 Amperes					
*2	2	2	8422	\$23.00	8426
2	3	3	8423	24.00	8427
3	4	4	8424	25.00	8428
200 Amperes					
*2	2	2	8432	\$65.00	8436
2	3	3	8433	70.00	8437
3	4	4	8434	75.00	8438

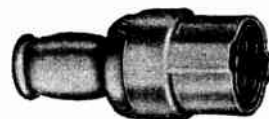
*No provision for equipment grounding. All others have equipment grounded through separate pole.

R&S Ever-Lok Weathertight Heavy Service Connectors and Plugs

30, 60, 100, and 200 Amperes—250 Volts D.C.
30, 60, 100, and 200 Amperes—440 Volts A.C.
2, 3, and 4-Pole—Polarized



Male End



Female End

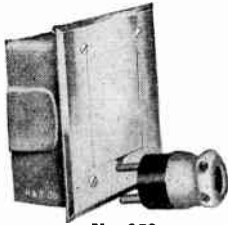
Cast aluminum housing. Composition interior.
Prices upon application.

Wire	STYLE		30 Amperes Male End Only		Female End Only	
	Pole	No.	No.	Each	No.	Each
*2	2	2	8406	\$13.20	8442	\$9.00
2	3	3	8407	14.40	8443	9.60
3	4	4	8408	15.60	8444	10.20
60 Amperes						
*2	2	2	8416	\$16.20	8452	\$15.30
2	3	3	8417	17.40	8453	15.90
3	4	4	8418	18.60	8454	16.50
100 Amperes						
*2	2	2	8426	\$24.00	8462	\$23.00
2	3	3	8427	25.50	8463	24.00
3	4	4	8428	27.00	8464	25.00
200 Amperes						
*2	2	2	8436	\$52.50	8472	\$65.00
2	3	3	8437	60.00	8473	70.00
3	4	4	8438	67.50	8474	75.00

*No provision for equipment grounding; all others have equipment grounded through separate pole.

R&S Flush Receptacles and Plugs

2 and 3-Wire—Polarized
With Flush Gravity Cover
30 Amperes, 250 Volts



No. 956

Box is made of cast iron with corrosion resisting finish.

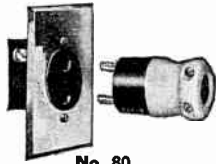
Plate: brass; brushed finish standard. Other finishes available at extra cost.

Outlets: maximum 1¼-inch conduit. Specify size and location of outlets when ordering.

Style
2-Wire
3-Wire

With Plug		Plug Only	
No.	Each	No.	Each
956	\$12.00	556	\$1.80
966	13.00	157	2.10

For Standard Outlet Box Raised Cover
30 Amperes, 250 Volts—2 and 3 Wire—Polarized



No. 80

Receptacle and plug are made of bakelite and have self-aligning contacts.

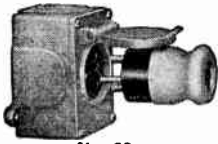
Plate: brass, brushed finish standard. Other finishes available at extra cost.

Style
2-Wire
3-Wire

With Plug		Plug Only	
No.	Each	No.	Each
80	\$3.75	556	\$1.80
81	4.50	157	2.10

R&S Weathertight Receptacles and Plugs

30 Amperes, 250 Volts
2 and 3-Wire—Polarized
With Flap Cover
Surface Type



No. 83

Box and cover are made of cast iron with corrosion resisting finish.

Style
2-Wire
3-Wire

Single-Gang		2-Gang		Plug Only	
No.	Each	No.	Each	No.	Each
82	\$6.00	282	\$12.00	556	\$1.80
83	7.00	283	14.00	157	2.10

Flush Type

Box and cover are made of cast iron with corrosion resisting finish.

Plate is brass with hinged spring flap cover, and black oxidized finish. Other finishes available at extra cost.

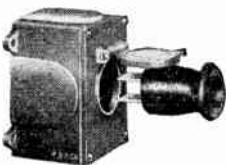
Outlets: maximum 1¼-inch conduit. Specify size and location of outlets when ordering.

Style
2-Wire
3-Wire

With Plug		Plug Only	
No.	Each	No.	Each
31	\$10.50	556	\$1.80
25	11.50	157	2.10

R&S Weathertight Receptacles and Plugs

Surface Type
Single and 2-Gang—2, 3, and 4-Wire—Polarized
*70 Amperes, 250 Volts



No. 143

Box and cover are made of cast iron with corrosion resisting finish.

Receptacle interior and plug base are made of molded composition with heavy, self-aligning, machined contacts. Plug will also fit floor receptacles and other wall receptacles.

Outlets: maximum, 1½ inches. Specify size and location when ordering.

Style
2-Wire
3-Wire
4-Wire

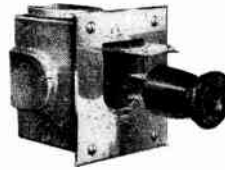
Single-Gang		2-Gang		Plug Only	
No.	Each	No.	Each	No.	Each
143	\$12.00	144	\$24.00	140	\$3.00
84	14.00	285	28.00	150	4.00
1784	16.00	275	32.00	337	5.00

*To be used in series with switches and not for closing or opening circuits under load.

R&S Flush Type Receptacles and Plugs

2-Wire

60 Amperes,
250 Volts—Polarized



No. 14

Box is made of cast iron with corrosion resisting finish.

Plate is brass with flush gravity drop.

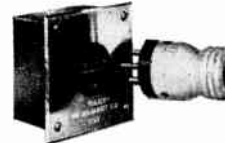
Receptacle interior and plug interior are made of molded composition with heavy, self-aligning machined contacts.

Plug can also be used with other fittings.

No. 14, with Plug.....each \$20.00
No. 140, Plug Only.....each 3.00

2, 3, and 4-Wire

60, *70, and *100 Amperes
250 Volts—Polarized



No. 1762

Box is made of heavy gage steel.

Outlets: maximum for Nos. 1752, 1762 and 1763, 1½ inches (slip hole); No. 1791 maximum conduit, 3½ inches (slip hole). Specify size and location when ordering.

Plate: brass brushed finish standard. Other finishes available at extra cost.

Receptacle interior and plug interior are made of molded composition with heavy, self-aligning machined contacts.

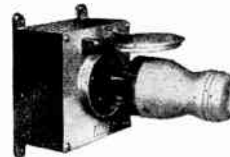
Plug can also be used with other fittings.

Amperes	Wire	With Plug		Plug Only	
		No.	Each	No.	Each
60	2	1752	\$12.00	140	\$3.00
70	3	1762	14.00	150	4.00
70	4	1763	16.00	337	5.00
100	3	1791	24.00	975	6.00

*To be used in series with switches and not for closing or opening circuits under load.

R&S Receptacles and Plugs

3-Wire—Polarized
*75 Amperes, 440 Volts—*100 Amperes, 250 Volts
Weathertight—With Flap Cover



No. 85

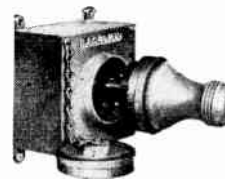
Box is made of cast iron; corrosion resisting finish. Receptacle interior and plug interior are made of molded composition with self-aligning machined contacts.

Outlets: maximum, for Nos. 153 and 85, 2 inches; for Nos. 226 and 1785, 3½ inches. Specify size and location when ordering.

Nos. 153 and 226 are furnished with overhanging beveled brass plate for flush mounting. Black oxidized finish is standard. Other finishes available at extra cost.

Amperes	Flush Type		Plug Only	
	No.	Each	No.	Each
75	153	\$24.00	151	\$5.00
100	226	30.00	975	6.00
75	85	\$20.00	151	\$5.00
100	1785	26.00	975	6.00

Watertight—With Screw Cap Cover



No. 223

Box is made of cast iron; corrosion resisting finish. Receptacle interior is made of molded composition with self-aligning machined contacts. Plug handle is made of hard maple wood and is provided with heavy brass screw collar, gasketed to make the connection watertight when plug is inserted.

Outlets: maximum, No. 223, 2 inches; No. 1783, 3½ inches. Specify size and location when ordering.

Amperes	With Plug		Plug Only	
	No.	Each	No.	Each
75	223	\$27.00	224	\$12.00
100	1783	34.00	973	13.00

*To be used in series with switches and not for closing or opening circuits under loads.

R&S Vaportight Pendent Fixtures

With Screw Globe

Globes: clear glass standard; colored glass available at additional cost.

Reflectors: steel, porcelain enameled green outside, white inside.

Outlets: 1/2 or 3/4-inch. Specify size when ordering.

Without Reflector



Max. Lamp Watts	Reflector Diameter Inches	Cast Brass				Cast Iron			
		Without Guard		With Brass Guard		Without Guard		With Brass Guard	
		No.	Each	No.	Each	No.	Each	No.	Each
100	5003	\$4.00	5000	\$5.00	6344	\$3.35	6345	\$4.35
200	5004	6.70	5001	8.50	6346	4.70	6324	6.50
*300	1417	12.30	1413	15.00	6347	9.30	6328	12.00
100	†428	6.00	†430	7.00	†6348	5.35	†6349	6.35

With Standard Dome Steel Reflector



100	12	6201	\$8.00	6202	\$9.00	6360	\$7.35	6361	\$8.35
150	14	6203	11.70	6204	13.50	6303	9.00	6304	10.75
200	16	6205	12.70	6206	14.50	6305	10.00	6306	11.75
*300	18	6207	20.30	6208	23.00	6307	16.30	6308	19.00

With Flat Steel Reflector



100	12	6251	\$8.00	6252	\$9.00	6362	\$7.35	6369	\$8.35
200	15	6263	12.20	6264	14.00	6363	9.45	6364	11.25
*300	18	6265	20.30	6266	23.00	6365	16.30	6366	19.00

With Angle Steel Reflector



100	11 1/4	6230	\$8.00	6231	\$9.00	6387	\$7.35	6388	\$8.35
200	16	6234	11.70	6235	13.50	6232	9.00	6233	10.75
*300	16	6236	19.30	6237	22.00	6238	16.30	6239	19.00

*Mogul base.

†Nos. 428, 430, 6348, and 6349 are furnished with switch; all others without switch.

R&S Vaportight Junction Box Fixtures

With Screw Globe and Cast Iron Junction Box

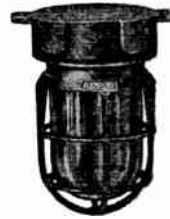
Globes: clear globes standard; colored globes available at additional cost.

Reflectors: steel porcelain enameled green outside, white inside.

Outlets: maximum, 3/4 inch. Specify size and location when ordering. Deep boxes can be furnished to allow for larger outlets at additional cost.

All fixtures furnished with junction box No. 333 as standard. Cast brass box No. 332 is available at additional cost.

Without Reflector



Max. Lamp Watts	Reflector Diameter Inches	Cast Brass				Cast Iron			
		Without Guard		With Brass Guard		Without Guard		With Brass Guard	
		No.	Each	No.	Each	No.	Each	No.	Each
100	5051	\$4.00	5045	\$5.00	5066	\$3.35	6321	\$4.35
200	5052	6.70	5047	8.50	5067	4.70	6334	6.50
*300	5053	12.30	1414	15.00	5068	9.30	6338	12.00
100	†5054	6.00	†431	7.00	†5069	5.35	†6322	6.35

With Standard Dome Steel Reflector



100	12	6211	\$8.00	6212	\$9.00	6311	\$7.35	6312	\$8.35
150	14	6213	11.70	6214	13.50	6313	9.00	6314	10.75
200	16	6215	12.70	6216	14.50	6315	10.00	6316	11.75
*300	18	6217	20.30	6218	23.00	6317	16.30	6318	19.00

With Flat Steel Reflector



100	12	6271	\$8.00	6272	\$9.00	6329	\$7.35	6330	\$8.35
200	15	6283	12.20	6284	14.00	6383	9.45	6384	11.25
*300	18	6285	20.30	6286	23.00	6385	16.30	6386	19.00

With Angle Steel Reflector



100	11 1/4	6240	\$8.00	6241	\$9.00	6342	\$7.35	6343	\$8.35
200	16	6244	11.70	6245	13.50	6242	9.00	6243	10.75
*300	16	6246	19.30	6247	22.00	6248	16.30	6249	19.00

*Mogul base.

†Nos. 5054, 431, 5069, and 6322 are furnished with switch; all others without switch.

R&S Vaportight Fixtures

Junction box: bracket fixtures furnished with iron junction box No. 333 as standard; No. 332 cast brass box available at additional cost.

Outlets: maximum, 3/4-inch. Specify size and location when ordering. Deep boxes can be furnished to allow for larger outlets at additional cost.

Guards: furnished without guard at reduction in price. Clear globes furnished standard. Colored globes are available at additional cost. Also available with heat-resisting globes on special order.

Ceiling Type

With Screw Globe and Guard

For Mounting to 4-Inch Cast Junction Box



Max. Lamp Watts	Cast Brass		Cast Iron	
	No.	Each	No.	Each
100	5090	\$4.40	6323	\$3.75
200	5091	7.90	6335	5.90
100	*5028	6.40	*5038	5.75

Max. Lamp Watts	For Mounting to 4-Inch Steel Outlet Box	
	No.	Each
100	5093	\$5.00
200	5094	7.90
100	*5029	7.00

45° Angle Bracket Type

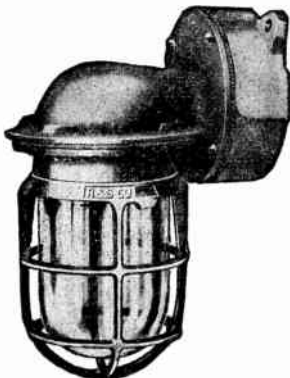
With Screw Globe and Guard



Max. Lamp Watts	Cast Brass with Iron Box		Cast Iron with Iron Box	
	No.	Each	No.	Each
100	5070	\$7.00	6270	\$6.35
200	5072	12.50	6269	10.00
100	*439	9.00	6268	8.35

90° Angle Bracket Type

With Screw Globe and Guard



Max. Lamp Watts	Cast Brass with Iron Box		Cast Iron with Iron Box	
	No.	Each	No.	Each
100	6255	\$7.00	449	\$6.00
200	1426	12.50	6254	10.00
100	*6256	9.00	*450	8.00

*Furnished with switch; all others without switch.

R&S Vaportight Fixtures

Cast Brass—With Screw Globes

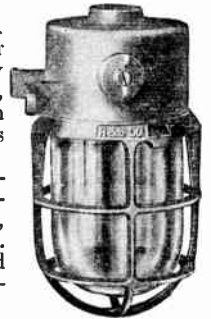


No. 4932 Ceiling Type

Has brass guard. Globes: clear globes regularly furnished; opal, ruby, blue, green and amber globes at extra cost.

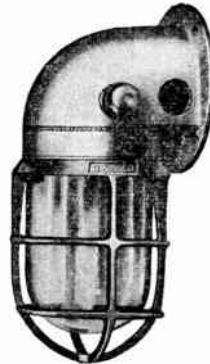
Outlets: max. 3/4-inch; conduit outlet in top, back, and sides only. Specify size and location when ordering.

Furnished with or without switch.



No. 230 Bracket Type

Maximum Lamp Watts	Ceiling Type		Bracket Type	
	No.	Each	No.	Each
60	4932	\$5.00	4933	\$5.50
100	4942	5.00	5005	5.50
200	4952	9.00	5006	10.50
With Switch				
60	4937	\$7.00	230	\$7.50
100	4947	7.00	330	7.50



No. 4967 Wall Bracket Type

Has brass guard. Furnished with or without switch.

Can also be used with R&S 4-inch junction box for concealed conduit systems.

Maximum Lamp Watts	Without Switch		With Switch	
	No.	Each	No.	Each
60	4962	\$7.00	4967	\$9.00
100	4972	7.00	4977	9.00

R&S Non-Guarded Type Ceiling Fixtures

Cast Brass



No. 648

Fixture has white enameled finish. Globe is frosted inside.

For 4-Inch R & S Cast Junction Box

Maximum Lamp Watts	COMPLETE		REPLACEMENT GLOBE		OVERALL DIMENSIONS, INCHES	
	No.	Each	No.	Each	Diameter	Depth
100	394	\$7.20	2356	\$1.80	4 5/8	5 3/4
150	395	12.00	2446	2.40	5 3/4	8
For 4-Inch Steel Outlet Box						
100	648	\$7.80	2356	\$1.80	4 5/8	5 7/8
150	658	12.00	2446	2.40	5 3/4	8

R&S Ceiling Fixtures

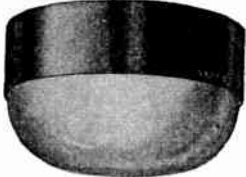
Cast Brass

Made of cast brass and finished black oxidized. Globe: inside frosted is standard. Clear or opal globes are available on request.

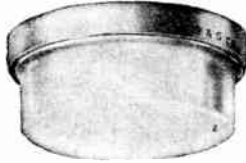
Finish: black oxidized standard. Other finishes are available at extra cost.

Outlets: side outlets can be tapped 4-way for 1/2 or 3/4-inch conduit. Specify size and location when ordering.

Non-Guarded—Screw Bowl and Straight Side Types



No. 370



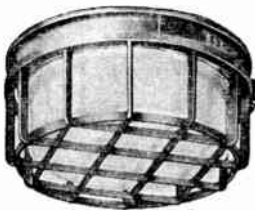
No. 1470F

Size Inches	Complete		Replacement		OVERALL DIMENSIONS, IN.		No. of Lamps	Watts	*Outlet Location
	No.	Each	No.	Each	Diameter	Height			
6	373	\$10.00	2451	\$2.40	6 1/4	3	1	25	Top
6	371	12.00	2451	2.40	6 1/4	4 1/2	1	25	Side
8	372	12.50	2454	2.75	8 1/4	3 3/4	2	100	Top
8	370	15.00	2454	2.75	8 1/4	5	2	100	Side
12	350	30.00	2464	5.00	12 1/2	8	3	100	Top
12	351	30.00	2464	5.00	12 1/2	8	3	100	Side
Vaportight Straight Side Bowl									
8	1470F	\$14.00	2465	\$4.00	8 1/4	3 3/4	2	60	Top
8	1370F	16.50	2465	4.00	8 1/4	5	2	60	Side

Guarded—Vaportight Screw Bowl and Straight Side Types



No. 1370A
For Side Outlet



No. 1470FG
For Top Outlet

Size Inches	Complete		Replacement		OVERALL DIMENSIONS, IN.		No. of Lamps	Watts	*Outlet Location
	No.	Each	No.	Each	Diameter	Height			
6	1471A	\$20.00	2451	\$2.40	8	4 1/4	1	25	Top
6	1371A	23.50	2451	2.40	8	5 1/4	1	25	Side
8	1470A	25.00	2454	2.75	10	5	2	100	Top
8	1370A	30.00	2454	2.75	10	6	2	100	Side
12	1350	45.00	2464	5.00	14	9	3	100	Top
12	1351	45.00	2464	5.00	14	9	3	100	Side
Straight Side									
8	1470FG	\$26.50	2465	\$4.00	10	5	2	60	Top
8	1370FG	31.50	2465	4.00	10	6	2	60	Side

Guarded—Flared Lip Globe Types



No. 552



No. 2773

Size Inches	Complete		Replacement		OVERALL DIMENSIONS, IN.		No. of Lamps	Watts	*Outlet Location
	No.	Each	No.	Each	Diameter	Height			
12	552	\$45.00	388	\$6.00	12 1/2	9 1/2	4	100	†
12	2773	\$45.00	388	\$6.00	8 3/4	4	100	†	†

*Top outlet fixtures are designed for mounting to No. 333 junction box set flush in ceiling. Fixtures can also be arranged for mounting to standard steel outlet boxes with stud if specified. Box is not included.

†Outlet location is top or side.

‡Fixture base is drilled for mounting direct to ceiling. Flush outlet box should be provided in ceiling for wiring of fixture.

R&S Underwater Lighting Fixtures

For Swimming Pools

Made of cast bronze with Alzak aluminum reflector and clear spread light lens.

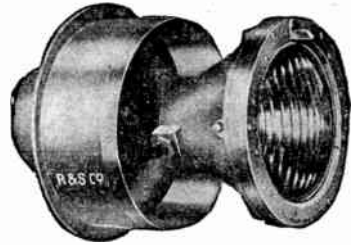
Lamps are not furnished with fixtures. Type G floodlight service lamps should be used.

Conduit and drain connections are not furnished.

All metal parts are effectively grounded.

Drawings showing recommended method of installing floodlights furnished upon request.

Removable Water-Cooled Type



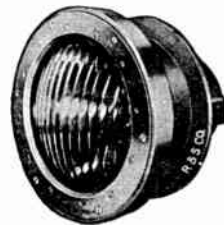
For any pool where it is inconvenient or not economical to drain the water for relamping.

Relamping is accomplished by releasing the surplus cable in the pull box and removing the floodlight unit from the housing in the concrete wall.

No.	Each	Lamp Watts	Description
2362	\$60.00	250-400	*Removable Floodlight Only
2398	150.00	1000-1500	*Removable Floodlight Only
2362-H	30.00	250-400	Housing for No. 2362
2362-SH	40.00	250-400	Housing for No. 2362
2398-H	50.00	1000-1500	Housing for No. 2398
2363	20.00	.....	Cable Box for Nos. 2362 or 2398
2362-TP	10.00	.....	Trunion Plates (Set of 2)
2362-B	5.00	.....	Support Bracket

*Equipped with 16 feet of heavy duty cable.

Front Relamped Type Floodlight Only



Used in pools which are drained frequently or at regular intervals. At time of drainage, a burned-out lamp can be replaced by the removal of the front bezel.

No. 2360, 250-Watt Lamp.....each \$60.00

Back Relamped Type Floodlight Only



Designed for indoor pools which are constructed with passageway or space behind the pool walls.

To relamp, the back cover plate is removed by loosening wing nuts.

No. 2364, 250-Watt Lamp.....each \$60.00

No. 2365, 400-Watt Lamp.....each 80.00

R & S Watertight Fixtures

Fountain Lights

Reflector Type



No. 2303

For fountains, small pools, and lily ponds.

No. 2096 is similar to No. 2303 but is made of aluminum for fish ponds.

No.	Each	Lamp Watts	Description
2303	\$20.00	60	Bronze
2096	25.00	60	Aluminum
2417	40.00	150	Bronze

Globe Type



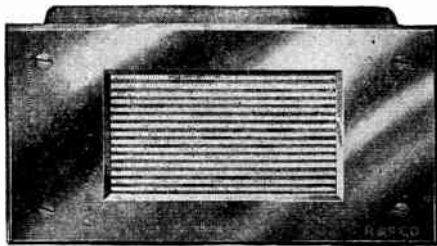
No. 2396

Designed for installation in small pools and fountains for general illumination of water.

Has flared lip globe.

No.	Each	Lamp Watts
2366	\$7.50	15
2367	10.00	100
2368	12.50	150
2369	17.00	200

No. 2090 Step Lights



Designed to illuminate steps, terraces, entrance gates, patios, etc.

For flush mounting.

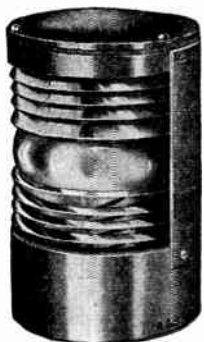
Bronze construction eliminates corrosion.

Furnished with prismatic glass panels which re-direct the light downward.

Standard finish, statuary bronze. Other finishes are available.

No. 2090, 100-Watt Lamp.....each \$20.00

No. 2090 Curb Lights



Designed for installation along driveways, catwalks, and terraces.

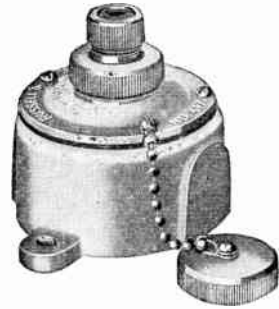
Fresnel lens makes possible a wide horizontal beam of light, eliminating any tendency of light being thrown upwardly on the surrounding landscape.

Made of cast bronze with all external parts brush bronze finished. Other finishes are available.

No. 2092, 100-Watt Lamp..each \$20.00

R&S Watertight Marine Receptacles and Plugs

Cast Brass
10 Amperes, 125 Volts
Standard Round Type
2-Wire—Polarized



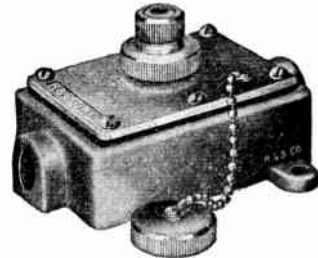
No. 447

Outlets: maximum, 3/4-inch straight through. Specify size and location when ordering.

Also available with overhang cover for flush mounting at extra cost.

No. 447, with Plug.....each \$4.00
No. 452, Plug Only.....each 1.00

Standard Rectangular Type—Single-Gang
2, 3, and 4-Wire—Polarized



No. 479

Outlets: maximum, 3/4-inch straight through for conduit or integral terminal glands. Specify size and location when ordering.

Also available with overhang cover for flush mounting, at extra cost.

Style	With Plug		Plug Only	
	No.	Each	No.	Each
2-Wire	479	\$4.50	452	\$1.00
3-Wire	1479	5.50	1453	1.50
4-Wire	1579	8.50	1463	2.50

Standard Rectangular Type—2, 3, and 4-Gang
2-Wire—Polarized



No. 495

Outlets: maximum, 3/4-inch straight through for conduit or integral terminal glands. Specify size and location when ordering.

Also available with overhang cover for flush mounting, at extra cost.

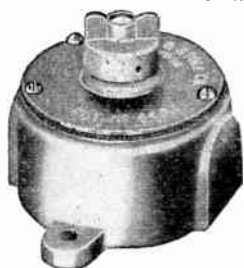
No. 495, 2-Gang, with 2 Plugs.....each \$6.50
No. 638, 3-Gang, with 3 Plugs.....each 10.00
No. 639, 4-Gang, with 4 Plugs.....each 15.00
No. 452, Plug Only.....each 1.00

R&S Marine Watertight Switches and Receptacles

Cast Brass

Single-Gang Switches

10 Amperes, 250 Volts



No. 448



No. 448S

Round type box is suitable for 1/2 or 3/4-inch outlet one way, or straight through.

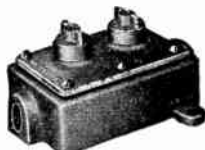
Straight side type is provided with two 1/2 or 3/4-inch outlets in side.

Specify size and location of outlets when ordering.

Style	Round Box Type		Straight Side Type	
	No.	Each	No.	Each
Single-Pole.....	448	\$4.00	448S	\$4.50
2-Pole.....	1520	4.50	1520S	5.00
3-Way.....	1522	5.00	1522S	5.50

Single 2, 3, and 4-Gang Switches

10 Amperes, 250 Volts



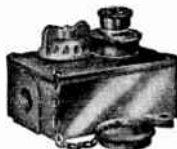
No. 627

Outlets: maximum, 3/4-inch straight through for conduit or terminal glands. Specify size and location of outlets when ordering.

Style	Single-Gang		2-Gang		3-Gang		4-Gang	
	No.	Each	No.	Each	No.	Each	No.	Each
Single-Pole.....	496	\$4.00	627	\$6.50	628	\$10.00	629	\$15.00
2-Pole.....	1493	4.50	631	7.50	632	11.50	633	17.00
3-Way.....	1496	5.00	634	8.50	635	13.00	636	19.00

Switch and Receptacle with Plugs

10 Amperes, 125 Volts—2 Wire



No. 478

Combination of single or 2-pole switch and one or two receptacles mounted in one box. Other combinations are available on special order.

Outlets: maximum, 3/4-inch straight through for conduit or terminal glands. Specify size and location of outlets when ordering.

Style	Single-Pole		2-Pole	
	No.	Each	No.	Each
1 Receptacle—1 Plug.....	478	\$6.00	1478	\$6.50
2 Receptacle—2 Plug.....	498	10.00	1498	10.50
Plug Only.....	452	1.00	452	1.00

R&S Waterproof Marine Standard Receptacles and Plugs

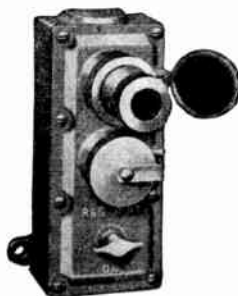
Cast Bronze

With Extra Pole for Grounding

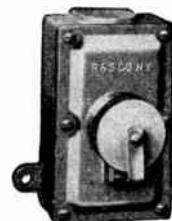
Ratings: receptacles and plugs, 10 amperes, 250 volts d.c., 440 volts, a.c.; 20 amperes, 125 volts d.c.; switches, 10 amperes, 250 volts.

All switch and receptacle interiors are interchangeable.

Straight Type



No. 498-45



No. 479-45

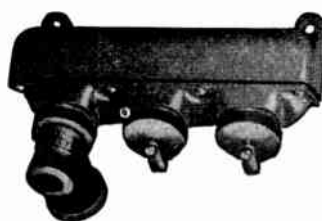
Receptacle Complete—Without Plugs

2-Wire—3-Pole		Description
No.	Each	
479-45	\$6.50	1-Gang
495-45	9.00	2-Gang
638-45	12.00	3-Gang
3720B	3.50	Plug Only
3-Wire—4-Pole		Description
No.	Each	
1479-45	\$7.00	1-Gang
1495-45	10.00	2-Gang
1638-45	13.50	3-Gang
3730B	4.00	Plug Only

Switch and Receptacle Complete—Without Plugs

*2-Wire—3-Pole		Description
No.	Each	
478-45	\$9.00	Single-Pole Switch and 1 Receptacle
1478-45	9.50	2-Pole Switch and 1 Receptacle
498-45	12.00	Single-Pole Switch and 2 Receptacles
1498-45	12.50	2-Pole Switch and 2 Receptacles
3720B	3.50	Plug Only

Angle Type



No. 173-45



No. 175-45

Receptacle Complete—Without Plugs

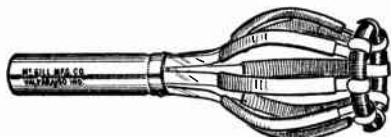
2-Wire—3-Pole		Description
No.	Each	
171-45	\$5.50	1-Gang
172-45	9.00	2-Gang
173-45	12.00	3-Gang
3720B	3.50	Plug Only
3-Wire—4-Pole		Description
No.	Each	
1171-45	\$6.00	1-Gang
1172-45	10.00	2-Gang
1173-45	13.50	3-Gang
3730B	4.00	Plug Only

Switch and Receptacle Complete—Without Plugs

*2-Wire—3-Pole		Description
No.	Each	
175-45	\$9.00	Single-Pole Switch and 1 Receptacle
177-45	9.50	2-Pole Switch and 1 Receptacle
176-45	12.00	Single-Pole Switch and 2 Receptacles
178-45	12.50	2-Pole Switch and 2 Receptacles
3720B	3.50	Plug Only

*Can also be furnished with 3-wire, 4-pole receptacles at additional cost.

McGill Adaptable Lamp Changers

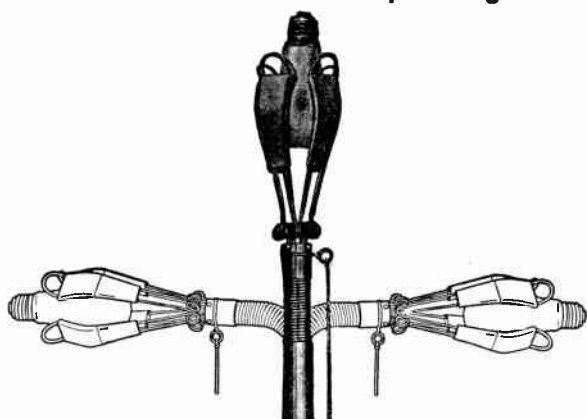


Coil spring grips lamp firmly and makes it easy to remove. The lamp changer with plain fingers and without coil spring is recommended when used with poles longer than 10 feet.

Poles longer than 30 feet are not recommended.

No.	Plain Fingers, Angle Adjustment		Coil Spring, Angle Adjustment		Coil Spring, No Angle Adjustment	
	150	151	150C	151C	152C	153C
Each	\$6.50	6.50	6.50	6.50	7.00	7.50
Lamp watts	15-60	100-200	15-60	100-200	300-500	750-1500
Poles, 5½-Foot Sections, Steel	each \$4.50					

Matthews Holdfast Lamp Changers



Removes and replaces lamps in high places, such as ceilings, side walls, electric signs, etc. Like a human hand on the end of a wooden pole. Saves time and prevents ladder accidents. To remove or replace lamps from side walls or at an angle, pull cord attached to the swivelled ring, this bends the wristlike coil spring so that the changer will work just as well at a right angle to the rotating pole as in vertical position.

No. 2

For 50-Watt Rough Service, 15 to 100-Watt Mazda, and Other Lamps up to 3 Inches in Diameter

No. 2, Shipping Weight Each, 1 Pound..... each \$11.00

No. 3

For 60 to 500-Watt Mazda Lamps and Other Large and Odd Shapes up to 5 Inches in Diameter

No. 3, Shipping Weight Each, 1 Pound..... each \$12.00

Specially treated wood handles can be furnished in 6-foot sections at \$8.00 per section, including couplings.

Prices quoted are for small quantities. Write for quotations on large quantities.

McGill Protector O Lamp Guards

This guard gives full protection to lamp bulbs; the removable trap at bottom prevents pilfering. Yet the trap can be attached and removed quickly and easily for lamp replacement and cleaning—simply press inward on the guard rim where the trap hooks on it and snap the trap on or off.

Made of No. 14 steel wire, heavily tinned, and finished with plain steel screws for attaching to sockets. Made for 25 to 75-watt lamps and for brass and weatherproof sockets with bottom bead measuring from 1⅞ to 1¾ inches in extreme diameter.



No. 1429

No.	Per Dozen	Lamp Size Watts	Fits Socket	Weight Pounds per Doz.
1429	\$4.25	25-75	Brass	2½
1429-T with Trap	4.80	25-75	Brass	3
1432	4.25	25-75	W.P.	2½
1432-T with Trap	4.80	25-75	W.P.	3
2932 Trap Only	.72	.....	.....	½

McGill Loxon Locking Lamp Guards

Used in garages, factories, yards, shops, basements and closets to secure double protection against breakage and unauthorized removal. Made of steel wire, heavily tinned; available in sizes to fit all sockets and for regular and mill type lamps. Easily attached and locked with key. One key is included with each dozen guards.

Plain Guards



No. 1420



No. 1425



No. 1400

No.	Per Dozen	Lamp Size Watts	Fits Socket	Weight Pounds per Doz.
*1420	\$5.50	25-40	Brass	2¼
*1420 A	5.50	25-40	W.P.	2½
*1420-B	5.50	25-40	W.P.	3
1425	5.50	50-60	Brass	2½
1426	5.75	60-100	Brass	2¾
1427-A	5.50	50-60	W.P.	2¾
1427-B	5.50	50-60	W.P.	3¼
1428-A	5.75	60-100	W.P.	3
1428-B	5.75	60-100	W.P.	3½
2443	7.00	100-150	Brass	4¼
2444	9.00	150-200	Brass	3
2446-A	9.00	150-200	W.P.	3
2446-B	9.00	150-200	W.P.	3½

Reflector Guards

No.	Per Dozen	Lamp Size Watts	Fits Socket	Weight Pounds per Doz.
*1400	\$8.50	25-40	Brass	3½
*1401-A	8.50	25-40	W.P.	3½
*1401-B	8.50	25-40	W.P.	4
1443	8.50	50-60	Brass	4½
1444-A	8.50	50-60	W.P.	4½
1444-B	8.50	50-60	W.P.	5¼

*Also 50-watt rough service and 50-watt mill type lamps.

All numbers followed by "A" fit any W.P. Socket with bottom bead measuring 1⅞ to 1¼ inches in extreme diameter.

All numbers followed by "B" fit any W. P. Socket with bottom bead measuring 1¾ inches in extreme diameter.

For W. P. Sockets or receptacles with bottom bead measuring 1½ inches in diameter, specify regular catalog number of guard desired followed by letter "N." Sockets not coming with the above dimensions can be fitted by sending a sample socket.

Aluminum sockets can be fitted by giving number and manufacturer's name.

McGill Gripon Non-Locking Lamp Guards

For regular and mill type lamps. Tinned steel wire with plain steel screws.

Plain Guards



No. 1600



No. 1610

No.	Per Dozen	Lamp Size Watts	Fits Socket	Wt. Lb. per Doz.
1600	\$4.25	50- 60	Brass	2¾
1601	4.50	60-100	Brass	2¾
1602-A	4.25	50- 60	W.P.	2¾
1602-B	4.25	50- 60	W.P.	3¼
1603-A	5.00	60-100	W.P.	3
1603-B	5.00	60-100	W.P.	3½
1605	7.50	100-200	Brass	3
1606-A	7.50	100-200	W.P.	3
1606-B	7.50	100-200	W.P.	3½
*1608	4.25	25- 40	Brass	2¼
*1608-A	4.25	25- 40	W.P.	2½
*1608-B	4.25	25- 40	W.P.	3

Reflector Guards

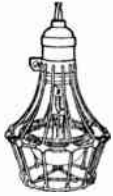
No.	Per Dozen	Lamp Size Watts	Fits Socket	Wt. Lb. per Doz.
*1610	\$7.25	25-40	Brass	3½
*1611-A	7.25	25-40	W.P.	3½
*1611-B	7.25	25-40	W.P.	4
1620	7.25	50-60	Brass	4¼
1621-A	7.25	50-60	W.P.	4½
1621-B	7.25	50-60	W.P.	5¼

*Also 50-watt rough service and 50-watt mill type lamps.

All numbers followed by "A" fit any W.P. Socket with bottom bead measuring 1⅞ to 1¼ inches in extreme diameter.

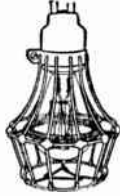
All numbers followed by "B" fit any W.P. Socket with bottom bead measuring 1¾ inches in extreme diameter.

Matthews Holdfast Lamp Guards



For Brass Sockets

The rigid construction of these guards; the fact that they are permanently clamped to the socket; and the spiral spring cushion in the center make it a protection against breakage of incandescent lamps. The trap which is clamped across bottom opening prevents unauthorized removal of lamps. Guard is locked to socket by bending set screw.



For Weatherproof Sockets

The hot lamp cannot get closer than one inch to any inflammable material and the guard does not have to be removed from the socket to replace the lamp.

Approved by all insurance companies and underwriters. Guaranteed 10 years. Collars of guards for brass shell sockets are 1 1/4 inches, for weatherproof sockets, 1 1/2 inches.

For 50-Watt Rough Service, 25 and 40-Watt Mazda Lamps and Other Lamps Not Exceeding 4 1/4 In. in Length and 2 3/8 In. in Diameter

For Brass Shell Sockets			For Weatherproof Sockets		
No.	Size Wire B. W. G.	Per 100	No.	Size Wire B. W. G.	Per 100
MT14B	14	\$84.00	MT14WP	14	\$84.00

For 50, 60 and 75-Watt Mazda Lamps and Other Lamps Not Exceeding 5 5/16 In. in Length and 2 3/4 In. in Diameter

114B	14	\$80.00	114WP	14	\$80.00
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For 100-Watt Rough Service and 150-Watt Mazda Lamps and Other Lamps Not Exceeding 6 1 5/16 In. in Length and 3 1/4 In. in Diameter

514B	14	\$104.00	514WP	14	\$104.00
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For 200-Watt Type C Pear Shape Mazda Lamps and Other Lamps Not Exceeding 8 1/8 In. in Length and 3 3/4 In. in Diameter

714B	14	\$180.00	714WP	14	\$180.00
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Prices quoted are for small quantities. Write for quotations on large quantities.

McGill Crescent Wall Lamp Guards



No. 1438 No. 1439 No. 1440 No. 1581

These wall lamp guards protect against theft and breakage in public buildings, gymnasiums, schools, theatres, hallways, etc. Made of first quality steel wire; keyhole slots in base rings permit easy installation or removal from ordinary light outlets. Cannot be knocked off accidentally.

Boxes and sockets are not furnished with the guards.

Outlet Box Cover Guards

No.	Each	Size Outlet Box, Inches	Lamp Size Watts	Inside Diam. Inches	Depth Inches	Weight Pounds per Dos.
1436	\$1.00	3	60	2 13/16	5 3/4	6 1/2
1438	1.25	4	100	3 1/8	6 3/8	7 1/2

Wall-Ring Guards

1437	\$1.75	Wall Type	100	3 1/8	6 3/4	4 1/2
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Receptacle Guards

1439	\$1.25	3 or 4	100	3 1/8	5 5/8	8 1/2
*1439-B	1.25	3 or 4	100	3 1/8	5 5/8	9 1/4
1580	1.25	Condulet or Unilet	60	3 1/8	6 3/8	8

Loxon Wall Guards with Bottom Trap

1440	\$2.00	3 or 4	100	3 1/8	5 5/8	9 1/2
*1440-B	2.00	3 or 4	100	3 1/8	5 5/8	10 1/2
1581	1.75	Condulet or Unilet	60	3 1/8	6 3/8	9
1590	2.25	3 or 4	150	3 1/2	6 7/8	15
1591	2.75	3 or 4	200	4 1/8	8 1/4	16

*These guards fit the 4-inch square outlet, as well as the 3 and 4-inch round.

Morse Eureka Open End Lamp Guards

Non-Locking



For Brass Sockets							
Light				Heavy			
No.	Each	For Size Watts	B.&S. Gage Wire	No.	Each	For Size Watts	B.&S. Gage Wire
1	\$.42	40-60	12	3	\$.64	40-60	10
2	.52	75-100	12	4	.84	75-100	10

For Weatherproof Sockets

5	\$.42	40-60	12	7	\$.64	40-60	10
6	.52	75-100	12	8	.84	75-100	10

Morse Eureka Open End Lamp Guards

With Cushion Rings



For Brass Sockets							
Light				Heavy			
No.	Each	For Size Watts	B.&S. Gage Wire	No.	Each	For Size Watts	B.&S. Gage Wire
161	\$.52	40-60	12	163	\$.76	40-60	10
162	.64	75-100	12	164	.96	75-100	10

For Weatherproof Sockets

165	\$.52	40-60	12	167	\$.76	40-60	10
166	.64	75-100	12	168	.96	75-100	10

Morse Eureka Closed End Lamp Guards

Non-Locking



For Brass Sockets				
No.	Each	For Size Watts	B.&S. Gage Wire	
198	\$.84	60	14	
200	1.20	100	14	
202	1.40	150	14	
204	1.80	200	14	
206	2.90	300	12	
208	4.60	500	12	
211	7.90	1000	10	

When desired for use on waterproof sockets, add WP to above numbers.

Morse Eureka Tubular Lamp Guards



No. 99



No. 100

For use over T-8 and T-10 bulbs.

Open End

No.	Each	Description	B.&S. Gage Wire
99	\$.96	For Brass Sockets	18
99WP	.96	For Weatherproof Sockets	18

Closed End

100	\$.96	For Brass Sockets	18
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Morse Eureka Portable Hand Guards

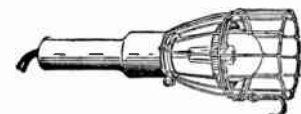
Open Bottom

Without Brass Socket



No.	Each	Watts	Ga. Wire
70	\$1.70	50-60	12
72	2.00	100	12
69	3.40	200	12

With Weatherproof Socket



No.	Each	Watts	Ga. Wire
75	\$2.00	50-60	12
77	2.56	100	12
73	3.96	200	12

**Hubbell Locking Type Lamp Guards
For Brass Shell Sockets**



No. 5685

One No. D-4307 key is furnished with each carton of guards. Extra keys, \$5.50 per 100.
Size lamp, 40 to 60 watt.
Carton, 10. Standard package, 100.
Weight per standard package, 32 pounds.

No. 5685, For Brass Shell Sockets.....per 100 \$36.50
No. 5730, For Weatherproof Sockets.....per 100 36.50

**No. 650 Series McGill Portable Lamp Guards
With Rubber Hook Handles**



No. 650 MSR

Widely used in airports, machine shops, railroad yards and repair shops.

Socket portion of handle is made of pliable molded rubber; hook is

made of hard molded rubber with a steel cord. The socket rubber and hook rubber are thoroughly vulcanized together into a single unit. The rubber hook handle insures against shock while guard is hanging from any angle or place. Cord wires are run through a tough fiber disk and knotted, taking all strain off cord and socket connection.

Cage is made of 10 extra heavy Bessemer steel wires, electrically welded, zinc plated to prevent corrosion. Fiber washers prevent cage screws from dropping out when lamp is changed. Cage does not roll when laid down.

No.	Each	Cage	Lamp Size Watts	Socket	Length In.	Wt. Lb. Each
*650	\$2.50	Plain Closed	40-100	4003 Keyless	15 ³ / ₁₆	1 ⁷ / ₁₆
*650-R	3.00	Refl. Closed	40-75	4003 Keyless	15 ³ / ₁₆	1 ³ / ₁₆
650-S	3.00	Plain Closed	40-100	4005 Lever	15 ³ / ₁₆	1 ⁷ / ₁₆
650-SR	3.50	Refl. Closed	40-75	4005 Lever	15 ³ / ₁₆	1 ⁹ / ₁₆
*650-M	2.25	Plain Closed	750	4003 Keyless	13 ³ / ₈	1 ⁵ / ₁₆
*650-MR	2.75	Refl. Closed	750	4003 Keyless	13 ³ / ₈	1 ³ / ₈
650-MS	2.75	Plain Closed	750	4005 Lever	13 ³ / ₈	1 ⁵ / ₁₆
650-MSR	3.25	Refl. Closed	750	4005 Lever	13 ³ / ₈	1 ³ / ₈
*651	2.50	Open Type	40-100	4003 Keyless	12 ¹ / ₂	1 ⁷ / ₁₆
651-S	3.00	Open Type	40-100	4005 Lever	12 ¹ / ₂	1 ⁷ / ₁₆
*651-M	2.25	Open Type	750	4003 Keyless	11 ¹ / ₄	1 ⁵ / ₁₆
*651-MR	2.50	Open Refl.	750	4003 Keyless	11 ¹ / ₄	1 ³ / ₈
651-MS	2.70	Open Type	750	4005 Lever	11 ¹ / ₄	1 ⁵ / ₁₆
651-MSR	2.75	Open Refl.	750	4005 Lever	11 ¹ / ₄	1 ³ / ₈

*Available with grounding attachment; add 20 cents each.
†Rough service lamp.
The letter "R" indicates a reflector guard.
The letter "S" denotes switch or lever.
Rubber coated cages available at slight extra cost.

No. 999 McGill Insulated Lamp Guards



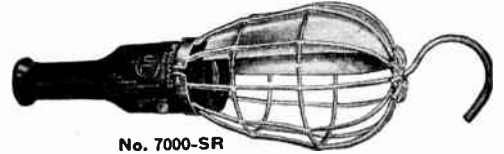
No. 999SR

Used where protection against short circuiting is vital. Molded Insurok cage has high resistance to heat, cold,

moisture, oils, fumes, most chemicals and weak alkalis. Rubber hook handle; straight rubber handle if desired. For 50-watt rough service lamp. Length, 11³/₈ inches.

No.	Each	Cage	Socket No.		Wt., Lb. Each
			Keyless	Lever	
999	\$4.50	Closed	4003	.....	1 ¹ / ₄
999-R	5.00	Closed Refl.	4003	.....	1 ³ / ₈
999-S	5.00	Closed	.....	4005	1 ¹ / ₄
999-SR	5.25	Closed Refl.	.....	4005	1 ³ / ₈

**McGill Portable Lamp Guards
No. 7000 Series—With Rubber Handles**

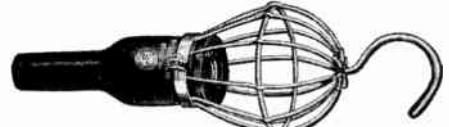


No. 7000-SR

These guards are made in a wide range of sizes for every need in industrial plants, garages, railroads, power plants, etc. The handle is of high quality black molded rubber, formed to provide a solid rubber edge to support a tough fibre disk. Cord wires are run through holes in the disk and knotted, taking all strain off the cord and socket connection. Cage is composed of ten extra heavy Bessemer steel wires, electrically welded. Cage does not roll when laid down.

No.	Each	Cage	Lamp Size Watts	Socket	Length In.	Wt. Lb. Each
*7000	\$2.50	Plain Clsd.	40-100	4003 Keyless	14	1 ³ / ₈
*7000-R	3.00	Refl. Clsd.	40-75	4003 Keyless	14	1 ⁷ / ₁₆
7000-S	3.00	Plain Clsd.	40-100	4005 Lever	14	1 ³ / ₈
7000-SR	3.50	Refl. Clsd.	40-75	4005 Lever	14	1 ⁷ / ₁₆
*7001	2.50	Open Type	40-100	4003 Keyless	12	1 ³ / ₈
*7001-R	3.00	Open Refl.	100	4003 Keyless	12	1 ³ / ₈
7001-S	3.00	Open Type	40-100	4005 Lever	12	1 ³ / ₈
7001-SR	3.25	Open Refl.	100	4005 Lever	12	1 ³ / ₈
7002	5.50	Open Type	200	4003 Grounded	.....	.....
*7000-M	2.25	Plain Clsd.	750	4003 Keyless	12 ³ / ₈	1 ³ / ₁₆
*7000-MR	2.75	Refl. Clsd.	750	4003 Keyless	12 ³ / ₈	1 ¹ / ₄
7000-MS	2.75	Plain Clsd.	750	4005 Lever	12 ³ / ₈	1 ³ / ₁₆
7000-MSR	3.25	Refl. Clsd.	750	4005 Lever	12 ³ / ₈	1 ¹ / ₄
*7001-M	2.25	Open Type	750	4003 Keyless	10 ³ / ₄	1 ³ / ₁₆
*7001-MR	2.50	Open Refl.	750	4003 Keyless	10 ³ / ₄	1 ¹ / ₄
7001-MS	2.75	Open Type	750	4005 Lever	10 ³ / ₄	1 ³ / ₁₆
7001-MSR	3.00	Open Type	750	4005 Lever	10 ³ / ₄	1 ³ / ₁₆

No. 8000 Series—With Wood Handles



No. 8000-M

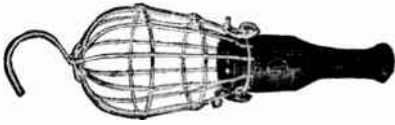
No. 8000 Series Guards are identical in style, number for number, to the No. 7000 Series except for the handles. The handle is made of polished hardwood. Sturdy and well constructed for long service.

No.	Each	Cage	Lamp Size Watts	Socket	Length In.	Wt. Lb. Each
*8000	\$2.50	Plain Clsd.	40-100	4003 Keyless	14	1 ³ / ₈
*8000-R	3.00	Refl. Clsd.	40-75	4003 Keyless	14	1 ⁷ / ₁₆
8000-S	3.00	Plain Clsd.	40-100	4005 Lever	14	1 ³ / ₈
8000-SR	3.50	Refl. Clsd.	40-75	4005 Lever	14	1 ⁷ / ₁₆
*8001	2.50	Open Type	40-100	4003 Keyless	12	1 ³ / ₈
8001-R	3.00	Open Refl.	100	4003 Keyless	12	1 ³ / ₈
8001-S	3.00	Open Type	40-100	4005 Lever	12	1 ³ / ₈
8001-SR	3.25	Open Refl.	100	4005 Lever	12	1 ³ / ₈
8002	5.50	Open Type	200	4003 Grounded	.....	.....
*8000-M	2.25	Plain Clsd.	50	4003 Keyless	12 ³ / ₈	1 ³ / ₁₆
*8000-MR	2.75	Refl. Clsd.	50	4003 Keyless	12 ³ / ₈	1 ¹ / ₄
8000-MS	2.75	Plain Clsd.	50	4005 Lever	12 ³ / ₈	1 ³ / ₁₆
8000-MSR	3.25	Refl. Clsd.	50	4005 Lever	12 ³ / ₈	1 ¹ / ₄
*8001-M	2.25	Open Type	50	4003 Keyless	10 ³ / ₄	1 ³ / ₁₆
*8001-MR	2.50	Open Type	50	4003 Keyless	10 ³ / ₄	1 ³ / ₁₆
8001-MS	2.75	Open Type	50	4005 Lever	10 ³ / ₄	1 ³ / ₁₆
8001-MSR	3.00	Open Refl.	50	4005 Lever	10 ³ / ₄	1 ¹ / ₄

*These guards can be supplied with grounding attachment. For guards so equipped, add 20 cents each to the price.
†Rough service lamp.
The letter "R" indicates a reflector guard.
The letter "S" denotes switch or lever.
Guards can be supplied with thumbnut instead of screw at base of cage at no additional charge.
Cages also supplied for regular weather-proof sockets. Rubber coated cages available at slight extra cost.
For special Loxon attachment, add 20 cents each.

No. 7100 Series McGill Portable Lamp Guards

With Rubber Handles



No. 7100

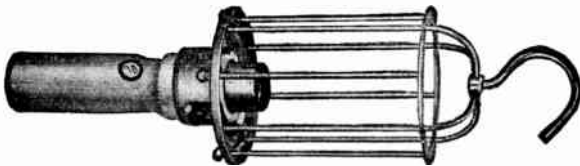
No. 7100 Series incorporates two features: a wire collar instead of a flat steel collar, and a clamp arrangement instead of screws to hold the cage to the handle. This clamp arrangement allows for variation in the size of the handle and makes lamp changing easier and faster because it requires no tools.

No.	Each	Cage	Lamp Size Watts	Socket	Keyless	Lgth. In.	Wt. Lb. Each
7100	\$2.50	Plain Closed	40-100	4003	Keyless	14	1 ³ / ₈
7100-R	2.70	Refl. Closed	40-100	4003	Keyless	14	1 ¹ / ₁₆
7100-S	2.80	Plain Closed	40-100	4005	Lever	14	1 ³ / ₈
7100-SR	3.00	Refl. Closed	40-100	4003	Keyless	14	1 ¹ / ₁₆
*7100-M	2.30	Plain Closed	50	4003	Keyless	12 ³ / ₈	1 ³ / ₁₆
*7100-MR	2.40	Refl. Closed	50	4003	Keyless	12 ³ / ₈	1 ¹ / ₄
*7100-MS	2.60	Plain Closed	50	4005	Lever	12 ³ / ₈	1 ³ / ₁₆
*7100-MSR	2.70	Refl. Closed	50	4005	Lever	12 ³ / ₈	1 ¹ / ₄

*Rough service lamp.

McGill Bulldog Portable Lamp Guards

With Wood Handles



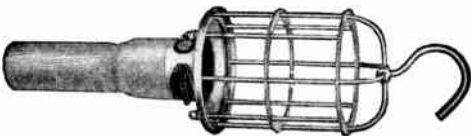
No. 4675

Made of best grade steel wire; hook and cage are zinc plated. Polished hardwood handle, furnished with McGill Levolver Socket or keyless socket for any size lamp cord.

No.	Each	Cage	Lamp Size Watts	Socket	Keyless	Length In.	Wt. Lb. Each
4675	\$3.00	Plain Closed	25-100	4004	Lever	15 ¹ / ₄	1 ³ / ₈

No. 4000 McGill Dreadnaught Portable Lamp Guards

With Wood Handles



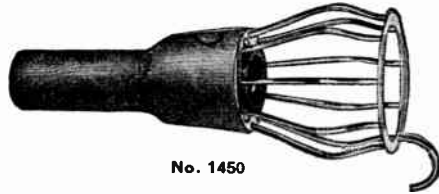
A heavy closed cage guard used by railroads, quarries and other heavy industries. High grade steel wire cage and hook are zinc plated. Weatherproof composition keyless socket.

No.	Each	Cage	Lamp Size Watts	Socket	Keyless	Length In.	Wt. Lb. Each
4000	\$2.80	Plain Closed	25-60	4003	Keyless	14 ⁷ / ₈	1 ³ / ₈



McGill National Portable Lamp Guards

With Wood Handles



No. 1450

A heavy duty guard used by railroads, machine shops, etc. Heavily tinned steel wire cage. Socket has spring contacts.

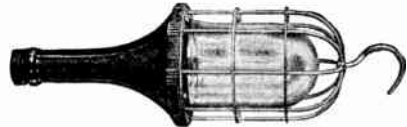
No.	Each	Cage	Lamp Size Watts	Socket	Keyless	Length In.	Wt. Lb. Each
*1450	\$2.50	Plain Open	25-40	4003	Keyless	11 ¹ / ₈	7 ⁷ / ₈
*1450-R	3.00	Refl. Open	25-40	4003	Keyless	11 ¹ / ₈	15 ¹ / ₁₆
1451	2.50	Plain Open	25-75	4003	Keyless	11	1 ¹ / ₁₆
1452	2.75	Plain Open	25-100	4003	Keyless	11 ³ / ₄	1 ¹ / ₁₆

*Will take 50-watt rough service lamp.

The letter "R" indicates a reflector guard.

No. 3005 McGill Safety Vaporproof Portable Lamp Guards

With Tight-Seating Globes—With Insurok Handles
For 100-Watt Lamps



Wherever inflammable gases, vapor or materials are present, safety guards should be used.

Insurok handle is available in brown or black. Brass or black oxidized cage in made of 5/32-inch solid brass wire reinforced with three solid brass rings.

No.	Each	Cage	Lamp Size Watts	Socket	Keyless	Length Inches	Wt. Lb. Each
3005	\$12.00	Plain Closed	100	4003	Keyless	16 ¹ / ₂	3 ¹ / ₄
3005-R	13.00	Refl. Closed	100	4015	Keyless	16 ¹ / ₂	4 ³ / ₈

No. 3002 McGill Safety Vaporproof Portable Lamp Guards

With Bakelite Handles



No. 3002

Mercerized bakelite handle is equipped with bakelite packing nut and rubber packing gland. Gland makes guard waterproof and acts as a strain relief. Cage is of brass wire with two brass rings for bracing and is grounded to the socket. Globe is of heat and impact resisting glass.

No.	Each	Cage	Lamp Size Watts	Socket	Keyless	Lgth. In.	Wt. Lb. Each
3002	\$11.00	Plain Closed	60	4015	Keyless	14 ¹ / ₂	2 ⁵ / ₁₆
3002-R	12.00	Refl. Closed	60	4015	Keyless	14 ¹ / ₂	2 ¹ / ₂

No. 3002-G Globes Only..... per dozen \$15.00

McGill Safety Vaporproof Guards



No. 3007

Strong, portable guard that will light up those hard-to-get-at places without the lamp being exposed to moisture. Will float if dropped in water.

Equipped with an extra strong swivel hook.

No. 3007 is shock-proof, non-sparking, and entirely free of metal, and has durable fiber cage, treated to prevent warping. Handle is made of plastic.

No.	Each	Description	Weight Ounces
3006	\$7.50	Plain Steel Cage	25
3006-R	8.00	Reflector Steel Cage	26
3007	8.50	Fiber Cage	23

Protex Rubber Handle Portable Lamps



No. 100



No. 112

With oil-resisting high-grade rubber handle, Watertite type molded rubber socket and steel wire guard with hook.

Closed End Type Without Reflector

No.	Each	Watts	Std. Pkg. Wt. Lb.	Pkg. Lb.
100	\$3.50	25-60	30	41
102	3.80	75-100	30	42
103	6.30	200	30	47
With Reflector				
104	\$4.40	25-60	30	45
106	4.70	75-100	30	47
107	7.40	200	30	52

Open End Type Without Reflector

No.	Each	Watts	Std. Pkg. Wt. Lb.	Pkg. Lb.
108	\$3.50	25-60	30	43
110	3.80	75-100	30	44
111	6.30	200	30	51
With Reflector				
112	\$4.40	25-60	30	49
114	4.70	75-100	30	49
115	7.40	200	30	57

Protex Double Outlet Portable Lamps



Any of the above numbers can be furnished with plug-in type side outlet which permits a tool to be plugged into the handle of the portable lamp as illustrated.

For Parallel Type Plug. When ordering add letter (K) to above number and add \$1.25 to price.

For Polarity Type Plug. When ordering add letter (Z) to above number and add \$1.35 to price.

For Three Wire Type Side Outlet. When ordering add letter (K3) to above number and add \$1.45 to price.

Rubber Insulated Guards

For safe use around switchboards, in electric sub-stations and on electric locomotives. For chemical and oil conditions. Guard is thoroughly insulated with an even coating of tough rubber to prevent electrical shorts.

For rubber covered type guard on any of the above numbers add letter (I) to above number and add \$3.00 to price.

With Fiber Guards



Consists of rubber handle, keyless socket and screwless type of closed end fiber guard with hook and reflector. Guard is made of the

strongest fiber obtainable and is waterproof.

Standard package 30, weight 37 pounds.

No.	117	*118
Each	17.50	7.00
Watts	60-100	60-100

*Without reflector.

With Bakelite Guards



Consists of rubber handle, keyless socket and closed end guard with hook. Entire guard is molded Bakelite with a

canvas filler to give it maximum strength.

Standard package, 30.

No.	119	*120
Each		
Watts	40-60	40-60
Weight, Standard Package	36	40

*Without reflector.

Protex Portable Inspection Lamps

Designed for use on jobs where concentrated illumination is required, such as automobile body and castings inspection.

Unit consists of rubber handle, keyless socket and highly polished reflector.

Standard package, 30.

No.	121
Each	
Watts	40-60
Reflector Shape	4 1/2 x 5 Bell
Weight, Standard Package	34

If key type socket is desired, specify so, and add \$1.00 to price.

Vaprotex Portable Lamps

With Steel Wire Guard



For illumination purposes where gases, dust and other explosives exist. When assembled according to our design they may be used in the most hazardous locations with absolute safety. It is impossible for vapors to enter the glass globe.

Includes rubber handle, bakelite socket, glass globe and steel wire guard with hook.

Standard package, 12.

No.	1200	1201	1202	1203
Each	\$11.20	12.40	13.00	14.20
Watts	60-75	100	60-75	100
Stuffing Box in Handle	No	No	Yes	Yes
Weight Standard Package ..lb.	37	42	40	48

For Rubber Covered Guard on any of the above numbers add the letter (I) to number and add \$4.70 to list price.

With Non-Sparking Aluminum Guards



Includes rubber handle, bakelite socket, glass globe, and non-sparking aluminum guard with hook.

Standard package, 12.

No.	1204	1205	1206	1207
Each	\$17.90	19.30	19.70	21.10
Watts	60-75	100	60-75	100
Stuffing Box in Handle	No	No	Yes	Yes
Weight Standard Package ..lb.	44	48	46	51

If Ground Clip is desired, specify so, and add 60 cents to list price.

If Neotex Handles are desired, add \$2.80 to list price.

Vaprotex Bunghole Lamps

Long



A vaporproof lighting unit for inspecting gasoline, oil, chemical and other drums used for explosives.

Made of non-sparking metal throughout.

Packed 1 in a standard package.

No.	Each	Watts	Lgth. In.	O.D. In.	Wt. Lb. Std. Pkg.
1300	\$27.00	15	30	1 1/2	5
1303	29.00	25	32 1/2	1 1/2	5 1/2

Short



No.	Each	Watts	Lgth. In.	O.D. In.	Wt. Lb. Std. Pkg.
1301	\$22.00	15	12	1 1/2	3 1/2
1304	24.00	25	14 1/2	1 1/2	

No. 1302 Protex Bunghole Lamps



A non-vaporproof unit for inspecting beer, lard, syrup and other barrels used for non-explosive solutions.

Length 30 inches. Outside diameter 1 inch.

Takes 15 watt bulb.

Packed 1 in standard package, weight, 4 pounds.

No. 1302..... each \$19.00

Safeway Lo-Volt Portable Lamps

75 Watts, 60 Cycles



This portable lamp assures a much higher factor of safety, reducing the possibility of shock and burns when used in boilers, tanks, etc., on steel, cement or damp wood floors and other hazardous places.

Composed of a 75-watt, 125, 32 or 6-volt a.c. transformer, molded into a high quality, heat and oil resisting rubber jacket. Primary lead is a 10-foot, No. 16 all rubber cord, to which is attached a Safeway plug with cord grip. Secondary lead is a 20-foot, No. 14 all rubber cord, and may be equipped with either a Protex or Vaprotex unit.

Packed 1 in a standard package.

Complete with Protex and Safeway Plug

No.	With Reflector Each	Without Reflector Each	VOLTAGE		Wt., Lb. Std. Pkg.
			Primary	Secondary	
1600	.....	\$69.50	125	6	13
1601	\$70.40	.....	125	6	13

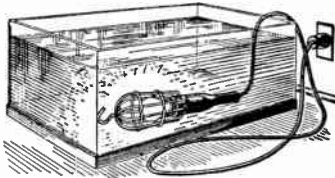
Complete with Vaprotex and Steel Guard

No.	With Stuffing Box Each	Without Stuffing Box Each	VOLTAGE		Wt., Lb. Std. Pkg.
			Primary	Secondary	
1620	.....	\$77.20	125	6	15
1621	\$79.00	.....	125	6	15

Complete with Vaprotex and Aluminum Guard

1630	.....	\$83.90	125	6	15
1631	\$85.70	.....	125	6	15

No. 123 Protex Waterproof Trouble Lamps



A rubber handle portable lamp with 25 feet of No. 18-2 type S cord and Safeway cap with grip.

Packed 2 in a carton, 12 in a standard package.

Weight per dozen, 46 pounds.

No. 123.....each \$9.20

No. 1153 Closed End Lamp Guards

For No. 103 Protex Rubber Handle Portable Lamps

For 200 Watt Globes

Guard is furnished only with hook, no reflector.

Standard package, 30; weight, 27 pounds.

No. 1153.....each \$4.30



No. 1173 Protex Lamp Guard Handles

Keyless Socket Type

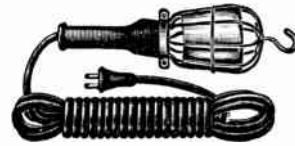
Oil-resisting handle of rubber compound. Neotex is a special compound embodying Neoprene. It is absolutely proof against oil and many chemicals. No. of watts, 40-200. Standard package, 30. Weight, 30 pounds.

No. 1173, Regular Rubber Handle.....each \$1.70

No. 1173, In Neotex Rubber.....each 3.20



Drop-Lite Portable Lamp Guards



No. 2060

Consists of a rubber handle, socket, plated wire guard with hook and half shade reflector, No. 18-2 SJ approved rubber cord and non-breakable rubber plug.

Rubber handle is made of an oil-resisting compound and will protect the user against electric shocks and burns and the lamp from breakage. Furnished with or without side outlet; also with or without switch.

Wire guard is heavily constructed. Socket is simple to wire. A strain relief is provided to prevent the wires from detaching.

Without Side Outlet

With Handle, Switchless Socket, Guard, Cord and Plug

No.	Each	Cord Lgth. Feet	Watts	No. in Carton	No. in Std. Pkg.
2060	\$3.65	20	75	12	24
2560	4.15	25	75	12	24
3560	5.15	35	75	12	24
5060	6.65	50	75	12	24

With Handle, Socket with Switch, Guard, Cord and Plug

No.	Each	Cord Lgth. Feet	Watts	No. In. Carton	No. In. Std. Pkg.
2060S	\$3.85	20	75	12	24
2560S	4.35	25	75	12	24
3560S	5.35	35	75	12	24
5060S	6.85	50	75	12	24

With Side Outlet

With Handle, Switchless Socket, Guard, Cord and Plug

No.	Each	Cord Lgth. Feet	Watts	No. In. Carton	No. In. Std. Pkg.
2060K	\$4.40	20	75	12	24
2560K	4.90	25	75	12	24
3560K	5.90	35	75	12	24
5060K	7.40	50	75	12	24

With Handle, Socket with Switch, Guard, Cord and Plug

No.	Each	Cord Lgth. Feet	Watts	No. In. Carton	No. In. Std. Pkg.
2060KS	\$4.60	20	75	12	24
2560KS	5.10	25	75	12	24
3560KS	6.10	35	75	12	24
5060KS	7.60	50	75	12	24

Miscellaneous Parts

Packed 12 in a carton; 24 in a standard package.

No.	Description	Each
206	Handle, Switchless Socket and Guard.....	\$1.45
206S	Handle, Socket with Switch and Guard.....	1.65
206K	Handle, Switchless Socket, Side Outlet and Guard.....	2.20
206KS	Handle with Switch, Side Outlet, Socket and Guard.....	2.40
1	Handle and Socket Only.....	.65
1S	Handle and Socket with Switch.....	.85
1K	Handle, Switchless Socket and Side Outlet..	1.40
1KS	Handle with Switch, Side Outlet and Socket	1.60
260	Guard Only.....	.80
1420	Plug, 25 in Carton, 100 in Std. Pkg.....	.20

For cord of other lengths than above, add to or subtract 10 cents from price for each foot of cord.

Bryant Brass Socket Bodies

Listed by Underwriters' Laboratories, Inc.

With Key

No. 10 Single-Pole
250 Watts, 250 Volts

No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
10	\$36.00	25	250	33

No. 12 Single-Pole High Capacity
660 Watts, 250 Volts

12	\$70.00	25	250	42
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No. 13 Keyless

660 Watts, 250 Volts

13	\$28.00	25	250	38
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No. 15 with Pull Chain

Single Pole

250 Watts, 250 Volts

15	\$50.00	25	250	35
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No. 34 With Push Button

Single Pole

660 Watts, 250 Volts

34	\$42.00	25	250	34
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No. AW Bryant New Wrinkle Porcelain Cleat Bases

Supporting screw spacing, 2 5/8 inches.



Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
AW	\$45.00	10	100	28

No. BA Bryant New Wrinkle Porcelain

Angle Concealed Bases

Screw spacings, 1 1/8 inches.



Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
BA	\$46.00	10	100	23

Bryant Hemco Bright Dipped Shell Sockets

Standard Size



No. HT10



No. HA15

Key Sockets

250 Watts, 250 Volts

No.	Per 100	Style Cap	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb. Std. Pkg.
HA10	\$43.00	1/8-Inch Cap.....	25	250	50	
HC10	50.00	3/8-Inch Cap.....	25	250	52	
HT10	42.00	Pendent Cap.....	25	250	44	

Pull Sockets

250 Watts, 250 Volts

HA15	\$57.00	1/8-Inch Cap.....	25	250	52
HC15	64.00	3/8-Inch Cap.....	25	250	54
HT15	56.00	Pendent Cap.....	25	250	48

Bryant Open Catch Brass Socket Caps

No. HA 1/4-Inch Female



No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
HA	\$11.00	25	250	12

No. HA

No. HB 1/4-Inch Female

HB	\$32.00	5	25	1
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No. HC 3/8-Inch Female

HC	\$18.00	25	100	5
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No. HD 1/2-Inch Female

HD	\$34.00	25	50	4
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No. HM 1/4-Inch Female Angle

HM	\$42.00	25	50	3
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No. HP 3/8-Inch Female Angle

HP	\$48.00	5	25	1
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No. HQ Cord Grip

For 1/8 to 1/2-inch cords.

HIQ	\$30.00	25	100	7
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No. HT Pendent Cap

With composition bushing; 1 3/8-inch hole.

HT	\$10.00	25	250	7
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No. HU Strain Relief Pendent Cap

With porcelain bushing; 1 3/8-inch hole.

HU	\$10.00	25	100	4
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Bryant New Wrinkle Porcelain Bases



No. AX



No. AZ

No. AX Slotted Base

No.	Per 100	O.D. Base Inches	Supporting Screw Spacing Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
AX	\$35.00	2 1/16	1 1/8	10	100	19
AY	35.00	2 1/16	1 1/8	10	100	19

No. AY Small Concealed Base

No. AZ Large Concealed Base

Fits Type 500 Adaptiboxes, Types GN, HM, and W Octagonal Unilets and Size 10 Round Opening Pipe Taplets.

AZ	\$45.00	2 3/4	2 1/4	10	100	32
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Bryant Interchangeable Cold Molding Black Composition Socket Caps and Bodies

These sockets, made of black composition, are suitable for installation in many cases where metal shell sockets may not prove satisfactory. Each cap will fit either body.

Socket Caps



FA



FQ



FT

Wash nickel is standard finish on exposed metal parts.

Cat. No.	Per 100	Description	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lbs. Std. Pkg.
FA	\$35.00	1/8-Inch Metal Bushing.....	10	100	13	
FC	42.00	3/8-Inch Metal Bushing.....	10	100	15	
FQ	36.00	Cord Grip 3/8 to 1/2-Inch.....	10	100	16	
FT	20.00	Pendent Cap.....	10	100	10	



No. 3770

3770	\$40.00	Key, 250 Watts, 250 Volts...	10	100	23
3773	34.00	Keyless, 660 Watts, 250 Volts.	10	100	14

Socket Bodies

With Groove for Weatherproof Shade-Holders



No. 3773

Bryant Titan Brass Socket Caps and Bodies

Listed as Standard by Underwriters' Laboratories.



No. TA



No. TT

The connection between the socket body and cap is effected by means of a threaded ring which engages with a corresponding thread in the shell.

The threaded ring is packed with the socket body.

Each cap will fit all bodies.

Packed 25 in a carton.

No. TA-4315
Showing
Method of
Fastening
Shell to Cap

Titan Brass Caps

No.	Per 100	Description	Std. Pkg.	Wt. Lbs. Std. Pkg.
TA	\$19.00	1/8-Inch Cap.....	250	11
TB	35.00	1/4-Inch Cap.....	50	3
TC	22.00	3/8-Inch Cap.....	100	5
TQ	33.00	Cord Grip, 3/8 to 1/2-Inch Cap....	100	7
TT	15.00	Pendent Cap.....	250	6

Titan Brass Socket Bodies

with Rings (without Caps)

250 Watts, 250 Volts

4310	\$54.00	*Key, Single-Pole.....	250	39
4315	66.00	Pull, Single-Pole.....	250	40
660 Watts, 250 Volts				
4313	\$38.00	Keyless.....	250	45
4314	56.00	Push-Button.....	250	40

*Standard length of key, 1 inch.

Bryant Bakelite Titan Socket Bodies and Caps

Titan Caps

Cat. No.	Per 100	Description	Carton Pkg.	Std. Pkg. Wt. Lb.
LA	\$14.00	1/8-Inch Female Cap.....	10	100 4
LC	18.00	3/8-Inch Female Cap.....	10	100 4 3/4
LG	26.00	Cord Grip Cap for 3/8 to 1/2-Inch Cord.....	10	100 5 1/2
LT	14.00	Pendent Cap, 1 3/8-Inch.....	10	100 2

Titan Bodies with Rings (without Caps)

250 Volts

4710	\$48.00	Key, 250 Watts, S. P.....	10	100 16
4713	37.00	Keyless, 660 Watts.....	10	100 19
4714	48.00	Push, 660 Watts.....	10	100 19
4715	54.00	Pull, 250 Watts, S. P.....	10	100 16

Standard chain is 6 1/2 inches long.

No. 66237 Bryant Electrolier Keyless Sockets

660 Watts, 250 Volts



The cap and shell screw together. Standard finish is brush brass. Cap, 1/8-inch. Carton, 50. Standard package, 250. Weight per standard package, 45 pounds.

No. 66237.....per 100 \$98.00

Bryant Lumiline Lampholders

660 Watts, 250 Volts

Listed as Standard by Underwriters' Laboratories

Designed to provide compact mounting means for Lumiline lamps used extensively in the illumination of show cases, display windows, signs, cove and trough lighting and other applications.

End Caps

Shallow Collar



No. 3890



No. 3889



No. 3893

Has a five-point engagement with lamp which insures secure contact at all times.

No.	Per 100	Description	Carton	Std. Pkg.	Wt., Lb. Std. Pkg.
3890	\$10.80	Black	50	200	2
3890-W	12.00	White	50	200	2

Deep Collar

3889	\$23.20	Black	50	200	5
3889-W	32.50	White	50	200	5

Deep Collar—with Switch

3893	\$26.40	Black	50	200	5
3893-W	27.60	White	50	200	5

Bases—Flush or Surface Mounting



No. 3891



No. 3892

Off-center terminal arrangement in wire channel makes wiring easy in any installation. Mounting hole spacings for flush, 1 1/8 inches; for surface, 1 inch.

Single

No.	Each	Description	Carton	Std. Pkg.	Wt., Lb. Std. Pkg.
3891	\$20.40	Black.....	50	200	7
3891-W	22.80	White.....	50	200	7

Twin

3892	\$31.20	Black.....	50	200	13
3892-W	33.60	White.....	50	200	13

Bryant Lampholders

For Mercury, Black Light and Sun Lamps

660 Watts, 250 Volts

Listed by Underwriters' Laboratories, Inc.

With Admedium screw shell. The regular medium base lamp will not fit this lampholder.

Packed 10 in a carton, 100 in a standard package.



No. 4383

With Female Caps

No.	Per 100	Size In.	Wt., Lb. Std. Pkg.
4381	\$108.00	1/8	30
4383	108.00	3/8	30

Bryant Intermediate Base Sockets

Listed by Underwriters' Laboratories, Inc.

Socket Caps



No. IA



No. IT

1/8-Inch

No.	Per 100	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
IA	\$21.00	25	100	2 1/2	

Pendent

With bakelite bushing 1 3/32-inch hole.

No.	Per 100	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
IT	\$21.00	25	100	2	

Socket Bodies



No. 4610



No. 4613

Key
75 Watts, 125 Volts

No.	Per 100	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
4610	\$55.00	25	100	7	

Keyless
75 Watts, 250 Volts

No.	Per 100	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
4613	\$37.00	25	100	7	

Above caps and bodies are Wrinkle type and are interchangeable.

Standard finish is brush brass. Standard length of chain on pull socket bodies is 4 inches.

Keyless Candle Sockets

75 Watts, 250 Volts



Composition.

Has 1/8-inch female thread bushing.

Adjustable, 3 1/2 to 5 inches long. Outside diameter of paper jacket, 7/8 inch.

9652	\$30.00	25	100	14	
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Green Bakelite Pendent Sockets

75 Watts, 250 Volts



Weatherproof.

Has 6-inch leads of No. 18 stranded rubber covered weatherproof wire.

For longer wires add \$2.00 per 100 devices for each extra foot on each conductor.

No.	Per 100	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
9650	\$28.00	25	100	4 1/4	

Porcelain Cleat Receptacles

75 Watts, 250 Volts



For surface wiring. Diameter base, 1 1/2 inches; over lugs, 1 3/8 inches; overall height, 1 1/16 inches; screw spacing, 1 1/2 inches.

9653	\$24.00	25	100	16	
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Porcelain Sign Receptacles

75 Watts, 250 Volts
No. 9663



For metal signs. Two screw mounting, screw terminals.

Fits 1-inch holes. Depth of back, 1 1/2 inches. Equipped with No. 8-32, 1/2-inch long, bronze supporting screws spaced 1 3/8 inches.

9663	\$30.00	25	100	13	
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No. 9690



For metal signs. Screw ring, screw terminals.

Fits 1 1/16-inch holes; outside diameter of both screw ring and body, 1 3/8 inches. Depth of back, 1 inch.

9690	\$29.00	25	100	13	
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Adapters



Medium base to intermediate base adapter.

9691	\$21.00	25	100	4	
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Bryant Candelabra Lampholders

75 Watts, 125 Volts

Key Socket with Wrinkle Style Shell

Fastening
With 1/8-Inch Cap

No.	Per 100	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb.
434	\$80.00	25	100		9

Keyless Socket with Threaded Shell

Fastening
With 1/8-Inch Cap

321	\$70.00	25	100		6
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Porcelain Keyless Socket With Male Thread Stud

Supporting stud is 3/16 inch outside diameter, 27 threads per inch.

Outside diameter of porcelain, 1 1/16 inch. Length over all, 1 3/8 inches.

328	\$38.00	25	100		3
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With Female Thread Bushing

Bushing is threaded for 1/8-inch iron pipe, .405-inch outside diameter, 27 threads per inch.

Outside diameter of porcelain, 1 1/16 inch. Length over all, 1 3/32 inches.

347	\$32.00	25	100		5
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Bryant Miniature and Candelabra Receptacles

75 Watts, 125 Volts
Porcelain Cleat

Outside diameter of base, 1 1/32 inches. Thickness of base, 1/2 inch. Height No. 366, 1 1/8 inches; No. 367, 1 3/32 inches. Supporting screw spacing, 1 1/16 inches.



No. 367

No.	Per 100	Miniature Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
366	\$26.00	25	100		10

No.	Per 100	Candelabra Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
367	\$26.00	25	100		11

Miniature

Outside diameter of base, 1 3/16 inches. Thickness of base, 3/32 inch. Height, 3/4 inch. Supporting screw spacing, 1 1/16 inch.

*9445	\$25.00	25	200		9
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Candelabra

Outside diameter of base, 1 11/32 inches. Thickness of base, 5/16 inch. Height, 7/8 inch. Supporting screw spacing, 1 1/16 inches.

*9446	\$25.00	25	200		13
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Candelabra with Oblong Base

Base, 1 9/16 x 1 inch. Thickness of base, 1 1/32 inch. Supporting screw spacings, 1 1/32 by 1 9/32 inch. Height, No. 325, 1 1/16 inches; No. 612, 1 1/16 inches.



No. 9445



No. 325



No. 612

No.	Per 100	Porcelain Base	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
325	\$22.00	10	100		9

No.	Per 100	Composition Base	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
*612	\$46.00	10	100		9

Porcelain for Metal Signs Candelabra

Hole required, 3/4 inch in diameter. Depth, 1 inch. Supporting screw spacing, 1 3/16 inches. Wires clear the supporting surface by 1 1/16 inches.

388	\$36.00	10	100		10
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With Removable Ring for Metal Signs

Hole required, 3/4 inch in diameter. Diameter, 1 3/16 inches. Depth No. 389, 5/8 inch; No. 390, 7/8 inch. Thickness of ring, 1/4 inches.

No.	Per 100	Candelabra	Std. Pkg.	Std. Pkg.	Wt. Lb. Pkg.
390	\$36.00	25	100		9

*Not-listed as standard by Underwriters' Laboratories.

Bryant Prefocusing Lampholders

Listed by Underwriters' Laboratories, Inc.



No. 3740

Designed so that the light source is always at the focal point of the reflector. Used on landing fields, projection lamps, for general photographic work, etc., where correct focusing and reflecting of light are essential.



No. 3741

For Medium Prefocusing Lamps

1000 Watts, 250 Volts

Black Bakelite, for Surface or Concealed Wiring

No.	Per 100	Height Over-all Inches	Screw Centers Inches	Diameter Inches	Cord Hold Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
3740	\$149.60	1 7/8	2	...	...	10	100	21
Porcelain, with Pendant Type Cap								
3741	121.20	2 5/16	...	1 3/4	1 3/32	10	100	35
Porcelain, with Fibre Washer								
3742	116.00	1 7/8	1 5/16	1 3/4	...	10	100	32

For Mogul Prefocusing Lamps

2500 Watts, 250 Volts

Porcelain



No.	Per 100	Height Over-all Inches	Screw Centers Inches	Diameter Inches	Cord Hold Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
3842	\$451.00	2 3/4	3	3 3/4	...	5	50	50

Bryant Marine, Railway and Industrial Lamp Receptacles

Heavy Duty

With Bakelite Base and Lamp Grip

Diameter of base, 2 inches. Height, 1 13/16 inches. Supporting screw spacing, 1 3/8 inches.

Key receptacle, center of base to end of key, 1 11/16 inches.

Single Pole Key, 250 Watts, 250 Volts

Regularly supplied with two 3/4-inch 8x32 round head pointed brass screws.

Center of base to end of key, 1 11/16 inches.



No. 4160



No. 4161

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
4160	\$88.00	10	100	28

Keyless, 660 Watts, 250 Volts

Regularly supplied with two 3/4-inch 8x32 round head pointed brass screws.

4161	\$60.00	10	100	21
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Bakelite Screw Shell Insulator

For Nos. 4160 and 4161.

Has screw mounting.

4260	\$40.00	10	100	9 1/2
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No. 4260

Watertight Keyless Receptacle
With Composition Base
660 Watts, 250 Volts



No. 4146

Has one binding screw on each terminal.

Diameter, 2 3/4 inches. Height above mounting surface, 1/8 inch. Four mounting screw holes on 2 5/16 inch circle

Regularly furnished without sealing compound over terminal plates and fastening screws.

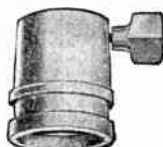
4146	\$44.00	10	100	36
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Bryant Porcelain Socket Bodies

No. 70 Single Pole-Key

250 Watts, 250 Volts

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
70	\$44.00	10	100	26

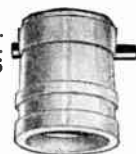


No. 70

No. 71 Push-Button

660 Watts, 250 Volts

71	\$76.00	10	100	31
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No. 71

No. 73 Keyless

660 Watts, 250 Volts

73	\$34.00	10	100	16
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No. 73

No. 75 Single-Pole Pull

250 Watts, 250 Volts

No. 513 insulating link is inserted in the chain. Standard finish of exposed metal is nickel.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
75	\$85.00	10	100	30



No. 75

Bryant Porcelain Caps

Standard finish of metal on caps is Perma nickel.

No. PA 1/8-Inch Female Brass

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
PA	\$38.00	10	100	14



No. PA

No. PC 3/8-Inch Female Brass

PC	\$42.00	10	100	14
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No. PC

No. PD 1/2-Inch Female Brass

PD	\$58.00	10	100	16
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No. PP 3/8-Inch Female Brass Angle

PP	\$108.00	10	100	23
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No. RW 1/2-Inch Female Brass Angle

RW	\$114.00	10	100	28
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No. PP

No. PQ Cord Grip

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
PQ	\$36.00	10	100	17

No. PT Pendant

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
PT	\$20.00	10	100	10



No. PQ

For from 3/8 to 1/2-inch cord.

With 1 3/32-inch cord hole.

Bryant Porcelain Bases



No. PZ

No. PZ Concealed Base

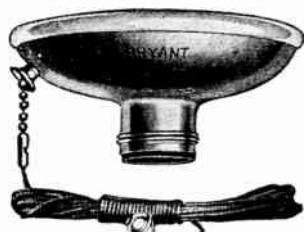
This base will fit Type No. 500 Adaptibox.

Cat. No.	Per 100	O.D. Inches	Supporting Screw Spacings Inches	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
PZ	\$30.00	2 3/4	1 1/8, 2 7/32	10	100	38

No. RM 3/4 and 4-Inch Box Base

RM	\$57.00	4 1/16	2 3/4, 3 1/2, 3 3/32	5	50	37
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Bryant Surface and Outlet Box Receptacles With Binding Screws



No. 4104

These receptacles are flat on the back and are therefore suitable for use either on outlet boxes or without them. Also approved for use on walls or ceilings containing metal lathing and upon metal surfaces.

The standard finish is brush brass which will be furnished when no finish is specified.

Keyless

660 Watts, 250 Volts
For 3 1/4 or 4-Inch Outlet Boxes

Diameter of base, 4 1/2 inches. Height, 1 1/2 inches. Supporting screw spacings, 2 3/4 and 3 1/2 inches.

Carton, 2; standard package, 50. Weight package, 46 lb. No. 4100.....per 100 \$110.00

Pull

250 Watts, 250 Volts
For 3 1/4 or 4-Inch Outlet Boxes

Diameter of base, 4 1/2 inches. Height, 2 inches. Supporting screw spacings, 2 3/4 and 3 1/2 inches.

Equipped with short chain, 4 feet of small cord, and small composition pendant ball.

Carton, 2; standard package, 50. Weight package, 56 lb. No. 4104.....per 100 \$216.00

Bryant Porcelain Outlet Box Receptacles With Shade-Holder Groove



No. 4278

Can be mounted on standard 3 1/4 and 4-inch outlet boxes.

Diameter of base, 4 5/8 inches. Height, 2 5/8 inches. Supporting screw spacing, 2 3/4 to 3 1/2 inches on centers.

Pull chain receptacles are fitted with nickel chains and tassel pendants but will be furnished with brush brass chains at no extra charge.

Keyless—660 Watts, 250 Volts

Cat. No.	Per 100	Description	Car- ton	Std. Pkg.	Wt., Lbs. Std.Pkg.
4273	\$116.00	Keyless Receptacle.....	2	50	59

Pull—250 Watts, 250 Volts

4275	\$168.00	6 1/2-Inch Chain.....	2	50	58
4278	168.00	Short Chain, 4-Foot Cord.....	2	50	58

Bryant Porcelain Medium Base Lampholders

250 Watts, 250 Volts

Listed by Underwriters' Laboratories, Inc.

With shadeholder groove. Packed 10 in a carton, 50 in a standard package.

Removable Interior Type

For 3 1/4-Inch Boxes
Diameter, 3 1/2 Inches

No.	Per 100	Description	Wt., Lb. Std. Pkg.
H165	\$62.00	6-Inch Chain....	30
H167	67.00	Chain & Insulator	30
H168	62.00	Chain & Cord....	30

For 4-Inch and Switch Boxes
Diameter 4 1/2 Inches

H185	\$72.00	6-Inch Chain....	40
H187	77.00	Chain & Insulator	40
H188	72.00	Chain & Cord....	40

One-Piece Type

For 3 1/4-Inch Boxes
Diameter, 4 1/2 Inches

H265	\$66.00	6-Inch Chain....	40
H267	71.00	Chain & Insulator	40
H268	66.00	Chain & Cord....	40

For 4-Inch and Switch Boxes
Diameter, 5 1/2 Inches

H285	\$76.00	6-Inch Chain....	60
H287	81.00	Chain & Insulator	60
H288	76.00	Chain & Cord....	60

With Convenience Outlet

Outlet—15 Amperes, 125 Volts
10 Amperes, 250 Volts

For 3 1/4-Inch Boxes			
H135	\$70.00	6-Inch Chain....	40
H137	75.00	Chain & Insulator	40
H138	70.00	Chain & Cord....	40

For 4-Inch and Switch Boxes

H145	\$80.00	6-Inch Chain....	60
H147	85.00	Chain & Insulator	60
H148	80.00	Chain & Cord....	60



No. H168



No. H268



No. H135



No. 4700 Bryant Adjustable Angle Adapters

For Reflector Type Lamps

660 Watts, 250 Volts

Listed by Underwriters' Laboratories, Inc.

Horizontal adjustment, 340°; vertical, 70°. Thumb screw setting.

No.	Per 100	Car- ton	Std. Pkg.	Wt., Lb. Std. Pkg.
4700	\$120.00	10	100	50

No. 50717 Bryant Pony Wall Keyless Sockets

With Base for Concealed Work

660 Watts, 250 Volts

Diameter of base, 2 inches. Height, 2 inches. Supporting screw spacing, 1 1/4 inches.



Cat. No.	Per 100	Car- ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
50717	\$60.00	10	100	22

Bryant Porcelain Cleat Medium Base Receptacles

Listed by Underwriters' Laboratories, Inc.

660 Watts, 250 Volts



No. H227



No. H73

With shadeholder groove and screw terminals.



No. 9402



No. 4013

Screw spacing, 2 5/8 inches. Packed 10 in a carton, 100 in a standard package.

No.	Per 100	Description	Wt., Lb. Std. Pkg.
9402	\$34.00	Plain.....	38
4013	45.00	With Shadeholder Groove.....	35

Bryant Porcelain Medium Base Lampholders

660 Watts, 250 Volts

Listed by Underwriters' Laboratories, Inc.

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt., Lbs. Std.Pkg.
H227	\$37.00	For 3 1/4-Inch Box.....	5	100	62
H228	42.00	For 4-Inch or Switch Box....	5	50	45
H73	44.00	Mounted on 3 1/4-Inch Cadmium-Plated Cover.....	10	100	50
H74	50.00	Mounted on 4-Inch Cadmium-Plated Cover.....	5	100	68

Bryant Porcelain Cleat Receptacles



With Shade-Holder Groove
 660 Watts, 250 Volts
 Length, $3\frac{1}{16}$ in. Width, 1 in.
 Height, $2\frac{1}{4}$ in. Supporting
 screw spacings, $\frac{3}{16}$ by $3\frac{1}{32}$ inch.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
58300	\$62.00	5	100	55

No. 4229 Bryant Porcelain Receptacles



For Cleat or Concealed Wiring
 660 Watts, 250 Volts
 Diameter base, $2\frac{1}{8}$ inches. Height,
 $1\frac{7}{8}$ inches. Holes for supporting screws
 are elongated to provide $1\frac{3}{8}$ to $1\frac{5}{8}$ in.
 on centers.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
4229	\$40.00	10	100	32

No. 42453 Bryant Porcelain Wood Molding Receptacles



660 Watts, 250 Volts
 Length, $2\frac{5}{16}$ inches. Width, $2\frac{1}{8}$
 inches. Height, $1\frac{11}{16}$ inches. Supporting
 screw spacing, $1\frac{3}{16}$ inches.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
42453	\$49.00	10	100	47

No. 4248 Bryant Double End Porcelain Receptacles

For Concealed, Cleat, or Molding Work
 Medium Base, Keyless
 660 Watts, 250 Volts



For use with metal reflectors.
 The receptacle will take up to 100-
 watt lamps.
 Mounting screw holes are stag-
 gered, centers $1\frac{1}{2}$ inches on width and
 1 inch on length.
 Size of base, $2\frac{1}{4} \times 1\frac{3}{4}$ inches.
 Height, $2\frac{3}{8}$ inches.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
4248	\$73.00	10	100	60

Bryant Porcelain Weatherproof Sockets

With Die Cast Caps

660 Watts, 600 Volts
 Keyless Body

Length overall, $1\frac{11}{16}$ inches; diameter, $1\frac{1}{2}$
 inches.



No. 9429



No. 9455



No. 9457



No. 9460

No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
9429	\$26.00	10	100	17
9455	\$28.00	10	100	15
9457	\$28.00	10	100	13
9458	\$28.00	10	100	11
9460	\$36.00	10	100	16
9461	\$36.00	10	100	14

Bryant Porcelain Weatherproof Sockets

660 Watts, 600 Volts



These devices are regularly fitted with
 6-inch leads of No. 14 R.C. stranded rubber
 covered wire.

Main diameter, $1\frac{1}{2}$ inches. Flange di-
 ameter, $1\frac{5}{8}$ inches. Length of porcelain,
 $1\frac{3}{4}$ inches.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
399	\$30.00	10	100	27

With Shade-Holder Groove



Main diameter, $1\frac{1}{2}$ inches. Flange di-
 ameter, $1\frac{5}{8}$ inches. Length of porcelain,
 $1\frac{3}{4}$ inches.

9366	\$30.00	10	100	25
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Bryant Porcelain Weatherproof Bragdon Sockets

660 Watts, 600 Volts

With Shade-Holder Groove



Main diameter, $1\frac{5}{8}$ inches. Diameter
 of skirt, $2\frac{1}{16}$ inches. Length, $2\frac{29}{32}$
 inches.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
50997	\$99.00	10	100	52

Bryant Composition Weatherproof Sockets

660 Watts, 600 Volts

With Shade-Holder Groove



No. 43310

Main diameter tapers from $1\frac{1}{16}$ to $1\frac{1}{16}$
 inches. Flange diameter, $1\frac{5}{8}$ inches. Length
 of composition, $2\frac{3}{16}$ inches.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
60666	\$36.00	10	100	25

Pony Size, With Shade-Holder Groove

Main diameter, $1\frac{1}{16}$ inches. Flange di-
 ameter, $1\frac{5}{8}$ inches. Length of composition, 2
 inches.

43310	\$26.00	10	100	21
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No. H310 Bryant Hemco Bakelite Weatherproof Sockets

Pony Size—660 Watts, 600 Volts



With $4\frac{1}{2}$ -inch leads.

Packed 10 in a carton; 100 in standard
 package, weight 13 pounds.

No. H310..... per 100 \$24.00

Bryant Weatherproof Lampholders

Aluminum—Die Cast Hood Type
 Listed by Underwriters' Laboratories, Inc.
 660 Watts, 250 Volts



No. 3996



No. 3997



No. 3998

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
3996	\$80.00	For $2\frac{1}{4}$ -Inch Shade with $\frac{1}{2}$ - Inch Hexagonal Nipple...	10	100	55
3997	88.00	For $2\frac{1}{4}$ -Inch Shade with $\frac{1}{2}$ - Inch 90° Angle Nipple...	10	100	65
3998	76.00	With $\frac{1}{2}$ -In. Hexagonal Nipple	10	100	50

Bryant Porcelain Receptacles

For Outlet Boxes, Metal Signs and Lighting Units



No. 61988

The hole required for each of these receptacles is 1½ inches in diameter. Diameter of receptacles, 1¾ inches. Diameter of rings, 1¾ inches.

Carton, 10. Standard package, 100.

Deep Receptacles with Shallow (½-Inch) Ring and 1 Lug
660 Watts, 600 Volts

Cat. No.	Per 100	Description	Separation In.	Depth Back In.	Wt. Lb. Pkg. Std.
61988	\$26.00	With Binding Screws.....	1	1¼	28

Shallow Receptacles with Deep (¾-Inch) Ring and 1 Lug



No. 59108



No. 4109 with Button Unscrewed

660 Watts, 250 Volts

59108	\$26.00	With Binding Screws.....	5/8	13/16	23
4109	31.00	Binding Screws Covered....	5/8	13/32	28

660 Watts, 600 Volts

4003	\$36.00	With 6-Inch Wires No. 14 R. C.	27/32	27/32	28
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With Deep (¾-Inch) Screw Ring and 1 Lug



No. 4133



No. 4135

With groove for Weatherproof Shade-Holders.

660 Watts, 250 Volts

4133	\$28.00	With Binding Screws.....	5/8	13/16	20
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660 Watts, 600 Volts

4135	\$40.00	With 6-Inch Wires No. 14 R. C.	27/32	27/32	26
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Porcelain Screw Rings for Above Receptacles

Cat. No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
3803	\$12.00	Shallow, ½-Inch Ring.....	25	100	7
3804	12.00	Deep 5/8-Inch Ring.....	25	100	9
3805	14.00	Shade-Holder Ring.....	25	100	6

No. 4063 Bryant Porcelain Receptacles

For Metal Signs, Border Lights and Cove Troughs

660 Watts, 600 Volts

The binding screws are staked and will not fall out.

With two mounting screws and grooved back.

Size hole required, 1¾ inches.

Diameter, 15/8 inches. Depth, 1½ inches.

Supporting screw spacing, 113/16 inches.

Carton, 10. Standard package, 100.



Weight package, 27 pounds.

No.....	4063	*4063T
Per 100.....	\$30.00	36.00

*With unthreaded shell for lamp testing.

Hemco Sign Receptacles



No. H100



No. H101



No. H114

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Pkg.
H100	\$22.00	With Binding Screws.....	25	250	55
H101	24.00	With Covered Back.....	25	250	69
H114	28.00	With 9-Inch Leads No. 14 Stranded Wire.....	25	250	75
H118	27.00	With 9-Inch Leads No. 18 Code Fixture Wire.....	25	250	68

Hemco Cleat and Pull Receptacles



No. H715



No. H978

H715	\$20.00	Bakelite Pony Cleat Receptacle	10	100	11
H975	54.00	Pull, with 6½-Inch Chain.....	10	100	38
H977	59.00	Pull, with Chain, Insulator....	10	100	38
H978	54.00	Pull, with Chain, and 4-Foot Cord.....	10	100	38

Bryant Outlet Box Receptacles

660 Watts, 250 Volts

Base, 2x1¾ inches. Height, 1½ inches. Supporting screw spacing, 1½ inches.



No. 9397

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
*9397	\$32.00	10	100	14

No. 9514—2-Piece, Flush

Hole required, 1½ inches in diameter. Flange, 2¼ inches in diameter, ¼ inch thick. Depth from back of flange, 1¾ inches. Supporting screw spacing, 1¾ inches.



No. 9514

9514	\$51.00	10	100	32
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*Not listed as standard by Underwriters' Laboratories.



Bryant Porcelain Concealed Receptacles

600 Watts, 250 Volts

Listed by Underwriters' Laboratories, Inc.



No. 4000



No. 50744

Packed 10 in a carton, 100 in a standard package.

No.	Per 100	Description	Diam. In.	Screw Spacing In.	Wt., Lb. Std. Pkg.
4000	\$50.00	Plain.....	2 ³ / ₈	1 ⁵ / ₈	37
4001	60.00	With Shadeholder Groove...	2 ³ / ₈	1 ⁵ / ₈	36
50744	60.00	With Porcelain Screw Ring..	2 ¹ / ₂ to 1 ¹ / ₄	1 ³ / ₁₆	35

No. 9407 Bryant Weatherproof Porcelain Receptacles

660 Watts, 600 Volts

Listed by Underwriters' Laboratories, Inc.
With side wires. Outside diameter of base, 2¹/₁₆ inches; thickness, 1 inch. Screw spacings, 2³/₁₆ inches.



No.	Per 100	Ht. In.	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
9407	\$56.00	2 ¹ / ₈	10	100	70

No. 9171 Bryant Porcelain Cleat Receptacles

660 Watts, 250 Volts, Not N. E. C.

Diameter of base, 1⁵/₁₆ inches.

Height, 1¹/₂ inches.

Supported by one screw in the center.



Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt. Lbs. Std. Pkg.
9171	\$26.00	10	100	25

Bryant Porcelain Pony Cleat Receptacles

660 Watts, 250 Volts

Listed by Underwriters' Laboratories



No. 50714



No. 50715

Screw spacing, 1³/₁₆ inches.

With Solder Terminals

No.	Per 100	Carton	Standard Package	Weight Pounds Standard Package
50714	\$24.00	10	100	25

With Screw Terminals

50715	\$20.00	10	100	25
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No. H50721 Bryant Bakelite Receptacles

Medium Base

Listed by Underwriters' Laboratories, Inc.
660 Watts, 250 Volts

With covered screw terminals. Screw spacing, 1³/₄ inches. Bakelite cover held in place by snap ring.

Packed 20 in a carton, 100 in a standard package. Standard package weight, 15 pounds.

No. H50721.....per 100 \$22.00



Bryant Bakelite Pin Type Lampholders

Listed by Underwriters' Laboratories, Inc.



No. 5464



No. 54644



No. 54643

For decorative, streamer and outdoor fixture work.

The terminals are pointed and pierce the wire insulation when the cap is screwed on.

Furnished with hook.

Packed 10 in a carton, 100 in a standard package.

Medium Base
660 Watts, 250 Volts

No.	Per 100	Description	Wt., Lb. Std. Pkg.
5464	\$28.00	For Nos. 12 or 14 Wire.....	13
5465	28.00	For Nos. 10 or 12 Wire.....	13

Intermediate Base
75 Watts, 250 Volts

54644	\$17.00	For Nos. 16 or 18 Wire.....	4
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Candelabra Base
75 Watts, 250 Volts

54643	\$13.00	For No. 18 Wire.....	4
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No. 4073 Bryant Mogul Base Lampholders

Listed by Underwriters' Laboratories, Inc.

Porcelain Cleat Receptacles

1500 Watts, 250 Volts

Diameter over lugs, 3¹/₂ inches.
Diameter of neck, 2¹/₄ inches.
Height, 2⁹/₁₆ inches. Screw spacing, 2⁷/₈ inches.

Packed 5 in a carton, 50 in a standard package.



No.....	4073
Per 100.....	\$98.00
Weight per Std. Pkg.....	pounds 40

Bryant Mogul Base Porcelain Lampholders

Listed by Underwriters' Laboratories, Inc.

With Aluminum Caps

1500 Watts, 600 Volts
Bodies Only



No. 4123

Length, 2¹/₂ inches.

Packed 5 in a carton, 50 in a standard package.



No. 4062

No.	Per 100	Description	Diam. In. Std. Pkg.	Wt., Lb. Std. Pkg.
4123	\$74.00	With Binding Screws at Top....	2 ³ / ₁₆	28
4062	84.00	With Binding Screws at Side....	2 ¹ / ₄	30

Aluminum Caps



No. SA



No. SB

For use with Nos. 4123 and 4062 bodies.

Packed 10 in a carton, 50 in a standard package.

No.	Per 100	Description	Wt., Lb. Std. Pkg.
SA	\$88.00	3/8-Inch Female Cap.....	3 ¹ / ₂
SB	94.00	1/2-Inch Female Cap.....	4

Hubbell Standard Brass Socket Bodies



No. 61

Standard finish is brush brass. Special finishes available at addition in price. Pull sockets regularly equipped with 6½-inch chains. Extra length chain \$11.00 per 100 feet or fraction, cord \$2.00 per 100 feet or fraction. Standard length of keys for all key sockets is 1 inch.

250 Watts, 250 Volts



No. 60

No.	Per 100	Description	Car-ton	Std. Pkg.	Std. Wt. Lb.
60	\$50.00	Pull, Brush Brass...	25	250	41
60	48.00	Pull, Bright, Dipped	25	250	41
*61	36.00	Key, Brush Brass...	25	250	44
*61	34.00	Key, Bright Dipped	25	250	44
660 Watts, 250 Volts					
178	74.00	Pull, Brush Brass...	25	250	32
178	72.00	Pull, Bright Dipped	25	250	32
75	70.00	Key, Brush Brass...	25	250	44
62	28.00	Keyless, Brush Brass	25	250	34
62	26.00	Keyless, Bright Dipped	25	250	34

*Fitted with porcelain bushing on keyshaft, at point where it passes through shell, to prevent wear.

Hubbell Standard Pull Switch Bodies

3 Amperes, 125 Volts; 1 Ampere, 250 Volts



No. 63



No. 65

Standard finish is brush brass. Special finishes available at addition in price.

Pull switches regularly furnished with short chain and 4-foot black cord. Extra length chain \$11.00 per 100 feet or fraction, cord \$2.00 per 100 feet or fraction.

No.	Per 100	Description	Car-ton	Std. Pkg.	Std. Wt. Lb.
63	\$102.00	Fixture.....	10	20	4
65	108.00	Rosette.....	10	20	4

Hubbell Standard Brass Socket Caps



No. 11



No. 18



No. 14



No. 55

Standard finish is brush brass. Special finishes available upon request.

No.	Per 100	Description	Car-ton	Std. Pkg.	Std. Wt. Lb.
11	\$11.00	Female, ½-Inch, Brush Brass...	25	250	12
11	9.00	Female, ½-Inch, Bright Dipped..	25	250	12
12	32.00	Female, ¼-Inch, Brush Brass...	25	25	2
13	18.00	Female, ¾-Inch, Brush Brass...	25	100	6
13	16.00	Female, ¾-Inch, Bright Dipped..	25	100	6
149	34.00	Female, ½-Inch, Brush Brass...	25	50	4
18	42.00	Angle, ½-Inch, Brush Brass....	25	50	4
20	48.00	Angle, ¾-Inch, Brush Brass....	25	50	5
14	10.00	Pendant, Brush Brass.....	25	250	8
14	8.00	Pendant, Bright Dipped.....	25	250	8
55	18.00	Porcelain Bushing, Brush Brass..	25	100	5

Hubbell Standard Brass Shell Sockets



No. 2618



No. 2664



No. 2667

Standard finish is brush brass. Special finishes available at addition in price.

Pull sockets regularly equipped with 6½-inch chains. Extra length chain \$11.00 per 100 feet or fraction, cord \$2.00 per 100 feet or fraction.

Standard length of keys for all key sockets is 1 inch.

250 Watts, 250 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Std. Wt. Lb.
2618	\$61.00	Pull, ½-Inch, Brush Brass....	25	250	53
2618	57.00	Pull, ½-Inch, Bright Dipped...	25	250	53
3620	60.00	Pull, Pendant, Brush Brass....	25	250	50
*2664	47.00	Key, ½-Inch, Brush Brass....	25	250	55
*2664	43.00	Key, ½-Inch, Bright Dipped...	25	250	55
*3665	54.00	Key, ¾-Inch, Brush Brass....	25	250	57
*3666	46.00	Key, Pendant, Brush Brass....	25	250	51
*3666	42.00	Key, Pendant, Bright Dipped..	25	250	51

660 Watts, 250 Volts

2667	\$39.00	Keyless, ½-Inch, Brush Brass..	25	250	46
2667	35.00	Keyless, ½-Inch, Bright Dipped	25	250	46
3668	46.00	Keyless, ¾-Inch, Brush Brass..	25	250	50
3669	38.00	Keyless, Pendant, Brush Brass..	25	250	45

*Fitted with porcelain bushing on keyshaft, at point where it passes through shell, to prevent wear.

Hubbell Brass Shell Threaded-Catch Sockets

Socket Bodies



No. 1637



No. 1639



No. 1638

Threaded ring is included as part of socket body. Standard finish is brush brass.

250 Watts, 250 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Std. Wt. Lb.
1637	\$54.00	Key Body.....	25	250	49
1639	66.00	Pull Body.....	25	250	45

660 Watts, 250 Volts

1638	\$38.00	Keyless Body.....	25	250	39
1636	48.00	Pull Body.....	25	250	42

Socket Caps



No. 1630



No. 1632



No. 1634



No. 2502

Standard finish is brush brass.

1630	\$19.00	½-Inch Cap.....	25	250	10
1631	35.00	¼-Inch Cap.....	25	50	8
1632	22.00	¾-Inch Cap.....	25	100	14
1634	15.00	Pendant Cap.....	25	250	13

For .375 to .500-Inch Cord

2502	\$33.00	Pendant Cap, Cord Grip....	25	100	7
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Hubbell Bakelite Threaded-Catch Sockets Socket Bodies



Threaded ring is included as part of socket body. Brown bakelite is standard.

Parts of bakelite and brass shell threaded-catch sockets do not interchange.

250 Watts, 250 Volts				
No.	Per 100	Description	Car-ton	Std. Pkg. Lb.
3984	\$48.00	Key Body.....	10	100 20
3988	54.00	Pull Body.....	10	100 19
660 Watts, 250 Volts				
3986	\$32.00	Keyless Body.....	10	100 17
3987	48.00	Push Body.....	10	100 17

Socket Caps



Nos. 3980 and 3981 Brown bakelite is standard.				
No.	Per 100	Description	Car-ton	Std. Pkg. Lb.
3980	\$14.00	1/8-Inch Cap.....	10	100 5
3981	18.00	3/8-Inch Cap.....	10	100 6
3982	14.00	Pendant Cap.....	10	100 3
3983	26.00	Pendant Cap with Cord Grip...	10	100 7

Hubbell Aluminum Shell Sockets and Shade Holders



One Piece Type
660 Watts, 600 Volts



No. 3135 Socket

No. 3137 Shade Holder

Socket fitted with inside ring for holding porcelain body in shell.

No.	Per 100	Description	Car-ton	Std. Pkg. Lb.	Pkg. Wt. Lb.
3135	\$78.00	Socket with 3/8-Inch Nipple.....	10	50	16
3136	78.00	Socket with 1/2-Inch Nipple.....	10	50	16
*3137	36.00	2 1/4-Inch Shadeholder.....	10	50	3

*For use with Nos. 3135 and 3136 sockets only.

Hubbell Socket Reducers and Bushings



No.	Per 100	Description	Car-ton	Std. Pkg. Lb.	Pkg. Wt. Lb.
5380	\$2.00	1/8-Inch Socket Bushing, Comp.	*	1000	3
5381	4.00	3/8-Inch Socket Bushing, Comp.	*	1000	10
421	35.00	Mogul to Medium Reducer....	10	100	19
392	24.00	Medium to Candelabra Reducer	25	100	6
492	21.00	Medium to Intermediate Reducer	25	100	5

*Packed in bulk.

Hubbell Porcelain Socket Bodies and Caps

Standard finishes of exposed brass parts are brush brass and wash nickel. Brush brass furnished unless otherwise specified.



No.	Per 100	Description	Car-ton	Std. Pkg. Lb.	Pkg. Wt. Lb.
160	\$85.00	Pull Body, 250 W., 250 V.....	10	100	31
161	40.00	Key Body, 250 W., 250 V.....	10	100	25
162	34.00	Keyless Body, 660 W., 250 V.....	10	100	17

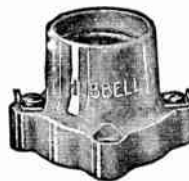
Caps



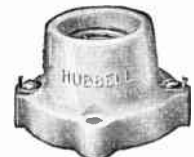
No.	Per 100	Description	Car-ton	Std. Pkg. Lb.	Pkg. Wt. Lb.
150	\$20.00	Pendant.....	10	100	11
151	35.00	1/8-Inch Brass.....	10	100	13
153	42.00	3/8-Inch Brass.....	10	100	14
191	58.00	1/2-Inch Brass.....	10	100	20
198	36.00	Pendant Cord Grip.....	10	100	18

Hubbell Porcelain Cleat Receptacles

660 Watts, 250 Volts



No. 50715



No. 9402

Holes for screws spaced on centers: No. 50715, 1 1/16 inches; No. 9402, 2 3/8 inches. Base size: No. 50715, 2 1/16 x 2 3/8 inches; No. 9402, 2 1/16 x 2 3/8 inches.

No.	Per 100	Description	Car-ton	Std. Pkg. Lb.	Pkg. Wt. Lb.
50715	\$20.00	With Binding Screws.....	10	100	12
9402	34.00	With Binding Screws.....	10	100	38

No. 59 Hubbell Electrolier Push Through Socket Bodies

Schedule B

660 Watts, 250 Volts

Standard finish is brush brass.



No.	Per 100	Car-ton	Std. Pkg. Lb.	Wt. Lb.
59	\$38.00	25	250	32

No. 441 Hubbell Electrolier Caps

1/8-Inch Female

Standard finish is brush brass.



No.	441
Per 100.....	\$13.00
No. Per Carton.....	25
No. in Standard Package.....	250
Weight per Standard Package... lb.	11

Hubbell Acorn Wiring Devices

These Acorn Devices are designed and offered to meet competition, and priced accordingly. They should not be confused with the regular line of Hubbell Wiring Devices listed elsewhere.

Standard Size Brass Shell Sockets



No. 2618



No. 2664



No. 2667

Caps or bodies are not sold separately.

Pull—250 Watts, 250 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
2618	\$61.00	With 1/8-Inch Cap.....	25	250	52

Key—250 Watts, 250 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
2664	\$47.00	With 1/8-Inch Cap.....	25	250	56

Keyless—660 Watts, 250 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
2667	\$39.00	With 1/8-Inch Cap.....	25	250	46

**No. 310 Weatherproof Sockets
With Shade Holder Groove
660 Watts, 600 Volts**



Furnished with 6 inches of molded-in No. 14 B. & S. stranded rubber-covered wire.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
310	\$24.00	Brown Bakelite.....	10	100	22

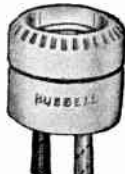
**Unglazed Porcelain Sign Receptacles
660 Watts, 250 Volts**



No. 4112



No. 4113



Nos. 4114 and 4118

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
4112	\$22.00	Exposed Terminals.....	25	250	51
4113	24.00	Covered Terminals.....	25	250	64
4114	28.00	With 9-Inch Leads, No. 14 Wire	25	250	73
4118	27.00	With 9-Inch Leads, No. 18 Wire	25	250	71

Hubbell Keyless Pony Wall Sockets

660 Watts, 250 Volts



No. 50717



No. 50718

Supporting screw holes, 1 3/16 inches. Diameter, 2 inches. Height, 2 inches.

Standard finish is brush brass.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
50717	\$60.00	Solid Base.....	10	100	22
50718	60.00	Slotted Base.....	10	100	22

Hubbell Weatherproof Sockets

660 Watts, 600 Volts



No. 60666



No. 43310



No. 43320

Furnished with 6-inch No. 14 B. & S. stranded rubber-covered wire.

With Shade Holder Groove

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
60666	\$36.00	Composition.....	10	100	25

Without Shade Holder Groove

43310	\$26.00	Composition.....	10	100	22
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With Moulded-In Leads

43320	\$26.00	Mica Compound.....	10	100	23
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No. 311 Hubbell Rubber Weatherproof Sockets

660 Watts, 600 Volts



Made of high-grade, soft rubber with 6-inch leads No. 14 rubber-covered wire. With spring center contact.

Carton, 10. Standard package, 100. Weight per standard package, 15 pounds.

No. 311..... per 100 \$36.00

No. 7454 Hubbell Pin Type Bakelite Weatherproof Sockets

660 Watts, 250 Volts



Carton 10. Standard package, 100.

Weight per standard package, 13 pounds.

No. 7454..... per 100 \$28.00

Hubbell Weatherproof Sockets

With Cast Aluminum Shell

660 Watts, 250 Volts



No. 4006



No. 4016

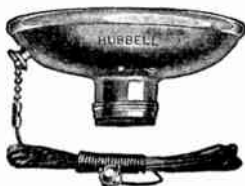
Ideal for inexpensive industrial installations. The 2 1/4-inch shade holder fits either shallow bowl or standard dome type reflectors.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
4006	\$88.00	1/2-Inch Threaded Bushing.....	10	100	55
4007	88.00	3/8-Inch Threaded Bushing.....	10	100	55
4016	88.00	1/2-Inch 90° Angle Bushing.....	10	100	65

Hubbell Brass Covered Ceiling Receptacles



No. 4100



No. 4104

Screw spacings: No. 4102, 2 $\frac{3}{4}$ inches; No. 4100 and No. 4104, 2 $\frac{3}{4}$ inches and 3 $\frac{1}{2}$ inches.

No. 4104 equipped with short chain, 4 feet of black cord and composition ball.

Standard finish, brush brass.

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb.	Pkg.
660 Watts, 250 Volts						
4100	\$110.00	Keyless, for 3 $\frac{1}{4}$ and 4-Inch Boxes.	1	50	44	
250 Watts, 250 Volts						
4104	216.00	Pull, for 3 $\frac{1}{4}$ and 4-Inch Boxes...	1	50	59	

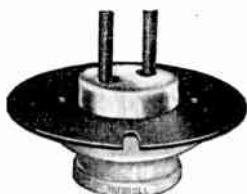
Hubbell Outlet Box Receptacles

With Metal Cover and No. 14 Wires

660 Watts, 600 Volts



No. 456



No. 458

Cadmium finish steel covers. Height, 1 $\frac{3}{16}$ inches above cover.

For 3 $\frac{1}{4}$ -Inch Boxes

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb.	Pkg.
456	\$44.00	Screw Terminals.....	10	100	45	
458	52.00	6-Inch Leads.....	10	100	55	

For 4-Inch Boxes

457	\$50.00	Screw Terminals.....	5	100	60	
459	58.00	6-Inch Leads.....	5	100	66	

Hubbell Porcelain Pull Receptacles

250 Watts, 250 Volts



No. 998

Extra chain eyelets, when sold separately, add \$4.00 per 100.

Extra length cord, \$2.00 per 100 feet. For insulators, add \$8.00 per 100.

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb.	Pkg.
997	\$59.00	7-Inch Chain and Insulator.....	10	100	35	
998	54.00	Short Chain and 4-Foot Cord....	10	100	35	
999	54.00	3-Foot Chain.....	10	100	36	

Hubbell Lumiline Lampholders

The unique applications of Lumiline Lamps by means of Lumiline Receptacles and Caps are now many and varied, especially in the indirect cove, or trough lighting fields.

Ideally suited for built-in or built-on illumination where space limitation is a factor; showcases, mirrors, scales, signs, display windows, railroad cars, buses; and in all lighting where a tubular source of light is required.

Bakelite Receptacles

660 Watts, 250 Volts



No. 2910



No. 2914



No. 2916

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb.	Pkg.
2910	\$22.00	Side Wired, Black.....	50	200	8	
2911	24.00	Side Wired, White.....	50	200	8	
2914	22.00	Back Wired, Black.....	50	200	6	
2915	26.00	Back Wired, White.....	50	200	6	
2916	32.00	Twin, Back Wired, Black.....	50	200	7	
2917	34.00	Twin, Back Wired, White.....	50	200	7	
2930	22.00	Back Wired, Single Screw Mounting, Black.....	50	200	8	
2931	26.00	Back Wired, Single Screw Mounting, White.....	50	200	8	

Bakelite Caps



No. 2912

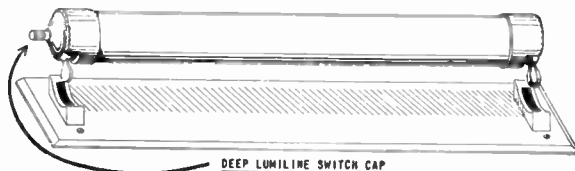


No. 2932

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb.	Pkg.
2912	\$11.00	Black.....	50	200	2	
2913	12.00	White.....	50	200	2	
2932	14.00	Deep Type, Black.....	50	200	5	
2933	15.00	Deep Type, White.....	50	200	5	

Deep Lumiline Switch Caps

For Individual Control of Lumiline Lamps



DEEP LUMILINE SWITCH CAP



No. 2934

75 Watts, 125 Volts

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb.	Pkg.
2934	\$40.00	Black Enclosed Cap and Switch..	50	200	5	
2935	42.00	White Enclosed Cap and Switch..	50	200	5	

Hubbell Porcelain Pull Receptacles

For 3 1/4 and 4-Inch Boxes
With Fluted Shade Holder Ring
250 Watts, 250 Volts



No. 40262

The 3 1/4-inch size: diameter of base, 1 1/16 in.; height overall, 2 1/2 in. Holes for supporting screws are spaced 2 3/4 in. on center. The 4-inch size: diameter of base, 4 1/16 in.; height overall, 2 3/2 in. Holes for supporting screws are spaced 3 1/2 in. on center.

No.	Per 100	Description	For Box In.	Car-ton	Std. Pkg.	Wt. Lb.
4026	\$67.00	6 1/2-Inch Chain and Insulator	3 1/4	10	50	40
4046	77.00	6 1/2-Inch Chain and Insulator	4	10	50	60
40461	62.00	6 1/2-Inch Chain Only	3 1/4	10	50	40
40461	72.00	6 1/2-Inch Chain Only	4	10	50	60
40262	62.00	Short Chain, 4-Foot Cord	3 1/4	10	50	40
40462	72.00	Short Chain, 4-Foot Cord	4	10	50	56

Hubbell Porcelain Receptacles

With Flush Back
With Shade Holder Groove
Pull: 250 Watts, 250 Volts
Keyless: 660 Watts, 250 Volts
 Carton, 10. Std. pkg., 24.



No. 829

No.	Per 100	Description	Pkg. Wt. Lb.
829	\$168.00	Pull, Short Chain and Cord	40
830	168.00	Pull, Short Insulated Chain	41
860	116.00	Keyless	36

3 1/4 and 4-Inch Outlet Boxes

With Shade Holder Groove
Keyless: 660 Watts, 250 Volts



No.	Per 100	Size Inches	O.D. Inches	Car-ton	Std. Pkg.	Wt. Lb.
3922	\$37.00	3 1/4	3 11/16	10	100	55
3923	42.00	4	4 7/16	5	50	40

Fitted with drain holes. Height, 1 3/8 in. Supporting screws spaced on centers: No. 3922, 2 3/4 in.; No. 3923, 3 1/2 in.

Hubbell Porcelain Sign Receptacles

With Glazed Rings
660 Watts, 250 Volts



No. 4003



No. 59108



No. 4109



No. 61988

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
*4003	\$36.00	1/8-Inch Ring, Binding Screws... Shallow Type	10	100	28
59108	\$26.00	1/4-Inch Ring, Binding Screws... Shallow Type	10	100	22
4109	31.00	1/8-Inch Ring, Covered Terminals... Deep Type	10	100	27
61988	\$26.00	1/4-Inch Ring, Binding Screws... Deep Type	10	100	23

*With longer leads \$4.50 additional per 100 devices for each extra foot on each conductor.
 Separate fluted rings, \$9.50 per 100. Separate grooved rings, \$12.00 per 100. Standard package, 100.

No. 4063 Hubbell One-Piece Sign Receptacles

660 Watts, 250 Volts



Requires a hole 1 3/8 inches in diameter. Supporting screws 1 1/16 inches on centers. Furnished with binding screws. Carton, 10. Standard package, 100. Weight per standard package, 22 pounds. No. 4063.....per 100 \$30.00

No. 3464 Hubbell Mogul Cleat Receptacles

1500 Watts, 600 Volts



Screws spaced 2 7/8 inches. Diameter of base, 3 1/2 inches. Carton, 2. Std. pkg., 50. Wt. per std. pkg., 41 pounds. No. 3464.....per 100 \$98.00

Hubbell Candelabra Sockets

75 Watts, 125 Volts



No. 5753



No. 5793

Standard finish is brush brass.

Screw Thread Shell Fastening

Carton, 25. Standard package, 100. Weight per standard package, 9 pounds. No. 5753 Keyless, 1/8-Inch Cap.....per 100 \$70.00

Bayonet Base—Lock Shell Fastening

Carton, 10. Standard package, 50. Weight per standard package, 5 pounds. No. 5793 Keyless, 1/8-Inch Cap.....per 100 \$66.00

No. 3394 Hubbell Keyless Candle Sockets

With Hickey

660 Watts, 250 Volts



Bushing, 1/8 inch. Length, 2 1/16 inches.

Carton, 25. Standard package, 250. Weight per standard package, 28 pounds.

No. 3394.....per 100 \$20.00

Hubbell Adjustable Candle Sockets

Pull—Complete

250 Watts, 250 Volts



No. 3965

Minimum length, 3 3/4 inches. Maximum length, 4 3/8 inches.

Carton, 10.

Standard package, 100.

Weight per standard package, 20 pounds.

No. 3965.....per 100 \$110.00

Keyless—Complete

660 Watts, 250 Volts



No. 3969

Minimum length, 3 3/4 inches. Maximum length, 4 3/8 inches.

Carton, 25.

Standard package, 250.

Weight per standard package, 35 pounds.

No. 3969.....per 100 \$40.00

Hubbell Adjustable Angle Adapter Sockets

660 Watts, 250 Volts



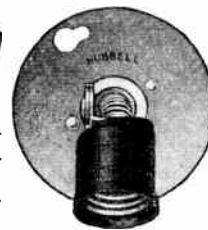
No. 3596



No. 3597

For use with New Projector and Reflector Lamps.

Carton 10. Standard package 100.




No. 3598

No.	Per 100	Description	Pkg. Wt., Lb.
3596	\$182.00	Adjustable Angle Adapter.....	35
3597	138.00	Angle Adapter Socket.....	19
3598	164.00	Socket on 3 1/4-Inch Galv. Cover.....	42
3599	166.00	Socket on 4-Inch Galv. Cover.....	54

H & H 5500 Line Sockets


Key
250 Watts, 250 Volts



Standard finish is brush brass. Nickel, gun-metal, chromium, electro-nickel and bright nickel are available.
Bodies and caps are not sold separately. Prices include caps.

No.	5520	5576	5571	5521
Per 100	\$22.00	25.00	26.00	22.00
Cap.	1/8-Inch	1/4-Inch	3/8-Inch	Pendent
No. in Ctn.	25	25	25	25
Std. Pkg.	250	250	250	250
Pkg. Wt.	51 lb.	51	49	48


Keyless
660 Watts, 250 Volts



Standard finish is brush brass. Nickel, gun-metal, chromium, electro nickel and bright nickel are available.
Bodies and caps are not sold separately. Price includes caps.

No.	5540	5579	5572	5541
Per 100	\$18.50	21.50	22.50	18.50
Cap.	1/8-Inch	1/4-Inch	3/8-Inch	Pendent
No. in Ctn.	25	25	25	25
Std. Pkg.	250	250	250	250
Pkg. Wt.	46 lb.	46	46	43


Push
250 and 660 Watts, 250 Volts



Standard finish is brush brass. Nickel, gun-metal, chromium, electro nickel and bright nickel are available.
Bodies and caps are not sold separately. Price includes caps.

No.	5535	5580	5581	5536
Per 100	\$25.00	28.00	29.00	25.00
Cap.	1/8-Inch	1/4-Inch	3/8-Inch	Pendent
No. in Ctn.	25	25	25	25
Std. Pkg.	250	250	250	250
Pkg. Wt.	48 lb.	48	48	45


Pull
250 and 660 Watts, 250 Volts



Standard finish is brush brass. Nickel, gun-metal, chromium, electro nickel and bright nickel are available.
Bodies and caps are not sold separately. Price includes caps.

No.	5500	5573	5570	5501
Per 100	\$24.00	27.00	28.00	24.00
Cap.	1/8-Inch	1/4-Inch	3/8-Inch	Pendent
No. in Ctn.	25	25	25	25
Std. Pkg.	250	250	250	250
Pkg. Wt.	40 lb.	46	42	40

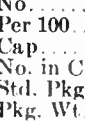
Keyless
660 Watts, 250 Volts



Standard finish is brush brass. Nickel, gun-metal, chromium, electro nickel and bright nickel are available.
Bodies and caps are not sold separately. Price includes caps.

No.	5530	5584	5585	5531
Per 100	\$26.00	29.00	30.00	26.00
Cap.	1/8-Inch	1/4-Inch	3/8-Inch	Pendent
No. in Ctn.	25	25	25	25
Std. Pkg.	250	250	250	250
Pkg. Wt.	48 lb.	48	48	48

Keyed
660 Watts, 250 Volts







Standard finish is brush brass. Nickel, gun-metal, chromium, electro nickel and bright nickel are available.
Bodies and caps are not sold separately. Price includes caps.

No.	5510	5574	5575	5511
Per 100	\$27.00	30.00	31.00	27.00
Cap.	1/8-Inch	1/4-Inch	3/8-Inch	Pendent
No. in Ctn.	25	25	25	25
Std. Pkg.	250	250	250	250
Pkg. Wt.	42 lb.	42	42	40

H & H Threaded Catch Socket Bodies

250 Volts

This socket body is fastened to the cap by a threaded ring which may be set very tightly.

No.	Per 100	Description	Carton	Std. Pkg.	Pkg. Wt. Lb.
65	\$27.00	Key, 250 Watts	25	250	47
13	43.50	Key, 660 Watts	25	250	47
66	22.50	Keyless, 660 Watts	25	250	40
67	37.00	Pull, 250 Watts	25	250	46
17	41.50	Pull, 660 Watts	25	250	46
18	26.00	Push, 250 Watts	25	250	47
63	27.00	Push, 660 Watts	25	250	47


H & H Threaded Catch Socket Caps

This cap is fastened to the socket body by a threaded ring which may be very tightly set. The cap cannot pull away from the body and vibration will not loosen the parts.

No.	Per 100	Description	Carton	Std. Pkg.	Pkg. Wt. Lb.
TA	\$7.50	1/8-Inch	25	250	9
TC	11.50	1/8-Inch, Side Outlet, Cord Hole .281-.156 Inch (9/32x3/32 Inch)	25	100	4
TB	18.00	1/4-Inch	25	50	3
TK	11.00	3/8-Inch	25	100	6
TZ	25.50	1/2-Inch	25	50	3
TM	7.50	Pendent, 13/32-Inch Cord Hole	25	250	6
TG	19.50	Cord Grip, 3/8-1/2 Inch, .375-.500 Inch	25	100	8
TMG	19.50	Cord Grip, 1/4-3/8 Inch, .250-.375 Inch	25	100	8

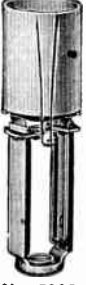
H & H Keyless Candle Sockets

660 Watts, 250 Volts



Body length, 1 5/8 inches.
Carton, 25.
Standard package, 250.

No.	Fixed Length	Adjustable
4208	\$20.00	20.00
Per 100	\$20.00	20.00
Overall Length	2 5/16 inches	3 15/16 to 5 5/8
Package Weight	18 pounds	32



No. 5998

H & H Adjustable Angle Adapters

Adjustment, 180° Vertical, 340° Horizontal

660 Watts, 250 Volts



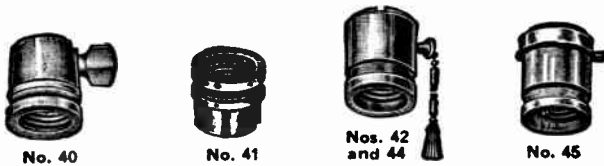

No. 4364

No. 4365

No.	Per 100	Description	Carton	Std. Pkg.	Pkg. Wt. Lb.
4364	\$138.00	Adjustable Adapter	10	100	10
4365	164.00	With 3 1/4-Inch Galv. Cover	10	50	18
4366	166.00	With 4-Inch Galv. Cover	10	50	20

H & H Interchangeable Porcelain Socket Bodies

250 Volts



Wash nickel is the standard finish on chain.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
40	\$44.00	Key, 250 Watts	10	100	29
41	34.00	Keyless, 660 Watts	10	100	18
42	85.00	Pull, 250 W., 7-Inch Insulated Chain	10	100	31
44	121.50	Pull, 660 W., 7-Inch Insulated Chain	10	100	33
45	43.50	Push, 660 Watts, 2-Inch Button	10	100	32

H & H Interchangeable Socket Caps



This cap is brass covered, finished wash nickel, with the exception of pendent which is porcelain.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
PM	\$20.00	Pendent	10	100	11
PE	36.00	Cord Grip Pendent, 1/4 to 1/2-Inch.	10	100	18
PA	38.00	1/8-Inch	10	100	14
PK	42.00	3/8-Inch	10	100	15

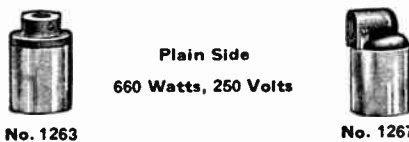
H & H Interchangeable Porcelain Socket Bases



No.	Per 100	Description	Base Diam. Inches	Screw Spacing Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
PB	\$33.00	Combination	2 7/16	2	10	100	25
PR	43.00	Flat Back, 3 1/4 Inches	3 11/16	2 3/4	10	50	15

H & H Porcelain Husk Sockets

With Body Terminals



No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
1269	\$13.50	Body Only, No Cap	10	100	28
1263	20.00	With 1/8-Inch Cap	10	100	32
1264	20.00	With 1/4-Inch Cap	10	100	29
1265	20.00	With 3/8-Inch Cap	10	100	28
1266	23.50	With 1/2-Inch Cap	10	100	28
1262	38.50	With 1/2-Hexagonal Cap	10	100	28
1267	32.00	With 3/8-Inch Angle Cap	10	100	39

H & H Aluminum Weatherproof Sockets and Shadeholders

Keyless—One-Piece Style

600 Watts, 600 Volts



No.	Each	Description	Car-ton	Std. Pkg.	Wt. Lb. Pkg.
7971	\$78.00	Socket, 3/8-Inch	10	50	16
7972	78.00	Socket, 1/2-Inch	10	50	16
7975	36.00	Shadeholder, 2 1/4 Inches	10	50	3

H & H Lumiline Lampholders

660 Watts, 250 Volts

These lampholders, designed to fit Lumiline Lamps, are supplied in black or white bakelite, either front or back connected styles. Single Lumiline Sockets fit one lamp and the Twin style supports two lamps in line.

There are two parts to each socket, the receptacle and the cap. The cap snaps over the end of the Lumiline Lamp and the circular contact goes into the receptacle with the contact screws facing inwards so that the flat surface is at the end of the lamp. Another lamp can then be installed very closely with only a small space between.

Receptacles



No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Pkg.
7979	\$22.00	Black	50	200	8
7979-W	24.00	White	50	200	8
7969	\$22.00	Single, Black	50	200	6
7969-W	26.00	Single, White	50	200	6
7992	32.00	Twin, Black	50	200	9
7992-W	34.00	Twin, White	50	200	9

Shallow Type Caps



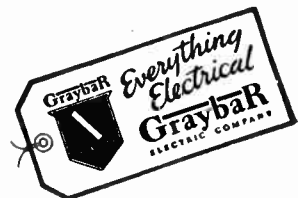
No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Pkg.
7980	\$11.00	Black	50	200	4
7980-W	12.00	White	50	200	4

Deep Type Caps

Switch Rating: 15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Pkg.
7993	\$14.00	Black	50	200	5
7993-W	15.00	White	50	200	5
7994	40.00	Black, with Switch	50	200	4
7994-W	42.00	White, with Switch	50	200	4





No. 43308

H&H Pin Type Weatherproof Bakelite Sockets

With Suspension Hook

Medium—660 Watts, 250 Volts
Intermediate—75 Watts, 250 Volts
Candelabra—75 Watts, 125 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb.
43308	\$21.00	Medium, for No. 12, 14 Wire...	10	100	12	
43318	21.00	Medium, for No. 10, 12 Wire...	10	100	12	
44408	11.00	Intermediate, for No. 16, 18, 20 Wire.....	10	100	4	
44418	17.00	Intermediate, for No. 14 Wire...	10	100	4	
33308	7.50	Candelabra, for No. 16, 18, 20 Wire.....	10	100	4	

H&H Weatherproof Sockets

With One-Piece Die-Cast Hood
660 Watts, 250 Volts



No. 1300



No. 1306



No. 1308

For all locations exposed to weather. Hood is die-cast of zinc-base metal which stops corrosion in all weather. Standard finish, aluminum. Green finish at no extra charge.

With 2 1/4-Inch Shadeholder

No.	Per 100	Description	Car-ton	Std. Pkg.	Std. Pkg.	Wt., Lb.
1300	\$80.00	1/2-Inch Hex. Cap.....	10	100	55	
1305	88.00	3/8-Inch Hex. Cap.....	10	100	55	
1306	88.00	90° Angle, 1/2-Inch Cap.....	10	100	65	

Without Shadeholder

1308	\$76.00	1/2-Inch Hex. Cap.....	10	100	51	
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With 6-Inch Wire Leads
660 Watts, 600 Volts



No. 9366



No. 43310-B



No. 43319



No. 1500

No. 14 B.&S. stranded rubber-covered wire is standard.

399	\$15.00	Porcelain, Plain.....	10	100	26	
9366	21.50	Porcelain, Shadeholder Gr.....	10	100	26	
43310	26.00	Composition, Shadeholder Gr.....	10	100	25	
43310-B	14.50	Bakelite, Shadeholder Groove.....	10	100	13	
43319	12.50	Bakelite, without Groove.....	10	100	13	
60666	20.50	Composition, Shadeholder Gr.....	10	100	25	
1500	24.00	All Rubber.....	10	100	19	

H&H Reducers or Adapters For Sockets and Receptacles



No. 4011



No. 649

No.	Per 100	Description	Car-ton	Std. Pkg.	Std. Pkg.	Wt. Lb.
4011	\$35.06	Mogul to Medium.....	10	100	18	
649	21.00	Medium to Intermediate.....	25	100	4	
392	24.00	Medium to Candelabra.....	25	100	5	
391	15.00	Candelabra to Miniature.....	20	100	1	

H & H Surface Cleat Receptacles

660 Watts, 250 Volts



No. 50715



No. 50715-C



No. 50721



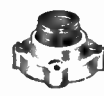
No. 9171



No. 28795



No. 9402



No. 9403



No. 59275

These receptacles are all porcelain, except Nos. 50715-C and 50721 which are bakelite.

No.	Per 100	Base Dimensions, Inches	Screw Spacings Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
50715	\$13.00	Porcelain, 2 1/16 x 2 1/16".....	1 1/16"	10	100	24
50715-C	20.00	Bakelite, 2 1/16 x 2 1/16".....	1 1/16"	10	100	12
50721	19.00	Bakelite, Covered Terminals, 1 1/8 x 1 1/8".....	1 3/4"	10	100	12
9171	22.00	Plain, 1 1/16" Diameter.....	1 Screw	10	100	23
28795	30.00	Plain, 2 5/16" Diameter.....	1 7/8"	10	100	35
9402	34.00	Plain, 2 1/16 x 2 3/32".....	2 3/8"	10	100	41
9001	37.50	Groove, 2 1/16 x 2 3/32".....	2 3/8"	10	100	40
9403	45.00	Brass Shell, 2 1/16 x 2 3/32".....	2 3/8"	10	100	34
*59275	38.50	2 1/32" Diameter.....	2"	10	100	43

*Wires will run 1 inch from the surface.

H & H Porcelain Sign and Fixture Receptacles

660 Watts, 250 Volts



No. 9154



No. 5413



No. 3952

Size hole required, 1 3/8 inches. Screw hole spacings, 1 13/16 inches.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
9154	\$18.00	Screw Terminals.....	10	250	65
5413	18.00	One Spring Stud, Octagon Base.....	10	250	65
7046	18.00	Clip Terminals.....	10	250	56
3951	18.00	Screw Terminals, Spring Stud.....	10	250	56
3952	18.00	Clip Terminals, Spring Stud.....	10	250	60

H & H Porcelain Ring Receptacles

Competitive Type

Shallow, Keyless—660 Watts



No. 7718



No. 7720



No. 7721



No. 7722

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7718	\$22.00	Screw Terminals, 1 3/16" Back.....	25	250	54
7720	19.00	Covered Terminals, 1 1/8" Back.....	25	250	64
7721	29.00	9" No. 14 Wire, 3/4" Back.....	25	250	64
7722	28.00	9" No. 18 C.F. Wire, 3/4" Back.....	25	250	57

No. 7799 H & H Rubber Handle Sockets

Turn Knob Type
250 Watts, 250 Volts



No. 7799

Carton, 10. Standard package, 20. Weight per standard package, 6 pounds.

per 100 \$64.00

H & H Outlet Box Porcelain Pull Receptacles

Two Piece, with Shadeholder Ring

250 Watts, 250 Volts



No. 7425

Nickel is the standard finish on chain. Special finishes will be supplied on special order.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7430	\$36.00	7" Chain, 3 1/4" Box	10	50	30
7423	30.00	Chain and 3' Cord, 3 1/4" Box	10	50	30
7425	36.00	Chain and Ins. 3 1/4" Box	10	50	30
7733	46.00	7" Chain, 4" Box	10	50	60
7734	40.00	Chain and 3' Cord, 4" Box	10	50	60
7735	46.00	Chain and Ins. 4" Box	10	50	60

H & H Outlet Box Keyless Receptacles

660 Watts, 250 Volts



No. 292

Weatherproof receptacles have 6 inches of No. 14 wire.



No. 290

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
9307	\$32.00	Receptacle Only	10	100	29
292	44.00	With Metal Cover, 3 1/4" Box	10	100	50
445	50.00	With Metal Cover, 4" Box	5	100	60
290	52.00	Weatherproof, with Metal Cover, 3 1/4" Box, 600 Volts	10	100	58
443	58.00	Weatherproof, with Metal Cover, 4" Box, 600 Volts	5	100	70

H & H Outlet Box Porcelain Keyless Receptacles

One Piece

660 Watts, 250 Volts



No. 5965



No. 5968

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
5965	\$24.00	3 1/4-Inch Box	10	100	61
5968	28.00	4-Inch Box	5	50	54

H & H Outlet Box Porcelain Receptacles One-Piece, with Shadeholder Groove

Pull, 250 Watts, 250 Volts
Keyless, 660 Watts, 250 Volts



No. 7383



No. 7385



No. 7389

This receptacle has a recessed back for stud mounting. Stud straps are required.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7382	\$68.00	Pull, Chain and 3' Cord, 3 1/4" Box	10	50	34
7383	68.00	Pull, 7" Chain and Insulator, 3 1/4" Box	10	50	34
7385	56.50	Keyless, 3 1/4" Box	10	50	49
7371	68.00	Keyless, 4" Box	10	50	76
7389	78.50	Pull, Chain and 3' Cord, 4" Box	10	50	76
7390	78.50	Pull, 7" Chain and Insulator, 4" Box	10	50	76

Benco Weatherproof Sockets

With Type S (1 1/16-Inch Diam.) Screw Thread
Listed by Underwriters' Laboratories



Benco Sockets are made for industrial or heavy duty use. They have highly insulated, rugged interior and strong metal casing. Thread on casing may be used for attaching reflectors with S holder and Benco holders.

Keyless Type—Medium Base

660 Watts, 600 Volts

Keyless sockets have a porcelain interior and lamp grip. Standard package, 50; carton, 10; weight of standard package, 17 pounds.

Casing material, aluminum; polished finish.
No. 4200, Tapped for 1/2-Inch I.P. Connection per 100 \$78.00
No. 4201, Tapped for 3/8-Inch I.P. Connection per 100 78.00

Pull Chain Type—Medium Base

660 Watts, 250 Volts



The inner-pull is a feature of these Benco Sockets. It is a means to make them weather-proof, and the chain action is unobstructed.

Molded composition interior and Benjamin Lamp Grip.

Standard package, 50; carton, 10; weight, 17 pounds.

Pull socket interior packed 50 in a standard package; carton, 10; weight of standard package, 25 pounds.

Casing material, aluminum; polished finish.
No. 4225, Tapped for 1/2-Inch I.P. Connection
..... per 100 \$180.00
No. 4226, Tapped for 3/8-Inch I.P. Connection
..... per 100 180.00
No. 4209, Pull Socket Interior Only..... per 100 150.00

Benjamin Benco Threaded Holders

With Type S (1 1/16-Inch Diam.) Screw Thread

Benco Holders provide an easy means for attaching shades or reflectors to the Benco Sockets and Outlet Box Fittings. These holders are made to fit any glass or metal reflector with standard neck sizes.

It should be noted, while considering the Benco Holders, that Benjamin Porcelain Enamelled Steel Reflectors are furnished with holders for attachment to Benco Sockets and Outlet Box Fittings.

Polished Aluminum Holders—Weatherproof

Standard package, 50; carton, 10.



2 1/4-Inch Holder

No.	4215	4217
Per 100	\$30.00	45.00
Size	2 1/4 inches	3 1/4
Weight Std. Package	3 pounds	4

No. 1406 Benjamin Outlet Box Receptacle Covers



Provides a cover for 3 1/4 and 4-inch outlet boxes. A medium base receptacle for a lamp and threaded shell which makes it easy to attach Benco threaded holders and Benjamin reflectors with Type S holder.

Green enamel finish.

Packed 10 in a carton.

Standard package, 50.

No. 1406 per 100 \$140.00

P & S Porcelain Interchangeable 1-Screw Sockets

P & S porcelain 1-screw socket parts are not interchangeable with P & S 2-screw socket parts.

Socket Bodies

Key—250 Watts, 250 Volts

No.	Per 100	Car-ton	Qty.	Wt. Lb.
S-26	\$44.00	10	100	33
*S-38	76.00	10	100	31

Keyless—660 Watts, 250 Volts

S-27	\$34.00	10	100	19
*S-39	72.00	10	100	20

*Shurlock
Pull—250 Watts, 250 Volts
Insulated nickel flash chain.

S-47	\$85.00	10	100	30
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No. S-26



No. S-27



No. PA



No. PY



No. PC



No. O-26



No. O-27



No. O-47



No. O-PA



No. O-PC

Caps

Standard finish of brass caps is nickel flash.

Pendant for Reinforced Cord

No.	Per 100	Cap. Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
PA	\$20.00	..	10	100	13

Pendant with Cord Grip

PY	\$36.00	1/2	10	100	19
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Straight Nipple—Brass

PC	\$38.00	1/8	10	100	17
PE	42.00	3/8	10	100	17
PZ	58.00	1/2	10	100	26

P & S Porcelain Interchangeable 2-Screw Sockets and Parts

P & S 2-screw porcelain socket parts are not interchangeable with P & S 1-screw porcelain socket parts.

The standard finish of brass caps and brass chain for porcelain pull sockets is nickel flash.

Socket Bodies

Key—250 Watts, 250 Volts

No.	Per 100	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
O-26	\$44.00	10	100	30
O-38 Shurlok	76.00	10	100	31

Keyless—660 Watts, 250 Volts

O-27	\$34.00	10	100	18
O-39 Shurlok	72.00	10	100	20

Pull—250 Watts, 250 Volts

O-47	\$85.00	10	100	28
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Caps

Pendant for Reinforced Cord

No.	Per 100	Cap. Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
O-PA	\$20.00	..	10	100	13

Straight Nipple—Brass

O-PC	\$38.00	1/8	10	100	17
O-PE	42.00	3/8	10	100	17
O-PZ	58.00	1/2	10	100	26

P & S Porcelain Outlet Box Receptacles

Keyless—660 Watts, 250 Volts

For 3/4-Inch Boxes



No. 41F

Outside diameter, 3 1/2 inches; height overall, 1 1/8 inches. Holes for supporting screws paced 2 3/4 inches on centers.

Packed 10 in a carton, 100 in a standard package. Weight per standard package, 60 pounds.

No. 41.....each \$30.00

For 4-Inch Boxes

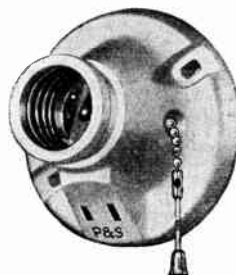
Outside diameter, 4 1/2 inches; height overall, 1 3/32 inches. Holes for supporting screws spaced 3 1/2 inches on centers. Packed 5 in a carton, 50 in a standard package. Weight per standard package, 48 pounds.

No. 110.....each \$37.00

P & S Porcelain One-Piece Outlet Box Receptacles

With Shadeholder Groove and Convenience Outlet

Rating: 250 Watts, 250 Volts; Outlet, 15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 5026-2

Convenience outlet is connected internally, eliminating extra wires, soldering, and taping.

Also available in keyless models (Nos. 41 and 110).

For 3/4-Inch Outlet Boxes

Dimensions: diameter of base, 3 5/8 inches; height overall, 2 1/4 inches; screw hole spacing, 2 3/4 inches.

No.	Per 100	Description	Car-ton	Std. Pkg.
5026	\$64.00	Insulated Nickel Chain.....	10	50
5026-1	58.00	Short Chain Only.....	10	50
5026-2	58.00	Short Chain and Long Cord...	10	50

For 4-Inch Outlet Boxes

Dimensions: diameter of base, 4 1/16 inches; height overall, 2 1/4 inches; screw hole spacing, 3 1/2 inches.

No.	Per 100	Description	Car-ton	Std. Pkg.
5046	\$74.00	Insulated Nickel Chain.....	10	50
5046-1	68.00	Short Chain Only.....	10	50
5046-2	68.00	Short Chain and Log Cord....	10	50

P & S Porcelain Screw Ring Receptacles

For Signs, Fixtures and Outlet Boxes Shallow Back



No. 4100

Length of back, 1 5/16 inches.

Punch required, 1 1/2 inches.

660 Watts, 250 Volts
With Screw Terminals

No.	Per 100	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
*4100	\$22.00	25	250	52



No. 4101

With Screw Terminals Enclosed

*4101	\$24.00	25	250	66
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No. 4114

With 9-Inch No. 14 Rubber Covered Wire Leads

*4114	\$28.00	25	250	69
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With No. 18 Heat Resisting Wire Leads

*4118	\$26.00	25	250	57
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*Furnished with unglazed shell and ring.

P & S Porcelain Pull Receptacles

With Flush Back
250 Watts, 250 Volts



For 3¼-Inch Boxes

Diameter of base 3½ inches; height overall, 2¼ inches. Holes for supporting screws spaced 2¾ inches on center.

With Shade-Holder Groove Ring

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
4026	\$56.00	Insulated Nickel Chain...	10	50	40
4026-1	50.00	Short Chain Only.....	10	50	40
4026-2	50.00	Short Chain, Long Cord...	10	50	40

Order P & S 41 for similar device in keyless style.

For 4-Inch Boxes

Diameter of base, 4¼ inches; height overall, 2¼ inches. Holes for supporting screws are spaced 3½ inches on centers.

With Shade-Holder Groove Ring

4046	\$66.00	Insulated Nickel Chain...	10	50	55
4046-1	60.00	Short Chain Only.....	10	50	55
4046-2	60.00	Short Chain, Long Cord...	10	50	55

Order P & S 110 for similar device in keyless style.

P & S Porcelain Receptacles

With Recessed Back

Pull—250 Watts, 250 Volts; Keyless—660 Watts, 250 Volts



No. 4011



No. 4058

Designed with deep recessed back to simplify installation when boxes are tilted or project from the wall.

Regularly supplied with shadeholder groove ring.

Pull type is equipped with short chain and long cord as standard, but can be supplied with 7-inch nickel chain, insulator and pendant without extra charge.

Receptacles are provided with necessary screws, straps and lock nuts for mounting on boxes.

For 3¼-Inch Boxes

Diameter of base, 4 inches; height over all, 2 inches. Holes for supporting screws spaced 2¾ inches on centers.

For Mounting on Boxes with Ears

Cat. No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lbs. Std. Pkg.
4011	\$82.00	Pull, Short Chain, Long Cord.	10	50	55
4058	68.00	Keyless.....	10	50	55

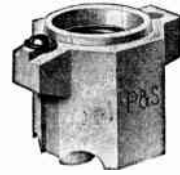
For 4-Inch Boxes

Diameter of base, 4¾ inches; height over all, 2 inches. Holes for supporting screws spaced 3½ inches on centers.

For Mounting on Boxes with Ears

4012	\$96.00	Pull, Short Chain, Long Cord.	10	50	65
4057	82.00	Keyless.....	10	50	65

No. 5403 P & S Porcelain One-Piece Medium Base Sign Receptacles
Spring Studs—Screw Terminals
660 Watts, 600 Volts



Bronze screws are used for holding metal parts in complete assembly and insuring long life. Equipped with heavy terminals, electrolytic copper contact shells and phosphor bronze spring center contacts. Mounting screws and studs are made of bronze.

Carton, 25. Standard package, 100.

No. 5403 per 100 \$30.00

No. 54 P & S Porcelain One-Piece Medium Base Sign Receptacles
Mounting Screws—Screw Terminals
660 Watts, 600 Volts



Bronze screws are used for holding metal parts in complete assembly and insuring long life. Equipped with heavy terminals, electrolytic copper contact shells and phosphor bronze spring center contacts. Mounting screws and studs are made of bronze.

Carton, 25. Standard package, 100.

No. 54 per 100 \$30.00

No. 50715 P & S Porcelain Cleat Receptacles
With Screw Terminals—For Signs and Surface Wiring
660 Watts, 250 Volts



Known to the trade as a Pony receptacle. Diameter of base, 2½ inches. Height, 1½ inches. Screw holes are spaced 1¾ inches.

Packed 10 in a carton, 100 in a standard package.

Weight 25 pounds per standard package.

No. 50715 per 100 \$20.00

No. 998 P & S Porcelain Pull Receptacles

For Lighting Fixtures
250 Watts, 250 Volts



Fitted with porcelain clamping rings and gaskets. For use with units having 1½-inch throat.

Furnished with short chain and long cord.

Packed 10 in a carton, 100 in a standard package.

Weight per standard package, 35 pounds.

No. 998 each \$45.00

P&S Industrial and Weatherproof Sockets

660 Watts, 250 Volts



No. 8006



No. 8008

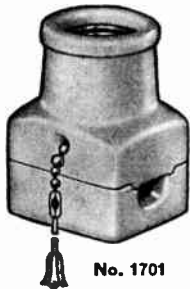
Standard P & S interior. A 2¼-inch shadeholder fits shallow bowl or standard dome reflectors. Die cast metal shell; baked aluminum spray finish.

No. 8006 has ½-inch cap.

No. 8008 has 90° angle cap for ½-inch conduit.

No.	Per 100	Carton	Std. Pkg.	Wt. Lb., Std. Pkg.
8006	\$77.00	10	50	25
8008	88.00	10	100	65

P&S Porcelain Cablettes Switch and Outlet Boxes



No. 1701

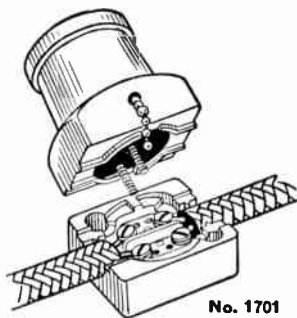
Keyless: 660 Watts, 250 Volts
Pull: 250 Watts, 250 Volts

For use with non-metallic sheathed cable to permit installation directly on the surface without the use of boxes, clamps, connectors, or soldering.

Made of two pieces, base and lamp-holder body. Has removable knockout to close the opening when feed-through run is not required.



No. 1700



No. 1701

No.	Per 100	Description	Std. Pkg.	Wt., Lb. Std. Pkg.
1700	\$36.00	Keyless.....	50	20
1701	64.00	Pull.....	30	29

No. 63310 Union Canvas Bakelite Weatherproof Sockets



Used where sockets receive greatest abuse. Made of canvas impregnated with bakelite. Has phosphorus bronze spring contacts. Stranded No. 14 6-inch leads. Rating, 660 watts and 600 volts.

Available with left hand thread, No. 63310LH. No. 63310..... per 100 \$45.47

No. 5464 P & S Bakelite Pin Type Sockets

Medium Base
660 Watts, 250 Volts



For temporary decorative lighting work, for indoor or outdoor use. No stripping, splicing, soldering or tapping of wires. Socket applied directly to wire. Sharp pointed pins pierce insulation and make positive contact. Wires held in place by socket cap.

Socket may be positioned or moved to any desired spacing at any time, as pin contacts will not injure insulation of wire.

A detachable hook is supplied with each socket for hanging socket from tree or messenger wire.

For stranded wire No. 12 or 14. Carton, 10. Standard package, 100.

No. 5464..... per 100 \$28.00

No. 600 Watertite Weatherproof Sockets

660 Watts, 600 Volts



Used as an under-water unit without injury or short-circuit in socket or lamp. Meets all requirements for outside use. Also, for service in mines, tunnels, boiler rooms, etc., and all places where there is moisture and condensation or where sediments form on sockets.

Standard weatherproof shade holder will fit socket. Fits standard sign receptacle cover.

Outside diameter, 1½ inches. Leads are No. 14 stranded wire; 6 inches long. Carton, 10; standard package, 100.

Weight, standard package, 20 pounds.

No. 600..... each \$3.50

No. 43310 Union Weatherproof Sockets

Bakelite sockets are recommended where the socket will be subjected to abuse and high temperatures up to 500° C., and with gas filled lamps above 75 watts.

EXTRATUF sockets are recommended where extraordinary rough usage is to be suffered by such installation.

All sockets supplied with spring contact unless solid contact is specified.

Sockets can be furnished with left hand thread if desired.

Medium screw base.

Packed 25 in a carton, 100 in std. pkg.



No. 43310

No.	Per 100	Kind	Thread	Wt. Lb. per Pkg.
43310	\$17.41	Bakelite	R.H.	14
43310LH	22.46	Semi-Impact	R.H.	14
43310 EXTRATUF	21.47	Bakelite	L.H.	14
43310LH EXTRATUF	26.52	Semi-Impact	L.H.	14

No. 60666 Union Weatherproof Sockets

Bakelite sockets are recommended where the socket will be subjected to abuse and high temperatures up to 500° C., and with gas filled lamps above 75 watts.

Sockets supplied with spring contact unless solid contact is specified.

Sockets can be furnished with left hand thread if desired.

Medium screw base.

Packed 25 in a carton, 100 in std. pkg.



No.	Per 100	Kind	Thread	Wt. Lb. Per Pkg.
60666	\$24.60	Bakelite	RH	16
60666LH	29.10	Bakelite	LH	16

Union Ever-Ready Pin Type Sockets

Ever-Ready pin type sockets are absolutely weatherproof.

Made with a long inserted screw so that cap and base can be firmly assembled when wires or conductors are engaged.

A supporting hook is furnished with each socket.

Packed 10 in a carton, 100 in a standard pkg.



No. 44408

No.	Per 100	Base	Wire No.	Wt. Lb. Std. Pkg.
43308	\$28.00	Medium	14-12	11
43318	28.00	Medium	12-10	11
44408	17.00	Intermediate	18-16	4
44418	22.00	Intermediate	14	5
No. 44408	11108	Candelabra	20-18	4

Union Decorating Lighting Streamers

With Candelabra Base Sockets



Equipped with candelabra base, red cap, black base, Ever-Ready pin type bakelite sockets including supporting hooks.

No.	Per 100	Spacing Inches	Wire No.	Std. Pkg.	Wt. Lb. Std. Pkg.
312	12	20,18	100	11	
318	18	20,18	100	15	
324	24	20,18	100	16	

Other spacing available upon request.

Union Decorating Lighting Streamers

With Intermediate Base Sockets



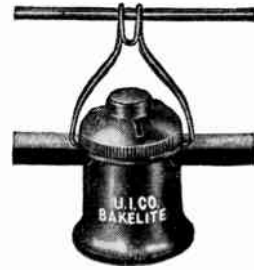
Equipped with intermediate base, red cap, black base, Ever-Ready pin type bakelite sockets including supporting hooks.

Standard package, 100.

With No. 18 Str. Code Wire, Green, Red				With No. 16 Str. Code Wire, Green, Red				With No. 14 Lacquered Black and White Stranded Wire				
No.	Per 100	Spacing Inches	Wt. Lb. per 100	No.	Per 100	Spacing Inches	Wt. Lb. per 100	No.	Per 100	Spacing Inches	Wt. Lb. per 100	
706	6	8	806	6	9	906	6	9	6	9	906	6
708	8	9	808	8	10	908	8	10	8	10	908	8
710	10	10	810	10	11	910	10	12	10	12	910	10
712	12	11	812	12	12	912	12	13	12	13	912	12
715	15	13	815	15	14	915	15	15	15	15	915	15
718	18	15	818	18	16	918	18	17	18	17	918	18
724	24	16	824	24	17	924	24	21	24	21	924	24
730	30	23	830	30	23	930	30	28	30	28	930	30
736	36	27	836	36	28	936	36	37	36	37	936	36

Union Decorating Lighting Streamers

With Medium Base Sockets

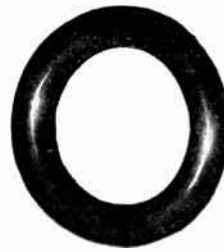


Equipped with standard medium base Ever-Ready pin type bakelite sockets including supporting hooks, red cap, and black base.

Standard package, 100 sockets.

With No. 14 Str. R.C. Code Wire				With No. 12 Str. R.C. Code Wire				With No. 10 Extra Flexible Code Lacquered Wire				
No.	Per 100	Spacing Inches	Wt. Lb. per 100	No.	Per 100	Spacing Inches	Wt. Lb. per 100	No.	Per 100	Spacing Inches	Wt. Lb. per 100	
406	6	13	606	6	14	506	6	15	6	15	506	6
408	8	14	608	8	16	508	8	17	8	17	508	8
410	10	16	610	10	17	510	10	19	10	19	510	10
412	12	17	612	12	19	512	12	22	12	22	512	12
414	14	18	614	14	21	514	14	23	14	23	514	14
415	15	19	615	15	22	515	15	26	15	26	515	15
418	18	20	618	18	25	518	18	29	18	29	518	18
420	20	23	620	20	27	520	20	31	20	31	520	20
422	22	25	622	22	29	522	22	33	22	33	522	22
424	24	27	624	24	31	524	24	35	24	35	524	24
426	26	29	626	26	33	526	26	37	26	37	526	26
428	28	31	628	28	35	528	28	39	28	39	528	28
430	30	33	630	30	37	530	30	42	30	42	530	30
436	36	40	636	36	45	536	36	44	36	44	536	36

No. R-20 Union Rubber Sealing Rings



Used to protect weatherproof light sockets from corrosive gases and moisture. Lamp locks in socket so that vibration will not jar lamps out of contact.

To install, place ring on lamp thread, screw lamp into socket. Pressure seal is created between socket lip and bulge of the lamp.

No. R-20..... per 100

Union Bakelite Bushings With and Without Locknuts



No. B-18



No. B-18-LN

Made by hot molded process to produce strong, sharp, seamless threads.

Packed 100 in a carton. Standard package, 1000.

Thread Size Inches	Without Locknuts		With Locknuts		I.D. In.	For Knockout Inches	Length Under Hd., In.
	No.	Per 100	No.	Per 100			
1/8	B-18	.....	B-18 -LN	.....	17/64	13/32	31/64
1/4	B-14	.....	B-14 -LN	.....	5/16	17/32	19/32
3/8	B-38	.....	B-38 -LN	.....	13/32	21/32	47/64
1/2	B-12	.....	B-12 -LN	.....	9/16	27/32	29/32
1/2	B-122	.....	B-122-LN	.....	27/32	27/32	29/32

Protex Rubber Covered Sockets

660-Watts, 250-Volts



No. 700

The outer covering of this socket is made of high quality rubber compound to protect the interior from breakage and also make the socket shockproof and safe.

Packed 10 in a carton, 100 in a standard package.



No. 717

Push Type

To remove the interior of the socket, pull out fiber bar. When lamp is in socket, bar cannot be removed, as spring contact locks bar in.

No.	Each	Description	Wt., Lb. Std. Pkg.
700	\$1.40	Pendant with 1/16-inch Cord Hole.....	27
701	1.60	1/8-Inch Cap.....	29
702	1.60	1/4-Inch Cap.....	29
703	1.70	3/8-Inch Cap.....	31
704	1.70	1/2-Inch Cap.....	32
705	2.00	Pendant with 1/8 to 1/2-Inch Cord Grip.....	38

Keyless Type

Socket interior can be removed from the rubber cover by pushing or pulling it out.

No.	Each	Description	Wt., Lb. Std. Pkg.
710	\$.90	Pendant with 1/16-Inch Cord Hole.....	22
711	1.10	1/8-Inch Cap.....	23
712	1.10	1/4-Inch Cap.....	23
713	1.20	3/8-Inch Cap.....	25
714	1.20	1/2-Inch Cap.....	26
717	1.30	Pendant with 1/8 to 1/2-Inch Cord Grip.....	33

Watertite Rubber Weatherproof Sockets

With Cadmium-Plated Covers

660-Watts, 600-Volts



Specify flat or raised covers as desired.

Leads consist of all rubber No. 14 stranded wire, 6 inches long. For leads longer than 6 inches, add 3 cents for each additional lineal foot desired.

Packed 10 in a carton, 100 in a standard package.

No.	601	602
Each.....	\$.50	.50
For Outlet Box.....	inches 3 1/4	4
Weight per Standard Package.....	pounds 54	55

Watertite Molded Rubber Lamp Receptacles

Made of one-piece molded rubber.

Packed 10 in a carton, 100 in a standard package.

Weight per standard package, 31 pounds.

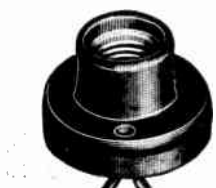


No. 603,
With Side Wires

For indoor and outdoor use; tunnel work and mine lighting; and for railway signal and crossing gate lighting.

Screw spacing, 2 inches, center to center.

No. 603.....each \$.70



No. 604,
with Back Wires

Designed for spider outlet box covers. Especially suitable for locations where there is moisture and dust.

Screw spacing, 2 inches, center to center.

No. 604.....each \$.70

Union Bakelite Wiring Devices

For Outlet Boxes

Weatherproof, keyless lamp base with shade holder grooves.

No.	3058	4058
Per 100.....	\$41.04	42.93
Size.....inches	3 1/4	3 1/4, 4
Carton.....	10	5
Std. Pkg.....	100	100
Wt. per Std. Pkg....lb.	20	25



McGill Keyless and Levolver Sockets

660-Watt

For Portable Lamp Guards



No. 4003



No. 4004



No. 4005

No. 4003, black composition, is firmly imbedded in the handles of all keyless models.

Nos. 4004 and 4005 are Levolver types, thoroughly insulated, with fiber levers and bakelite shells.

Standard package 100, carton 10.

No.	Each	Description	Wt. Lb. Per 100
4003	\$.40	Black Composition, Keyless	25
4004	.60	Brass Levolver with Fiber Lever	17
4005	.70	Brass Levolver with Fiber Lever	17
4015	.80	Grounded Similar to No. 4003	7

McGill Levolver Bathroom Fixture Sockets

660 Watts, 250 Volts

For brackets and chandeliers using candles, husks, and other types of socket covers.

Porcelain lever serves as a finishing knob and does away with unsightly black keys, slots in husks, or chains coming out of the side.

Standard package, 100, carton 10.



No. 121

No.	Each	Nipple Inches	Lever	Wt. Lb. Std. Pkg.
103	\$.65	5/8	Brass or Nickel	18
119	.70	5/8	Plain	14
121	.80	5/8	Porcelain	16
122	.80	5/8	Porcelain	15
*127	.70	Square	Plain	20

No. 292 P&S Porcelain Socket Adapters



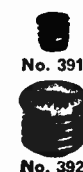
No. 292.....per 100 \$35.00

Mogul to medium base.

Carton, 10.

Standard package, 100.

Bryant Socket Reducers



No. 391



No. 392

Cat. No.	Per 100	Description	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
421	\$35.00	Mogul to Medium.	10	100	19
392	24.00	Medium to Candelabra.....	25	100	6
391	18.00	Candelabra to Miniature.....	20	100	1

**Morse Eureka Lamp Socket Adapters
With Medium Base**



Nos. 67 and 68

For Use with Photoflash Lamps

Makes Mighty Midget Photoflash Lamp No. 5, with single contact Bayonet base, immediately available to present photographic equipment.

Adapter is screwed into lamp socket and bulb inserted.

- No. 68, To Replace Nos. 7 & 11 Bulbs, Medium to Single Contact.....each \$.49
- No. 681, to Replace No. 21 Bulb, Medium to Single Contact.....each .60



No. 681

For General Use

For general purposes and on all occasions where it is desired to use automotive type bulb in standard screw receptacles.

- No. 67, Medium to Double Contact.....each \$.51

Morse Eureka Lamp Socket Adapters



No. 69

No. 69, Foreign Double Contact to Medium Screw Base... each \$.46

No. 83, Medium Screw Base to Foreign Double Contact... each .50



No. 83

Morse Eureka Bayonet Sockets



No. 30



No. 20-21

Has black bakelite base, plunger inserts, brass shell and screws.
Nickel plated.

No.	Double Contact		Single Contact
	30	20	21
Each.....	\$.73	.62	.59
Base.....inches	1 5/8 x 1 1/16	*1 3/8	*1 3/8
Overall Height.....inches	1 1/8	1 5/16	1 5/16

*Diameter.

No. 91 Benjamin Socket Extensions

**Medium Base
660 Watts, 250 Volts**



For attaching glassware to flush sockets or ceiling receptacles. Lowers the lamp, in long narrow shades, 7/8 inch. Permits use of 60, 100 and 150-watt lamps in reflectors designed for next larger size lamp. Lacquered brass finish.

- Packed 10 in a carton, 50 in a standard package.
- No. 91, Weight per Standard Package, 10 Lb. per 100 \$17.00

No. 4396 Benjamin Mogul Base Socket Extensions

Listed by Underwriters' Laboratories
1500-Watts, 600-Volts



By means of this device the socket may be extended 2 1/2 inches, and lamp filament lowered correspondingly.

Fixtures designed for 750, 1000 and 1500-watt lamps may be converted for use with 300 and 500-watt lamps, with the addition of this extension.

Body is of porcelain with contact parts of brass or copper.

Packed 10 in a carton, 50 in a standard package.

- Weight per standard package, 55 pounds.
- No. 4396.....per 100 \$110.00

**P & S Concealed Rosettes
660 Watts, 250 Volts**



No. 79



No. 1999

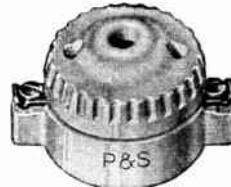
No.	Per 100	Description	Ht. In.	Dimensions of Base In.	Screw Spacing In.	Car. ton	Std. Pkg.	Wt. Lb.
*79	\$36.00	2-Piece Fuseless	1 5/32	2 1/4 Diam.	1 13/32	10	100	42
1999	22.00	1-Piece Fuseless	1 1/4	2 25/32 x 2 7/32	1 1/16	10	100	28

*Not N.E.C. Standard.

No. 76 P&S Porcelain Two-Piece Fuseless Rosettes

660 Watts, 250 Volts

Dimensions of base, 2 1/8 x 2 7/8 in. Height, 1 9/16 inches. Screw spacing, 1 1/16 inches. Not N.E.C. standard. Carton, 10. Standard package, 100.



- No. 76.....per 100 \$36.00

H & H Porcelain Rosettes

Fuseless, 660 Watts, 250 Volts

Fusible, 2 Amperes, 125 Volts



No. 483



No. 484

Nos. 483, and 838 have a base diameter of 2 1/4 inches. Nos. 484 and 839 have a base diameter of 2 3/8 inches. Screws spaced 1 5/8 inches on centers.

No. 485 has a base size 2 5/16 inches square.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
483	\$22.00	Fuseless, Cleat Base.....	10	100	41
484	22.00	Fuseless, Concealed Base.....	10	100	48
485	22.00	Fuseless, Molding Base.....	10	100	42
838	32.00	Fusible, Cleat Base.....	10	100	40
839	32.00	Fusible, Concealed Base.....	10	100	49

No. 1999 H & H Porcelain Rosettes

One Piece—Fuseless



Cleat and concealed type. Diameter, 2 1/2 inches, screws spaced 1 1/2 inches on centers.

Carton, 10. Standard package, 100.

Weight per standard package, 23 pounds.

- No. 1999.....per 100 \$13.00

H & H Porcelain Rosettes

For Outlet Boxes



No. 1174



No. 1173

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
1174	\$42.00	With Terminals, 3 1/4" Box.....	10	50	27
1175	58.00	With Terminals, 4" Box.....	5	50	37
1172	11.00	Without Terminals, 3 1/4" Box.....	10	50	19
1173	15.00	Without Terminals, 4" Box.....	5	50	36

Bryant Porcelain Rosettes

With Fusible Caps
2 Amperes, 125 Volts



No. 1501



No. 1502

No.	Per 100	Diam. In.	Screw Spacing In.	Carton	Std. Pkg.	Wt., Lb. Std. Pkg.
*1501	\$40.00	2 ³¹ / ₃₂	1 ⁵ / ₈	10	100	40
*1502	40.00	2 ¹¹ / ₃₂	1 ⁵ / ₈	10	100	49

With Screw Terminals
660 Watts, 250 Volts



No. 574



No. 575

No.	Per 100	O.D. In.	Screw Spacing In.	Carton	Std. Pkg.	Wt., Lb. Std. Pkg.
574	\$42.00	3 ¹¹ / ₁₆	2 ³ / ₄	10	50	27
575	58.00	4 ²¹ / ₃₂	3 ⁹ / ₃₂ & 3 ¹ / ₂	5	50	48

*Not listed as standard by Underwriters' Laboratories, Inc.

Hubbell Socket Chain, Cord, and Tassels



No. 5382



No. 3946



No. 5919



No. 7015



No. 3436

Pull sockets furnished with short chain and 4 feet of cord, complete with tassel instead of 6¹/₂-inch chain, add \$3.00 per 100.

Standard finish is brush brass. For special finishes on chain add \$2.00 per 100 feet or fraction.

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb.
5382	†\$9.00	No. 6 Standard Socket Chain....	*	†1000	18
6563	†3.00	Black Linen Cord.....	*	†1000	10
6733	†3.00	White Linen Cord.....	*	†1000	10
6735	†4.20	Heavy Black Linen Cord.....	*	†100	3
3436	28.00	6-Foot Cord, Chain and Tassel...	*	250	10
3321	38.00	6 ¹ / ₂ -Inch Chain, Ins. and Tassel...	*	250	10
3946	11.00	Tassel, Standard Detachable....	*	250	5
3947	11.00	Tassel, Candelabra Detachable...	*	50	1
†6561	†24.00	6-Foot Cord Only with Tassel....	*	250	10
†6562	†34.00	10-Foot Cord Only with Tassel...	*	250	15
§5919	11.00	Tassel, Adjustable for Linen Cord.	*	250	5

*Packed in bulk. †Price per 100 feet. ‡No of feet.
§Furnished in black finish to match cord. ¶Ounces.
‡Can be supplied with black cord at no extra price.

Hubbell Detachable Links



No. 6814



No. 1650 and 1651

Links are easy to attach and detach. Neat in appearance. Standard finish is brush brass. Other finishes on order.

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb. Os.
*6814	\$16.00	Detachable Insulating Link..	100	100	8
1650	5.00	Splicing Link for No. 3 Chain.	200	200	8
1651	5.00	Splicing Link for No. 6 Chain.	200	200	8

*This device is fitted with slotted catches for chain.

Bryant Shade-Holders

Ventilated—With Screws



No. 501

Attaches directly to the threaded bead on medium base sockets and receptacles. Because of wedge thread, fit between socket-shell and holder is rigid.

Made of finished brass.

No.	501	505	511
Per 100.....	\$19.00	36.00	46.00
Size.....inches	2 ¹ / ₄	3 ¹ / ₄	4
Carton.....	50	25	10
Standard Package.....	500	250	100
Wt. per Std. Pkg.....pounds	21	31	18



Bryant Weatherproof Shade-Holders

Used with any medium base porcelain or composition socket or receptacle provided with a shade-holder groove.

Not N.E.C.S.

Cat. No.	Per 100 Finished	Size Inches	Carton	Std. Pkg.	Pkg. Wt. Lb.
628	\$19.00	2 ¹ / ₄	25	250	15
629	27.00	3 ¹ / ₄	10	100	10

No. 549 Bryant Fixture Rings

Listed by Underwriters' Laboratories, Inc.



Used for lamp shade frames and ornamental fixture pieces.

No.	Per 100	Carton	Std. Pkg.	Wt., Lb. Std. Pkg.
549	\$12.00	50	200	4

Hubbell Shade Holders

Direct Threading 3-Screw Type

For Brass Shell Sockets

Standard finish is brush brass. Can be furnished less screws, untapped.



No. 501

No.	Per 100	Size In.	Carton	Std. Pkg.	Pkg. Wt. Lb.
501	\$19.00	2 ¹ / ₄	50	500	26
505	36.00	3 ¹ / ₄	25	250	30

For Medium Base Weatherproof Sockets

Standard finish is brush brass or wash nickel. Brush brass is furnished unless otherwise specified.



No. 6633

No.	Per 100	Size Inches	Carton	Std. Pkg.	Wt. Lb.
6633	\$19.00	2 ¹ / ₄	25	200	13
6634	27.00	3 ¹ / ₄	10	100	15
6635	53.00	4	10	100	23

H & H Uno Shadeholders

With Ventilating Holes



No. 4000



No. 4004

Standard finish is brass.

No.	Per 100	Description	Carton	Std. Pkg.	Pkg. Wt. Lb.
4000	\$19.00	2 ¹ / ₄ -Inch, with Screws.....	50	500	25
4004	18.00	2 ¹ / ₄ -Inch, Wire Spring.....	50	250	14
4007	32.00	Form H, Wire Spring.....	25	100	11
4001	30.00	3 ¹ / ₄ -Inch, with Screws.....	25	250	27
4002	42.00	4-Inch, with Screws.....	10	100	16

Bryant Bakelite Flush Receptacles

Listed by Underwriters' Laboratories, Inc.
15 Amperes, 125 Volts; 10 Amperes, 250 Volts



Packed 10 in a carton, 100 in a standard package.

No. 4812 Duplex Top Wiring Terminals
With T Slots—Double-Sided Contacts—Wide Yoke

Has four terminal screws.

No. 4812 per 100 \$58.00
Weight per Standard Package . . pounds 22

Side Wiring Terminals



With T Slots
Double-Sided Contacts
Wide Yoke
No. 4831, Single

No. 4831 per 100 \$32.00
Weight per Std. Pkg. . . . pounds 15

No. 4832, Duplex
Has four terminal screws.
No. 4832 per 100 \$39.00
Weight per Std. Pkg. . . . pounds 22



No. 4832

No. 4832-X For 2-Circuit Installations
For Switch Control of One Outlet
Two Feeds, Two Returns

No. 4832-X per 100 \$50.00
Weight per Std. Pkg. . . . pounds 22

No. 4832-Y Two Feeds, One Return
No. 4832-Y per 100 \$50.00
Weight per Std. Pkg. . . . pounds 22



No. 4832-X

No. 770, With Parallel Slots
For Tumbler-Switch Plate, Single

No. 770 per 100 \$30.00
Weight per Std. Pkg. . . . pounds 13



No. 770

Bryant Hemco Bakelite Receptacles

Parallel Slots



No. 141

15 Amperes,
125 Volts
10 Amperes,
250 Volts



No. 142

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt., Lb. Std. Pkg.
141	\$20.00	Single Receptacle, Brown	10	100	12
142	24.00	Duplex Receptacle, Brown	10	100	17
141I	26.00	Single Receptacle, Ivory	10	50	6
142I	30.00	Duplex Receptacle, Ivory	10	50	8

Bryant 3-Wire Duplex Flush Receptacles

Side Wired

15 Amperes, 125 Volts; 10 Amperes, 250 Volts Each Outlet

Listed by Underwriters' Laboratories, Inc.



No. 4326

For use with standard duplex receptacle plates (V section).

Base, 2 3/4 x 1 1/2 inches. Depth, 7/8-inch. Supporting screw spacing, 3 3/8 inches.

No.	Per 100	Car- ton	Std. Pkg.	Wt., Lb. Std. Pkg.
4326	\$184.00	10	30	6
*4327	184.00	10	30	6

*Has grounded yoke.

Bryant Receptacle and Pilot Lamp Combinations

Receptacles; 15 A., 125 V.; 10 A., 250 V.



Single gang. With porcelain cup. Plate, 2 3/4 x 1 1/2 inches.

Suitable machine screws furnished for mounting on boxes.

Carton, 2. Standard package, 10.

Weight standard package No. 5121, 6 pounds; No. 5122, 4 pounds.

No. 5121, with .060-In. Brush Brass Plate . . . per 100 \$214.00
No. 5122, with Brown Bakelite Plate per 100 214.00

Bryant Fan Hanger Outlets

15 Amps., 125 Volts; 10 Amps., 250 Volts



A cadmium-plated steel sub-plate supports the bakelite receptacle. The brush brass flush plate is held independently and therefore will not loosen even if the fan hanger supporting screw is not replaced when fan is removed.

Packed 10 in a carton, 20 in a standard package.

Weight per standard package, 14 pounds.

Listed standard by Underwriters' Laboratories.

No. 3750, Yoke Mounting Type per 100 \$286.00
No. 3751, Stud Support per 100 286.00

Bryant Receptacle and Switch Combinations

Listed as Standard by Underwriters' Laboratories
All receptacle ratings, 15 amperes, 125 volts; 10 amperes, 250 volts.

Packed 2 in a carton, 10 in standard package.

With .060-Inch Brass Plate
10 Amperes, 250 Volts

No.	Per 100	Description	Wt., Lb. Std. Pkg.
2994	\$239.00	Double Pole	6
		20 Amperes, 250 Volts	
2995	\$247.00	Double Pole	6

With Brown Bakelite Plate

10 Amperes, 250 Volts

2989	\$225.00	Double Pole	5
		20 Amperes, 215 Volts	
2999	232.00	Double Pole	5



No. 2994



Hemco Outlet Box Receptacles



No. H341

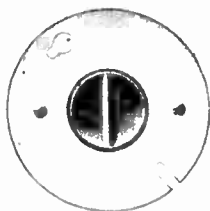
Cat. No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lbs.
H341	\$34.00	Single, on 3 1/4-Inch Box Cover.	10	50	15
H342	34.00	Duplex, on 3 1/4-Inch Box Cover.	10	50	15
H441	37.00	Single, on 4-Inch Box Cover.	10	50	22
H442	39.00	Duplex, on 4-Inch Box Cover.	10	50	25

Bryant Outlet Box Receptacles

**Brown Bakelite—With T Slots
With Satin Cadmium Finish Metal Covers**

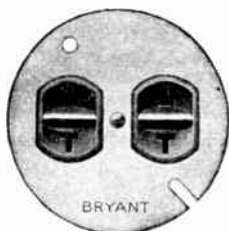
15 Amperes, 125 Volts; 10 Amperes, 250 Volts Each Outlet
Provided with side-wired brown bakelite receptacles.
Receptacles are also provided with raised ribs which facilitate insertion of caps in the concave surfaces.

Single, Side Wired



No.	Per 100	Size Box Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lbs.
3780	\$38.00	3 1/4	10	100	31
4780	43.00	4	5	50	23

Duplex, Side Wired



No.	Per 100	Size Box Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lbs.
3781	\$47.00	3 1/4	5	50	16
4782	52.00	4	5	50	26

Bryant Round Porcelain Receptacles

15 Amperes, 125 Volts
10 Amperes, 250 Volts



No. 115

Suitable machine screws are furnished for mounting these devices on boxes.

The standard finish is brush brass which will be furnished when no finish is specified.

With Solid Brass Plate

Cat. No.	Per 100	Diam. Plate In.	Car-ton	Std. Pkg.	Wt. Lbs. Std. Pkg.
115	\$116.00	2 3/4	2	50	19

Bryant Bull's Eye Jewels

The Bryant Bull's Eye is a warning signal of great utility and convenience. It consists of a ruby plastic jewel fastened in the center of a flush plate of standard dimensions, behind which is a small electric lamp in a special receptacle.

This lamp is wired in multiple with the devices whose operation it indicates.

Green, clear, opalescent, amber, or blue jewels can be furnished on special order without extra charge.

Ruby Jewels—Molded Plastic

Round for Mounting in F Plates
With Solid Brush Brass Rim

Removable from front.



No. 3850

No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
3850	\$39.00	10	30	1 1/2



No. 746

Rectangular for Mounting in Slot of an S Plate
With Solid Brush Brass Rim

Non-removable.

No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
746	\$39.00	10	30	1/2

Bryant Flush Lamp Receptacles

For Use with Jeweled and Louvre Plates

75 Watts—125 Volts

With No. 618 125-volt lamp.

Will take either Form II or Type S-7 candelabra base lamps, rated 125 volts.

Bakelite Base cups, 2 3/32 inches long; 1 1/16 inches wide; 1 1/4 inches deep.

Supporting screw spacing, 3 3/32 inches.

May be installed individually or may be mounted in a combination with switches and receptacles and the entire combination covered by a single flush plate.

Receptacle without lamp, \$83. per 100.



No. 427

No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
427	\$116.00	10	30	6

Bryant Louvre Plate

For Use with Flush Lamp Receptacles

Can be used with No. 427 receptacle and flush buzzers.

Made in .040-inch brass only.

Single gang.



No. OL241

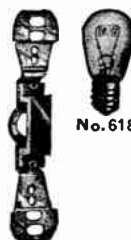
No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
OL241	\$134.00	5	30	18

Bryant Flush Lamp Receptacles

125 Volts

Candelabra base. 6 watts Mazda.

For No. 427 receptacle.



No. 618

No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
618	\$33.00	10	30	1 1/2

Insert to Fill Opening in "S" Plate

Brown bakelite. Insert on metal yoke.

No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
756	\$24.00	10	30	

Bryant Receptacle with No. 618 Lamp

For Plates with Removable Bull's Eye

75 Watts—125 Volts

For use only with plates with removable bull's eye No. 3850. With No. 618 125-volt lamp.

Receptacle without lamp, \$94. per 100.



No. 3851

No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
3851	\$127.00	10	30	7 1/2



No. H200 Bryant Bakelite Plural Plugs Twin-Lites

250 Volts, 660 Watts

One-piece molded assembly. Carton, 10. Standard package, 100. Weight per standard package, 21 pounds. No. H200..... per 100 \$64.00



No. H203 Bryant Bakelite Plural Plugs Trip-Lite

250 Volts, 660 Watts

One-piece molded assembly. Carton, 10. Standard package, 50. Weight per standard package, 15 pounds. No. H203..... per 100 \$98.00

Bryant Hemco Cube-Taps, Twin-Lite, and Thru-Lite Plugs



Cat. No.	Per 100	Description	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
H17	\$18.00	Bakelite Cube-Tap.....	20	100	9
H18	19.00	Bakelite Cord Cube-Tap.....	20	100	9
H20	34.00	Bakelite Twin-Lite.....	10	100	11
H204	75.00	Bakelite Thru-Lite.....	10	100	15

Bryant Hemco Bakelite and Rubber Handle Caps



Bakelite Handle Caps

Cat. No.	Per 100	Description	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
HF	\$11.00	With 1/32-Inch Hole	10	100	5



Rubber Handle Caps

HRA	\$18.00	.312 to .390-In. Hole	25	100	7
HRB	18.00	.260 to .312-In. Hole	25	100	7
HRE	20.00	.312 to .390-In. Hole	25	100	8
HRF	20.00	.260 to .312-In. Hole	25	100	8
HRS	18.00	.578-Inch Hole....	25	100	7

Nos. HRE and HRF



Bakelite Caps

HUV	\$10.00	1/32-Inch Hole.....	25	500	18
HUY	10.00	3/16-Inch Hole.....	25	500	18
HUT	10.00	3/32 x 3/16-Inch Hole...	25	500	18
HUX	10.00	1/4 x 3/16-Inch Hole...	25	500	18

Nos. HUT and HUX

No. H706 Hemco Bakelite Plug Bodies



Put up 25 in a carton, 500 in a standard package.

Weight of standard package, 21 pounds.

No. H706..... per 100 \$10.00

No. 100 Bryant Connecting Devices Composition Screw Body—for Parallel Blades

660 Watts, 250 Volts



No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
100	\$16.00	10	250	19

Bryant Standard Composition Caps

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. JK with armored cord grip and 1/16-inch cord hole. No. JM with armored cord grip and cord hole with shoulder 5/8-inch diameter at outer end, 1/2-inch diameter at inner end.

Carton, 10; standard package, 50. Weight package, 7 pounds: No. JK..... per 100 \$37.00 No. JM..... per 100 37.00

No. JX Bryant Composition Caps With Cord Grip

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

1/16-inch cord hole.

Steel armored cap, cadmium-plated.

With cord grip.



Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
JX	\$41.00	10	50	6

No. KG Bryant Composition Motor Attachment Caps

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Has 13/32-inch cord hole.

Base is 1 1/2 inches in diameter and 1/16 inches thick. Screw spacings, 1 inch.



Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
KG	\$22.00	10	50	4 1/4

No. TW Bryant Double T Caps

With Cord Grip—For Heavy Duty

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Armored cadmium-plated cap.

Has 13/32-inch cord hole.



Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
TW	\$61.00	10	30	4

No. KL Bryant Composition Adapters

660 Watts, 250 Volts

Diameter, 1 1/8 inches.

Length, 1 1/2 inches.

Carton, 10. Standard package, 50.

Package weight, 7 pounds.



No. KL..... per 100 \$44.00

No. 345 Bryant Attachment Plugs

Molded Weatherproof, Fuseless

660 Watts, 600 Volts



In one piece. Has 4 1/2-inch No. 14 stranded wire leads.

Carton, 10; standard package, 250.

Package weight, 44 pounds.

No. 345..... per 100 \$56.00

No. UR Bryant Flush Motor Plug Caps

Back Connected



15 Amps., 125 V.; 10 Amps., 250 V.
Diameter of cup, 1½ inches. Depth, 1¼ inches. Screw hole spacing, 1⅜ in.
Carton, 10; standard package, 50.
Weight standard package, 6½ pounds.
No. UR..... per 100 \$48.00

Bryant Porcelain Receptacles

15 Amperes, 125 Volts; 10 Amperes, 250 Volts
Listed by Underwriters' Laboratories, Inc.



No. 105



No. 112



No. 114

Packed 10 in a carton, 50 in a standard package.

Concealed Wiring

No.	Per 100	Diameter Inches	Height Inches	Screw Spacings Inches	Wt., Lb. Std. Pkg.
105	\$56.00	2⅞	1⅜	1½	15

Cleat Wiring

112	\$60.00	1¾	1½	⅝	13
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Panel or Plate Mounting

Requires 1⅛-inch hole. Projects ½ inch above and 3⅛ inch below mounting level. Distance from back of cover to bottom of wire grooves, 1⅛ inch.

114	\$56.00	1⅛	12
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No. 4730 Bryant Plug Receptacles

For Mounting in Canopies

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Made of bakelite with 6-inch wires and 1⅛-inch mounting holes.

Carton, 10. Standard package, 50.

Weight per standard package, 4 pounds.

No.	4730
Per 100.....	\$44.00

No. 113 Bryant Composition Outlet Box Bodies

For ½-Inch Knockouts

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Does not have tandem slots
Will not take polarity caps.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
113	\$41.00	10	50	9

No. 103 Bryant Composition Cord Connector Bodies

15 Amperes, 125 Volts
10 Amperes, 250 Volts

Diameter, 1⅜ inches. Cord hole, 1⅜ inch.
Has T slots.

Carton, 10; standard package, 50.
Package weight, 7 pounds.

No. 103.....	per 100	\$44.00
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No. H130 Bryant Bakelite Cord Connector Bodies

10 Amperes, 250 Volts—15 Amperes, 125 Volts

Diameter, 1⅜ inches.
Length, 1⅜ inch.
With ⅝-inch cord hole.
Carton, 10. Standard package, 50.
Weight package, 4 pounds.

No. H130.....	per 100	\$24.00
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Bryant 2-Wire Twistlock Midget Cord Connectors

15 Amperes, 125 Volts—10 Amperes, 250 Volts
Listed by Underwriters' Laboratories, Inc.

For small appliances and equipment. Prevents service interruptions caused by accidental separation of connectors. Extremely compact.

Made of brown bakelite. The steel cord grips match the bakelite.

Packed 10 in a carton, 50 in a standard package.

Caps

Diameter, 1 inch. Height of bakelite, ½ inch.

Without Cord Grip

Cable diameter, .375 inch.



No. TL7462



No. TL7465

No.	Per 100	Description	Wt., Lb. Std. Pkg.
TL7462	\$22.00	Non-Polarized.....	1¼
TL7477	\$22.00	Polarized.....	1¼

With Cord Grip

Cable diameter, .218 to .312 inch.

TL7465	\$29.00	Non-Polarized.....	1½
TL7479	\$29.00	Polarized.....	1½

Connector Bodies

Takes both polarized and non-polarized caps.
Diameter, 1 inch. Length of bakelite body, 1.187 inches.

Without Cord Grip

Cable diameter, .375 inch.



No. TL7461



No. TL7464

No.	Per 100	Wt., Lb. Std. Pkg.
TL7461	\$44.00	2½

With Cord Grip

Cable diameter, .218 to .312 inch.

TL7464	\$51.00	3
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Connector Bases

With Mounting Cup

Plate diameter, 1.625 inches. Screw spacing, 1.375 inches. Depth, .937 inch. Body diameter, 1.062 inches. Mounting hole diameter, .156 inch.



No. TL7466

No.	Per 100	Description	Wt., Lb. Std. Pkg.
TL7466	\$50.00	Non-Polarized.....	3
TL7467	\$50.00	Polarized.....	3

Flush Receptacles

With Mounting Cup

Takes both polarized and non-polarized caps. Plate diameter, 1.625 inches. Screw spacing, 1.375 inches. Depth .781 inch. Body diameter, 1.031 inches. Mounting hole diameter, .156 inch.



No.	Per 100	Wt., Lb. Std. Pkg.
TL7468	\$55.00	3

Bryant Duplex Flush Convenience Outlets

Twist-Tite—Grip Contacts

Listed by Underwriters' Laboratories, Inc.

15 Amperes, 125 Volts
10 Amperes, 250 Volts



No. 9200



No. 9206

For Standard Wall Boxes

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
9200	\$50.00	Brown Bakelite.....	10	100	25
9205	\$55.00	3¼-Inch Box.....	10	50	20
9206	\$7.00	4-Inch Box.....	5	50	25

With Cadmium Finished Covers

Bryant Polarized Caps

20 Amperes, 250 Volts



No. 652

Composition

With 3/16-inch cord hole.
Carton, 10.
Standard package, 30.
Weight per standard package, 6 pounds.
No. 652.....per 100 \$56.00



No. 723

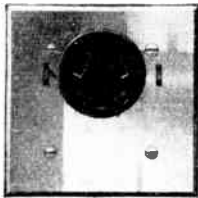
With Cord Grip

Armored, cord grip, cadmium-plated.
For 3/8 to 9/16-inch diameter cord.
Carton, 10.
Standard package, 30.
Weight per standard package, 6 pounds.
No. 723.....per 100 \$87.00

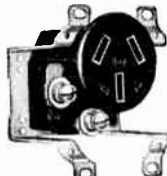
Bryant 3-Wire Polarized Outlets

Flush Mountings
50 Amperes, 250 Volts

Bakelite Receptacles and Brush Brass Plates
Solderless Terminals



No. 3846



No. 3845

No. 3845 fits standard 4-inch box (Universal No. 52151-S with 3/4-inch knockouts and No. 52C18 cover) and standard 4 1/16-inch square box (Universal No. 72171-I with No. 72C18 cover.)

Plates for No. 3845 receptacles are with grounding contacts.

No.	Per 100	Description	Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
3846	\$387.00	Receptacle with .040 In. Plate	2	10	10
3845	291.00	Receptacle Only	2	10	7
3847	96.00	.040 Plate for No. 3845	2	10	4

Porcelain Receptacles and Surface Box Covers

Solder Lugs

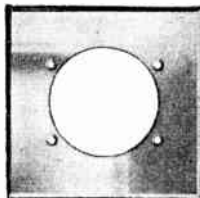


No.	Per 100	Description	Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
759	\$166.00	Cover Only	2	10	9
757	512.00	Receptacle Only	2	10	12

High Capacity Black Porcelain Receptacles



No. 7112



No. 7114

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
7112	\$473.00	30-Amp, 250 V. Receptacles with Screw Terminals.....	2	5	8
7114	120.00	.060-In. Brass Brush 2-Gang Plate.....	2	5	2

Bryant 3-Wire Caps, Connectors, and Receptacles

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 9111



Nos. 9112 and 9322



No. 9115



Nos. 9113 and 9323



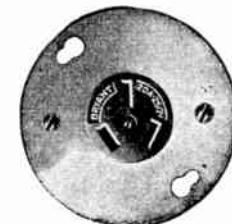
No. 9116



No. 9117



Nos. 9119 and 9325



No. 9324

Caps
Brown Bakelite

Cat. No.	Per 100	Cord Hole In.	Car-ton	Std. Pkg.	Wt. Lbs. Std. Pkg.
9110	\$37.00	1 1/32	10	50	4

Composition

9111	\$37.00	1 1/32	10	50	6
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Armored Cord Grip

9112	\$59.00	3/8 to 1/2	10	50	8
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Flush Motor Plug Cap

9115	\$86.00	Screw spacing, 2 3/16 in.	10	50	10
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Composition Cord Connectors

9113	\$78.00	Body 2 3/64	10	50	9
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9114	\$101.00	Body with Armored Cord Grip 3/8 to 1/2	10	50	12
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Receptacles

Bases of Nos. 9116 and 9120 are 2 9/16 x 1 1/16 inches. Depth, 3/32 inches. Supporting screw spacing, 3 3/32 inches. Top wiring terminals. Take standard F plates.

Composition Flush

9116	\$126.00	10	50	15
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Porcelain, Flush Conduit Box

9117	\$59.00	Bakelite top, screw terminals.	10	50	12
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Porcelain Concealed Base

No. 9119 has supporting screw spacing of 1 3/4 inches; diameter, 2 1/2 in.

9119	\$87.00	10	50	20
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Composition Flush, with Grounding Terminal Connected to Yoke

9120	\$126.00	10	50	15
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3-Wire Composition Flush

Mounted on 4-inch cadmium plated box cover.

For grounding terminal connected to the yoke, add suffix G to catalog number.

9121	\$141.00	5	50	35
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20 Amperes, 250 Volts
Cord Grip Cap

Steel covered, cadmium plated.
No. 9322G has grounded cover.

9322	\$111.00	3/8-5/8	10	20	4
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Composition Cord Connector

With steel covered cap, cadmium-plated.

9323	\$171.00	3/8-5/8	10	20	8
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Porcelain Receptacles
Flush

Base, 2 9/16 x 1 5/8 inches.
Depth, 1 1/32 inches.
Screw spacing, 3 3/32 inches.
Takes standard F plate.
No. 9326G has grounded yoke.

Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9326	\$139.00	10	30	12
9326G	139.00	10	30	12

Concealed Base

Screw spacing, 1 3/4 in.
Base, 2 1/2-inch diameter.

9325	\$112.00	10	30	14
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For 4-Inch Outlet Box

With cadmium-plated cover.

9324	\$154.00	5	30	22
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Bryant 3-Wire Polarized Attachment Plug Caps

Listed by Underwriters' Laboratories

No. 3833 Bakelite Caps

With Solderless Terminals
50 Amperes, 250 Volts



A modern design that accommodates armored or rubber cable. Has clamp terminals for straight-in wiring and grounding prongs.

No.	Per 100	Carton	Std. Pkg.	Wt., Lb. Std. Pkg.
No. 3833	3833	\$250.00	2	10 12

Composition Caps

30 Amperes, 250 Volts
With Screw Terminals



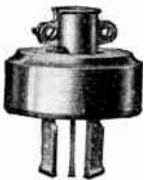
No. 786 With Cord Grip and Grounding Prongs

Cord grip, $\frac{5}{8}$ to $\frac{3}{4}$ (.625 to .750) inch.
786 \$166.00 2 10 10

No. 4786 Without Cord Grip or Grounding Prongs

Cord hole, $\frac{3}{4}$ (.750) inch.
4786 \$100.00 2 10 8

No. 786



No. 7113



No. 7513

Cord Grip Type Steel Covered Caps

With Screw Terminals
30 Amperes, 250 Volts

Cord grip, $\frac{5}{8}$ to 1 (.625 to 1.000) inch.

No.	Per 100	Carton	Std. Pkg.	Wt., Lb. Std. Pkg.
7113	\$167.00	2	5	5

No. 7513 With Solder Lugs

50 Amperes, 250 Volts

Cord grip, $\frac{7}{8}$ to $1\frac{1}{32}$ (.875 to 1.218) inches. Add G if grounded.

7513	\$200.00	2	5	5
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Bryant Hemco Appliance Switch Plugs and Cord Switches

Listed by Underwriters' Laboratories, Inc.

Packed 10 in a carton.



No. H280



No. H271

No.	Per 100	Description	Std. Pkg.	Wt., Lb. Std. Pkg.
H280	\$60.00	Bakelite Switch Plug.....	50	11
H271	60.00	Bakelite Cord Switch, Single-Pole, 6 Amp. 125V., 3 Amp. 250V.....	50	5

Bryant Hemco Switchless Plugs

Packed 10 in a carton.



No. H738



No. H966

No.	Per 100	Description	Std. Pkg.	Wt., Lb. Std. Pkg.
H738	\$22.00	Bakelite Switchless Plug.....	100	16
H966	20.00	Bakelite Switchless Table Appliance Plug.....	100	11

Bryant 3-Wire Polarized Connectors and Fittings

Listed by Underwriters' Laboratories, Inc.

Rubber Cable Cord Sets—Molded Rubber Caps



No. 3829

Length, 38 inches. Furnished without grounding prongs.

35 Amperes, 250 Volts

No.	Per 100	Description	Carton	Std. Pkg.	Wt., Lb. Std. Pkg.
3829	\$400.00	Two No. 8, One No. 10 Wires 50 Amperes, 250 Volts	2	10	19
3830	480.00	Two No. 6, One No. 8 Wires	2	10	23

Rubber Cable Cord Sets—Non-Separable Bakelite Caps



No. 3898

3898	\$290.00	35 Amperes, 250 Volts Two No. 8, One No. 10 Wires	2	10	20
3899	316.00	50 Amperes, 250 Volts Two No. 6, One No. 8 Wires	2	10	25

No. 3826 Bakelite Receptacles

50 Amperes, 250 Volts, Solderless Terminals



No. 3826	Per 100 \$165.00	Carton 2	Std. Pkg. 10	Wt., Lb. Std. Pkg. 11
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No. 3827 Grounding Straps



For use with No. 3826 receptacle.

No. 3827	Per 100 \$47.00	Carton 2	Std. Pkg. 10	Wt., Lb. Std. Pkg. 1 1/2
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Bryant Hemco Cord Sets

Listed by Underwriters' Laboratories, Inc.

10 Amperes, 125 Volts; 5 Amperes, 250 Volts



Packed 10 in a carton, 50 in a standard package.

No.	Per 100	Description	Std. Pkg.	Wt., Lb. Std. Pkg.
HR0618	\$72.00	6-Foot No. 18 Rayon Cord.....	16	
HR0918	82.00	9-Foot No. 18 Rayon Cord.....	18	
HR1218	92.00	12-Foot No. 18 Rayon Cord.....	20	

Hubbellock Devices

For High-Cycle Portable Equipment

These rugged devices break the circuit and seal it in a split second; the safest and most practical means of applying electrical current to industrial use.

The rugged contacts of the cap are machined from heavy brass stock and molded into special, impact-resisting bakelite supporting posts which absolutely prevents shifting out of alignment or bending or twisting, no matter how rough the usage. Positive polarity and ground connection is thus assured at all times under all conditions. The lock is positive with nothing to jam out-of-order and therefore allows no accidental breaking of current with consequent loss of production.

3-Wire Connectors

With Adjustable Cord Grip

10 Amperes, 250 Volts D.C.; 460 Volts A.C.
20 Amperes, 125 Volts A.C. or D.C.



No. 23002



No. 23005

Cadmium is standard finish.

If desired with ground shunt from contact to cover or casing, suffix letter G to number.

No.	Per 100	Description	Cable Diameter Inches	Car-ton	Std. Pkg.	Wt. Lb.
23002	\$385.00	Connector Body . . . . .	.296 to .562	5	20	9
23005	248.00	Cap. . . . .	.296 to .562	5	20	8
23003	385.00	Connector Body . . . . .	.406 to .625	5	20	9
23006	248.00	Cap. . . . .	.406 to .625	5	20	8
23009	402.00	Connector Body with 1/2" Female Pipe Thread.		5	20	9
23016	261.00	Cap, 1/2" Female Pipe Thread.		5	20	8

3-Wire Receptacles and Plates

10 Amperes, 250 Volts D.C.; 460 Volts A.C.
20 Amperes, 125 Volts A.C. or D.C.



No. 23000



Nos. 23000 and 23007 Assembled to Outlet Box

Receptacle and plate will fit FS and FD outlet boxes. Fits any single convenience outlet plate. Receptacle will also fit standard switch and outlet boxes.

Outlet box not supplied.

Cadmium is standard finish.

If desired grounded, suffix letter G to number.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
23000	\$303.00	Bakelite Receptacle.	5	20	8
23007	83.00	Cast Iron Plate with Lift Cover	5	20	13
23008	72.00	Cast Iron Plate without Lift Cover.	5	20	10

4-Wire Receptacles and Plates

20 Amperes, 250 Volts D.C.; 30 Amperes, 600 Volts A.C.
3 Hp. 250 Volts D.C.; 5 Hp. 230 Volts A.C. 1-Phase
10 Hp. 230 Volts A.C. 2-Phase; 15 Hp. 460 Volts A.C. 3-Phase



No. 20403 Receptacle with No. 20416 Plate



No. 20403

Receptacle and plates will fit FS and FD outlet boxes.

Cadmium is standard finish.

Furnished grounded unless otherwise specified.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
20403	\$468.00	Bakelite Receptacle.	2	10	5
20416	83.00	Iron Plate, with Cover.	2	10	9
20417	72.00	Iron Plate, without Cover.	2	10	4

4-Wire Connectors and Caps

With Metal Adjustable Cord Grip

20 Amperes, 250 Volts D.C.; 30 Amperes, 600 Volts A.C.
3 Hp. 250 Volts D.C.; 5 Hp. 230 Volts A.C. 1-Phase
10 Hp. 230 Volts A.C. 2-Phase; 15 Hp. 460 Volts A.C. 3-Phase



No. 20415



No. 20414

No.	Per 100	Description	Cable Diameter Inches	Car-ton	Std. Pkg.	Wt. Lb.
20414	\$534.00	Connector Body. . . . .	.400 to .750	2	10	10
20415	358.00	Cap. . . . .	.400 to .750	2	10	7

With Rubber Cord Grip



No. 21415



No. 21414

No.	Per 100	Description	Cable Diameter Inches	Car-ton	Std. Pkg.	Wt. Lb.
21414	\$534.00	Connector Body. . . . .	.360 to .484	2	10	10
21415	358.00	Cap. . . . .	.360 to .484	2	10	7

Hubbell 10-Ampere Twist-Lock Devices

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

National Electric Code rules advise installation of polarized and grounded devices to protect the users of portable motor driven tools and equipment.

Positive protection against both electrical hazard and disconnection delays is provided by Twist-Lock Polarized Devices. Twist-Lock Devices never part in the middle of a job, no matter how hard the cord is yanked. A lock-fast connection is made by a twist of the cap.

All 3 and 4-wire Twist-Lock Devices are polarized by blades designed to engage correspondingly shaped slots in receptacles or connector bodies. Grounding blade is longer than others so as to make contact first and break last.

2-Wire Midget Cord Connectors



Without Cord Grip—.375-Inch Cord Hole

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7462	\$22.00	Cap Only.....	10	50	1 1/4
7477	22.00	Cap Only, Polarized.....	10	50	1 1/4
*7461	44.00	Connector Body only.....	10	50	2 1/2

With Cord Grip—Clamp Spread .218-Inch to .312-Inch

Standard finish for cord grips is statuary bronze.

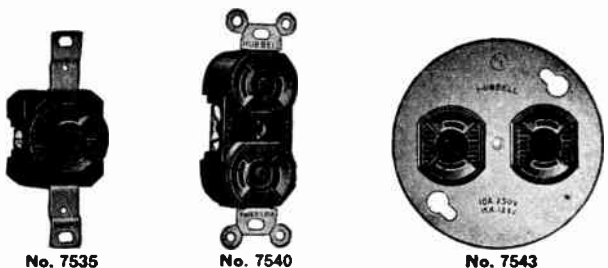
7465	\$29.00	Cap Only.....	10	50	1 1/2
7479	29.00	Cap Only, Polarized.....	10	50	1 1/2
*7464	51.00	Connector Body Only.....	10	5	3

2-Wire Midget Flush Motor Bases



No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7466	\$50.00	Male Base.....	10	50	3
7467	50.00	Male Base, Polarized.....	10	50	3
*7468	55.00	Female Base.....	10	50	3
*7473	72.00	No. 7468 Receptacle on 3/4-Inch Steel Box Cover.....	10	50	6
*7471	61.00	Female Base, Covered Terminals without Cord Grips.....	10	50	3 1/2
*7472	72.00	Female Base, Covered Terminals with Cord Grips.....	10	50	4

2-Wire Receptacles



Standard finish of cover is cadmium.

Single					
No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
*7535	\$55.00	Bakelite Receptacle.....	10	50	8
*7536	66.00	Bake. Receptacle with 3 1/4" Cover.....	10	30	10
*7537	\$72.00	Bake Receptacle with 4" Cover.....	5	30	12
Duplex					
*7540	\$110.00	Bakelite Receptacle.....	10	50	14
*7543	121.00	Bake. Receptacle with 3 1/4" Cover.....	10	50	25
*7544	127.00	Bake. Receptacle with 4" Cover.....	5	30	15

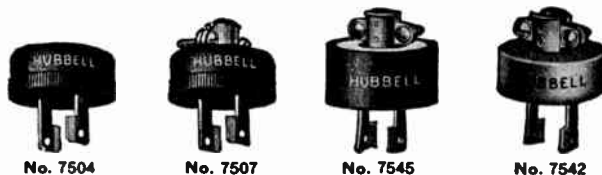
*Will accommodate both polarized and non-polarized caps.

2-Wire Bakelite Connector Bodies



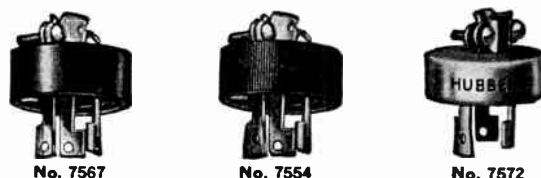
No.	Per 100	Description	Cord Diameter Inches	Car-ton	Std. Pkg.	Wt. Lb.
7503	\$55.00	Connector Body.....	.375	10	50	7
7506	66.00	Cord Grip Body.....	.296 to .562	10	50	7

2-Wire Plug Caps



No.	Per 100	Description	Cord Diameter Inches	Car-ton	Std. Pkg.	Wt. Lb.
7504	\$39.00	Bakelite.....	.375	10	50	6
7507	44.00	Bakelite, Cord Grip.....	.296 to .562	10	50	6
†7505	39.00	Bakelite.....	.375	10	50	6
†7508	44.00	Bakelite, Cord Grip.....	.296 to .562	10	50	6
7545	44.00	Rubber.....	.296 to .562	10	50	6
7546	44.00	Rubber.....	.406 to .625	10	50	6
†7547	44.00	Rubber.....	.296 to .562	10	50	6
†7548	44.00	Rubber.....	.406 to .625	10	50	6
7542	50.00	Armored.....	.296 to .562	10	50	7
7549	50.00	Armored.....	.406 to .625	10	50	7
†7588	50.00	Armored.....	.296 to .562	10	50	7
†7589	50.00	Armored.....	.406 to .625	10	50	7

3-Wire Polarized Caps



No.	Per 100	Description	Cord Diameter Inches	Car-ton	Std. Pkg.	Wt. Lb.
7567	\$77.00	Rubber.....	.296 to .562	10	50	6
7568	77.00	Rubber.....	.406 to .625	10	50	6
7554	77.00	Bakelite.....	.296 to .562	10	50	6
7558	77.00	Bakelite.....	.406 to .625	10	50	6
7572	83.00	Metal Covered Comp.....	.296 to .562	10	50	6
7573	83.00	Metal Covered Comp.....	.406 to .625	10	50	6

†Polarized—one wide and one narrow blade.

Hubbell 10-Ampere Twist-Lock Devices

10 Amperes, 250 Volts; 15 Amperes, 125 Volts
Continued



**3-Wire Receptacles
Single**



No. 7582

Nos. 7583 and 7584

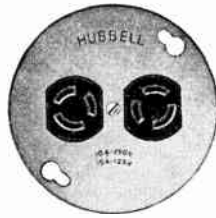
No. 7582 receptacle fits any standard single flush receptacle plate.

If desired grounded, suffix letter G to number.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7582	\$143.00	Bakelite Single Receptacle.....	10	50	9
7583	154.00	Bakelite Single Receptacle with 3/4-Inch Cover.....	10	30	11
7584	165.00	Bakelite Single Receptacle with 4-Inch Cover.....	5	30	13



Duplex



No. 7580

No. 7581

No. 7580 receptacle takes any standard duplex receptacle flush plate.

If desired grounded, suffix letter G to number.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7555	\$132.00	Bakelite Duplex Receptacle....	10	50	11
7559	132.00	Bakelite Duplex Receptacle with 4-Inch Cover.....	5	30	15

3-Wire Bakelite Connector Bodies



No. 7555

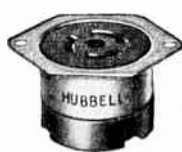
If desired grounded, suffix letter G to number.

No.	Per 100	Description	Diam. Inches	Car-ton	Std. Pkg.	Wt. Lb.
7580	\$209.00	Body.....	.296 to .562	10	50	8
7581	231.00	Body.....	.406 to .625	10	50	8

3-Wire Polarized Motor Plugs



No. 7556



No. 7557

Supporting screw holes are 1 1/16 inches on centers. Diameter of base, 1 1/2 inches. Height of No. 7556, 1 1/8 inches; No. 7557, 1 1/32 inches.

If desired grounded, suffix letter G to number.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7556	\$99.00	Bakelite, with Contact Blades....	10	50	5
7557	110.00	Bakelite, Female Flush Base....	10	50	7

Hubbell 10 Ampere Combination Receptacles

3-Wire Twist-Lock and 2-Wire Double T Slot

Each Outlet:

10 Amperes, 250 Volts;
15 Amperes, 125 Volts

Black bakelite.



No.	Each	Description	Car-ton	Std. Pkg.	Wt. Lb.
7680	\$182.00	Each Outlet Wired Independently.....	10	30	12
7681	204.00	Like No. 7680, on 4-Inch Cover..	5	30	21
7682	182.00	With One Feed and One Return Common to Both Outlets. 3-Wire End Permanently Grounded to Supporting Strap	10	30	12
7683	204.00	Like No. 7682, on 4-Inch Cover..	5	30	21
7684	182.00	With One Feed and One Return Common to Both Outlets. Grounding Terminal 3-Wire End Equipped with Binding Screw.....	10	30	12
7685	204.00	Like No. 7684, on 4-Inch Cover..	5	30	21

Hubbell Adapters

For 10 Ampere 3-Wire Twist-Lock Receptacles

Black bakelite body.

Fits all 10 ampere female 3-wire Twist-Lock flush receptacles and cord connector bodies. Equipped with medium base threaded screw shell on one end. Wire outlet is on the side.

Nos. 7645 and 7646 accommodate either an attachment plug base for 2-wire parallel bladed caps, or a medium base lamp. No. 7647 with screw shell end to accommodate a screw base fuse plug or Fusetron.

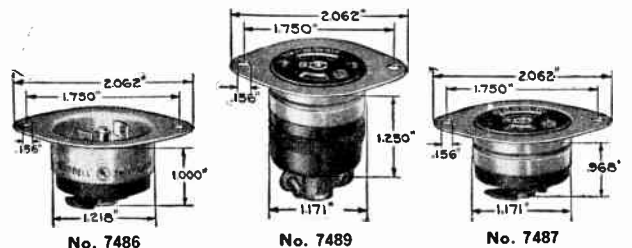


No. 7645

No.	Each	Description	Car-ton	Std. Pkg.	Wt. Lb.
7645	\$94.00	660 W. 250 V., Multiple.....	10	50	7
7646	94.00	660 W. 250 V., Series.....	10	50	7
7647	94.00	0 15 Amp. 125 V., Series, with Fuse Plug Cut-Out.....	10	50	7

Hubbell 10 Ampere 3-Wire Twist-Lock Midget Flush Bases

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7486

No. 7489

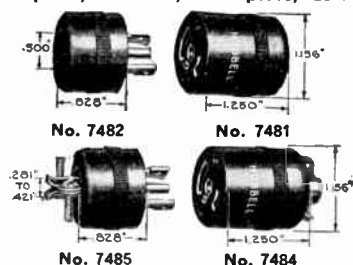
No. 7487

Black bakelite body. Standard finish for brass casing is polished nickel, gun metal or statuary bronze. Polished nickel furnished unless otherwise specified.

No.	Each	Description	Car-ton	Std. Pkg.	Wt. Lb.
7486	\$77.00	Male Base.....	10	50	3
7487	99.00	Female Base.....	10	50	3
7488	110.00	Female Base, Covered Terminals, without Cord Grips....	10	50	3 1/2
7489	121.00	Female Base, Covered Terminals, with Cord Grips.....	10	50	4

Hubbell 10 Ampere 3-Wire Twist-Lock Midget Connectors Polarized

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



Black bakelite body.
Standard finish for cord grips is black oxidized finish.

Without Cord-Grip—.500 Inch Cord Hole

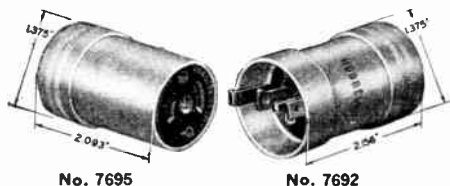
No.	Each	Description	Car- ton	Std. Pkg.	Wt. Lb.
7481	\$87.00	Connector Body Only	10	50	2 1/2
7482	\$4.00	Cap Only	10	50	1 1/4

With Cord-Grip—Clamp Spread .281 to .421-Inch

7484	\$94.00	Connector Body Only	10	50	3
7485	\$61.00	Cap Only	10	50	1 1/2

Hubbell 10 Ampere 3-Wire Twist-Lock Armored Midget Connectors With Rubber Cord Grips

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7695

No. 7692

Black bakelite body. Heavy steel casing finished to resist corrosion.

3-Wire—Not Grounded

No.	Per 100	Description	Cord Diam. Inches	Car- ton	Std. Pkg.	Wt. Lb.
7690	\$143.00	Armored Male Cap	.360-.484	10	50	12
7693	165.00	Armored Connector Body	.360-.484	10	50	12

3-Wire—Grounded to Casing

7691	\$143.00	Armored Male Cap	.360-.484	10	50	12
7694	165.00	Armored Connector Body	.360-.484	10	50	12

4-Wire—With Equipment Ground

7692	\$165.00	Armored Male Cap	.360-.484	10	50	12
7695	187.00	Armored Connector Body	.360-.484	10	50	12

Hubbell 20-Ampere Twist-Lock Devices

2-Wire Plug Caps
20 Amperes, 250 Volts



No. 9763

No. 7102

No. 7062

Rubber Cord Grip Caps

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt. Lb.
9763	\$55.00	.296" to .562" Cord Hole	10	30	5
*9764	55.00	.296" to .562" Cord Hole	10	30	5
9765	55.00	.406" to .625" Cord Hole	10	30	5
*9766	55.00	.406" to .625" Cord Hole	10	30	5

Metal Covered Cord Grip Caps

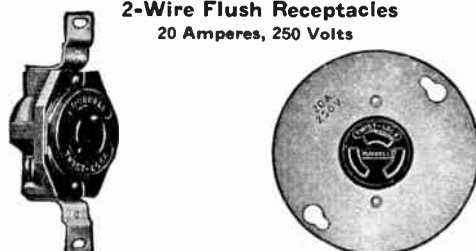
7102	\$55.00	.296" to .562" Cord Hole	10	30	5
*9102	55.00	.296" to .562" Cord Hole	10	30	5
7238	55.00	.406" to .625" Cord Hole	10	30	5
*9103	55.00	.406" to .625" Cord Hole	10	30	5

Composition Caps

7062	\$44.00	.406" Cord Hole	10	50	7
*7063	44.00	.406" Cord Hole	10	50	7

2-Wire Flush Receptacles

20 Amperes, 250 Volts



No. 7210

Nos. 7216 and 7217

No. 7210 receptacle may be used with either polarized or non-polarized Twist-Lock Caps, and fits any standard single convenience outlet plate.

Standard finish of cover is cadmium.

7210	\$66.00	Single Receptacle, Porcelain	10	50	12
7216	77.00	Single Receptacle, Porcelain, with 3/4-Inch Cover	10	50	25
7217	83.00	Single Receptacle, Porcelain, with 4-Inch Cover	5	30	17

2-Wire Porcelain Receptacles

20 Amperes, 250 Volts



6624 \$66.00 Receptacle

Appleton Type W Unilet with their No. 5681 Cover accommodates this receptacle. Mounting screws 3/16 inches. Diameter 1 3/4 inches. Height, 1 7/8 inches. Face diameter, 1 1/2 inches.

2-Wire Motor Plugs

20 Amperes, 250 Volts



No. 7191

No. 8809

Nos. 8808 and 9105

Bodies may be used with polarized or non-polarized bases. Nos. 9104 and 9105 have nickel plated metal container.

7191	\$44.00	Surface Base, Comp., Male	10	30	4
*9104	44.00	Surface Base, Comp., Male	10	30	4
8808	66.00	Flush Base, Male	10	30	6
*9105	66.00	Flush Base, Male	10	30	4
8809	99.00	Flush Base, Female	10	30	8

*Polarized—one wide and one narrow blade.



Hubbell 20-Ampere Twist-Lock Devices

Continued

2-Wire Cord Grip Connector Bodies and Plugs
20 Amperes, 250 Volts



No. 7101



No. 7612

Made of bakelite. Steel covered, cadmium plated. Bodies may be used with either polarized or non-polarized caps.

No.	Per 100	Description	Cord Diam. Inches	Car-ton	Std. Pkg.	Wt. Lb.
7101	\$88.00	Body.....	.296 to .562	10	30	9
7224	88.00	Body.....	.406 to .625	10	30	9
7612	66.00	Screw Base Plug, 660 W., 250 V.....		10	100	18

3-Wire Polarized Caps and Connectors

20 Amperes, 250 Volts, A.C. or D.C.; 10 Amperes, 575 Volts, A.C.



No. 9965



No. 7311



No. 7313

No.	Per 100	Description	Cord Diam. Inches	Car-ton	Std. Pkg.	Wt. Lb.
*9965	\$121.00	Rubber.....	.437 to .750	10	30	8
*7311	121.00	Composition, Armored.....	.437 to .750	10	30	8
*7313	187.00	Bakelite Body.....	.437 to .750	10	30	11

3-Wire Flush Receptacles

20 Amperes, 250 Volts, A.C. or D.C.; 10 Amperes, 575 Volts A.C.



No. 7310



No. 7517

No. 7310 takes standard single outlet plate.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
*7310	\$165.00	Porcelain Receptacle.....	10	30	11
*7517	187.00	Porcelain Receptacle with 4-Inch Box Cover Attached....	5	20	13
†7502	88.00	Two Outlet Brass Plate, .060 In.	5	10	5

†No. 7502 requires 3-gang outlet box.

3-Wire Conduit Box Receptacles

20 Amperes, 250 Volts



Designed for permanent grounding from one contact to conduit system.

Mounting screws 5/8-inch centers. Suitable for use with Crouse-Hinds "W" condulets and "O" cover, Appleton Electric Co. "W" unlets with No. 5680 cover, and Adalet Mfg. Co. fittings Nos. G2H, G3H and G4H.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7329	\$143.00	Porcelain Receptacle.....	10	30	10

*If 3 or 4-wire Twist-Lock devices are desired with ground shunt from one contact to cover or casing, suffix letter "G" to catalog number.

Hubbell 20-Ampere Twist-Lock Devices

3-Wire Motor Plugs

20 Amperes, 250 Volts, A.C. or D.C.; 10 Amperes, 575 Volts, A.C.



No. 7318



No. 7327



No. 7328

Screw holes in Nos. 7327 and 7328 are spaced 120° apart on 1/4-inch radius for No. 8 screws.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
*7318	\$55.00	Surface Base, Comp., Male....	10	30	6
*7327	99.00	Flush Base in Casing, Male....	10	30	13
*7328	209.00	Flush Base, Female.....	10	30	10

4-Wire Polarized Caps and Connectors

20 Amperes, 250 Volts, A.C. or D.C.; 10 Amperes, 575 Volts A.C.



No. 9967



No. 7411



No. 7413

No.	Per 100	Description	Cord Diameter Inches	Car-ton	Std. Pkg.	Wt. Lb.
*9967	\$165.00	Rubber.....	.437 to .750	10	20	9
*7411	165.00	Composition, Armored.....	.437 to .750	10	20	8
*7413	231.00	Bakelite Body.....	.437 to .750	10	20	11

4-Wire Flush Receptacles

20 Amperes, 250 Volts, A.C. or D.C.; 10 Amperes, 575 Volts A.C.



No. 7410



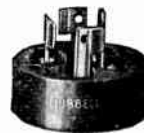
No. 7417

No. 7422 requires a 3-gang outlet box.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
*7410	\$209.00	Porcelain Receptacle.....	10	20	9
*7417	220.00	Porcelain Receptacle with 4-Inch Box Cover Attached....	5	15	10
7421	29.00	Single Brass Plate .060".....	10	20	6
7422	88.00	Two Outlet Brass Plate .060".....	5	10	5

4-Wire Motor Plugs

20 Amperes, 250 Volts, A.C. or D.C.; 10 Amperes, 575 Volts A.C.



No. 7415



No. 7408



No. 7409

Screw holes are spaced 90° apart.

*7415	\$77.00	Surface Base, Comp., Male....	10	20	7
*7408	121.00	Flush Base in Casing, Male....	10	20	10
*7409	253.00	Flush Base, Female.....	10	20	9

*If 3 or 4-wire T.L. devices are desired with ground shunt from one contact to cover or casing, add suffix letter G to catalog number.

Hubbell Twist-Lock 3-Wire Connectors

Solderless Connections—Rubber Cable Grips

50 Amperes, 250 Volts D.C.; 50 Amperes, 600 Volts A.C.



No. 7336 No. 7339

Not Grounded

Cat. No.	Per 100	Description	Cable Diameter	Carton	Std. Pkg.	Wt., Lb. Std.	Wt., Lb. Pkg.
7336	\$550.00	Female Body	.437 to .562	2	5	7	
7343	550.00	Female Body	.562 to .687	2	5	7	
7390	550.00	Female Body	.687 to .812	2	5	7	
7384	550.00	Female Body	.812 to .937	2	5	7	
7396	550.00	Female Body	.937 to 1.062	2	5	7	

*Grounded to Casing

7337	\$550.00	Female Body	.437 to .562	2	5	7	
7344	550.00	Female Body	.562 to .687	2	5	7	
7391	550.00	Female Body	.687 to .812	2	5	7	
7385	550.00	Female Body	.812 to .937	2	5	7	
7397	550.00	Female Body	.937 to 1.062	2	5	7	

†With Equipment Ground

7338	\$578.00	Female Body	.437 to .562	2	5	7	
7345	578.00	Female Body	.562 to .687	2	5	7	
7392	578.00	Female Body	.687 to .812	2	5	7	
7358	578.00	Female Body	.812 to .937	2	5	7	
7386	578.00	Female Body	.937 to 1.062	2	5	7	

Not Grounded

7339	\$440.00	Male Cap.	.437 to .562	2	5	5	
7346	440.00	Male Cap.	.562 to .687	2	5	5	
7393	440.00	Male Cap.	.687 to .812	2	5	5	
7387	440.00	Male Cap.	.812 to .937	2	5	5	
7398	440.00	Male Cap.	.937 to 1.062	2	5	5	

*Grounded to Casing

7340	\$440.00	Male Cap.	.437 to .562	2	5	5	
7347	440.00	Male Cap.	.562 to .687	2	5	5	
7394	440.00	Male Cap.	.687 to .812	2	5	5	
7388	440.00	Male Cap.	.812 to .937	2	5	5	
7399	440.00	Male Cap.	.937 to 1.062	2	5	5	

†With Equipment Ground

7342	\$468.00	Male Cap.	.437 to .562	2	5	5	
7348	468.00	Male Cap.	.562 to .687	2	5	5	
7395	468.00	Male Cap.	.687 to .812	2	5	5	
7359	468.00	Male Cap.	.812 to .937	2	5	5	
7389	468.00	Male Cap.	.937 to 1.062	2	5	5	

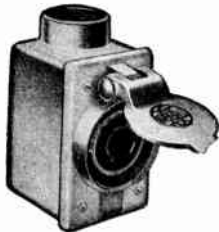
*Grounded to Casing means that the long blade of the cap and the corresponding contact of the connector body are electrically connected to the outer casing. The corresponding contact of the receptacle is electrically connected to the conduit system. If metallic covering of cable is used for the grounding circuit, connection to the casing is made by means of grounding clips regularly installed in all caps and connector bodies.

†Equipment Ground means that the outer casing of the cap, the connector body casing and the receptacle casing serve as the grounding circuit. The grounding connector is electrically connected to the casing of the cap and connector body by means of a fourth terminal when using non-metallic covered cable. If metallic covering of cable is used for the grounding circuit, connection to the casing is made by means of grounding clips regularly installed in all caps and connector bodies. The receptacle casing is electrically connected to the conduit system.

Hubbell Twist-Lock 3-Wire Polarized Flush Receptacles and Plates

With Solderless Connections

50 Amperes, 250 Volts D.C.;
50 Amperes, 600 Volts A.C.



Receptacle and plate will fit FS and FD boxes.

Outlet box is not supplied.

Standard finish, cadmium.

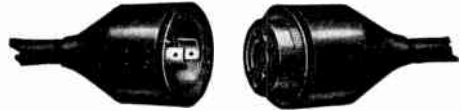
Nos. 7380 and 7382 Assembled to Outlet Box

Cat. No.	Per 100	Description	Carton	Std. Pkg.	Wt., Lb. Std.	Wt., Lb. Pkg.
7380	\$440.00	Flush Receptacle	2	5	3	
7381	440.00	Flush Receptacle, grounded	2	5	3	
7382	83.00	Cast Iron Plate, with lift cover	2	5	5½	
7383	72.00	Cast Iron Plate, without lift cover	2	5	3	

Hubbell Seal-Tite Rubber Covers

Provide protection against breakage and moisture. Recommended for lock-fast connectors in packing plants, fire departments, breweries, distilleries, mines, bottling plants, dairies, tunnels and for general industrial requirements.

For Twist-Lock Connectors

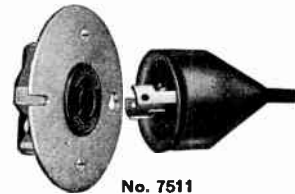


No. 7510

Number covers one-half only, and does not include connector, cap or wire. Two covers are required for each complete connector.

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb.
7510	\$33.00	For Nos. 7101 or 7102, 20A, 2-Wire	10	30	5
7521	33.00	Long Cover for No. 7101 when used with No. 7511, below	10	30	5
7530	55.00	For Nos. 7311 or 7313, 20A, 3-Wire	10	30	6½
7522	55.00	Long Cover for No. 7313, when used with No. 7531, below	10	30	5
7569	33.00	For Nos. 7554 or 7555, 10A, 3-Wire	10	30	5
7435	77.00	For Nos. 7411 or 7413, 20A, 4-Wire	10	20	4
7509	77.00	Long Cover for No. 7413 when used with No. 7541, below	10	20	4

For Twist-Lock Caps Used with Flush Receptacles



No. 7511

The No. 7511 rubber cover is slightly shorter than those listed above for cord connectors, and is designed for use with Twist-Lock Flush Receptacles with steel box covers attached or with standard brass flush plates.

7511	\$33.00	For No. 7102, 2-Wire Cap	10	30	4
7531	55.00	For No. 7311, 3-Wire Cap	10	30	5½
7541	77.00	For No. 7411, 4-Wire Cap	10	20	4

For Midget Twist-Lock Connectors



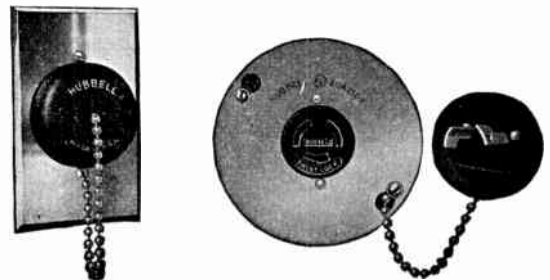
No. 7470 Assembled to No. 7463 Connector

Number covers one half only and does not include connector, cap or wire. Two are required for a complete cord connector.

7470	\$33.00	For Midget Connectors	10	30	3
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Hubbell Seal-Tite Rubber Closure Plugs

For Twist-Lock Receptacles



This closure plug is made of high quality rubber and is designed to Seal-Tite Twist-Lock Flush Receptacles when not in use. Furnished complete with polished nickel chain.

7532	\$44.00	For 2-Wire 20 Amp. Receptacles	10	20	3
7529	44.00	For 3-Wire 10 Amp. Receptacles	10	20	3
7533	44.00	For 3-Wire 20 Amp. Receptacles	10	20	3
7534	50.00	For 4-Wire 20 Amp. Receptacles	10	20	3

Hubbell Twist-Tite Convenience Outlets

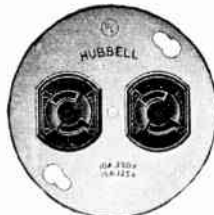
10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 9200



No. 9210



No. 9206

This convenience outlet takes standard parallel bladed caps. A regular cap is plugged in, twisted slightly to the right, and the Twist-Tite feature grips the cap tightly and holds it, preventing it from falling out.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9200	\$46.00	Brown Bakelite, Duplex.....	10	100	25
9205	\$51.00	With 3 1/4 Inch Box Cover, Duplex.....	10	50	20
9206	\$53.00	With 4 Inch Box Cover, Duplex..	5	50	25
9210	\$36.00	Brown Bakelite, Single.....	10	100	20
9211	\$46.00	With 3 1/4-Inch Box Cover, Single	10	100	40
9212	\$45.00	With 4-Inch Box Cover, Single..	5	50	23

Hubbell Outdoor Flush Receptacles

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7792



No. 7793



No. 7794

When not in use, the metal cap threads over the receptacle opening. When connected, the regular plug cap may be protected from the weather by the use of metal cover No. 7793. A rubber mat fitting under the plate completes the weatherproofing.

Exposed metal parts are cadmium plated brass to resist rust and corrosion.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7792	\$190.00	2-Wire, less No. 7793 Cover.....	2	10	7
7791	\$286.00	2-Wire, Duplex, With Plate, less No. 7793 Cover.....	2	10	7
7790	\$223.00	2-Wire, Single, for FS Type Fittings, less No. 7793 Cover.....	2	10	7
*7794	\$268.00	3-Wire, less No. 7793 Cover.....	2	10	7
7793	\$48.00	Metal Cap for Covering Regular Cap.....	2	10	1

*No. 6149 3-Wire cap should be used with No. 7794.

Hubbell Four Outlet Cluster Receptacle

10 Amperes, 250 Volts;

15 Amperes, 125 Volts



Twist-Tite feature holds caps from falling out.

Takes standard parallel bladed caps.

Furnished without cord.

Carton, 1.

Standard package, 10.

Weight per standard package, 5 1/2 pounds.

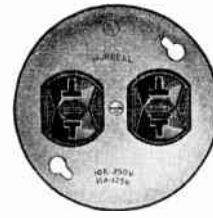
No. 9225..... per 100 \$220.00

Hubbell Convenience Outlets

Standard Grade



No. 9595



Nos. 7260 and 7137



No. 9573

Duplex Side Wired—Double Binding Screws

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9595	\$39.00	Bakelite, Wide Ears.....	10	100	26
9595-I	\$46.00	Ivoryine, Wide Ears.....	10	50	13
9575	\$39.00	Bakelite, Narrow Ears.....	10	100	25
7260	\$47.00	With 3 1/4 Inch Cover.....	10	50	21
7137	\$52.00	With 4 Inch Cover.....	5	50	26

Duplex Side Wired—With Separate Feeds

Each Outlet; 10 Amperes, 250 Volts; 15 Amperes, 125 Volts

One outlet can be wired to a switch for independent control of lamps, and the other outlet kept permanently alive at all times.

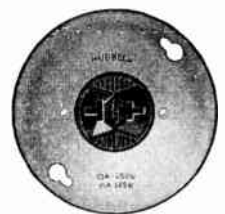
No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9571	\$50.00	Bakelite, 2 Feeds, 1 Return....	10	100	24
9573	\$50.00	Bakelite, 2 Feeds, 2 Returns....	10	100	24



No. 7626



No. 7590



Nos. 7135 and 7136

Duplex—Top Wired—Single and Double Binding Screws

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7626	\$58.00	Bakelite, Wide Ears.....	10	100	24
6257	\$60.00	Black Porcelain.....	10	100	32
5890	\$58.00	Brown Composition.....	10	100	32

Single, Side Wired

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7590	\$32.00	Bakelite, Wide Ears.....	10	100	20
7550	\$32.00	Bakelite, Narrow Ears.....	10	100	18
7135	\$38.00	With 3 1/4-Inch Cover.....	10	100	40
7136	\$43.00	With 4-Inch Cover.....	5	50	23

Hubbell Pilot Lamp Receptacles



No. 432



No. 427

Composition With Candelabra Base

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
432	\$116.00	With 125-Volt Lamp	10	30	6
433	33.00	Lamp Only, 125 Volts	10	30	2
434	155.00	Lamp Only, 250 Volts	10	30	2

Porcelain With Candelabra Base

427	\$116.00	With 125-Volt Lamp	10	30	13
429	33.00	Lamp for No. 427	10	30	3
428	223.00	With 250-Volt Lamp	10	30	12
430	155.00	Lamp for No. 428	10	30	3

Hubbell Outlets and Pilot Lights



No. 7711

10 Amperes, 250 Volts; 15 Amperes, 125 Volts
Light goes on when plug is inserted. No. 433 lamp fits Nos. 7711 and 7712.
Jewel can be removed from front.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7711	\$214.00	With Plate	2	10	7 1/2
7712	149.00	Receptacle Only	2	10	4
7713	65.00	.060" Brass Plate	2	10	4
736	39.00	Round Jewel Only	2	30	10

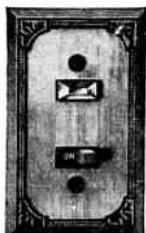
Hubbell Switches and Pilot Lights

Single Pole and 3-Way; 10 Amperes, 125 Volts; 5 Amperes, 250 Volts

Double Pole: 10 Amperes, 250 Volts



No. 7739



No. 7759

Nos. 433 and 434 lamps fit all these lights.

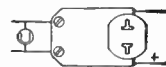
No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7739	\$330.00	S. P., .060 in. Plate	2	10	8
7956	330.00	D. P., .060 in. Plate	2	10	12
7953	330.00	3-Way, .060 in. Plate	2	10	12
7298	39.00	Rectangular Jewel Only	2	30	10

With Ornamental Bakelite Plate

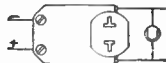
7759	\$330.00	Single Pole	2	10	7
7957	330.00	Double Pole	2	10	12
7954	330.00	3-Way	2	10	12

Hubbell Convenience Outlets and Switches

Switch Rating: 10 Amperes, 250 Volts
Receptacle Rating: 10 Amperes, 250 Volts; 15 Amperes, 125 Volts



RECEPTACLE ALWAYS ON
SWITCH CONTROLS LIGHTS ONLY



SWITCH CONTROLS
RECEPTACLE & LIGHT

Wiring Diagram Showing Variation of Control



No. 8885

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
8885	\$239.00	S. P., with .060" Brass Plate	1	10	8
8886	191.00	S. P., without Plate	1	10	4
8891	239.00	S. P., with Bakelite Plate	1	10	8
8887	239.00	D. P., with .060" Brass Plate	1	10	8
8888	191.00	D. P., without Plate	1	10	4
8892	239.00	D. P., with Bakelite Plate	1	10	8

Separate Plates

8894	\$48.00	.060" Brush Brass Plate	2	10	4
8895	48.00	Sand Blast Bakelite Plate	2	10	3

Hubbell Fan Hanger Outlets

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7710

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7710	\$286.00	Yoke Support and .060" Plate	10	20	19
7714	286.00	Stud Support and .060" Plate	10	20	19

Hubbell Clock Hanger Outlets

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7707

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7707	\$168.00	2-Wire, .040" Plate	2	10	5
7715	179.00	2-Wire, .060" Plate	2	10	5
7708	272.00	3-Wire, .040" Plate	2	10	6
7709	283.00	3-Wire, .060" Plate	2	10	7

Hubbell Floor Outlets

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7797

Two threaded solid brass covers are supplied—one for completely closing the outlet when not in use; the other, with cord hole.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7797	\$240.00	Bevel Edge, .060" Plate	2	10	8
7798	275.00	Square Edge, Solid Plate	2	10	8

Hubbell Round Flush Receptacles

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7331



No. 7255

Tapped for 8x32 screws. Furnished with mounting bridges of various dimensions on special orders.

No.	Per 100	Description	Screw Hole Ctrs. In.	Diam. In.	Car-ton	Std. Wt. Pkg. Lb.
7331	\$38.00	Bakelite.....	1 3/4	1 7/16	10	50 8
5614	38.00	Porcelain.....	1 3/4	1 7/16	10	50 8
7255	38.00	Composition.....	1 5/8	1 3/16	10	50 7

No. 10108 Hubbell Polarized Round Flush Receptacles

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 10108

Tapped for 6x32 screws. Furnished with mounting bridges of various dimensions on special orders.

No.	Per 100	Description	Screw Hole Ctrs. In.	Diam. In.	Car-ton	Std. Wt. Pkg. Lb.
10108	\$46.00	Black Porcelain.....	1 5/8	1 1/16	10	30 5

Hubbell 10-Ampere Porcelain Receptacles

With Double T Slots

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 5617

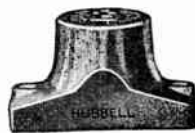


No. 5618

No.	Per 100	Description	Car-ton	Std. Wt. Pkg. Lb.
5617	\$56.00	Concealed Base, Screws, 1 7/32" Centers.....	10	50 18
5618	56.00	Cleat Base, Screws, 1 3/32" Centers.....	10	50 18



No. 5619



No. 5620

5619	\$56.00	Moulding Base, Screws, 1 1/8" Centers.....	10	50 18
5620	66.00	Fielding Base, Screws, 2 5/16" Centers.....	10	50 16



No. 5624



No. 7027

5624	\$60.00	Conduit Box Base, Screws, 5/8" Centers.....	10	50 13
7027	56.00	Outlet Box Receptacle.....	10	50 16

No. 5624 fits Appleton W Unilet and No. 5680 Cover, also fits Crouse-Hinds W Condulet.

Hubbell Pony Size Separable Attachment Plugs

All Bakelite—With Parallel Blades



No. 9013—
No. 9010

Modernistic Design
660 Watts, 250 Volts

Brown is standard color, but black is available on special order at no advance in price.

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
9013	\$10.00	Body.....	.375x.281	25	500	18
9010	10.00	Cap.....	.375x.281	25	500	22

Hubbell Standard Size Separable Attachment Plugs

Composition—With Parallel Blades
With Composition or Brass Covered Caps
660 Watts, 250 Volts



No. 5917—No. 5964

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
5917	\$16.00	Body.....	.406	10	250	20
5964	13.00	Composition Cap.....	.406	10	250	19
6708	13.00	Composition Cap.....	.312	10	250	20

Hubbell Bakelite Attachment Plugs

With Double T Slots
660 Watts, 250 Volts



No. 5420



No. 5612

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
5420	\$21.00	Cap, Tandem Blades...	.406	10	100	6 1/2
5612	40.00	Body, Double T Slots...	.406	10	100	11

No. 6293 Hubbell Weatherproof Plug Receptacles

With Double T Slots

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



Made of composition.
Carton, 10. Standard package, 30.
Weight per standard package, 9 pounds.
No. 6293.....per 100 \$100.00

Hubbell 10-Ampere Attachment Plug Caps With Parallel Blades

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

Pony Size—Composition



No. 7002

No.	Per 100	Cord Hole Inches	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
7002	\$10.00	.375 to .281	25	500	30
7066	10.00	.312	25	500	28
7068	10.00	.406	25	500	27

Pony Size—Bakelite



No. 9010

No.	Per 100	Cord Hole Inches	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
9010	\$10.00	.375x .281	25	500	22

Standard Size—Composition



No. 5964

No.	Per 100	Cord Hole Inches	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
5964	\$13.00	.406	10	250	19
6708	13.00	.312	10	250	20

Standard Size—Composition—Polarized

Polarized—one wide and one narrow blade.



No. 6764

No.	Per 100	Cord Hole Inches	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
6764	\$14.00	.406	10	250	20

With Tandem Blades

Heavy Duty—Bakelite



No. 5420

No.	Per 100	Cord Hole Inches	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
5420	\$21.00	.406	10	100	6 1/2

Hubbell T-Slot Plug Taps

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 6771



No. 6772



No. 7772

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
6771	\$45.00	Multiple, Tandem Blades	10	20	3
6772	41.00	Multiple, Parallel Blades	10	20	3
7772	41.00	Series, Parallel Blades	10	20	4

Hubbell Rubber Cord-Grip Attachment Plug Caps

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 9752



No. 9754



No. 9759

No.	Per 100	Description	Cord Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9752	\$39.00	Tandem Blades	.296 to .562	10	50	7
9753	39.00	Tandem Blades	.406 to .625	10	50	7
9754	39.00	Parallel Blades	.296 to .562	10	50	7
*9755	47.00	Parallel Blades	.296 to .562	10	50	7
9756	39.00	Parallel Blades	.406 to .625	10	50	7
*9757	47.00	Parallel Blades	.406 to .625	10	50	7
9759	58.00	Double T Blades	.296 to .562	10	50	7
9760	70.00	Double T Blades, Polarized	.296 to .562	10	50	7
9761	58.00	Double T Blades	.406 to .625	10	50	7
9762	70.00	Double T Blades, Polarized	.406 to .625	10	50	7

*Polarized—one wide and one narrow blade.

Hubbell Armored Cord-Grip Attachment Plug Caps

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7056



No. 7057



No. 9076

A special impact resisting composition cap, steel covered, cadmium plated.

No.	Per 100	Description	Cord Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7056	\$41.00	Tandem Blades	.296 to .562	10	50	7
7057	41.00	Parallel Blades	.296 to .562	10	50	7
*7059	50.00	Parallel Blades	.296 to .562	10	50	7
7183	41.00	Tandem Blades	.406 to .625	10	50	7
7184	41.00	Parallel Blades	.406 to .625	10	50	8
*7185	50.00	Parallel Blades	.406 to .625	10	50	8
9076	63.00	Tandem Blades, Angle	.500 to .625	10	50	9
9077	63.00	Parallel Blades, Angle	.500 to .625	10	50	9

*Polarized—one wide and one narrow blade.

Hubbell Attachment Plug Caps

With Double T Blades

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7162



No. 7196

No.	Per 100	Description	Cord Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7162	\$61.00	Armored, Composition	.296 to .562	10	30	5
7286	75.00	Armored, Polarized	.296 to .562	10	30	5
7196	55.00	Bakelite	.406	10	50	4

Hubbell Rubber Cord Connector Bodies

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 9952



No. 9953

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
9952	\$44.00	Body.....	.312 to .468	10	50	9
9954	44.00	Body.....	.625	10	50	9
9953	53.00	With Cord Grip...	.312 to .468	10	50	11
9955	53.00	With Cord Grip...	.625	10	50	11

Hubbell Rubber Finger Grip Attachment Plug Caps

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 9972



No. 9974



No. 9940



No. 9942

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
9972	\$21.00	Parallel Blades...	.312 to .437	25	100	8
*9973	23.00	Parallel Blades...	.312 to .437	25	100	8
9934	21.00	Parallel Blades...	.625	25	100	8
*9935	23.00	Parallel Blades...	.625	25	100	8
9974	24.00	Tandem Blades...	.312 to .437	25	100	8
9936	24.00	Tandem Blades...	.625	25	100	8

With Cord Grip

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
9940	\$29.00	Parallel Blades...	.312 to .437	25	100	10
*9941	31.00	Parallel Blades...	.312 to .437	25	100	10
9937	29.00	Parallel Blades...	.625	25	100	10
*9938	31.00	Parallel Blades...	.625	25	100	10
9942	32.00	Tandem Blades...	.312 to .437	25	100	10
9939	33.00	Tandem Blades...	.625	25	100	10

*Polarized—one wide and one narrow blade.

Hubbell Composition Cord Connector Bodies

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 5574



No. 7084



No. 7430-7431

Bodies with cord grip have steel covers, cadmium plated.

With Double T Slots—Composition

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
5574	\$44.00	Regular.....	.406	10	50	8
7080	44.00	Regular.....	.312	10	50	8
7084	69.00	With Cord Grip...	.296 to .562	10	50	11
7187	69.00	With Cord Grip...	.406 to .625	10	50	11

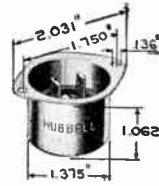
With Parallel Slots—Bakelite

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
7430	\$24.00	Brown Conn. Body	.312	10	50	7
7431	10.00	Brown Cap.....	.281 to .375	25	500	18

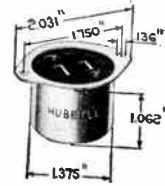
Diameter of connector body, 1 1/16 inches; height, 1 3/8 inches.

Hubbell Small Size Flush Motor Plugs

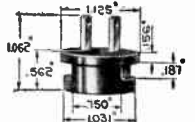
10 Amperes, 250 Volts; 15 Amperes, 125 Volts



Nos. 6808 and 9808



No. 9819



No. 6631

Screw holes spaced 1 3/4 inches. Diameter shell, 1 1/8 inches.

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
6808	\$48.00	Male Base in Casing...	.406	10	50	7
*9808	50.00	Male Base in Casing...	.406	10	50	7
9819	60.00	Female Base.....	.406	10	50	7
6631	22.00	Male Base.....	.406	10	50	3

*Polarized—one wide and one narrow blade.

Polarized—Armored Cord Grip

These bodies fit Flush Motor Bases Nos. 6808 or 9808, listed above. Takes caps 7357 or 9357.

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
7257	\$60.00	Body.....	.406 to .625	10	50	8
7259	60.00	Body.....	.296 to .406	10	50	8

Hubbell Small Size Composition Cord Connectors

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



Nos. 7257 and 7357

None of these small size devices interchange with standard parallel blade devices.

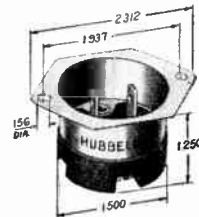
No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
7257	\$60.00	Cord Grip Body...	.406 to .625	10	50	8
7357	40.00	Cord Grip Cap....	.406 to .625	10	50	8
*9357	41.00	Cord Grip Cap....	.406 to .625	10	50	8

*Polarized—one wide and one narrow blade.

No. 4891 Hubbell Male Flush Motor Plugs

Bottom Wired

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



This plug takes bodies Nos. 5574, 7080, 7084, 7187, 9952, 9953, 9954, and 9955.

Male base with parallel blades. Carton, 10. Standard package, 50. Weight per standard package, 9 pounds.

No. 4891..... per 100 \$48.00

Hubbell Surface Motor Plugs

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 6823



Nos. 5574 and 5896

Diameter base, 1 1/2 inches. Screw holes 1 inch on centers.

With Parallel Blades and Slots

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
6823	\$22.00	Base	.406x.312	10	50	4

With Double T Slots and Tandem Blades

5574	\$44.00	Body	.406	10	50	8
7080	44.00	Body	.312	10	50	8

Hubbell Polarized Attachment Plug Caps

Without Cord Grip



No. 5567



No. 6730



Nos. 5553 and 6156



No. 6720

Standard finish on brass-covered caps is brush brass.

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Cord Diam. In.	Car-ton	Std. Pkg.	Wt. Lb.
5567	\$79.00	Porcelain, Brass Covered	.406	10	30	5
6730	47.00	Composition	.406	10	30	4
20 Amperes, 250 Volts						
5553	\$85.00	Porcelain, Brass Covered	.500	10	30	6
6720	56.00	Composition	.500	10	30	5

Hubbell 2-Wire Polarized Attachment Plug Caps



Nos. 9970 and 9758



Nos. 7092 and 7058

Rubber Cord Grip

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Cord Diameter Inches	Car-ton	Std. Pkg.	Wt. Lb.	
9970	\$70.00	.296 to .562	10	30	5	
9971	70.00	.406 to .625	10	30	5	
20 Amperes, 250 Volts						
9758	84.00	.406 to .625	10	30	6	

Armored Composition Cord Grip

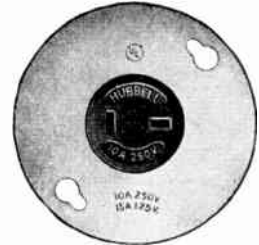
10 Amperes, 250 Volts; 15 Amperes, 125 Volts

7092	\$74.00	.296 to .562	10	30	5	
7241	74.00	.406 to .625	10	30	5	
20 Amperes, 250 Volts						
7058	87.00	.406 to .625	10	30	8	

Hubbell Polarized Flush Receptacles



Nos. 5566 and 5552



Nos. 7270 and 7272

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

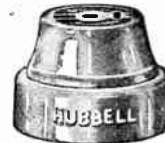
No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
5566	\$64.00	Black Porcelain	10	30	11
5566-B	64.00	Black Bakelite	10	30	7
*7270	74.00	Bakelite with 3 1/4-Inch Cover	10	30	18
7271	82.00	Bakelite with 4-Inch Cover	5	30	20

20 Amperes, 250 Volts

5552	\$116.00	Black Porcelain	10	30	11
5552-B	116.00	Black Bakelite	10	30	7
*7272	124.00	Bakelite with 3 1/4-Inch Cover	10	30	18
7273	129.00	Bakelite with 4-Inch Cover	5	30	20

*These receptacles will readily fit 3 1/4-inch outlet boxes when only one box connector is used. When two or more box connectors are needed the receptacles with 4-inch covers are required.

Hubbell Polarized Wall Receptacles



Nos. 5885 or 5621

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
5885	\$75.00	Concealed Base, Screw Holes Spaced 1 1/2 Inches	10	30	11

20 Amperes, 250 Volts

5621	\$93.00	Concealed Base, Screw Holes Spaced 1 7/16 Inches	10	30	14
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Hubbell Polarized Composition Cord Connectors

With Cord Grip



Caps are steel covered, cadmium plated.

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Cord Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7091	\$102.00	Body	.296 to .562	10	30	9
7092	74.00	Cap	.296 to .562	10	30	5
7240	102.00	Body	.406 to .625	10	30	8
7241	74.00	Cap	.406 to .625	10	30	5

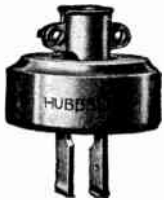
20 Amperes, 250 Volts

7086	\$116.00	Body	.406 to .625	10	30	10
7058	87.00	Cap	.406 to .625	10	30	8

Hubbell 30-Ampere 2-Wire Polarized Flush Receptacles and Caps

30 Amperes, 250 Volts

Single Gang Size



No. 7436



No. 7437



No. 7438

The face diameter of No. 7438 is larger than standard and requires the special plate No. 7439. The outside diameter of the cap is such that it will not fit when used in a two-gang installation of No. 7438 receptacles.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7436	\$175.00	Cord Grip Cap, .625" to 1.000" Cord Hole	5	30	15
7437	82.00	Composition Cap, .656" Cord Hole	5	30	20
7438	155.00	Composition Face Porcelain Receptacle	10	30	16
7439	30.00	.040" Brush Brass Plate	10	30	6

Two-Gang Size



Nos. 7070, 7071 and 7072

Supporting lugs have mounting holes spaced to fit standard 2-gang outlet boxes 2 inches deep or over. Standard finish is brush brass.

7070	\$350.00	Black Porcelain Receptacle	1	5	7
7071	172.00	Black Porcelain Cap, .718" Cord Hole	1	5	3
7127	210.00	Metal Covered Cord Grip Cap, Cord Hole, .625" to 1.000"	1	5	4
7072	140.00	.060" Brass Plate, 4 1/2 x 4 1/8"	1	5	2

Hubbell 3-Wire Polarized Flush Receptacles



Nos. 6051 and 6810



Nos. 7275 and 7277

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No. 7189 has same design as No. 6051 but has ground shunt from one terminal to the back supporting strap.

No. 9051 can be supplied grounded by suffixing letter G to number.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
6051	\$126.00	Composition	10	50	18
7189	126.00	Composition, Grounded	10	50	19
9051	126.00	Porcelain	10	50	20
7607	139.00	Composition, with 3 1/4-Inch Cover	10	50	20
7275	141.00	Porcelain, with 4-Inch Cover	5	50	30

20 Amperes, 250 Volts

6810	\$139.00	Porcelain	10	30	13
7277	154.00	Porcelain, with 4-Inch Cover	5	30	24

If desired grounded, suffix letter G to number.

Hubbell 3-Wire Polarized Flush Receptacles

With Close Mounting Strap

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7214

Screw holes, 1 3/4 inches on centers, tapped for 8x32 screws.

Fits in 1 1/2-inch diameter hole.

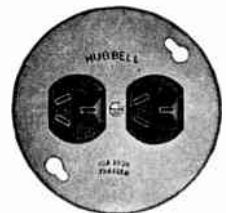
No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7214	\$96.00	Composition, Grounded, 2 Binding Screws	10	30	5
7215	96.00	Composition, Not Grounded, 3 Binding Screws	10	30	7

Hubbell 3-Wire Polarized Duplex Receptacles

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7051

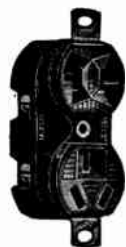


No. 7208

If desired with ground shunt, suffix letter G to number.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7051	\$184.00	Black Bakelite	10	30	12
7208	202.00	Black Bakelite with 4-Inch Cover	5	30	21

Hubbell Combination 3-Wire and Double T-Slot Receptacles



Each Outlet Rated:
10 Amperes, 250 Volts;
15 Amperes, 125 Volts



No. 7053

No. 7333

Fit standard duplex receptacle plates and standard switch boxes.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7053	\$165.00	Black Bakelite, Each Outlet Wired Independently.....	10	30	12
7333	174.00	Same as No. 7053, with 4-inch Cover.....	5	30	21
7054	165.00	Black Bakelite, Arranged With One Feed and One Return Common to Both Outlets; 3-Wire End Permanently Grounded to Supporting Strap	10	30	12
7334	174.00	Same as No. 7054, with 4-Inch Cover.....	5	30	21
7064	165.00	Black Bakelite, Arranged With One Feed and One Return Common to Both Outlets; Grounding Terminal 3-Wire End Equipped With Binding Screw.....	10	30	12
7335	174.00	Same as No. 7064, on 4-Inch Cover.....	5	30	21

Hubbell 3-Wire Porcelain Polarized Receptacles



No. 6047

Screw holes, 1 3/4 inches on centers. Outside diameter of base, 2 1/2 inches.

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
6047	\$87.00	Concealed.....	10	50	22
6059	\$112.00	20 Amperes, 250 Volts Concealed.....	10	30	16

Hubbell 2 to 3-Wire Composition Plug Adapters

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7052



No. 9052-L

Third blade grounded by use of a binding post at side of body. Wire is led to flush plate screws.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7052	\$59.00	Tandem Blades.....	10	30	6
9052	59.00	Parallel Blades.....	10	30	6
7052-L	64.00	Tandem Blades with Ground Wire.....	10	30	7
9052-L	64.00	Parallel Blades with Ground Wire.....	10	30	7

Hubbell 3-Wire Polarized Attachment Plug Caps

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

Finger-Grip



No. 9975

If No. 10056 is desired grounded, suffix letter G to number. Cap is cadmium finished.

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9975	\$38.00	All Rubber..	.312 to .468	10	50	6

Regular



Nos. 6149 and 7252



No. 6150

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
6149	\$37.00	Bakelite.....	.437	10	50	5
7252	37.00	Bakelite.....	.250	10	50	6
6150	61.00	Brass Covered Comp.	.437	10	50	6

If desired grounded, suffix letter G to number.

Armored Cord Grip Cadmium Plated



No. 7055



No. 7089

If desired grounded, suffix letter G to number.

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7055	\$66.00	Armored.....	.296 to .562	10	50	8
7309	66.00	Armored.....	.406 to .625	10	50	8
7089	111.00	20 Amperes, 250 Volts Armored.....	.406 to .625	10	20	9

Rubber Cord Grip



No. 9750



No. 9777

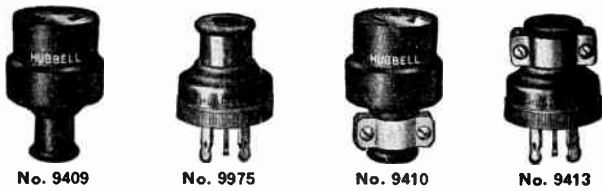
If desired grounded, suffix letter G to number.

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9750	\$66.00	Rubber.....	.296 to .562	10	50	8
9751	66.00	Rubber.....	.406 to .625	10	50	8
9977	105.00	20 Amperes, 250 Volts Rubber.....	.406 to .625	10	20	5

Hubbell 3-Wire Indestructible Polarized Rubber Cord Connectors

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



Roll-back handle section of body, easily detached and attached for wiring.

Self-aligning phosphor bronze contact springs. Brass contact blades securely riveted to specially designed brass inserts which are moulded solidly into rubber body of cap.

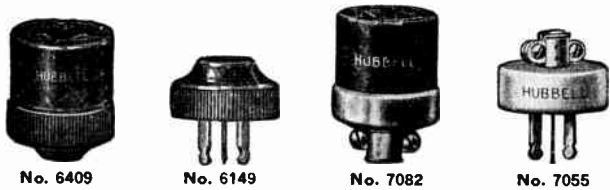
Without Cord Grip

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
9409	\$79.00	Body	.312 to .468	10	50	10
9411	79.00	Body	.625	10	50	10
9975	38.00	Cap.	.312 to .468	10	50	6
9976	38.00	Cap.	.625	10	50	6

With Cord Grip

9410	\$88.00	Body	.312 to .468	10	50	11
9412	88.00	Body	.625	10	50	11
9413	46.00	Cap.	.312 to .468	10	50	7
9414	46.00	Cap.	.625	10	50	7

Hubbell 3-Wire Polarized Cord Connectors



Without Cord Grip

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

No.	Per 100	Description	Cord Hole Inches	Car-ton	Std. Pkg.	Wt. Lb.
6409	\$78.00	Body, Composition	.437	10	50	12
6149	37.00	Cap, Bakelite	.437	10	50	5
7252	37.00	Cap, Bakelite	.250	10	50	6

Armored—With Cord Grip

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

Cap is steel covered, cadmium plated. If desired grounded, suffix letter G to number.

7082	\$108.00	Body, Composition	.296 to .562	10	50	13
7055	66.00	Cap, Composition	.296 to .562	10	50	8
7308	110.00	Body, Composition	.406 to .625	10	50	8
7309	66.00	Cap, Composition	.406 to .625	10	50	8

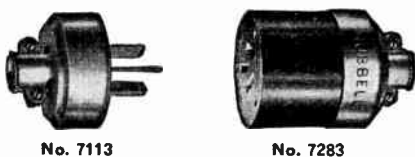
20 Amperes, 250 Volts

7088	\$171.00	Body, Composition	.406 to .625	10	20	9
7089	111.00	Cap, Composition	.406 to .625	10	20	9

Hubbell 3-Wire Polarized Cord Connectors

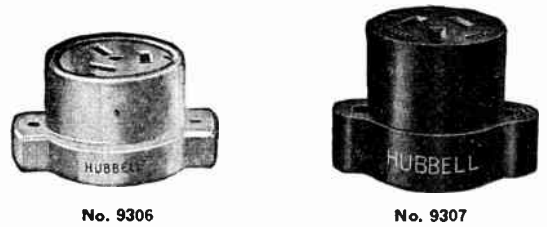
With Cord Grip

30 Amperes, 250 Volts



No.	Per 100	Description	Cord Diameter Inches	Car-Std. ton	Pkg. Wt. Lb.
7283	\$425.00	Composition Body	.625 to 1.000	1	5 8
7113	167.00	Armored Cap	.625 to 1.000	1	5 5

Hubbell 3-Wire Polarized Surface Receptacles



No. 9306

No. 9307

50 Amperes, 250 Volts

Nos. 7513, 7520, 9304 and 9305 caps with ground contacts removed may be used with this receptacle.

No.	Per 100	Description	Car-Std. ton	Pkg. Wt. Lb.
9306	\$150.00	All Porcelain	2	10 10

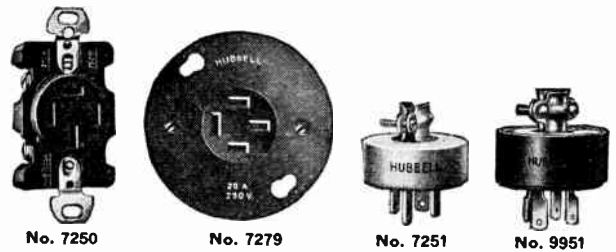
30 Amperes, 250 Volts

Nos. 7113, 7514 and 9316 caps fit this receptacle.

9307	\$182.00	All Composition, Polarized	2	10 7
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Hubbell 4-Wire Polarized Flush Receptacles and Cord Grip Caps

20 Amperes, 250 Volts



No. 7250

No. 7279

No. 7251

No. 9951

Takes standard single outlet plates. Gang plates must be of special size.

No. 9251 has shunt from ground blade to metal cover for grounding to metal-sheathed 3-wire cable.

If No. 7250 or 7279 is desired grounded, suffix letter G to number.

No.	Per 100	Description	Cord Diameter Inches	Car-Std. ton	Pkg. Wt. Lb.
7250	\$172.00	Composition Receptacle		10	20 8
7279	187.00	Receptacle on 4-Inch Cover		5	20 13
7251	133.00	Metal Covered Cap	.437 to .750	10	20 6
9251	147.00	Grounded Metal Covered Cap	.437 to .750	10	20 5
9951	132.00	Rubber Cap	.437 to .750	10	20 5

Hubbell 4-Wire Polarized Cord Grip Cord Connectors

20 Amperes, 250 Volts



No. 7351

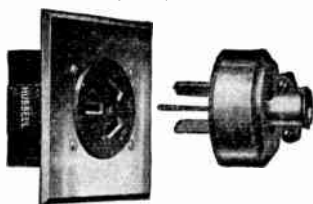
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No. 9951

No.	Per 100	Description	Cord Diameter Inches	Car-Std. ton	Pkg. Wt. Lb.
7351	\$210.00	Composition Body	.437 to .750	10	20 10
7251	133.00	Metal Covered Cap	.437 to .750	10	20 6
9251	147.00	Grounded Metal Covered Cap	.437 to .750	10	20 5
9951	132.00	Rubber Cap	.437 to .750	10	20 5

Hubbell 3-Wire Flush Receptacles

30 Amperes, 250 Volts



Nos. 7112, 7113 and 7114

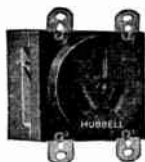
No. 7112 fits standard 2-gang box 2 inches deep or over, as listed below. If desired grounded, suffix letter G to number.

Nos. 7113 and 7514 are composition, steel covered, cadmium plated with adjustable cord grip, .625 to 1.000-inch. No. 7114 is standard 2-gang size. Finished in brush brass.

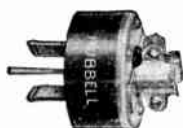
No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7112	\$473.00	Black Porcelain Receptacle.....	1	5	8
7113	167.00	Cord Grip Cap.....	1	5	5
7514	167.00	Grounded Cord Grip Cap.....	1	5	4
7114	120.00	.060-Inch Brass Plate.....	1	5	2

With Soldering Terminals

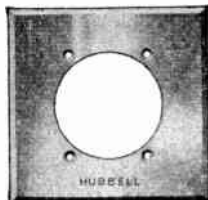
50 Amperes, 250 Volts



No. 7512



No. 7513



No. 7114

If Nos. 7512, 7513 and 7520 are desired grounded, suffix letter G to number.

No. 7114 is standard 2-gang size. Finished in brush brass.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7512	\$550.00	Porcelain Receptacle.....	1	5	7
7513	200.00	Cord Grip Cap, .875 to 1.218-Inch	1	5	5
7520	200.00	Cord Grip Cap, .625 to .937-Inch	1	5	6
7114	120.00	.060-Inch Brass Plate.....	1	5	2

Suitable Fittings for Nos. 7112 and 7512 Receptacles

APPLETON ELECTRIC CO.—19025, 19026, 19010, 19011 Boxes. GSC-2 Cover on GSB-2 Box. 8486 Cover on 4-SJ-1/2, 4-SJD-1/2, 4-SJD3/4, 4-SJD-1 Boxes. 8469 and 8469-A Boxes on 4-S-1/2, 4-S-3/4 and 4-S Special Boxes. 14097 Cover on Type FS2-gang Unilet fits 7070 only. 14098 Cover required for 7112 or 7512.

CROUSE-HINDS Co.—2-Gang FS Series Condulets. Covers for use with 7070 on these condulets are S-612—surface type. SS-612—flush type. Covers for use with 7112 or 7512 on these condulets are S-622—surface and SS-622—flush.

NATIONAL METAL MLDG. Co.—24K, 24KK and 24KL Covers on 2400, 2401, 2402, 2403, 2404, 2405 and 2410 Boxes. 25K Cover on 2500, 2501, 2514, 2515 and 2590 Boxes. 30C2 Cover on 3002 and 3012 Boxes. 4230 and 4231 Boxes.

TAPLET MFG. Co.—2-Gang FS Series Taplets. Hubbell Plate Nos. 7072 and 7114 will fit above Taplets.

GENERAL ELECTRIC Co.—SP52C17 and SP52C18 Covers on SP51151 and SP52151 4-inch Square Boxes. SP6751 Cover on SP6733 Box.

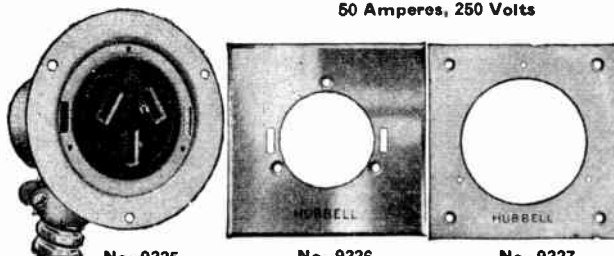
STEEL CITY ELECTRIC Co.—2GC Cover on 2G Box and Nos. 52C17, 52C18, 52C19 on 51151 and 52151 Boxes, and 72C18 Cover on 72171 Box.

THOMAS & BETTS.—32 (Box and Cover) and FD Tubelets.

Hubbell 50-Ampere 3-Wire Power Outlets

With Solderless Terminals

50 Amperes, 250 Volts



No. 9325

No. 9326

No. 9327

Designed to be mounted through a 3 1/8-inch hole.

Receptacle body is of black bakelite. Regularly supplied with grounding slots through plate to accommodate caps with independent ground clips as on Nos. 7923, 7977, 7952, 9304 and 9305. Also takes all standard 50-ampere, 250-volt 3-wire caps without grounding clips.

Receptacle has angle cable grip clamp which will accommodate BX, or other metal sheathed cable, or non-metallic cable measuring .750-inch to 1.187 inches. Diameter of flange is 4 1/2 inches.

Maximum depth from underside of flange to bottom of cord clamp, with largest cable in place is 3 1/2 inches.

Regularly supplied with three nickel plated wood screws.

Specify No. 9325-G if receptacle is desired with one contact grounded to metal casing.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
9325	\$355.00	Bakelite Receptacle.....	2	10	13
9326	96.00	Stainless Steel Face Plate, Semi-Polished Finish.....	2	10	3
*9327	45.00	Steel Sub Plate, Cadmium Finish 2	10	3	

*No. 9327 sub plate is equipped with an extra set of mounting holes and is for use under the face plate, where it may be necessary to cover up a carelessly cut hole in the plaster wall.

Hubbell 50-Ampere 3-Wire Receptacles

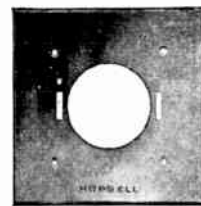
50 Amperes, 250 Volts



No. 9301 with Cover

Fits standard boxes 4 1/16 inches square and 2 1/8 inches deep.

Standard finish is brush brass.



No. 9309

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
9301	\$595.00	Receptacle with Box Cover.....	2	10	17
9309	108.00	Cadmium Steel Plate, 5 1/2 In. Sq. Ground Slots and Sprgs. .060-In.	2	10	5

Hubbell 3-Wire Composition Caps

50 Amperes, 250 Volts



No. 9304



No. 9316

Accommodates BX cables, cords, or flexible conduit, .950 to 1.125-inch inclusive.

With ground clips.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
9304	\$250.80	Angle.....	1	10	16
9305	233.20	Straight.....	1	10	17

30 Amperes, 250 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
9316	\$99.50	Black Composition.....	2	10	6

Cord hole 0.750 inches.

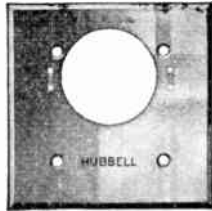
Hubbell 50-Ampere 3-Wire Range Receptacles

With Solderless Terminals

50 Amperes, 250 Volts



No. 7974



No. 7975

Designed for standard 4-inch square box (Universal No. 52151-S box with 3/4-inch knockouts and 52C18 cover). Receptacle is black bakelite with grounding contacts in the plate.

Will accommodate No. 7952 Bakelite Range Cap or standard rubber connection cord sets.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7974	\$330.00	Receptacle Only	2	10	7
7975	96.00	.040-Inch Brush Brass Plate Only	2	10	3

Hubbell Range Receptacle Fittings and Cord Sets

Nos. 7915, 7933 and 7929: 35 Amperes, 125 or 250 Volts

Others: 50 Amperes, 250 Volts



Nos. 7914, 7915 and 7916



Nos. 7933 and 7934

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7914	\$440.00	38-Inch Rubber Cord Set, 2 No. 6 and 1 No. 8 Wires	2	10	21
7915	374.00	38-Inch Rubber Cord Set, 2 No. 8 and 1 No. 10 Wires	2	10	21
7916	528.00	38-Inch Rubber Cord Set, 3 No. 6 Wires	2	10	24
7933	290.00	36-Inch Rubber Cord Set, with Bakelite Cap, 2 No. 8 and 1 No. 10-Wires	2	10	20
7934	316.00	36-Inch Rubber Cord Set, with Bakelite Cap, 2 No. 6 and 1 No. 8 Wires	2	10	25

Hubbell 50-Ampere 3-Wire Range Outlets With Solderless Terminals

Double Screw Type
50 Amperes, 250 Volts



No. 7950



No. 7951



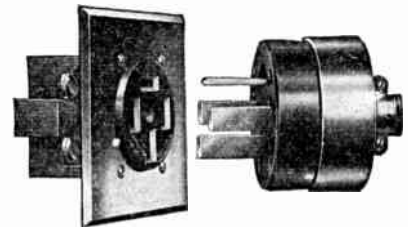
No. 7952

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
*7950	\$165.00	Black Bakelite Surface Receptacle	2	10	14
7951	47.00	Ground Strap for No. 7950	2	10	2
7952	250.00	Black Bakelite Range Cap	2	10	12

*When used with 1-inch conduits omit the clamps, and in its place use a regular conduit bushing and lock nuts.

Hubbell 60-Ampere 4-Wire Flush Receptacles

60 Amperes, 250 Volts



Nos. 7301, 7114 and 7303

Soldering lugs on Nos. 7301, 7302 and 7303 accommodate No. 4 wires. Nos. 7302 and 7303 caps are steel covered, cadmium plated, and accommodate cords up to 1.250-inch in diameter.

Standard finish, brush brass.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7301	\$707.00	Porcelain Receptacle	1	5	10
7302	388.00	Angle Cap	1	5	10
7303	353.00	Straight Cap	1	5	8
7114	120.00	.060-Inch Brass Plate, 4 1/2 x 4 3/16 Inches	1	5	2

Fittings Suitable for Use with No. 7301 Receptacles

ADALET MANUFACTURING Co.—HHE-605 combination box and cover, dead end or E type; HHC-605 combination box and cover, straight through or C type.

APPLETON ELECTRIC Co.—FS Series Unilets with 2-gang Unilet Extension and 14098 cover for surface or flush work; 4SJD boxes with special 8489-A cover for exposed work.

CROUSE-HINDS Co.—FSC-32 conduit body with EXF-12 extension; S-622 surface type cover and SS-622 flush type cover.

STEEL CITY ELECTRIC Co.—0221 box with 0231 concealed cover and 0232 surface type cover.

TAPLET MANUFACTURING Co.—Taplet fitting with one 3/4-inch hub, Type FDE22 with one 1-inch hub, Type FDE32. Taplet fitting with two 3/4-inch hubs for straight through conduit wiring, Type FDC22 and with two 1-inch hubs for straight through conduit wiring, Type FDC32.

THOMAS & BETTS Co.—FD 2-gang Tubelets.

Hubbell Radio Outlets and Caps

Power Outlets: 15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 4185

Single Outlet For Aerial and Ground

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
4185	\$62.00	Brown, with No. 4190 Cap.....	2	10	2
4185-I	73.00	Ivoryine, with No. 4190-I Cap.....	2	10	2

Duplex Outlet Radio and Power Connections



No. 4189

Divider plate separates aerial and ground from the power connections. Divider plate fits 1½, 2 and 2½-inch boxes.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
4189	\$105.00	Brown.....	2	10	3
4189-I	113.00	Ivoryine....	2	10	3

Radio Cap

One blade set at an angle to prevent insertion in power outlet. Cord hole size, .281x.375-inch.



No. 4190

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
4190	\$15.00	Brown.....	2	10	½
4190-I	20.00	Ivoryine....	2	10	½

Hubbell Acorn Receptacles

Designed to meet competition, and priced accordingly. Not to be confused with regular line of Hubbell receptacles listed elsewhere.

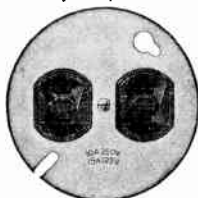
Duplex Receptacles 10 Amperes, 250 Volts 15 Amperes, 125 Volts



With wide plaster ears and parallel slots.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9890	\$24.00	Bakelite.....	10	100	15
9890-I	30.00	Ivoryine.....	10	50	8

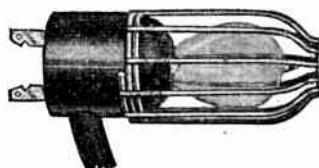
Flush Duplex Receptacles On Box Covers 10 Amperes, 250 Volts 15 Amperes, 125 Volts



No.	Per 100	Diam. In.	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9994	\$34.00	3¼	10	50	16
9995	39.00	4	5	50	20

Hubbell Signalite Current Taps

10 Amperes, 125 Volts



No. 6109

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
6108	\$70.00	Without Lamp.....	10	10	4
6109	125.00	With 125-Volt Lamp.....	10	10	4
6101	55.00	125-Volt Red Lamp Only.....	10	10	1

Hubbell Pull Socket Te-Taps

Plug Outlets: 660 Watts, 250 Volts

Socket Outlets: 250 Watts, 250 Volts



No. 3190



No. 3191

Standard finish is brush brass.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
3190	\$159.00	With Medium Screw Base.....	10	10	5
3191	120.00	With ⅛-Inch Cap.....	10	10	4
3193	129.00	With ⅜-Inch Cap.....	10	10	4
3194	119.00	With Pendant Cap.....	10	10	4

No. 35024 Hubbell Pull Sockets

With Lamp Base

250 Watts, 250 Volts



Made with medium screw base. Equipped with 6½ inches of pull chain.

Standard finish is brush brass.

Carton, 10. Standard package, 10. Weight per standard package, 4 pounds.

No. 35024.....per 100 \$85.00

No. 6900 Hubbell Triplex Table Taps

10 Amperes, 250 Volts; 15 Amperes, 125 Volts



With connector body, cap, and 8 feet of black cord. Carton, 1. Standard package, 5. Weight per standard package, 12 pounds.

No. 6900.....per 100 \$420.00

No. 5897 Hubbell Medium Screw Base Adapters

660 Watts, 250 Volts



No. 5897.....per 100 \$51.00

A composition adapter with tandem blades. Carton, 10. Standard package, 50. Weight per standard package, 8 pounds.



H & H Convenience Outlets

Single, Side Wired, Brown Bakelite
15 Amperes, 125 Volts; 10 Amperes, 250 Volts

No.	Per 100	Description	Car-ton	Std. Wt. Pkg. Lb.
1911	\$32.00	With Plaster Ears, T Slots	10	100 14
7700	30.00	With Straight Ears, for Bakelite Tumbler Plates	10	100 13



No. 1913 Duplex, Side Wired, Brown Bakelite

15 Amperes, 125 Volts; 10 Amperes, 250 Volts
Made with four screws, plaster ears, and T slots.

Carton, 10. Standard package, 100.

Weight per standard package, 19 pounds.

No. 1913.....per 100 \$39.00

2-Circuit, Duplex, 2 Feed Wires, Side Wired Brown Bakelite

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Made with plaster ears and T slots. One circuit or opening is usually left "Always On" for various appliances. Other circuit may be used for lamps controlled by a switch.



No.	Per 100	Description	Car-ton	Std. Wt. Pkg. Lb.
1914	\$50.00	1 Return, Common Negative	10	100 19
1915	50.00	2 Returns, Separate Negative	10	100 19



H & H Convenience Outlets
No. 1911-I Single, Side Wired, Ivorylite

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Made with plaster ears, T slots.

Carton 10. Standard package, 50.

Weight per standard package, 6 pounds.

No. 1911-I.....per 100 \$38.00



No. 1913-I Duplex, Side Wired, Ivorylite

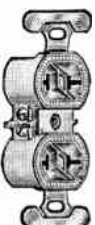
15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Made with four screws, plaster ears, and T slots.

Carton 10. Standard package, 50.

Weight per standard package, 9 pounds.

No. 1913-I.....per 100 \$46.00



2-Circuit, Duplex, 2 Feed Wires, Side Wired Ivorylite

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Made with plaster ears and T slots.

One circuit or opening is usually left "Always On" for various appliances. Other circuit may be used for lamps controlled by a switch.

No.	Per 100	Description	Car-ton	Std. Wt. Pkg. Lb.
1914-I	\$57.00	1 Return Common Negative	10	50 11
1915-I	57.00	2 Returns, Separate Negative	10	50 11

H & H Floor Outlets

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 7797

Made to plug in lamps or appliances without running long cords from the wall.

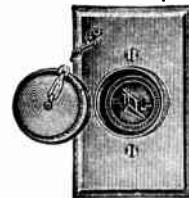
Made in two styles: bevel edge plate, .060-inch brass, and square edge solid brass plate where it is desired to make an absolutely flush job. Two threaded solid brass covers are supplied, one for completely closing the outlet when not in use; the other with cord hole and bushing to shield the plug cap when connected.

Receptacle is recessed so plug is sunk flush with the floor. Not waterproof, designed for hardwood floors or dry places.

No.	Per 100	Description	Car-ton	Std. Wt. Pkg. Lb.
7797	\$240.00	With Bevel Edge Plate	2	10 8
7798	275.00	With Square Edge Plate	2	10 8

H & H Weatherproof Flush Receptacles

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 7792

A permanent, weatherproof outlet for plugging in outdoor lighting connections or appliances, also for inside installations exposed to moisture.

Cadmium finished .060-inch brass plate and cap. Will not rust or corrode. When not in use, a metal cap screws over the opening — when connected the regular cap may be covered with metal cap No. 7793. A rubber mat fitting under the plate, completes the weatherproofing.

No.	Per 100	Description	Car-ton	Std. Wt. Pkg. Lb.
7792	\$196.00	With Plate, 2-Wire	2	10 7
7780	534.00	2-Gang, with Plate, 2-Wire	2	5 7
7796	268.00	*With Plate, 3-Wire	2	10 7
7793	48.00	Metal Cap	2	10 1

*Pony size cap must be used.

H & H All Round Convenience Outlets

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 5016



No. 5017

A neat, compact convenience outlet consisting of three parts: round galvanized box with clamp for 3/8-inch armored cable, single bakelite receptacle and brass cover plate, brass finish.

Diameter of box

body, 1 1/2 inches; plate diameter, 2 1/2 inches; height overall, 2 1/8 inches including connector.

No.	Per 100	Description	Car-ton	Std. Wt. Pkg. Lb.
5016	\$88.00	With Straight Connector	10	50 25
5017	88.00	With Angle Connector	10	50 25

H & H Convenience Outlets

For 3 1/4 and 4-Inch Boxes

Cadmium Finished Cover—T Slot Bakelite Receptacles

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 7007



No. 7008

No.	Per 100	Description	Car-ton	Std. Wt. Pkg. Lb.
7006	\$38.00	Single, for 3 1/4-Inch Boxes	10	100 34
7007	43.00	Single, for 4-Inch Boxes	5	50 21
7049	47.00	Duplex, for 3 1/4-Inch Boxes	10	50 18
7008	52.00	Duplex, for 4-Inch Boxes	5	50 22

H & H Tumbler Switches and Receptacles

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 8974



No. 3975

This combination may be wired so the switch controls the receptacle or so that the receptacle is always on and the switch controls overhead lights.

With Double Pole Switch
10 Amperes, 250 Volts

No.	Per 100	Description	Plate	Car-ton	Std. Pkg.	Wt. Lb.
8998	\$239.00	Composition	.060" Brass	2	10	8
3974	225.00	Composition	Bakelite	2	10	7
8996	189.00	Composition	None	2	10	4
8974	239.00	Porcelain	.060" Brass	2	10	8
3975	225.00	Porcelain	Bakelite	2	10	7
8973	195.00	Porcelain	None	2	10	4
8997	50.00	.060" Brass Plate		2	10	3
9043	36.00	Bakelite Plate		2	10	1

With Double Pole Switch
20 Amperes, 250 Volts

1654	247.00	Composition	.060" Brass	2	10	8
1653	197.00	Composition	None	2	10	4

With Single Pole Switch
10 Amperes, 250 Volts

3918	239.00	Composition	.060" Brass	2	10	8
3917	189.00	Composition	None	2	10	4

2 Independent Circuits with Single Pole Switch
10 Amperes, 250 Volts

4198	275.00	Porcelain	.060" Brass	2	10	8
4200	261.00	Porcelain	Bakelite	2	10	7
4199	225.00	Porcelain	None	2	10	4

H & H Tumbler Switches and Warning Lights

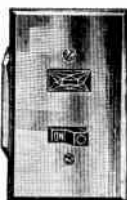
Jewel Flush with Plate

Single Pole and 3-Way, 10 Amperes, 125 Volts;
5 Amperes, 250 Volts

Double Pole, 10 Amperes, 250 Volts



No. 7759



No. 7739

Warning light shows at a glance when lights are left on in cellars, attics, closets, etc. The jewel is flush with the plate, thus eliminating lamp breakage. Intermediate base lamp is used.

Brass plates are .060-inch.

No.	Per 100	Description	Plate	Car-ton	Std. Pkg.	Wt. Lb.
7739	\$330.00	Single Pole	Brass	2	10	9
7759	330.00	Single Pole	Bakelite	2	10	7
7741	250.00	Single Pole	None	2	10	4
7956	330.00	Double Pole	Brass	2	10	8
7957	330.00	Double Pole	Bakelite	2	10	6
7958	250.00	Double Pole	None	2	10	4
7953	330.00	Three-Way	Brass	2	10	8
7954	330.00	Three-Way	Bakelite	2	10	6
7955	250.00	Three-Way	None	2	10	4
7742	80.00	Brass Plate		2	10	3
7754	80.00	Bakelite Plate		2	10	1

H & H Clock Hanger Outlets

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 7707

A double service device providing mechanical support for the clock and electrical connection. Receptacle is recessed so the plug cap goes flush with the plate. This allows the clock to hang flat over the outlet, entirely covering it, with all wiring concealed. May be installed in a mantel for shelf clocks.

Standard plate finish is brush brass.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7707	\$168.00	2-Wire, with .040" Plate	2	10	5
7707-C	179.00	2-Wire, with .060" Plate	2	10	6
7708	272.00	3-Wire, with .040" *Plate	2	10	6
7708-C	283.00	3-Wire, with .060" Plate	2	10	7

*Fits Nos. 7440 and 7077 caps.

H & H Fan Hanger Outlets

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 7750

This outlet provides electrical connection and mechanical support for fans. It is easy to install and fits a standard 4-inch square box. Supports a weight many times greater than a fan. Two types are supplied: clamp type for the average job where the outlet fastens to the box cover, and the stud type where hickey fastens to the box stud.

Brush brass .060-inch plate standard on both types.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7750	\$286.00	Clamp Type, with Plate	10	20	13
7751	286.00	Stud Type, with Plate	10	20	13
7752	255.00	Clamp Type, without Plate	10	20	8
7753	255.00	Stud Type, without Plate	10	20	8
7755	31.00	Plate for Nos. 7752 and 7753	10	20	5

No. 5350 H & H 2-Gang Units

Double Pole Switch, T Slot Receptacle and Warning Light Combination with .040-Inch Chromium Plate Series, Switch Controls Outlet

T Slot Receptacle Rating: 15 Amps., 125 Volts; 10 Amps., 250 Volts
Double Pole Switch Rating: 20 Amps., 250 Volts



This combination is for heavy duty service to meet code requirements for a switch controlled outlet.

Suitable for modern appliances in kitchens, laundries, restaurants, etc. Regularly supplied with .040-inch struck-up plates, which are included.

Polished chromium plate is standard. Brush Brass, Blendin, or Dull Chromium at the same price when specified.

Carton, 2. Standard package, 10. Weight per standard package, 12 pounds.

No. 5350..... per 100 \$432.00

H & H Warning Lights and Receptacles

Jewel Flush with Plate
15 Amperes, 125 Volts
10 Amperes, 250 Volts

This light gives a warning of current left on in toasters, percolators flat irons and other appliances.

Intermediate base lamp is standard.



No. 7728



No. 7711

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7728	\$214.00	With Bakelite Plate	2	10	7
7711	214.00	With .060" Brass Plate	2	10	8
7712	149.00	Without Plate	2	10	4
7729	65.00	Bakelite Plate	2	10	2
4179	65.00	.060" Brass Plate	2	10	2

H & H Radio Outlets

Single

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 2147



No. 2147-I

For aerial and ground connections. Made of bakelite. Has slots and plug fingers set at an angle so that it is impossible to reverse aerial and ground.

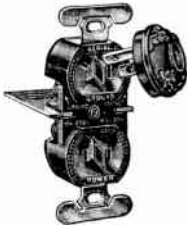
Carton, 2. Standard package, 10.

Brown Bakelite		Ivorylite		Description	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100		
2147	\$62.00	2147-I	\$73.00	Receptacle and GH Cap.	2
2149	47.00	2149-I	53.00	Receptacle Only	2

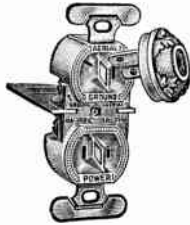
H & H Radio Outlets

Duplex

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 2145



No. 2145-I

For aerial, ground and power. Made of bakelite. Has slots and plug fingers set at an angle so that it is impossible to reverse aerial and ground. Standard power outlet.

Carton, 2. Standard package, 10.

Brown Bakelite		Ivorylite		Description	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100		
2145	\$120.00	2145-I	\$134.00	Receptacle and GH Cap.	4
2146	128.00	2146-I	146.00	Receptacle, GH Cap and Bakelite Plate	5
2144	105.00	2144-I	113.00	Receptacle Only	4

H & H Radio Outlet Caps

Plug fingers are set at an angle so the cap cannot be inserted in a power outlet and it is impossible to reverse the aerial and ground when inserting.



No. GH



No. GH-I

Carton, 2. Standard package, 10.

Brown Bakelite		Ivorylite		Description	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100		
GII	\$15.00	GH-I	\$20.00	Radio Cap	1/2

H & H 3-Wire Radio Outlets and Power Outlets

With 3-Wire Radio Cap

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 2189



No. GK

Carton, 2. Standard package, 10.

Brown Bakelite		Ivorylite		Description	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100		
2187	\$149.50	2187-I	\$163.00	Receptacle and GK Cap.	3 1/2
2188	156.50	2188-I	174.50	Receptacle, Cap and Bakelite Plate	4 1/2
2189	132.50	2189-I	139.50	Receptacle Only	3
GK	17.00	GK-I	23.50	3-Wire Radio Cap	1/2

H & H Pony Size Attachment Plug Caps

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Parallel Blades



No. GA



No. GA-I



No. GR



No. GR-I

No.	Per 100	Cord Hole Inches	Description	Carton	Std. Pkg.	Wt. Lb.
GA	\$3.50	3/16 - 3/8 (.281-.375)	Bakelite	50	500	20
GA-I	5.00	3/16 - 3/8 (.281-.375)	Ivorylite	25	500	19
GB	3.50	3/16 - 1/4 (.187-.250)	Bakelite	50	500	20
GF	3.50	1/32 (.343)	Bakelite	25	500	20
GD	3.50	1/32 (.406)	Bakelite	50	500	20
GR	5.00	5/16 (.312)	Bakelite, Pull Handle	25	100	5
GR-I	6.50	5/16 (.312)	Ivorylite, Pull Handle	25	100	5

Composition



No. 1439



No. 7101

4235	\$3.50	5/16 (.312)	For SJ Cord	50	500	30
1439	3.50	3/16 - 3/8 (.281-.375)	For PO Cord	50	500	29
7035	3.50	1/32 (.406)	For S Cord	50	500	29
7101	12.00	1/32 (.406)	Armored, For S Cord	25	250	22



No. 4236

4236	\$37.00	5/16 (.312)	Composition	10	50	7
4237	37.00	1/32 (.406)	Composition	10	50	7

Armored Cord Grip

Fits Duplex Receptacles

H & H Pony Size Cord Connectors

Composition—Parallel Slots

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 7054



No. 3033

No.	Per 100	Cord Hole Inches	Description	Carton	Std. Pkg.	Wt. Lb.
7054	\$24.00	3/16	For 4235 Cap.	10	50	5
7057	24.00	1/32	For 7035 Cap.	10	50	5
3033	57.00	5/16	Armored Cord Grip	10	50	8

H & H Standard Size Double T Slot Bakelite Attachment Plugs

660 Watts, 250 Volts



No. 7051



BDT Cap

No.	Per 100	Cord Hole Inches	Description	Carton	Std. Pkg.	Wt. Lb.
7051	\$40.00	.....	Base	10	100	19
7052	56.00	1/32	Base and BDT Cap	10	100	23

H & H Standard Size Attachment Plug Caps

Parallel Blades

Bakelite

No.	Per 100	Cord Hole Inches	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
No. BA						
BA	\$9.50	1 3/32 (.406)	For S Cord.....	10	250	17

Composition

No.	Per 100	Cord Hole Inches	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
1401	\$9.50	1 3/32 (.406)	Diam. 1 3/8".....	10	250	19
1407	9.50	1 3/32 (.406)	Diam. 1 1/2".....	10	250	25
4234	9.50	1/2 (.500)	Countersunk, for 5/8" Cord.....	10	250	25
1412	37.50	1 3/32 (.406)	Brass Covered.....	10	250	25
1406	12.00	1 3/32 (.406)	Steel Covered.....	10	250	25

H & H Standard Size Rubber Attachment Plug Caps

15 Amperes, 125 Volts; 10 Amperes, 250 Volts

Parallel Blades



No.	Per 100	Cord Hole Inches	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
GG	\$18.00	1 3/32 (.406)	Standard.....	25	100	8
GN	18.00	5/16 (.312)	Standard.....	25	100	8
GNL	20.00	1 1/32 (.343)	Standard.....	25	100	8

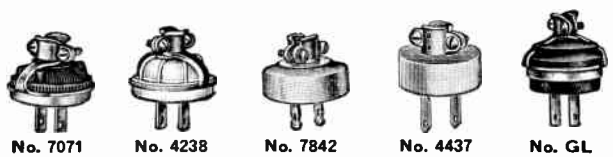
With Cord Grip

7845	\$35.00	1 9/64 - 9/16 (.296-.562)	Std., Parallel	10	50	7
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H & H Standard Size Caps

With Armored Cord Grip—Parallel Blades

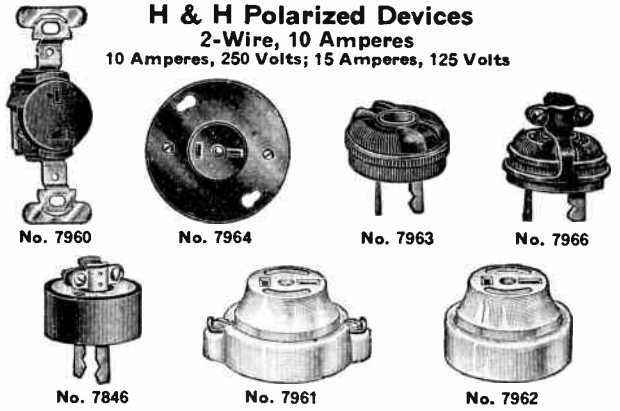
15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No.	Per 100	Cord Hole Inches	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7071	\$37.00	1 3/32	For 3/8" Heater Cord.	10	50	7
7072	37.00	1 3/32	For 1/2" Cord.....	10	50	7
7073	37.00	1/2	Countersunk, for 5/8" Cord.....	10	50	7
4238	41.00	1 3/32	Steel Covered.....	10	50	7
7842	41.00	5/16 - 9/16	Steel Covered.....	10	50	7
4435	50.00	5/16 - 9/16	Steel Covered, Polarized.....	10	50	7
4437	41.00	1 3/32 - 5/8	Steel Covered.....	10	50	7
4438	50.00	1 3/32 - 5/8	Steel Covered, Polarized.....	10	50	7
GL	35.00	1 3/32	Rubber.....	10	50	7

H & H Polarized Devices

2-Wire, 10 Amperes
10 Amperes, 250 Volts; 15 Amperes, 125 Volts



No. 7960 flush receptacle fits standard single convenience outlet plates.

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7960	\$64.00	Flush Receptacle, Bakelite....	10	30	5
7964	74.00	Single, 3 1/4-Inch Cover.....	10	30	10
7965	82.00	Single, 4-Inch Cover.....	5	30	12
7963	47.00	Composition Cap, 9/16" Cord Hole	10	30	4
7846	70.00	1 9/64 - 9/16 (.296-.562") Rubber, Cord Grip Cap.....	10	30	5
4427	64.00	1 3/32 - 5/8 (.406-.625") Rubber, Cord Grip Cap.....	10	30	5
7966	74.00	Armored Cord Grip Cap.....	10	30	6
7961	75.00	Cleat Base.....	10	30	11
7962	75.00	Concealed Base.....	10	30	10

2-Wire, 20 Amperes, 250-Volt Caps

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7303	\$56.00	Composition, 9/16" (.562").....	10	30	4
7304	87.00	Armored Cord Grip, 9/16" (.562")	10	30	6
7859	84.00	Bakelite, Cord Grip, 9/16" (.562")	10	30	4
7847	84.00	Rubber, 5/8" (.625").....	10	30	6
7305	79.50	Brass Covered, 9/16" (.562").....	10	30	7
7380	125.00	Flush Motor, Screws Spaced 2 3/16" on Centers.....	10	30	8

Receptacles

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
No. 7858	\$175.00	Single Circuit, Duplex, Bakelite	10	30	8
7860	184.00	Single Circuit, Duplex, 4-Inch Cover.....	10	30	12
*7861	186.00	Double Circuit, Duplex, Bakelite.....	10	30	8
*7862	195.00	Double Circuit, Duplex, 4-Inch Cover.....	10	30	12
†7089	116.00	Single, Bakelite.....	10	30	6
7306	94.00	Surface Cleat, Porcelain.....	10	30	14
†7307	94.00	Surface, Concealed, Porcelain.	10	30	14
7432	124.00	Single, 3 1/4-Inch Cover.....	10	30	10
7433	129.00	Single, 4-Inch Cover.....	5	30	21

Cadmium finished cover is standard for outlet box cover.

Cord Connectors

7381	\$78.00	Composition, without Cord Grip	10	30	8
7434	110.00	Composition, with Cord Grip..	10	30	11

*Takes two No. 7859 caps and standard duplex plate.
†Takes standard single convenience outlet plate.
‡Screw hole spacing, 1 1/2 inches.

H & H Polarized Devices

3-Wire, 10 Amperes
15 Amperes, 125 Volts; 10 Amperes, 250 Volts
Caps



No. 7070



Nos. 7440 and 7077

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7070	\$37.00	Composition, 1 5/32" (.468")	10	50	7
7440	37.00	Composition, Pony, 1 3/32" (.406")	10	50	5
7077	37.00	Composition, Pony, 1 1/4" (.250")	10	50	7
7457	37.00	Bakelite, Pony, 3/32" (.281")	10	50	6

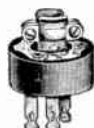
Cord Grip Caps



No. 7308



No. 4428



No. 7848

7308	\$59.00	Armored, 1 5/32" (.468")	10	50	10
4428	60.00	Armored, 1 3/32"-5/8" (.406-.625")	10	50	8
7848	60.00	Rubber, 3/16" (.562")	10	50	8
4429	60.00	Rubber, 1 3/32"-5/8" (.406-.625")	10	50	8

Flush Motor Plug Caps



7309	\$86.00	Motor Plug Cap	10	50	10
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Cord Connectors



No. 7312



No. 7313

7312	\$78.00	Body, 1 5/32" (.468")	16	50	12
7313	101.00	Armored Cord Grip Body, 1 5/32" (.468")	10	50	15
4430	100.00	Composition, Armored Cord Grip, 1 3/32"-5/8" (.406-.625")	10	50	8

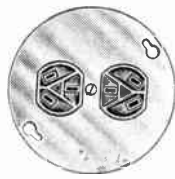
Receptacles



No. 7310



No. 7442



No. 7053



No. 7443



No. 7445

7310	\$126.00	Single, Flush	10	50	16
7442	141.00	Single, 4" Cover	5	50	34
7053	202.00	Duplex, 4" Cover	5	30	14
7443	96.00	Round, with Ground	10	30	6
7444	96.00	Round, without Ground	10	30	6
7441	126.00	Single, with Ground Shunt	10	50	16
*7445	184.00	Duplex, Flush, Bakelite	10	30	12
7311	87.00	Surface Con. Porcelain Base	10	50	21

Flush receptacles take standard single and duplex plates. Two pony caps must be used for duplex receptacle. The diameter of the large caps is too great for two caps to fit together in the duplex receptacle.

*Will be supplied with ground shunt when specified. Add letter G to the number.

H & H Polarized Devices

3-Wire, 20 Amperes, 250 Volts

Caps



No. 7314



No. 7315



No. 7849

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7314	\$70.00	Composition, 5/8" (.625")	10	30	7
7315	108.00	Cord Grip, 5/8" (.625")	10	30	9
7849	105.00	Rubber, Cord Grip, 5/8" (.625")	10	20	5

Receptacles



No. 7316



No. 7456



No. 7317

*7316	\$139.00	Single, Flush	10	30	14
7456	154.00	Single, with 4" Cover	5	30	22
†7317	112.00	Single, Surface Concealed	10	30	14

Cord Connectors



No. 7318



No. 7319

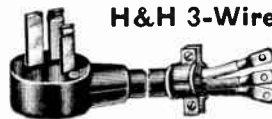
7318	\$140.00	Composition, 5/8" (.625")	10	30	13
7319	171.00	Armored Cord Grip, 5/8" (.625")	10	30	16

Flush receptacle fits standard plates. Gang installations must have a blank unit between each receptacle because of the outside diameter of plug caps.

*Will be supplied with ground shunt when specified. Add letter G to the number.

†Screw hole spacing, 1 3/4 inches.

H&H 3-Wire Range Cord Sets



No.	7928	7928-A	7928-B	7928-C	7928-1)
Per 100	\$194.40	198.40	234.90	275.40	315.90
Length	36 in.	38	48	60	72
Wt. Std. Pkg. .lb.	16	27	33	40	48

50 Amperes, 250 Volts,
2 No. 8, 1 No. 10 Conductors
Bakelite cap, rubber cord.
Packed 2 in a carton, 10 in a standard package.

H & H Polarized Devices

3-Wire, 50 Amperes, 250 Volts

Bakelite Range Caps



A 90° angle cap for flush or surface range outlets. Has ground strap and built-in cable clamps, and solderless connections.

For straight-in wiring.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7952	\$250.00	With 2-Screw Contacts	2	10	12

Bakelite Flush Range Outlets

With One-Screw Contacts



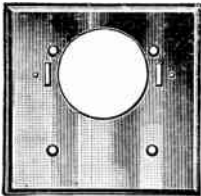
Has large contacts with knurled and slotted cap screw, designed for easy, straight-in wiring.

Designed for a 4 or 4 1/16-inch box with a regular 2-gang switch cover.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7987	\$291.00	Receptacle Only	2	10	7
7990	387.00	Receptacle, with .040-Inch Brass Plate	2	10	10
7991	355.00	Receptacle, with .060-Inch Brass Plate	2	10	11

Plates

For No. 7935 Flush Range Outlets



Dimensions: 4 1/2 inches high, 4 9/16 inches wide. Standard 2-gang size.

Standard finish brush brass. Special finishes available at additional cost.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7988	\$96.00	.040-Inch Brass	2	10	3
7989	90.00	.060-Inch Brass	2	10	4

Surface Range Outlets



Nos. 7950

With built-in cable clamp interchangeable for back or bottom wiring. Has 3/4 and 1-inch knockouts.

7950	\$165.00	Bakelite, 2-Screw Contacts	2	10	12
7950-I	182.00	Ivorylite, 2-Screw Contacts	2	10	12
7944	150.00	Bakelite, 1-Screw Contacts	2	10	12
7944-I	182.00	Ivorylite, 1-Screw Contacts	2	10	12

3-Wire Range Cord Sets

Nos. 7914 and 7916: 50 Amperes, 250 Volts

No. 7915: 35 Amperes, 250 Volts



No. 7914

Made with rubber cap and cord. Stranded wires.

Length, 38 inches. Sets longer than 38 inches will be supplied on special order. Prices upon request.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7914	\$343.50	2 No. 6 and 1 No. 8 Wires	2	10	22
7915	289.50	2 No. 8 and 1 No. 10 Wires	2	10	18
7916	407.50	3 No. 6 Wires	2	10	23

Range Ground Straps



No. 7951

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7951	\$47.00	Ground Straps for Nos. 7950	2	10	2

H & H Polarized Devices

3-Wire, 50 Amperes, 250 Volts

Caps—For Armored Cable



No. 7396



No. 7397

Supplied with spring reducer bushing for 8-3 A.B.C. cable when specified, at no extra charge.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7396	\$234.00	Straight	2	10	15
7397	251.00	90° Angle	2	10	16

Receptacles



No. 7398



No. 7738



No. 7402

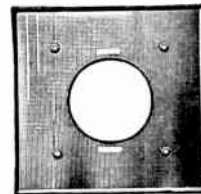
No. 7398 flush receptacle fits standard boxes 4 1/16 inches square and not less than 2 1/8 inches deep. Equipped with a plaster cover of special construction for use with standard boxes. Finished plate is 5 1/2 inches square, allowing an overhang over the box in order to make up for any irregularities in the plaster work.

No. 7738 receptacle for surface work is furnished with a galvanized box cover to fit standard boxes 4 1/16 inches square and not less than 2 1/8 inches deep.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7398	\$595.00	Flush, with Plaster Box Cover	2	10	17
7454	512.00	Flush, without Cover	2	10	9
7455	83.00	Plaster Box Cover	2	10	5
7738	678.00	With Surface Box Galv. Cover	2	10	21
*7402	150.00	Porcelain Surface	2	10	11

*Will fit SP 72C 102 cover for 4 1/16-inch outlet box.

Plates



No. 7400

This plate is for use with the above receptacles. Size square, 5 1/2 inches.

Steel plate has straight edges and cadmium finish.

Standard finish on brass plates, brush brass. Special finishes available at an advance in price.

Prices upon request.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7399	\$140.00	Solid Brass, without Ground Contacts	2	10	9
7400	170.00	Solid Brass, with Ground Contacts	2	10	9
7401	108.00	.060" Steel, with Ground Contacts	2	10	5

H & H Twist-Lock Devices

**3-Wire, 30 Amperes
Polarized Connectors**

With Solderless Connections and Rubber Cable Grips
50 Amperes, 250 Volts D.C.; 30 Amperes, 600 Volts A.C.



No. XT-7384, Female Body



No. XT-7387, Male Cap

**Not Grounded
Female Bodies**

No.	Per 100	Cable Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
XT-7336	\$550.00	.437 to .562	2	5	7
XT-7343	550.00	.562 to .687	2	5	7
XT-7390	550.00	.687 to .812	2	5	7
XT-7384	550.00	.812 to .937	2	5	7
XT-7396	550.00	.937 to 1.062	2	5	7

Male Caps

No.	Per 100	Cable Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
XT-7339	\$440.00	.437 to .562	2	5	5
XT-7346	440.00	.562 to .687	2	5	5
XT-7393	440.00	.687 to .812	2	5	5
XT-7387	440.00	.812 to .937	2	5	5
XT-7398	440.00	.937 to 1.062	2	5	5

***Grounded to Casing
Female Bodies**

No.	Per 100	Cable Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
XT-7337	\$550.00	.437 to .562	2	5	7
XT-7344	550.00	.562 to .687	2	5	7
XT-7391	550.00	.687 to .812	2	5	7
XT-7385	550.00	.812 to .937	2	5	7
XT-7397	550.00	.937 to 1.062	2	5	7

Male Caps

No.	Per 100	Cable Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
XT-7340	\$440.00	.437 to .562	2	5	5
XT-7347	440.00	.562 to .687	2	5	5
XT-7394	440.00	.687 to .812	2	5	5
XT-7388	440.00	.812 to .937	2	5	5
XT-7399	440.00	.937 to 1.062	2	5	5

**†With Equipment Ground
Female Bodies**

No.	Per 100	Cable Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
XT-7338	\$578.00	.437 to .562	2	5	7
XT-7345	578.00	.562 to .687	2	5	7
XT-7392	578.00	.687 to .812	2	5	7
XT-7358	578.00	.812 to .937	2	5	7
XT-7386	578.00	.937 to 1.062	2	5	7

Male Caps

No.	Per 100	Cable Diameter Inches	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
XT-7342	\$468.00	.437 to .562	2	5	5
XT-7348	468.00	.562 to .687	2	5	5
XT-7395	468.00	.687 to .812	2	5	5
XT-7359	468.00	.812 to .937	2	5	5
XT-7389	468.00	.937 to 1.062	2	5	5

*Grounded means that the long contact blade of the cap and the corresponding contact in the connector body and receptacle are electrically connected to the outer casing.

†Equipment ground means that none of the contacts are electrically connected to the shell, but there is an additional terminal for the fourth wire, which is connected electrically to the outer casing. This fourth wire is for equipment ground.

FA Hanger Outlets

Approved by Underwriters' Laboratories, Inc.

Combines support and electrical connection in one unit. Designed for fan hanger service. Also used with electric heaters, show window spotlights, radio, public address systems, and art pictures.

A permanent feature, built into the structure of the building at the same time as the rest of the equipment.

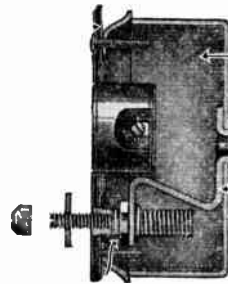
Correct installation is to center outlet 7½ feet from floor for 9 and 12-inch fans; 9½ feet for 16-inch fans.

Standard package, 20.

Security Type

Consists of 4-inch square by 1½-inch deep outlet box made of No. 14 gage galvanized steel and ½-inch deep raised box cover. Cover has special plaster keys to securely hold the plaster and prevent it from cracking around the outlet.

Box provides wiring space to serve as a junction box when two or more outlets are connected to the same circuit. Knockouts are provided for ½ and ¾-inch conduit.



Hanger bracket is adjustably fastened to back of box. Bracket carries weight of appliance. Heavy brass adjusting tube threaded into the mounting bracket allows for variation in thickness of plaster. Fan or other appliance is hung upon a ¼-inch steel hanger bolt threaded into the brass tube and finished with a washer and screwdriver type cap-nut.

Face plate, 2½x1¼ inches, is made of .060 brass with brushed finish. Special finishes available at extra cost.

T-slot type, brown bakelite receptacle is riveted to a steel sub-plate.

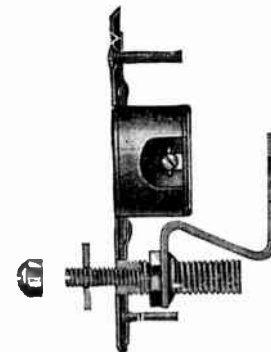
Approximate weight per standard package, 40 pounds. Complete with Box and Cover..... each \$3.60

Fixture Stud Type

Similar in design to the Security Type, but the box, with cover and ¾-inch fixture stud, must be furnished by the contractor. Any 4-inch square by 1½-inch deep standardized outlet with ¾-inch fixture stud securely fastened to it and ½-inch deep single gang cover can be used. The ordinary type of switch box cannot be used.

Stamped steel adjustable hanger bracket has a cleared hole to fit the fixture stud. Two ¾-inch lock nuts are included for fastening.

Approximate weight, per standard package, 12 pounds.



Each..... \$2.86

Type FH5B

Same type of box and cover specified above must be supplied by the customer for Type FH5B.

Formed steel supporting frame is fastened to box cover, and fan or other appliance is attached to it. Receptacle is fastened directly to brass face plate.

This type carries the weight of appliance from box cover, not from back of box.

Approximate weight per standard package, 12 pounds.

Each..... \$2.86

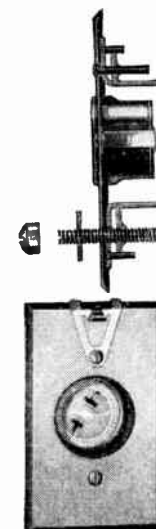
No. 7707 Clock Hanger Outlets

Provides a dual service, electrical connection and support in one unit.

The recessed receptacle permits the clock to hang flat over the outlet, without exposed or trailing cord, because the plug fits flush with the plate.

Furnished with .040-inch brush brass finished plate and 15-ampere, 2-wire receptacle. Standard package, 10.

Approx. wt. per std. pkg., 5 lb. No. 7707..... each \$1.51



P & S Clock Hanger Outlets

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



Outlet recessed for plug cap, allows clock to hang flush with wall.

Nos. 1515 and 1515I are of all-bakelite, one-piece construction with brass hook finished to match outlet.

No. 1534 has T-slot outlet and .040-inch brush brass plate.



No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1515	\$77.00	Brown Bakelite.....	10	30	12
1515-I	88.00	Ivory.....	10	30	12
1534	170.00	Brass Plate.....	2	10	5

P & S Fan Hanger Outlets

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



Can be installed on standard 4-inch square boxes with plaster covers.

Available in clamp and stud types.



No.	Per 100	Description	Std. Pkg.	Wt. Lb. Std. Pkg.
1535	\$286.00	Clamp Type.....	20	32
1535-S	286.00	Stud Type.....	20	33

For special finishes, add 10 per cent to prices.

R & S Fan Hanger Outlets



No. 661

Furnished complete with brush brass finish plate. Special finishes available at extra cost.

Stud Lock Type With Special Box

No.	Each	Description
649	2-Wire T-Slot Type
647	2-Wire Polarized Type
637	3-Wire Polarized Type

Stud Lock Type

For Use with 3/8-Inch Stud Type Outlet Box

649S	.....	2-Wire T-Slot Type
647S	.....	2-Wire Polarized Type
637S	.....	3-Wire Polarized Type

Yoke Lock Type

For Standard 4-Inch Outlet Box with Raised Cover

661	.....	2-Wire T-Slot Type
719	.....	2-Wire Polarized Type
653	.....	3-Wire Polarized Type

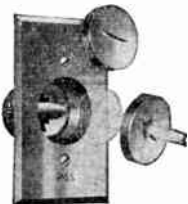
No. 1532 P & S Floor Outlets

Rating—15 Amperes, 125 Volts
10 Amperes, 250 Volts

Brush brass plate and two flush screw caps. Receptacle is recessed so plug is flush with floor.

Std. pkg., 10; weight, 8 pounds.

No. 1532.....per 100 \$240.00



No. 903 Benjamin Swivel Attachment Plugs With Short Insulating Ring

660 Watts, 250 Volts—Listed by Underwriters' Laboratories



Swivel shell permits plug to be attached or removed without twisting cord. Has stamped insulating ring, porcelain base, and bakelite bushing with 1/2-inch opening for cord.

Packed 50 in a carton, 250 in standard package; weight, 30 pounds.

No. 903.....per 100 \$40.00

No. 916 Benjamin Heavy Duty Swivel Attachment Plugs

660 Watts, 250 Volts



For railroad and heavy work. Has chuck type bushing which takes a firm grip on any of the standard portable cords from 2/64 to 1/16 inch outside diameter. Standard package, 50; carton, 10. Weight per standard package, 12 pounds.

No. 916.....per 100 \$100.00

No. 1159 Mica Attachment Plugs

Made of a strong hard mica compound that will withstand hard usage.

Plugs can be furnished with left hand thread if desired. Medium screw.

Packed 10 in a carton, 100 in std. pkg. Weight per standard package, 17 pounds.

No. 1159, Right Hand.....per 100 \$37.90

No. 1159LH, Left Hand.....per 100 42.95

No. 1409 Safeway Weatherproof Rubber Plugs

660 Watts—600 Volts



Body made of oil and heat resisting rubber compound, nickel plated screw base with No. 14 stranded, all rubber 6-inch leads.

Packed 10 in carton, 100 in std. pkg., wt. 15 pounds.

No. 1409.....each \$.40

No. 720 Protex Molded Rubber Twin Sockets



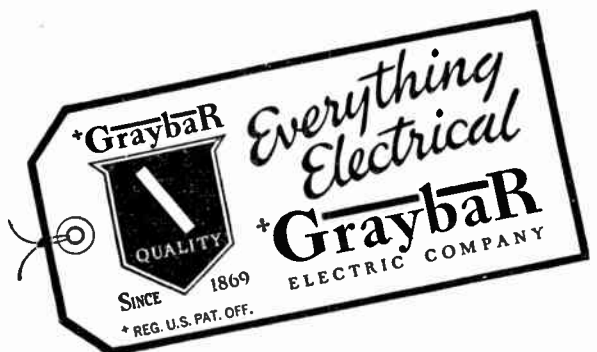
No. 720

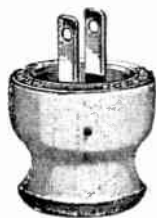
Made of one-piece solid rubber, into which all metal parts have been molded. The solid rubber construction protects the lamp filament from breakage due to vibration of nearby heavy machinery.

Packed 5 in a carton, 25 in a standard package.

Weight per standard package, 6 pounds.

No. 720, with Screw Base..... each





No. 1400 Safeway Plugs

15 Amp., 125 Volts; 10 Amps., 250 Volts

A 2-wire, parallel, rubber-covered plug for industrial and railroad service. Brass blades can be removed from the body.

Approved by Underwriters' Laboratories. Carton, 10; standard package, 100. Weight, standard package, 13 pounds. No. 1400, 1/16-In. Cord Hole..... each \$.40

No. 1402 Safeway Rubber Covered Plugs

2-Wire Polarity

15 Amp., 125 Volts—10 Amp., 250 Volts

For heavy duty industrial service. Brass blades mounted on insulating material; removable. Practically non-breakable.

Underwriters' approved. Packed 10 in a carton, 100 in std. pkg., wt. 13 pounds. No. 1402, 1/16-In. Cord Hole..... each \$.50



No. 1403 Safeway Rubber Covered Plugs

3-Wire Grounded

15 Amp., 125 Volts—10 Amp., 250 Volts

For heavy industrial service. Brass blades mounted on insulating material; removable. Practically non-breakable. Underwriters' approved. Packed 10 in a carton; 100 in standard package, weight, 13 pounds.

No. 1403, 1/16-In. Cord Hole..... each \$.60



No. 1406 Safeway Rubber Covered Plugs

2-Wire Polarity—Cord Grip

15 Amp., 125 Volts—10 Amp., 250 Volts

For heavy industrial service. Brass blades mounted on insulating material; removable. Practically non-breakable. Underwriters' approved. Packed 10 in a carton; 100 in standard package, weight, 18 pounds.

No. 1406, 3/4-In. Cord Hole..... each \$.80



No. 1407 Safeway Rubber Covered Plugs

3-Wire Grounded—Cord Grip

15 Amp., 125 Volts—10 Amp., 250 Volts

For heavy industrial service. Brass blades mounted on insulating material; removable. Practically non-breakable. Underwriters' approved. Packed 10 in a carton; 100 in standard package, weight, 19 pounds.

No. 1407, 3/4-In. Cord Hole..... each \$.90



Protex Junior Rubber Covered Plugs

15 Amperes, 125 Volts—10 Amperes, 250 Volts

For household appliances.

Has plus cap with parallel contacts. Grip end of plug extends over cord to prevent cord breakage. Packed 10 in carton; 100 in std. pkg., weight, 8 pounds.



No. 1420, 5/16-Inch Cord Hole..... each \$.20
No. 1421, 1/16-Inch Cord Hole..... each .20

No. 1404 Safeway Rubber-Covered Plugs

2-Wire Cap—With Cord Grip

15 Amp., 125 V., 10 Amp., 250 V.

Brass blades mounted on insulating material; removable. Practically non-breakable. Approved by Underwriters' Laboratories.

Packed 10 in a carton, 100 in std. pkg. Weight standard package, 18 pounds. No. 1404, 3/4-In. Cord Hole..... each \$.70



Union Bakelite Wiring Devices

For Outlet Boxes

Cover with duplex receptacles mounted with cover.

No.....	3057	4057
Per 100.....	\$30.92	37.16
Size.....inches	3 1/4	4
Carton.....	10	10
Std. Pkg.....	100	100
Wt. per Std. Pkg.....lb.	17	21



Safeway Rubber Cord Connector Bodies

15 Amperes, 125 Volts—10 Amperes, 250 Volts

Actual tests have proven the Safeway rubber cord connector capable of resisting direct pulls up to 15 pounds.

Nos. 1500, 1501

Will fit standard parallel and polarity 2-wire plugs.

Standard cord hole, 1/16-inch. Can be furnished with 1/16 to 3/8 inch cord holes on specifications.

Packed 10 in a carton, 100 in standard package. Weight std. pkg., 13 pounds.



No. 1500

No. 1500, Parallel.....each \$.60
No. 1501, Polarity.....each .70

Nos. 1502, 1503 with Cord Grip

Will fit standard parallel and polarity 2-wire plugs.

Cord Grip 1/4 to 3/4-inch inclusive.

Packed 10 in a carton, 100 in standard package.

Weight standard package, 18 pounds.

No. 1502, Parallel with Cord Grip...ea. \$.90
No. 1503, Polarity with Cord Grip...ea. 1.00



No. 1502

No. 1508 Three Wire, with Cord Grip

For trucks, trailers, shop for grounded tools, etc., or three phase motor wiring. Cord Grip 3/4-inch.

Packed 10 in a carton, 100 in standard package.

Weight standard package, 19 pounds.

No. 1508, Three Wire Female with Cord Grip.....each \$1.10

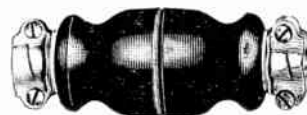


Safeway Rubber Cord Connectors

With Cord Grips

A strong, safe, convenient, practically non-breakable connector.

Packed 5 in a carton, 50 in a standard package.



No. 1509

No. 1504, No. 1500 Parallel, with Cap No. 1400. Weight Standard Package, 13 Pounds.....each \$1.00

No. 1505, No. 1501 Polarity, with Cap No. 1402. Weight Standard Package, 13 Pounds.....each 1.20

No. 1506, No. 1502 Parallel, with Cap No. 1404. Cord Grips, Weight Standard Package, 18 Pounds...each 1.60

No. 1507, No. 1503 Polarity with Cap No. 1406, Cord Grips, Weight Standard Package, 18 pounds...each 1.80

No. 1509, No. 1508 Three Wire with Cap No. 1407. Cord Grips. Weight Standard Package, 19 pounds...each 2.00

Safeway Rubber Duplex Receptacles

Inner-Lock

15-Amperes, 125-Volts—10-Amperes, 250-Volts

Made of a high-grade rubber casing, in which are enclosed heavy duty inner-lock brass and bronze contacts. Body is non-breakable and the contacts are designed to hold plug caps in place, even up to a direct pull of 15 pounds. Has two binding screws in each side terminal.

Packed 5 in a carton, 25 in a standard package.

Flush Receptacles

No. 800—Parallel

Weight per standard package, 8 pounds.

No. 800.....each \$1.00

No. 801—Polarity

Weight per standard package, 8 pounds.

No. 801.....each \$1.10



No. 800

Outlet Box Receptacles—with Cadmium-Plated Covers

Parallel

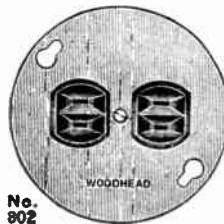
No..... 802 804
Each..... \$1.00 1.00

For Outlet Box...in. 3 1/4 4
Wt. Std. Pkg....lb. 13 16

Polarity

No..... 803 805
Each..... \$1.20 1.20

For Outlet Box...in. 3 1/4 4
Wt. Std. Pkg... lb. 13 16



No. 802

Bryant Surface Wiring Devices

Listed as Standard by Underwriters' Laboratories

For use in cantonments, warehouses, temporary industrial buildings, temporary housing, garages, etc.

Made of brown bakelite and is moisture and corrosion resistant. Easily installed. The six devices meet every surface wiring requirement.

Size, 5 inches long and 1 1/8 inches wide.

Lampholders

Take threaded or clamp shade holders.

Keyless

600 Watts, 250 Volts

No.	Per 100	Car- ton	Std. Pkg.	Wt. Lb.
II196	\$77.90	10	50	20

Pull

250 Watts, 250 Volts With Bakelite Insulating Link and Tassel

II192	\$89.30	10	30	14
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With 4 Foot Cords

II199	\$89.30	10	30	14
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No. H196



No. H192



No. H191 Duplex Convenience Outlets

15 Amperes, 125 Volts
10 Amperes, 250 Volts

With Double-Sided Contacts

No.	Per 100	Car- ton	Std. Pkg.	Wt. Lb.
II191	\$59.80	10	50	17

No. H198 Mounting Plates For Concealed Wiring

No.	Per 100	Car- ton	Standard Package	Weight Pounds Package
II198	\$8.00	10	100	5



No. H190

Switches

*10 Amperes, 125 Volts
5 Amperes, 250 Volts

Single-Pole

No.	Per 100	Car- ton	Std. Pkg.	Wt. Lb.
II190	\$75.00	10	30	12

Three-Way

II194	\$81.70	10	20	8
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*T rating.



No. H194

No. H193 Junction Box and Rosettes

660 Watts, 250 Volts

No.	Per 100	Car- ton	Std. Pkg.	Wt. Lb.
II193	\$59.80	10	30	12

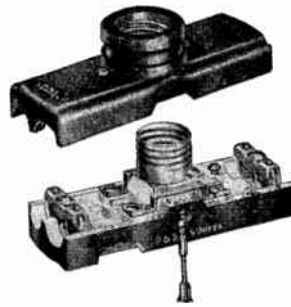


No. H195 Armored Cable Clamp Attachments

This attachment is a combination clamp and continuous ground strap.

No.	Per 100	Car- ton	Standard Package	Weight Pounds Package
H195	\$22.80	10	100	21

P & S Surfex Wiring Devices



outlet, in addition to boxes, connectors, solder, rubber tape and friction tape.

The Surfex Wiring Device has the following features: rigid cable clamp fastening to metal backplate—suitable for armored or non-metallic sheathed cable; 1 1/4-inch width of all devices permits mounting on 2x4-inch studs; large wiring chambers for cross overs; No. 8 wood screws for mounting; easy wiring terminals—no wire loops necessary; bus bar for feed through circuits; and metal reinforcing back plate which carries ground through device when armored cable is required. Made of porcelain; gives full protection against shock, corrosion and short circuit. Brown finish.



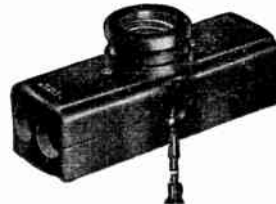
No. 660



No. 661



No. 666



No. 667



No. 668



No. 669



No. 670

No.	Per 100	Description	RATING	No. in Std. Pkg.	Wt. Lb. Pkg.
660	\$48.00	Single Pole Dead End Switch	5 A., 250 V.	50	..
661	75.00	Single Pole Feed-Thru Switch	10 A., 125 V.	30	..
663	81.70	3-Way Feed-Thru Switch	10 A., 125 V.	20	..
666	77.90	Keyless Receptacle	660 W., 250 V.	50	..
667	89.30	Pull Receptacle	250 W., 250 V.	30	..
668	58.00	Rosette	660 W., 250 V.	80	..
669	59.80	Junction Box	..	30	..
670	59.80	Duplex Convenience Outlet	10 A., 250 V.	..	..
			15 A., 125 V.	50	..

No. 4529 P&S Single Weatherproof Outlets
Parallel Slots

15 Amperes, 125 Volts—10 Amperes, 250 Volts



No. 4529

May be installed in a single gang switch box or flat face FS fitting. Sealed with cover and plate gaskets for complete protection. The plate is .060-inch brass with baked-on aluminum finish.



Lock Switch

This device incorporates the regular P&S Despard 1320 outlet which has constant tension contacts, gripping both sides of the plug blades. When outlet is in use attachment plug cap may be covered with No. 4528 protective cap.

Due to the fact that this device incorporates the standard No. 1320 P&S Despard outlet, it can be readily converted into a weatherproof lock switch by removing outlet and substituting a P&S Despard switch of the 1311-L type (see illustration above at right).

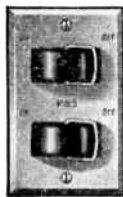
Carton, 2. Standard package, 10; weight, 7 pounds.
No. 4529..... per 100 \$178.20

P&S Weatherproof Wiring Devices
For Single Gang Installation

15 Amperes, 125 Volts—10 Amperes, 250 Volts



No. 4521



No. 4525



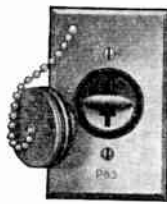
No. 4526

For installations where protection against the elements is necessary. Used in industrial plants, garages, creameries, distilleries, breweries, loading platforms, etc.



No. 4527

May be installed in a single gang switch box or fiat face FS fitting. Each device is sealed with cover and plate gaskets.



No. 1533

Switches are T rated for Type C lamp loads. Outlet has constant tension contacts, gripping both sides of

the plug cap blades. Plate is .060-inch brass with baked-on aluminum finish.

Carton, 2.

No.	Per 100	Description	SWITCH AMPERES		Std. Pkg.	Wt. Lb. Pkg.
			125V.	250V.		
4521	\$192.00	Single-Pole Switch.....	10T	5	10	6
4522	250.00	Double-Pole Switch.....	10	10	10	6
4523	216.00	3-Way Switch.....	10T	5	10	6
4524	479.00	4-Way Switch.....	5T	2	5	3
*4525	286.00	2 Single-Pole Switches....	10T	5	10	7
*4526	286.00	Single-Pole Switch and Outlet.....	10T	5	10	7
4527	286.00	Duplex Outlet.....			10	7
1533	196.00	Single Outlet (T-Slot)....			10	7

*With single-pole switches. Switches may be easily interchanged with other P&S Despard Switches for double-pole, 3-way, or 4-way installations.

P&S Protective Caps



No. 4528 1536

No.	Per 100	For Outlet Nos.
4528	\$48.00	4529, 4526, 4527
1536	48.00	1533



No. 1536

P&S Convenience Outlets

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 1527



No. 1530



No. 5850



No. 1520

Made of brown bakelite. A locating type finding ridge is moulded in the face of each receptacle and guides the cap blades directly to the outlet contacts.

Supplied with plaster ears.

Side Wired

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1527	\$37.00	Single, T-Slot.....	10	100	22
1530	39.00	Duplex, T-Slot.....	10	100	20
1530I	46.00	Ivory, T-Slot.....	10	50	11

Top Wired

*5850	\$50.00	Single, T-Slot.....	10	100	29
1520	58.00	Duplex, T-Slot.....	10	100	30

With Metal Box Covers



No. 1523

1522	\$52.00	Duplex, T-Slot, for 4-Inch Outlet Box.....	5	50	28
1523	47.00	Duplex, T-Slot, for 3 1/4-Inch Outlet Box.....	5	50	27

*Brown composition.

P&S Duplex Flush Receptacles
Parallel Slots

15 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 1560



No. 1560-I



No. 1558

No.	Per 100	Description	Std. Pkg.	Car- ton	Wt. Lb. Std. Pkg.
1540	\$10.80	Brown Bakelite.....	10	100	17
1540I	16.80	Ivory.....	10	50	5
1560	18.00	Brown Bakelite.....	100	10	15
1560I	24.00	Ivory.....	50	10	9

***With Outlet Box Covers**

1558	\$34.00	With 3 1/4-in. Cover.....	50	10	22
1559	39.00	With 4-in. Cover.....	50	10	24

*Outlet box covers have bright metallic finish.

P & S Despard Specifications Type Flush Tumbler Switches



One, two or three switches may be installed in a single-gang box. May be wired with either common or separate feed. When installing these switches, it is necessary to use mounting straps. Switches will satisfactorily handle Type C clamp loads and carry Underwriters' T rating as indicated below.

Made of bakelite; front and back are enclosed, making switch dustproof.

The handle and strap are insulated from the mechanism. Switching mechanism has a 4-point break to insure against breakdown from overloads. Contact member is designed to snuff all arcs.

Conform to the most rigid government and architectural specifications. Each switch is tested under full load current in the factory before shipment.

No.	Per 100	Description	AMPERES		Std. Pkg.	Wt. in Lb. Std. Pkg.
			125 V.	250 V.		
1311	\$48.00	Single Pole, Brown...	*10	5	100	11
1411	52.00	Single Pole, Ivory...	*10	5	50	6
1311-LT	83.00	Single Pole with Luminous Handle, Brown.....	*10	5	100	11
1411-LT	90.00	Single Pole with Luminous Handle, Ivory.....	*10	5	50	6
1312	98.00	Double Pole, Brown...	10	10	10	2 1/2
1412	102.00	Double Pole, Ivory...	10	10	10	2 1/2
1313	68.00	Three-Way, Brown...	*10	5	50	8
1413	72.00	Three-Way, Ivory...	*10	5	30	3
1314	200.00	Four-Way, Brown...	*5	2	10	2 1/2
1414	204.00	Four-Way, Ivory...	*5	2	10	2 1/2



No. 1311-L

Lock Type

Switch body is made of brown bakelite.

Top is made of polished nickel.

One key is furnished with each switch.

No.	Per 100	Description	AMPERES		Std. Pkg.	Wt. in Lb. Std. Pkg.
			125 V.	250 V.		
1311-L	\$121.00	Single Pole.....	*10	5	100	11
1312-L	180.00	Double Pole.....	10	10	10	2 1/2
1313-L	146.00	Three-Way.....	*10	5	50	8
1314-L	280.00	Four-Way.....	*5	2	10	2 1/2
1498	18.00	Key for Nos. 1311-L and 1313-L.....			1	1/16
1499	18.00	Key for Nos. 1312-L and 1314-L.....			1	1/16

*Switches carry Underwriters' T Rating.

P & S Despard Residential Type Flush Tumbler Switches



No. 1391, Single Pole

Bakelite, totally enclosed.

No.	Per 100	Description	AMPERES		No. Std. Pkg.	Wt. in Lb. Std. Pkg.
			125 V.	250 V.		
1391	\$34.00	Single Pole, Brown	10	5	100	9
1491	38.00	Single Pole, Ivory	10	5	50	5
1393	44.00	Three-Way, Brown	10	5	50	5
1493	48.00	Three-Way, Ivory	10	5	30	3

P & S Despard Convenience Outlets

Outlet Rating; 15 Amperes, 125 Volts;

10 Amperes, 250 Volts

Single Convenience Outlets

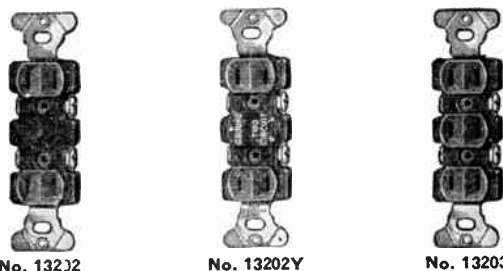


For assembly in combination with switches, radio outlets, or any other P & S Despard devices. These outlets have bakelite bodies, and double, wide contact surfaces with spring tension sufficiently removed from heat of arc to prevent withdrawal of temper, which is the cause of loose contacts.

Where one convenience outlet is to be switch-controlled, a combination of two No. 1320 or 1420 outlets having separate feed and return may be installed. Where common return is desired, the two negative terminals may be bussed together.

No.	Per 100	Description	No.	Wt. in Lb. Std. Pkg.
1320	\$17.00	Parallel Slots, Brown.....	100	6
1420	25.00	Parallel Slots, Ivory.....	100	6
1341	29.00	Pilot Light Outlet, Parallel Slots, Brown.....	30	4
1441	36.00	Pilot Light Outlet, Parallel Slots, Ivory.....	20	3
1327	12.00	Insul. Adapter, Brown.....	50	4
1427	18.00	Insul. Adapter, Ivory.....	30	3

Duplex and Triplex Convenience Outlets



These outlets have one-piece bakelite bodies, four binding screws for feed-thru circuits, and embody the same constant tension contacts as single convenience outlets.

No.	Per 100	Description	No.	Wt. in Lb. Std. Pkg.
1320J	\$30.00	Duplex, Parallel Slots, Brown...	100	22
1320Y	37.00	Same as 1320J; with separate Feeds, Common Returns.....	100	22
1420J	36.00	Duplex, Parallel Slots, Ivory...	50	11
1420Y	44.00	Same as 1420J; with separate Feeds, Common Returns.....	50	11
13203	38.00	Triplex, Parallel Slots, Brown...	100	25
14203	44.00	Triplex, Parallel Slots, Ivory...	50	13

P & S Despard Rectangular Attachment Plug Caps
Bakelite



Parallel blades; 1/32-inch cord hole.

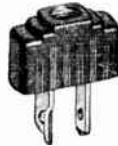
No.	Per 100	Description	No. in Std. Pkg.	Wt. in Lb. Std. Pkg.
1321	\$10.00	Brown	100	5
1421	15.00	Ivory	50	4
1326	11.00	Polarized, Brown	100	7
1426	16.00	Polarized, Ivory	50	4

NOTE. The use of P & S Despard Convenience Outlets with non-insulated metal plates is not recommended unless the plates are equipped with bakelite insulating adapters.

P & S Despard Radio Outlets



No. 1322 Radio Outlet



No. 1323 Radio Outlet

For antenna and ground connections. Outlet can be used in outlet box singly, in multiple, or with other P & S Despard devices.

No. 1346 Box Divider keeps ground and antenna circuits separate from power circuits.

Cap blades are set at an angle which prevents insertion in power slots.

Standard package, 10; weight, 1 pound.

No. 1322, Brown Outlet	per 100	\$47.00
No. 1422, Ivory Outlet	per 100	53.00
No. 1323, Brown Cap, 1/32" Hole	per 100	15.00
No. 1423, Ivory Cap, 1/32" Hole	per 100	21.00

No. 1346 Metal Box Dividers



No. 1346

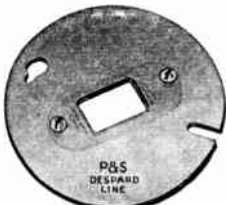
Used to keep antenna and ground wires separate from any power circuit in same box.

For 1 1/2, 2 or 2 1/2-inch switch boxes.

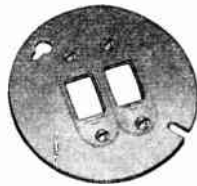
Standard package, 10; weight, 3 pounds.

No. 1346	per 100	\$30.00
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Metal Box Covers



No. 1361



No. 1363

For mounting any one P & S Despard device directly on a 3 1/4-inch outlet box, or any one or two P & S Despard devices on a 4-inch outlet box. They are especially adapted for surface or exposed work. Covers have a bright metallic finish and are furnished complete with the necessary straps for installing devices.

No.	Per 100	Description	No. in Std. Pkg.	Wt. in Lb. Std. Pkg.
1361	\$15.00	Single Opening Cover for 3 1/4-In. Box.	100	25
1362	18.00	Single Opening Cover for 4-In. Box.	100	33
1363	24.00	Two Opening Cover for 4-In. Box.	50	18

P & S Despard Night Lights
With Clear Lamps and Metal Reflectors
Rating, 75 Watts, 125 Volts

Furnished complete with lamp and metal reflector. The S-6, 6-watt, 120-volt clear Mazda lamp gives sufficient light to outline walls or furniture.

Standard package, 30; weight, 2 pounds.



No. 1339

No. 1339, with Chromium Plated Reflector	per 100	\$105.00
No. 1339-B, with Brush Brass Reflector	per 100	105.00
No. 1339-BR, with Brown Enameled Reflector	per 100	105.00
No. 1339-I, with Ivory Enameled Reflector	per 100	105.00

P & S Despard Pilot Lights
With Red Lamps and Metal Hoods
Rating, 75 Watts, 125 Volts

An S-6, 6-watt, 120-volt red Mazda lamp and metal hood are furnished with each receptacle. Standard package, 30; weight, 5 pounds.



No. 1340

No. 1340, with Chromium Plated Hood	per 100	\$105.00
No. 1340-BR, with Brown Enameled Hood	per 100	105.00
No. 1340-I, with Ivory Enameled Hood	per 100	105.00

Note: When night lights and pilot lights are desired without lamps, specify regular number with suffix "LL." When pilot lights are desired with clear lamps, specify regular number with suffix "CL."

P & S Despard Flush Pilot Lights

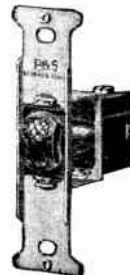
Rating, 75 Watts, 125 Volts

Furnished complete with S-6, 6-watt, 120-volt, clear Mazda lamp and red glass jewel.

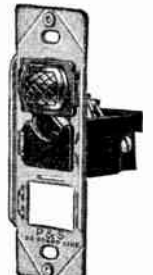
No. 1376. Mounted in No. 1347 single opening strap.

No. 1377. For use in combination with P & S Despard switch or outlet. Mounted in No. 1348 strap.

Standard package, 30; weight, 7 pounds.



No. 1376



No. 1377

No. 1376, Single Pilot Light with Red Jewel, for Use in Single Vertical Opening Plate	per 100	\$105.00
No. 1377, Combination Pilot Light, for Use with Switch or Outlet, in any Two-Opening Plate	per 100	105.00

Mounting Straps



No. 1347 Single Opening Strap



No. 1348 Three Opening Strap



No. 1354 Appliance Strap

Mounting Straps. The correct style of mounting strap is packed with each P & S Despard plate. Straps may, however, be ordered separately, and for that purpose they are listed below. No. 1347 is 4 3/8 inches long and 1 5/16 inch wide. No. 1348 is 4 3/8 inches long and 1 1/2 inch wide. Screw hole spacing on both numbers, 3 3/8 inches.

Appliance Strap. For mounting single P & S Despard devices in small spaces. Ideal for appliance applications. Length, 2 3/8 inches; width, 2 3/8 inch. Mounting screw holes, tapped for 6-32 screws, spaced on 1 3/16-in. centers.

No.	Per 100	Description	No. in Std. Pkg.	Wt. in Lb. Std. Pkg.
1347	\$8.00	Single Opening	50	3
1348	8.00	Three Openings	50	3
1354	4.00	Appliance Strap	100	3

P & S Despard Accessories Hoods, Reflectors and Lamps

New Process Metal Plates for P & S Despard Devices



No. 1342



No. 1343



No. 1352



No. S-6

No.	Per 100	Description	No. in Std. Pkg.	Wt. Lb. Std. Pkg.
1342	\$40.00	Red Plastic Jewel for Nos. 1376 and 1377	30	1 1/2
1343	23.00	C. P. Hood for No. 1340	30	2
*1343-B	23.00	Brush Brass Hood for No. 1340-B	30	2
1343-BR	23.00	Brown Enam. Hood for No. 1340-BR	30	2
1343-I	23.00	Ivory Enam. Hood for No. 1340-I	30	2
1352	23.00	C. P. Reflector for No. 1339	30	2
*1352-B	23.00	Brush Brass Reflector for No. 1339-B	30	2
1352-BR	23.00	Brown Enameled Reflector for No. 1339-BR	30	2
1352-I	23.00	Ivory Enameled Reflector for No. 1339-I	30	2
†S-6	40.00	Clear Lamp	120	5
†S-6	50.00	Red Lamp	120	5

*Can be supplied in special finishes.
†For use in pilot light receptacles and night lights. Lamps are rated 6 watts, 120 volts.

Name Plates



No. 1330

May be used with all P & S Despard plate openings. Consists of a rust-proof frame, transparent window and white card.

Standard package, 30; weight, 1/4 pound.
No. 1330, with Stainless Steel Frame..... per 100 \$18.00

Bell Push



No. 1344

Bakelite; for 6 to 12-volt circuits. Can be placed in box with P & S Despard switch, outlet or night light.

Standard package: brown, 20; ivory, 10.
Weight of standard package: brown, 2 pounds; ivory, 1 pound.

No. 1344, Brown..... per 100 \$28.00
No. 1444, Ivory..... per 100 34.00

Blank Inserts



No. 1345

Used to fill unused openings in plates. Made with knock-out for cord hole or telephone outlet.

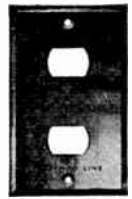
Standard package, 10; weight, 1 pound.
No. 1345, Brown..... per 100 \$12.00
No. 1445, Ivory..... per 100 19.00



No. 1781G



No. 1791V



No. 1791B

Brown-X and Ivory-X. These plates have multiple coat of baked-on, insulating enamel. Closely resembling bakelite, they have all the sturdiness of metal plates. They will not warp or crack, and their surface is satisfactory for painting.

Chrome-X. These plates are made of .040-inch stainless steel. Their soft, semi-polished, silverlike finish is right in the metal and will last indefinitely.

Brown-X Single-Gang

No.	Per 100	Description	Std. Pkg.	Wt. Lb. Std. Pkg.
1781A	\$13.00	One Horizontal Opening	100	20
1781B	13.00	Two Openings	50	10
1781C	13.00	Three Openings	30	6
1781G	13.00	One Vertical Opening	100	20

Two-Gang

1782-2A	\$26.00	Two Horizontal Openings	10	4
1782-2B	33.00	Four Openings	10	4
1782-2C	33.00	Six Openings	10	3
1782-2G	26.00	Two Vertical Openings	10	4

Three-Gang

1783-3A	\$35.00	Three Horizontal Openings	10	5
1783-3B	43.00	Six Openings	10	5
1783-3C	43.00	Nine Openings	10	4
1783-3G	43.00	Three Vertical Openings	10	5

Ivory-X Single-Gang

No.	Per 100	Description	Std. Pkg.	Wt. Lb. Std. Pkg.
1881A	\$16.00	One Horizontal Opening	100	20
1881B	16.00	Two Openings	50	10
1881C	16.00	Three Openings	30	6
1881G	16.00	One Vertical Opening	100	19

Two-Gang

1882-2A	\$32.00	Two Horizontal Openings	10	4
1882-2B	42.00	Four Openings	10	4
1882-2C	42.00	Six Openings	10	3
1882-2G	32.00	Two Vertical Openings	10	4

Three-Gang

1883-3A	\$48.00	Three Horizontal Openings	10	5
1883-3B	57.00	Six Openings	10	5
1883-3C	57.00	Nine Openings	10	4
1883-3G	48.00	Three Vertical Openings	10	5

Chrome-X—(.040-Inch Stainless Steel) Single-Gang

No.	Per 100	Description	Std. Pkg.	Wt. Lb. Std. Pkg.
1791A	\$28.00	One Horizontal Opening	100	22
1791B	29.00	Two Openings	50	11
1791C	29.00	Three Openings	30	7
1791G	28.00	One Vertical Opening	100	19
*1791R	30.00	Two Openings, One Insulating Adapter	10	3

*1791V	34.00	Two Openings, Two Insulating Adapters	10	3
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Two-Gang

1792-2A	\$66.00	Two Horizontal Openings	10	4
1792-2B	87.00	Four Openings	10	4
1792-2C	94.00	Six Openings	10	3
1792-2G	66.00	Two Vertical Openings	10	4

Three-Gang

1793-3A	\$98.00	Three Horizontal Openings	10	5
1793-3B	122.00	Six Openings	10	5
1793-3C	122.00	Nine Openings	10	4
1793-3G	100.00	Three Vertical Openings	10	5

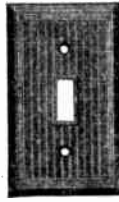
*These plates are regularly supplied with brown bakelite insulating adapters. When ivory adapters are desired, specify regular number with suffix I.

Wall plates listed above are supplied complete with the necessary straps for mounting P&S Despard devices.

NOTE. The installation of P&S Despard Convenience Outlets in non-insulated metal plates is not recommended unless the plates are equipped with bakelite insulating adapters.

Uniline Plates

Flush Switch Plates

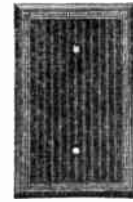


No. 91071

Tumbler Switch

No. of Gangs	Car-ton	Brown			Ivory		
		No.	Per 100	Std. Pkg. Gangs	No.	Per 100	Std. Pkg. Gangs
1	10	91071	\$11.00	100	92071	\$16.00	50
2	10	91072	22.00	100	92072	32.00	50
3	10	91073	33.00	100	92073	48.00	50
4	10	91074	48.00	100	92074	68.00	50
5	10	91075	120.00	100	92075	150.00	50
6	10	91076	140.00	100	92076	180.00	50

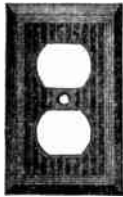
Blank Plates



No. 91121

No. of Gangs	Car-ton	Brown			Ivory		
		No.	Per 100	Std. Pkg. Gangs	No.	Per 100	Std. Pkg. Gangs
1	10	91121	\$19.00	50	92121	\$24.00	30
2	10	91122	60.00	50	92122	70.00	30

Convenience Outlet Plates



No. 91101



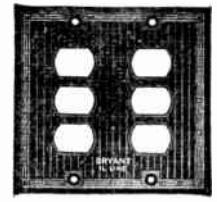
No. 91091

No. of Gangs	Car-ton	Brown			Ivory		
		No.	Per 100	Std. Pkg. Gangs	No.	Per 100	Std. Pkg. Gangs
1	10	91101	\$11.00	100	92101	\$16.00	50
2	5	91102	28.00	50	92102	38.00	50
		Single					
1	10	91091	\$14.00	100	92091	19.00	50

Plates for IL Line



No. 91031

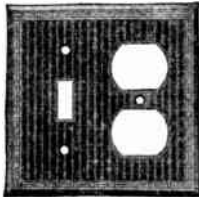


No. 91032

No. of Gangs	No. of Gangs Open.	Car-ton	Brown			Ivory		
			No.	Per 100	Std. Pkg. Gangs	No.	Per 100	Std. Pkg. Gangs
1	*1	10	91011	\$14.00	100	92011	\$19.00	100
1	2	10	91021	14.00	50	92021	19.00	50
1	3	10	91031	14.00	30	92031	19.00	30
1	†1	10	91041	14.00	100	92041	19.00	100
2	4	10	91022	39.00	30	92022	49.00	30
2	†2	10	91042	28.00	50	92042	38.00	30
2	*2	10	91012	28.00	50	92012	38.00	30
2	6	10	91032	55.00	20	92032	65.00	20
3	6	10	91023	78.00	20	92023	93.00	20
†2	3	10	91052	39.00	30	92052	49.00	30

*Horizontal. †Vertical. ‡Combination.

Combination Plates

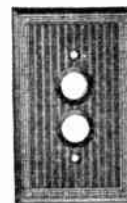


No. 91532

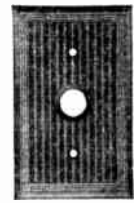
Tumbler Switch and Single Outlet

No. of Gangs	Car-ton	Brown			Ivory		
		No.	Per 100	Std. Pkg. Gangs	No.	Per 100	Std. Pkg. Gangs
2	2	91512	\$28.00	10	92512	\$38.00	10
2	2	91532	\$28.00	10	92532	\$38.00	10
		Single and Duplex Outlet					
2	2	91572	\$60.00	10	92572	\$70.00	10
		Two Tubular Switches and Single Outlet					
3	2	91523	\$50.00	10	92523	\$75.00	10
		Two Tumbler Switches and Duplex Outlet					
3	2	91543	\$60.00	10	92543	\$75.00	10
		Three Tumbler Switches and Duplex Outlet					
4	2	91554	\$130.00	10	92554	\$150.00	10

Push Switch and Telephone Plates



No. 91081



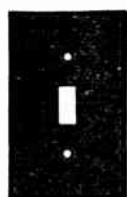
No. 91181

No. of Gangs	Car-ton	Brown			Ivory		
		No.	Per 100	Std. Pkg. Gangs	No.	Per 100	Std. Pkg. Gangs
1	10	91081	\$14.00	100	92081	\$19.00	50
		Telephone Plates					
1	10	91181	\$19.00	50	92181	\$24.00	30

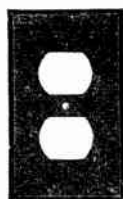
Approximate weight of a standard package of 100, 10 pounds.
Made of bakelite.

Bryant Process Plates

For Standard Devices



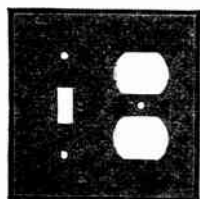
No. OS71-BX



No. OV71-BX



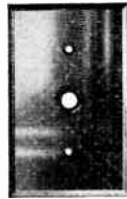
No. OF71-CX



No. OSV72-BX



No. OK71-CX



No. OG71-CX

Brown-X and Ivory-X plates are made of enameled steel and have a multiple coating of baked-on, insulating enamel. The finish resembles bakelite and may be painted to match decorations.

Chrome-X plates are made of .040-inch stainless steel. The dull silver-like finish is part of the metal and will last indefinitely.

Approximate weight per standard package of 100, 14 pounds.

Tumbler Switch Plates

Packed 10 gangs in a carton, 100 in a standard package.

No. of Gangs	Brown-X		Ivory-X		Chrome-X	
	No.	Per 100	No.	Per 100	No.	Per 100
1	OS71-BX	\$10.00	OS71-IX	\$12.00	OS71-CX	\$24.00
2	OS72-BX	20.00	OS72-IX	24.00	OS72-CX	66.00
3	OS73-BX	30.00	OS73-IX	36.00	OS73-CX	100.00
4	OS74-BX	39.00	OS74-IX	60.00	OS74-CX	130.00
5	OS75-BX	54.00	OS75-IX	78.00	OS75-CX	180.00
6	OS76-BX	65.00	OS76-IX	94.00	OS76-CX	200.00

Convenience Outlet Plates

Packed 10 in a carton, 100 in a standard package.

Duplex

1	OV71-BX	\$10.00	OV71-IX	\$12.00	OV71-CX	\$24.00
2	OV72-BX	20.00	OV72-IX	24.00	OV72-CX	66.00

Single

1	OF71-BX	\$12.00	OF71-IX	\$18.00	OF71-CX	\$24.00
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Combination Plates

Packed 2 in a carton, 10 in a standard package.

Tumbler Switch and Single Outlet

2	OSF72-BX	\$26.00	OSF72-IX	\$36.00	OSF72-CX	\$66.00
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Tumbler Switch and Duplex Outlet

2	OSV72-BX	\$26.00	OSV72-IX	\$36.00	OSV72-CX	\$66.00
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Two Tumbler Switches and Duplex Outlet

3	OSSV73-BX	\$38.00	OSSV73-IX	\$44.00	OSSV73-CX	\$98.00
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Blank Plates

Packed 10 in a carton, 50 in a standard package.

1	OK71-BX	\$18.00	OK71-IX	\$21.00	OK71-CX	\$33.00
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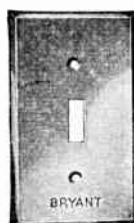
Telephone Plates

Packed 10 in a carton, 50 in a standard package.

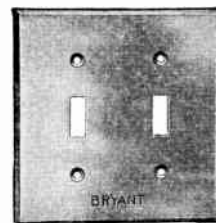
1	OG71-BX	\$15.00	OG71-IX	\$19.00	OG71-CX	\$33.00
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Bryant Flush Plates

For Tumbler Switches



1-Gang



2-Gang

Brush brass finish with brass mounting screws to match. S plates of the same material may be assorted in various finishes, thicknesses and gangs to make up carton and standard package quantities. No other assortment permitted.

When ordering combination plates, specify S section to accommodate switches with handles operating vertically. By installing No. 746 jewel, any of these plates can be made into pilot light plates.

Screws packed in carton with each plate.

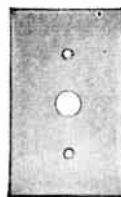
.040-Inch Stamped Brass, One Horizontal Row, Symbol S

No.	Per 100	No. of Gangs	No. in Carton	No. in Standard Package	Weight Pounds Standard Package
OS41	\$30.00	1	10	100	19
OS42	60.00	2	10	100	19
OS43	90.00	3	10	100	15

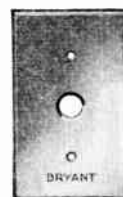
.060-Inch Stamped Brass, One Horizontal Row, Symbol S

OS61	\$40.00	1	10	100	25
OS62	80.00	2	10	100	21
OS63	120.00	3	10	100	20

Bryant Flush Plate Sections



Type T



Type T2



Type W4

Type T Push Button Plates

.060-Inch, for No. 3675 12-Volt Push Buttons... each \$.54

Type T2 Telephone Jack Plates

.060-Inch, for Western Electric No. 367 Telephone Jack Receptacles... each \$.54

Type W4 Plates

.040-Inch, for Nos. 2994, 2995 Switch and Receptacle Combinations... each \$.40

Interchangeable IL Device Plates Single-Gang—.060-Inch Brush Brass



No. IL1671-A



No. IL1671-B



No. IL1671-C



No. IL1671-G

No.	Per 100	No. of Openings	Car- ton	Std. Pkg.	Wt., Lb. Std. Pkg.
IL1671-A	\$48.00	*1	10	100	36
IL1671-B	48.00	2	10	50	18
IL1671-C	48.00	3	10	30	12
IL1671-G	48.00	†1	10	100	36

*Horizontal. †Vertical.

Bryant Flush Plate Sections

Combination plates should be described by using the letters shown with the illustrations of the respective plates, giving the letters in order from left to right, or from top to bottom, as the devices are to be mounted.

Type B Bulls' Eye Plates

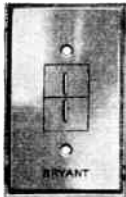


For Nos. 427 and 627 lampholder receptacles.

Consists of Type F plate with No. 3850 jewel.

.060-Inch.....each **\$.79**
 .040-Inch.....each **.69**

Type D Receptacle Plates

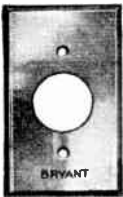


For No. 630 D.D. receptacles.

Not furnished in .040-inch brass.

.060-Inch.....each **\$1.30**

Type F Single Flush Receptacle Plates



Without door. Will take No. 737 jewels to make Type B plate. Also for Nos. 556, 1708, 4831, 9116, 9120 and 9326 flush receptacles.

.060-Inch.....each **\$.40**
 .040-Inch.....each **.30**

Type G Telephone Plate



With one cord hole.

.060-Inch.....each **\$.54**
 .040-Inch.....each **.45**

Type 12 Plates



For No. 5121 combination.

.040-Inch.....each **\$.65**

Type J Junior Flush Receptacle Plates



For No. 411 Junior flush receptacle.

.060-Inch.....each **\$.70**

Type K Blank Plates



.060-Inch.....each **\$.50**
 .040-Inch.....each **.41**

Type L2 Receptacle Plates

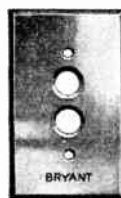


For Nos. 427 and 627 receptacles.

Made of brass.

.040-Inch.....each **\$1.34**

Type P Two-Button Push Switch Plates



For all two-button flush switches.

.060-Inch.....each **\$.41**
 .040-Inch.....each **.30**

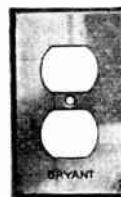
Type S Tumbler Switch Plates



For all single handle vertically operated flush tumbler switches.

.060-Inch.....each **\$.40**
 .040-Inch.....each **.30**

Type V Duplex Flush Receptacle Plates



Without doors, for Nos. 122, 142, 792, 4892 and 9022 duplex flush receptacles.

.060-Inch.....each **\$.40**
 .040-Inch.....each **.30**

Bryant Special Finishes for Flush Plates

Finish	Per 100 Gangs
Barff, Bauer (Lacquer).....	\$20.00
Bronze, Statuary (Light).....	30.00
*Chromium, Polished.....	60.00
Nickel, Polished.....	30.00
Telephone Red (Lacquer).....	20.00
Verde Antique (Lacquer).....	20.00

*Specify if dull chromium is desired. Chromium plates are not lacquered.

Plates for Plating: Plates which are to be plated by the purchaser should be ordered "for plating." They will be billed at price of corresponding standard finish.

Plates for Painting: Plates which are to be painted by the purchaser should be ordered "for painting." They will be billed at price of corresponding brush brass finish.

H & H Crackle Finish Metal Plates

.040-Inch Brass

For Convenience Outlets



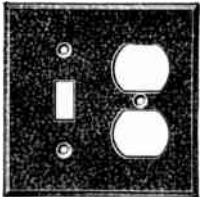
A 1-gang duplex type plate.
Carton, 10 gangs. Standard package, 100 gangs.

Weight per package, 16 pounds.

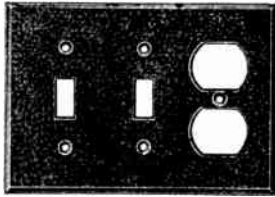
No. 4290-B, Brown..... per 100 \$7.00
No. 4290, Ivory..... per 100 9.50

H & H Crackle Finish Metal Combination Plates

.040-Inch Brass



No. 4305-B



No. 4306-B

Brown and Ivory

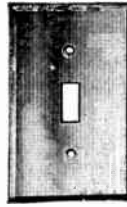
Brown		Ivory		Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100				
4305-B	\$21.00	4305	\$31.00	2G, Tumbler-Duplex..	2	10	4
4306-B	31.50	4306	41.50	3G, 2 Tumbler-Duplex	2	10	4

White

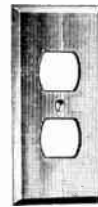
No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
4290-W	\$10.50	1 Gang, Duplex.....	10G	100G	16
4305-W	33.00	2 Gangs. Tumbler-Duplex.	2	10	4
4306-W	43.50	3 Gangs. 2 Tumbler-Duplex	2	10	4

H & H Brass Plates

.040-Inch Brass



No. 8841



No. 1485



No. 4077

For Tumbler Switches

Brush Brass		Duro Finish		Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100				
8841	\$30.00	8841-D	\$15.00	1 Gang....	10G	100G	19
8842	60.00	8842-D	30.00	2 Gangs...	10G	100G	16
8843	90.00	8843-D	45.00	3 Gangs...	10G	100G	14

For Duplex Convenience Outlets

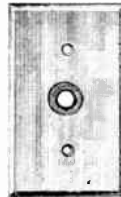
1485	\$30.00	1485-D	\$15.00	1 Gang....	10G	100G	16
1486	94.00	1486-D	61.00	2 Gangs...	10G	100G	13

For Push Button Switches

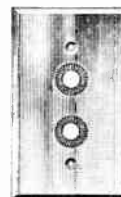
4077	\$30.00	4077-D	\$17.00	1 Gang....	10G	100G	19
4078	60.00	4078-D	34.00	2 Gangs...	10G	100G	16

H & H Brass Plates

.040-Inch Brass



No. 3144



No. 3244



No. 4068

Screw holes are spaced 2 3/8 inches on centers. This is standard and accomplished by using a sub-frame which is fastened to the box, and the plate is then attached to the sub-frame, thus allowing adjustment for unevenness in box installations. Sub-frame is furnished with each plate.

Telephone—Single Outlet

Brush Brass		Duro Finish		Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100				
3144	\$45.00	3144-D	\$29.00	1 Gang....	10G	50G	10

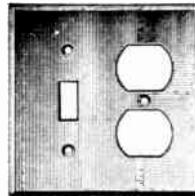
Telephone—Double Outlet

3244	\$45.00	3244-D	\$34.00	1 Gang....	10G	50G	10
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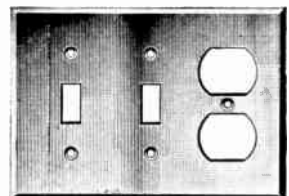
Blank

4068	\$41.00	4068-D	\$26.00	1 Gang....	10G	50G	10
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H & H Combination Brass Plates



No. 4315



No. 4297

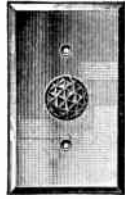
.040-Inch Brass

Brush Brass		Duro Finish		Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100				
4314	\$84.00	4314-D	\$54.00	2G. Tumbler & Single	2	10	3
4315	84.00	4315-D	54.00	2G. Tumbler & Duplex	2	10	3
4367	84.00	4367-D	54.00	2G. Single & Duplex..	2	10	2
4316	126.00	4316-D	81.00	3G. 2-Tumbler & Single	2	10	2
4317	126.00	4317-D	81.00	3G. 2-Tumbler & Duplex.....	2	10	2

.060-Inch Brass

4294	102.00	4294-D	\$66.00	2G. Tumbler & Single	2	10	4
4295	102.00	4295-D	66.00	2G. Tumbler & Duplex	2	10	3
4368	102.00	4368-D	66.00	2G. Single & Duplex..	2	10	3
4296	153.00	4296-D	99.00	3G. 2-Tumbler & Single	2	10	3
4297	153.00	4297-D	99.00	3G. 2-Tumbler & Duplex.....	2	10	3



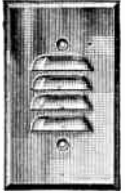


No. 8691 H & H 1-Gang Brass Plates
For Warning Light Receptacles

Made of .040-inch brass. Round, red glass jewel. Candelabra base lamp.

Carton, 10. Standard package, 30. Weight per standard package, 6 pounds.

No. 8691.....per 100 \$54.00



No. 6408 H & H 1-Gang Brass Louvre Plates
For Warning Light Receptacles

Made of .040-inch brass. For deflected lighting in stairways, theatres, hospitals, etc. Candelabra base lamp.

Carton, 5. Standard package, 30. Weight per standard package, 6 pounds.

No. 6408.....per 100 \$134.00



No. 2999 H & H Warning Light Receptacles

With Candelabra Lamps
75 Watts, 125 Volts

Receptacles will be supplied with 220-volt candelabra lamps on special order.

Carton, 10. Standard package, 30. Weight per standard package, 18 pounds.

No. 2999.....per 100 \$116.00

No. 2971 H & H Candelabra Lamps

For Warning Light Receptacles
125 Volts

Carton, 10. Standard package, 30.
Weight per standard package, 3/4 pound.

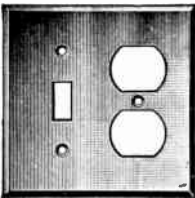
No. 2971.....per 100 \$33.00



No. 4290-C H & H Silvex Polished Finish Metal Plates
For Convenience Outlets

A 1-gang duplex type plate.
Carton, 10 gangs. Standard package, 100 gangs.
Weight per package, 16 pounds.

No. 4290-C.....per 100 \$20.00

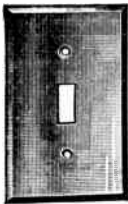


No. 4305-C H & H Silvex Polished Finish Metal Combination Plates
For Tumbler Switches

A 2-gang duplex type plate.
Carton, 2. Standard package, 10.
Weight per package, 4 pounds.

No. 4305-C.....per 100 \$54.00

H & H Duracrome Brass Plates
.040-Inch Brass



Dull Chromium		Polished Chromium		Description	Car- ton	Std. Wt. Pkg.	Pkg. Lb.
No.	Per 100	No.	Per 100				
4151	\$70.00	4151-P	\$70.00	1 Gang, Tumbler	10G	100G	19
4152	132.00	4152-P	132.00	2 Gang, Tumbler	10G	100G	16
4153	182.00	4153-P	182.00	3 Gang, Tumbler	10G	100G	14
4154	250.00	4154-P	250.00	4 Gang, Tumbler	10G	100G	14
4150	70.00	4150-P	70.00	1 Gang, Duplex	10G	100G	16
4155	70.00	4155-P	70.00	1 Gang, Single	10G	100G	17

H & H Metal Plates

SPACINGS.—Plates which are to be attached to flush devices have screw holes spaced 2 3/8 inches on centers. Gangs are spaced 1 1/16 inches on centers horizontally, and 3 5/8 inches on centers vertically.

ROUND CORNERS.—Solid plates can be furnished on special order with round corners at an advance in price. Prices upon application.

SQUARE CORNERS AND SQUARE EDGES.—Solid plates can be furnished without the usual bevel edge but with square corners and square edges at the same price as solid plates, if the dimensions and spacings are standard. Otherwise, special prices apply.

ENGRAVING OR MARKING.—Plates can be engraved in block design lettering of any height. Prices upon application.

HAMMERED BRASS.—Solid plates can be furnished on special order with a genuine hammered finish. Prices upon request.

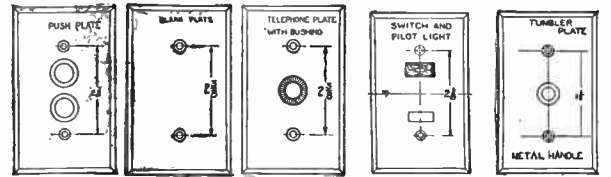
RETURN OR EXTENSION EDGES.—These plates are used when the wall case or switch box projects from the wall and the devices are not flush. Prices upon application.

COMBINATION PLATES.—A combination plate is made to order from 2 or more of the standard units listed below. If spacings or dimensions differ from standard units, special plate prices apply. The list price of any combination plate is the sum of the list of the standard units making up the combination.

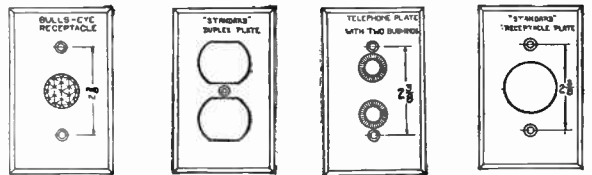
The same symbol letters are used for struck-up or solid plates and the thickness of brass desired must be specified as well as the symbol letters. Three thicknesses of brass are supplied, .100 inch (solid), .060 inch and .040 inch.

Combination plates are made only on special order and are therefore not subject to return for credit.

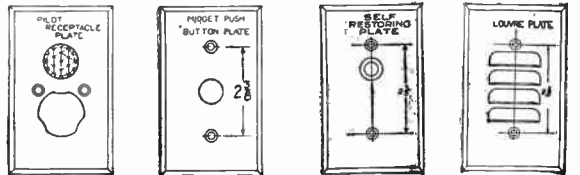
The standard package is 10 plates of the same combination, carton, 10.



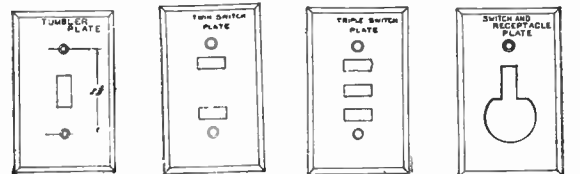
P For Push Switch
L Blank
G Telephone 1-Outlet
H For Bull's Eye and Switch
T For Round Handle Tumbler Switch



B Bull's Eye for Pilot Light
D For Duplex Receptacle
J Telephone 2-Outlet
F For Single Receptacle



O For Pilot Light and Receptacle
V For Bell Push Button without Bell Push
Q For 1-Button Momentary Contact Switch
S Louvre for Pilot Light



I For Square Handle Tumbler Switch
N For 2-Lever Tumbler Switch
M For 3-Lever Tumbler Switch
W For Switch and Receptacle

Hubbell Brass Flush Plates

For Single and Double Telephone Outlets



No. 6904, Single



No. 6935, Double

Furnished with adapter to $3\frac{3}{32}$ inches.

A standard package consists of 50 single plates or equivalent in gangs. Carton, 10 gangs.

All kinds of telephone plates may be assorted to make standard package or carton quantity.

Struck-Up—.040-Inch Metal Brush Brass Finish

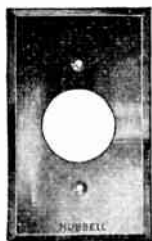
Single		Double		Description	Dimensions Inches	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100			
6904	\$45.00	6935	.....	Single	$4\frac{1}{2} \times 2\frac{3}{4}$	8
6905	90.00	6936	.....	2-Gang	$4\frac{1}{2} \times 4\frac{9}{16}$	7
6906	135.00	6937	.....	3-Gang	$4\frac{1}{2} \times 6\frac{3}{8}$	7

Struck-Up—.060-Inch Metal Brush Brass Finish

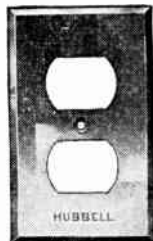
Single		Double		Description	Dimensions Inches	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100			
6910	\$54.00	6941	.....	Single	$4\frac{1}{2} \times 2\frac{3}{4}$	12
6911	108.00	6942	.....	2-Gang	$4\frac{1}{2} \times 4\frac{9}{16}$	10
6912	162.00	6943	.....	3-Gang	$4\frac{1}{2} \times 6\frac{3}{8}$	9

Hubbell Brass Flush Plates

For Single and Duplex Convenience Outlets



No. 6835, Single



No. 6854, Duplex

A standard package consists of 100 single plates or the equivalent in gangs. Carton, 10 gangs.

Special finishes are available at an addition in price.

Struck-Up—.040-Inch Metal Brush Brass Finish

For Single Convenience Outlets			For Duplex Convenience Outlets			Description	Dimensions Inches
No.	Per 100	Pkg. Wt. Lb.	No.	Per 100	Pkg. Wt. Lb.		
6835	\$30.00	17	6854	\$16.00	16	Single	$4\frac{1}{2} \times 2\frac{3}{4}$
6836	94.00	15	6855	63.00	15	2-Gang	$4\frac{1}{2} \times 4\frac{9}{16}$
6837	140.00	14	6856	94.50	14	3-Gang	$4\frac{1}{2} \times 6\frac{3}{8}$

Struck-Up—.060-Inch Metal Brush Brass Finish

For Single Convenience Outlets			For Duplex Convenience Outlets			Description	Dimensions Inches
No.	Per 100	Pkg. Wt. Lb.	No.	Per 100	Pkg. Wt. Lb.		
5548	\$40.00	25	6258	\$40.00	21	Single	$4\frac{1}{2} \times 2\frac{3}{4}$
5549	110.00	22	6259	110.00	18	2-Gang	$4\frac{1}{2} \times 4\frac{9}{16}$
6840	166.00	20	6859	166.00	15	3-Gang	$4\frac{1}{2} \times 6\frac{3}{8}$

Hubbell Brass Flush Plates

For Toggle and Push Switches



No. 8771—For Standard Toggle Switches



No. 8511—For Push Switches

A standard package consists of 100 single plates or equivalent in gangs.

Carton, 10 gangs.

Plates in brush brass, and special finishes may be assorted to make standard package or carton quantity.

Special finishes are available at an addition in price.

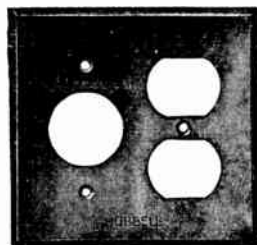
Struck-Up—.040-Inch Metal Brush Brass Finish

For Toggle Switches		For Push Switches		Description	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100		
8771	\$30.00	8511	\$30.00	Single	15
8772	60.00	8512	60.00	2-Gang	16
8773	90.00	8513	90.00	3-Gang	14
8774	152.00	.....	.....	4-Gang	13

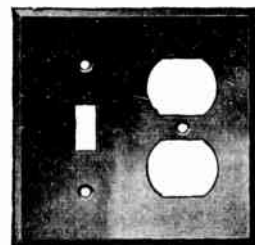
Struck-Up—.060-Inch Metal Brush Brass Finish

8751	\$40.00	.....	.....	Single	30
8752	80.00	.....	.....	2-Gang	28
8753	120.00	.....	.....	3-Gang	25
8754	178.00	.....	.....	4-Gang	23

Hubbell Brass Combination Plates



No. 7040
For Single and Duplex Convenience Outlets



No. 7105

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt. Lb.
7040	\$84.00	.040-Inch Metal.....	2	10	3
6749	102.00	.060-Inch Metal.....	2	10	5
7105	\$84.00	For Toggle Switch and Duplex Convenience Outlets .040-Inch Metal.....	2	10	3
7108	102.00	.060-Inch Metal.....	2	10	5

Screws for Hubbell Bakelite Plates

French head brass screws (D-5873) to match bakelite are supplied on all bakelite plates but bakelite headed screw No. 7213 available on special order at an advance in price.

Special ornamental head screws and special screwdriver will be supplied with standard package quantities of plates when so specified without extra charge, or may be purchased separately.



No. 7169
Screw, 7170
Screwdriver
(Special
Equipment)











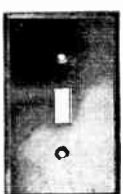








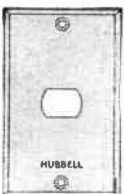
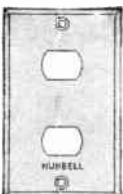
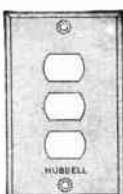
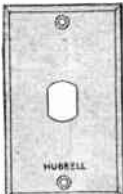

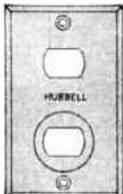
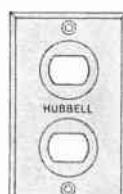
No. 7213

No.	Per 100	Car- ton	Std. Pkg.	Wt. Lb.
7169	\$2.00	100	100	$\frac{1}{4}$
7170	\$18.00	5	5	$\frac{1}{4}$
7213	\$3.00	20	100	$\frac{1}{2}$
*7213-I	4.00	20	100	$\frac{1}{2}$

Hubbell Combination Brass Plates

Hubbell Standard Combination Plates are made in .100-inch solid brass, also struck up .060 and .040-inch brass. Combination plates with sections for Interchangeable Line made in .060-inch brass only. Standard finish is brush brass. Special finishes are available at an advance in price.

If plates are ordered by letter only and no finish is specified, brush brass will be supplied. A combination plate must be made of 2 or more different letters and not gangs of standard plates. For example: AA is not a combination plate.

						
A—For Push Switch .040-Inch...\$.28 .060-Inch...\$.34 Solid......62	C—With Round Bull's-Eye for Pilot Light Receptacle .040-Inch \$.62 .060-Inch .68 Solid......98	T—With Rectangular Bull's-Eye for Pilot Light Receptacle .040-Inch \$.62 .060-Inch .68 Solid......98	F—For No. 7712 Pilot Light Receptacle .040-Inch . .060-Inch . Solid...\$1.04	S—For No. 7739 Switch and Bull's-Eye .040-Inch...\$.70 .060-Inch...\$.76 Solid.....1.04	*O—For 5/8-Inch Push Button .040-Inch . .060-Inch . Solid...\$.62	B—For Hubbell Round Handle Toggle Switch .040-Inch...\$.28 .060-Inch...\$.34 Solid......62
						
*D—For Outlet Box .040-Inch...\$.34 .060-Inch...\$.38 Solid......68	P—For Standard Toggle Switch .040-Inch \$.28 .060-Inch .34 Solid......62	§G—For Single Convenience Outlets and All Other Std. 2, 3, and 4-Wire Flush Receptacles with Round Faces .040-Inch...\$.28 .060-Inch...\$.34 Solid......62	§Y—For No. 7410 4-Wire Twist-Lock Receptacle Only .040-Inch...\$.28 .060-Inch...\$.34 Solid......62	§K—For No. 7438 Receptacle Only .040-Inch...\$.28 .060-Inch...\$.34 Solid......62	†J—Double Hinge Cover for No. 5579 Convenience Outlet .040-Inch . .060-Inch . Solid...\$1.62	H—For Duplex Convenience Outlet .040-Inch...\$.28 .060-Inch...\$.34 Solid......62
						
*M—For Telephone Outlet—One Bushing .040-Inch...\$.36 .060-Inch...\$.42 Solid......70	*N—For Telephone Outlet—Two Bushings .040-Inch...\$.42 .060-Inch...\$.48 Solid......76	E—For Switch and Receptacle No. 8888 etc. .040-Inch...\$.28 .060-Inch...\$.34 Solid......62	‡A:—Single Opening Horizontal for One Interchangeable Device .040-Inch...\$.28 .060-Inch...\$.34 ‡.060-Inch...\$.78	‡B:—Two Openings for Two Interchangeable Devices .040-Inch...\$.33 .060-Inch...\$.39 ‡.060-Inch...\$.84	‡C:—Three Openings for Three Interchangeable Devices .040-Inch...\$.33 .060-Inch...\$.39 ‡.060-Inch...\$.84	
						
‡G:—Single Opening (Vertical) for One Interchangeable Device .040-Inch...\$.28 .060-Inch...\$.34 ‡.060-Inch...\$.78	‡J:—Blank, Fastening Screws on 3 1/16-Inch Centers (Interchangeable) .040-Inch...\$.34 .060-Inch...\$.38 ‡.060-Inch...\$.85	‡R:—Plate with Bakelite Insulating Adapter for Installing with Switch or Pilot Light (Interchangeable) .040-Inch...\$.33 .060-Inch...\$.39 ‡.060-Inch...\$.84	‡I:—For Two Interchangeable Devices—Two Insulating Adapters .040-Inch...\$.33 .060-Inch...\$.39 ‡.060-Inch...\$.84			

*Screw spacing, 2 5/8 inches. Adapter to 3 1/2 inches for box mounting supplied with this section.

†Only supplied in solid brass.

‡Available in .060-inch metal only.

§Combinations embracing two adjacent G, Y, or K sections for Nos. 7250, 7310, 7410 or 7438 receptacles, require an extra blank gang between them to provide space for insertion of caps.

Tandem or special size combination plates can only be supplied in solid brass. When arranged in tandem, add 25% to solid price of horizontal plates.

In ordering combination plates, use letters and thickness of metal in the same relative position as required. For example: P C G .060-inch would cover a plate to take one toggle switch, one bull's-eye, and one single convenience outlet—the bull's-eye to be in the middle, to be of .060-inch brass.

Bryant Flush Tumbler Switches

General Purpose Type—With Porcelain Cups

T Rating for Use with C Lamps



No. 3951

Dimensions of porcelain cups: Length, 2 $\frac{1}{16}$ inches; width, No. 3951 series 1 $\frac{1}{2}$ inches, others 1 $\frac{1}{16}$ inches; depth, 1 $\frac{3}{32}$ inches.

Supporting screw spacing, 3 $\frac{3}{32}$ inches.

Screws for mounting are furnished.

When ordering combination plates, specify S sections to accommodate these switches.

Single Pole

No.	Per 100	Description	No. in Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
10 Amperes, 125 Volts—5 Amperes, 250 Volts					
3951	\$48.00	Brown Handle	10	100	30
3951-I	52.00	Ivory Handle	10	50	14
3951-L	121.00	Lock Type	10	100	31
3951-M	159.00	Momentary Contact	10	100	31
3951-SH	48.00	Steel, Stamped Handle	10	100	31

Double Pole

10 Amperes, 125 or 250 Volts

3952	\$98.00	Brown Handle	10	50	17
3952-I	102.00	Ivory Handle	10	25	17
3952-L	180.00	Lock Type	10	50	17
3952-M	219.00	Momentary Contact	10	50	17
3952-SH	298.00	Steel, Stamped Handle	10	50	17

Three-Way

10 Amperes, 125 Volts—5 Amperes 250 Volts

3953	\$68.00	Brown Handle	10	50	17
3953-I	72.00	Ivory Handle	10	25	17
3953-L	145.00	Lock Type	10	50	17
3953-M	184.00	Momentary Contact	10	50	17
3953-SH	68.00	Steel, Stamped Handle	10	50	17

Four-Way

5 Amperes, 125 Volts—2 Amperes, 250 Volts

3954	\$326.00	Brown Handle	2	10	4
3954-I	330.00	Ivory Handle	2	10	4
3954-L	409.00	Lock Type	2	10	4
3954-SH	326.00	Steel, Stamped Handle	2	10	4

Bryant Flush Tumbler Switches

With Gray Porcelain Cups

T Rating for Use with C Lamps

High Capacity—20 Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 3972



No. 3972-SH



No. 3972-SR

Dimensions of cups: length, 2 $\frac{3}{4}$ inches; width, 1 $\frac{3}{4}$ inches; depth, 1 $\frac{1}{2}$ inches. Lock type takes No. 6000 key.

With Brown Bakelite Handle

Cat. No.	Per 100	Description	AMPERES 125 Volts	250 Volts	Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
3971	\$98.00	S.P.	20	10	10	50	22
3972	140.00	D.P. Indicating	20	20	2	10	5
3973	128.00	3-Way	20	10	2	10	5
3974	466.00	4-Way	10	5	2	10	5

With Steel Handle

3972SH	\$140.00	D.P.	20	20	2	10	5
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With Roller Handle

3972SR	\$138.00	D.P.	20	20	2	10	5
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Steel handles on special order, no extra charge.

Nos. 3971, 3972, 3973, and 3974 can be furnished with lock, momentary contact, and steel handle features.

Bryant Enclosed Flush Tumbler Switches

"T" Rated for Type C Lamp Loads

Black Composition Cups



No. 4961

These switches will give uniform performance, high minimum break-down, and exceptionally long life.

Dimensions of cups: Length, 2 $\frac{1}{16}$ inches; depth, 1 $\frac{3}{8}$ inches; width, Nos. 4961 and 4961-L, 1 $\frac{1}{2}$ inches, others, 1 $\frac{1}{16}$ inches.

Supporting screw spacing, 3 $\frac{3}{32}$ inches.

When ordering combination plates, specify S section. Single plate OS61.

On special order, these switches can be furnished with black handles (lock switches with black bosses) without extra charge.

Flush Tumbler Switches

With Brown Bakelite Handles

Cat. No.	Per 100	Description	AMPERES 125 Volts	250 Volts	Car- ton	Std. Pkg.	Wt. Lb.
4961	\$93.00	S.P. Indicating	10	5	10	50	18
4962	151.00	D.P. Indicating	10	10	2	10	4
4963	116.00	3-Way	10	5	10	20	7 $\frac{1}{2}$
4964	373.00	4-Way	5	2	2	10	4
4965	174.00	D.P. Indicating	20	10	2	10	4
4966	151.00	S.P. Quadruple Break, Indicating	20	20	10	20	8

Flush Tumbler Lock Switches

With Brown Bakelite Bosses

One No. 4960 Key is furnished with each lock switch.

4961-L	\$176.00	S.P. Indicating	10	5	10	50	20
4962-L	234.00	D.P. Indicating	10	10	2	10	4
4963-L	199.00	3-Way	10	5	10	20	8
4964-L	455.00	4-Way	5	2	2	10	4
4965-L	257.00	D.P. Indicating	20	10	2	10	4
4966-L	234.00	S.P. Quadruple Break, Indicating	20	20	10	20	8

Nos. 4961, 4962, 4963, and 4965 can be furnished with lock, momentary contact, and steel handle features.

Bryant Flush Tumbler Switches

Shallow—1 $\frac{5}{32}$ Inches Deep

T Rated at 20 Amperes, 125 Volts—20 Amperes, 250 Volts



No. 5861



No. 5862



No. 5863



No. 5866

Bakelite casing with extra thick walls. Listed by Underwriters' Laboratories; conforms with Federal Specifications.

Single-Pole

No.	Per 100	Description	Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
5861	\$152.00	Brown Handle	10	30	12
5861-I	163.00	Ivory Handle	10	30	12
5861-L	234.00	Lock Type	10	30	12
5861-M	273.00	Momentary Contact	10	30	12

Double-Pole

5862	\$175.00	Brown Handle	2	10	4
5862-I	186.00	Ivory Handle	2	10	4
5862-L	257.00	Lock Type	2	10	4
5862-M	296.00	Momentary Contact	2	10	4

Three-Way

5863	\$175.00	Brown Handle	2	10	4
5863-I	186.00	Ivory Handle	2	10	4
5863-L	257.00	Lock Type	2	10	4
5863-M	296.00	Momentary Contact	2	10	4

Single-Pole—Quadruple Break

5866	\$175.00	Brown Handle	2	10	4
5866-I	186.00	Ivory	2	10	4
5866-L	257.00	Lock Type	2	10	4
5866-M	296.00	Momentary Contact	2	10	4

Bryant Heavy Duty Enclosed Switches

Listed by Underwriters' Laboratories



No. 5421 Single Pole, Brown Bakelite Handle



No. 5432 Double Pole



No. 6000 Lock Switch Key

With bakelite handles and casings, for standard tumbler switch plates and single gang boxes. Especially designed and built to carry the initial current surge on Type C lamps, and for general heavy duty service.

With Handle No.	Per 100	Lock Type		Description	AMPERES		Car- ton	Std. Pkg.	Wt. Lbs. Std. Pkg.
		No.	Per 100		125 Volts	250 Volts			
5421	\$152.00	5421L	\$234.00	S.P. . . .	20	20	10	30	11
5422	199.00	5422L	281.00	D.P. . . .	20	20	2	10	4
5423	175.00	5423L	257.00	3-Way..	20	20	2	10	4
5424	524.00	5424L	607.00	4-Way..	20	10	2	10	4
5431	187.00	5431L	269.00	S.P. . . .	30	30	10	30	11
5432	268.00	5432L	351.00	D.P. . . .	30	30	2	10	4
5433	233.00	5433L	316.00	3-Way..	30	30	2	10	4
5434	699.00	5434L	782.00	4-Way..	20	10	2	10	4
		6000	18.00	Key for Lock Switches.			2	10	..

One No. 6000 key furnished with each lock switch.

Bryant Mercury Silent Flush Switches

5 Amperes, 125 or 250 Volts, "T" Rated
Listed as Standard by Underwriters' Laboratories, Inc.

Contact takes place in small completely enclosed glass sealed metal button. Rugged casing is of black bakelite. Binding screws are adequate for No. 12 wire. Wide mounting; ears facilitate alignment of switch with mounting surface.

No.	Pr 100	Handle	Gtn.	Wt. Lb.	
				Std. Pkg.	Pkg.
Single-Pole					
4701	\$96.00	Brown	10	100	21
4701-I	106.00	Ivory	10	50	11
3-Point					
4703	\$150.00	Brown	10	50	14
4703-I	160.00	Ivory	10	30	9
Double-Pole					
4702	\$152.00	Brown	10	50	14
4702-I	162.80	Ivory	10	30	9
4-Point					
4704	\$374.00	Brown	2	10	3
4704-I	385.00	Ivory	2	10	3



No. 4701



No. 4703-1

Bryant 3-Way Flush Switches

T Rating for Use with C Lamps

20 Amperes, 125 Volts—10 Amperes, 250 Volts
Approved for Federal Specifications

Mechanism totally enclosed in arc-resisting composition. Yoke insulated from mechanism. Depth of cups 1 3/8 inches.

Packed 10 in a carton, 20 in a standard package.



No. 4967

No.	Per 100	Description	Wt. Lb. Std. Pkg.
4967	\$174.00	Brown Handle	8
*4967-I	178.00	Ivory Handle	4
4967-L	257.00	Lock Type	8
4967-M	295.00	Momentary	8
4967-SH	174.00	Steel, Stamped Handle	8

*Packed 2 in carton, 10 in standard package.

Bryant Competitive Grade Flush Tumbler Switches

T Rated

10 Amps., 125 Volts; 5 Amps., 250 Volts

Listed by Underwriters' Laboratories, Inc.

Side wiring.

Mechanism enclosed in bakelite.

Dimensions of cups, 1 21/32 x 29/32 x 1 1/32 inches deep.



No. 61



No. 63

No.	Per 100	Single-Pole		Std. Pkg.	Wt. Lbs. Std. Pkg.
		Handle	Carton		
61	\$34.00	Brown	10	100	15
		Ivory	10		
63	\$44.00	3-Way		50	8
		Brown	10		
63-I	48.00	Ivory	10	50	8

Bryant Porcelain Cup Flush Tumbler Switches

10 Amps., 125V.—5 Amps., 250 V.



No. 51



No. 53

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
51	\$30.00	S.P., Brown Handle	10	100	33
51-I	34.00	S.P., Ivory Handle	10	100	33
53	38.00	3-Way, Brown Handle	10	50	17
53-I	42.00	3-Way, Ivory Handle	10	50	17

Bryant General Purpose Flush Tumbler Switches

T Rating

10 Amperes, 125 Volts; 5 Amperes, 250 Volts
Listed by Underwriters' Laboratories, Inc.

Dimensions of cups, 1 1/2 x 7/8 x 1 1/8 inches deep.



No. 1815-D

No.	Per 100	Handle	Single Pole		
			Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1815-D	\$48.00	Brown	10	100	20
1915-D	52.00	Ivory	10	50	10
3-Way					
1835-D	\$68.00	Brown	10	50	8 3/4
1935-D	72.00	Ivory	10	30	7

Bryant Self-Restoring Door Switches

Automatic—Complete with Outlet Box

Single-Pole—6 Amperes, 125 Volts; 3 Amperes, 250 Volts



No. 2355

Plunger adjustable from 3/16-9/16 inch. Complete with brush brass plate 4 5/8 x 1 3/8 inch and with round strike plate. Standard finish of plate, brush brass. Box is 3 9/16 in. long, 1 1/4 in. wide, 2 3/8 in. deep; has a 2 3/8 in. knockout in bottom, 2 3/8 in. knockout in one end and 1/8 in. knockout in other end.

Cat. No.	Per 100	Switch Is On When Door Is Open		
		Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
2355	\$410.00	2	25	30

Switch Is Off When Door Is Open				
Cat. No.	Per 100	Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
2356	\$410.00	2	10	12
Switch less box \$370.00 per 100.				

Bryant Surface Tumbler Switches With Metal Cover 125-250 Volts



No. 3911

Height over cover, 10-amp. size, $1\frac{1}{16}$ inches.
Height over cover, 5-amp. size, $1\frac{1}{16}$ inches.
Supporting screw spacing, 10-amp. size, $1\frac{3}{4}$ inches.
Supporting screw spacing, 5-amp. size, $1\frac{3}{8}$ inches.
Bakelite covers.

Cat. No.	Per 100	Description	AMPERES		Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
			125 Volts	250 Volts			
3911	\$98.00	Single-Pole	10	5	10	100	37
3912	140.00	Double-Pole	10	5	10	100	40
3913	140.00	3-Way	10	5	10	50	18
3914	345.00	4-Way	5	2	2	10	4

Bryant Hemco Switches

5 Amperes, 125 Volts; 3 Amperes, 250 Volts

Packed 10 in a carton, 50 in a standard package.



No. H11

Surface—Bakelite Cover

No.	Per 100	Description	Wt., Lb. Std. Pkg.
*H121	\$36.00	S.P. Ind. Switch	12
*H111	36.00	S.P. Ind. Slotted	11
*H123	46.00	3-Point Solid	12
*H113	46.00	3-Point, Slotted	11

Outlet Box—Bakelite Cover

H31	\$52.00	S.P. $3\frac{1}{4}$ -Inch	24
H33	60.00	3-Point, $3\frac{1}{4}$ -Inch	25
H41	58.00	S.P. 4-Inch	33
H43	66.00	3-Point, 4-Inch	34

*Base diameter, 2 inches; supporting screws spaced $1\frac{3}{8}$ inches on centers.



No. H-31

Bryant Surface Tumbler Switches

Metal Box Covers—Cadmium Finish

10 Amps., 125 V.—5 Amps., 250 V.
Listed by Underwriters' Laboratories



No. H361

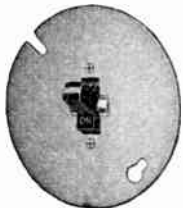
Packed 10 in a carton, 50 in a standard package.

Single-Pole

No.	Per 100	Size In.	Wt., Lb. Std. Pkg.
H361	\$42.00	$3\frac{1}{4}$	17
H461	47.00	4	24

3-Way

H363	\$52.00	$3\frac{1}{4}$	18
H463	57.00	4	25



No. H363

Bryant Bakelite Surface Tumbler Switches With Brown Bakelite Box Covers

10 Amps., 125 V.—5 Amps., 250 V.
Listed by Underwriters' Laboratories, Inc.



No. 5631

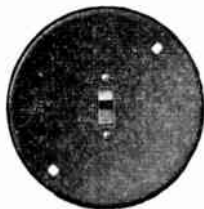
Completely insulated, moisture resistant, and ribbed for extra strength.
Packed 10 in a carton, 50 in a standard package.

Single-Pole

No.	Per 100	Size In.	Wt., Lb. Std. Pkg.
5631	\$60.00	$3\frac{1}{4}$	14
5641	63.00	4	15

3-Way

5633	\$70.00	$3\frac{1}{4}$	14
5643	73.00	4	15



No. 5633

Bryant Single-Pole Surface Switches



No. 2000

6 Amperes, 125 Volts; 3 Amperes, 250 Volts
With Black Bakelite Covers, 2-Inch Porcelain Bases

Height over cover, $1\frac{1}{8}$ inches.
Supporting screw spacing, $1\frac{3}{8}$ inches.

Cat. No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lbs. Std. Pkg.
2220	\$60.00	Solid	10	100	25
2000	60.00	Slotted	10	100	25
2035	70.00	Solid, Indicating	10	100	25
2047	70.00	Slotted, Indicating	10	100	25

10 Amperes, 125 Volts; 5 Amperes, 250 Volts
With Bakelite Covers, $\frac{2}{16}$ -Inch Porcelain Bases

Height over cover, $1\frac{1}{16}$ inches.
Height over No. 2777 handle, $2\frac{3}{16}$ inches.
Supporting screw spacing, $1\frac{3}{4}$ inches.

2036	\$98.00	Solid, Indicating	10	100	36
2048	98.00	Slotted, Indicating	10	100	36

20 Amperes, 125 Volts; 10 Amperes, 250 Volts
With Metal Covers, $\frac{3}{16}$ -Inch Porcelain Bases

These switches can be used very satisfactorily for inductive loads.

Height over cover, $1\frac{3}{16}$ inches.
Height over No. 2779 handle, $2\frac{3}{8}$ inches.
Supporting screw spacing, $2\frac{3}{16}$ inches.

2833	\$182.00	Solid, Indicating	2	10	6
2834	182.00	Slotted, Indicating	2	10	6

Rotary switches can be converted into lock switches by removing the handles and substituting No. 2384 Universal Rotary Switch Lock Attachment.

No. 3916 Bryant Quadruple Break Tumbler Switches

Single-Pole

20 Amps., 125 V.—10 Amps., 250 V.

Solid base, $2\frac{1}{16}$ inches. Height over cover, $1\frac{1}{16}$ inches. Screw spacing, $1\frac{3}{4}$ inches.
Carton, 2. Standard package, 10.
Weight per standard package, 5 pounds.
No. 3916 \$316
Per 100 \$165.00



No. 3883 Bryant Oil Burner Emergency Switches

Single Pole

10 Amperes, 125 Volts—5 Amperes, 250 Volts
Red cover, with black letters.
Size, $3\frac{1}{4}$ inches. Packed 10 in a carton, 50 in a standard package.
Weight per standard package, 17 lb.
No. 3883 per 100 \$52.00



Bryant Porcelain Sub-Bases

For devices whose bases are $2\frac{5}{16}$ inches in maximum diameter to $1\frac{1}{8}$ inches minimum diameter and having screw spacings from $\frac{3}{4}$ to $1\frac{3}{4}$ inches.
Carton, 10. Standard package, 100.



No. 2383 or 2222

Cat. No.	Per 100	Description	Wt., Lbs. Std. Pkg.
2381	\$12.00	For Surface Work	19
2383	12.00	For Molding Work	19

For devices whose bases are $2\frac{5}{16}$ inches in maximum diameter to $2\frac{1}{4}$ inches minimum diameter and having screw spacings from $\frac{3}{4}$ to $1\frac{3}{4}$ inches.
Carton, 10. Standard package, 100.



No. 2381 or 2357

2357	\$12.00	For Surface Work	33
2222	12.00	For Molding Work	33

Bryant Double-Pole Surface Switches



10 Amperes, 125 Volts; 5 Amperes, 250 Volts

**2-Inch Porcelain Base
Bakelite Covers**

Diameter of porcelain base, 2 inches.
Height over cover, 1¹¹/₁₆ inches.
Height over handle, 2¹/₁₆ inches.
Supporting screw spacing, 1³/₈ inches.

Cat. No.	Per 100	Style Base	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
2393	\$121.00	Solid, Indicating.....	10	100	37
2394	121.00	Slotted, Indicating.....	10	100	37

10 Amperes, 125 Volts; 10 Amperes, 250 Volts

**2⁷/₁₆-Inch Porcelain Base, No. 2778 Round Composition Handle
Bakelite Covers**

Diameter of porcelain base, 2⁷/₁₆ inches.
Height over cover, 1⁹/₁₆ inches.
Height over handle, 2¹/₄ inches.
Supporting screw spacing, 1³/₄ inches.

2038	\$140.00	Solid, Indicating.....	10	100	37
2050	140.00	Slotted, Indicating.....	10	100	37

20 Amperes, 125 Volts; 20 Amperes, 250 Volts

**3¹/₂-Inch Porcelain Base, No. 2779 Flat Composition Handle
Metal Covers**

Diameter of porcelain base, 3¹/₂ inches.
Height over cover, 1²³/₃₂ inches.
Height over handle, 2¹³/₃₂ inches.
Supporting screw spacing, 2³/₁₆ inches.

2040	\$273.00	Solid, Indicating.....	2	30	18
2052	273.00	Slotted, Indicating.....	2	30	18

30 Amperes, 125 Volts; 30 Amperes, 250 Volts

**3⁹/₁₆-Inch Porcelain Base; No. 2780 Flat Composition Handle
Metal Covers**

Diameter of porcelain base, 3⁹/₁₆ inches.
Height over cover, 1¹⁵/₁₆ inches.
Height over handle, 2³/₄ inches.
Supporting screw spacing, 2⁹/₁₆ and 2³/₄ inches.

The holes in these switches are elongated to provide also 2³/₄-inch spacing, making them suitable for attachment to 3¹/₄-inch outlet boxes, Type WD Octagonal Unilets, Type 700 Adaptiboxes, and Type SE Condulets.

2042	\$326.00	Solid, Indicating.....	2	30	31
2054	326.00	Slotted, Indicating.....	2	30	31

Double-Throw—20 Amperes, 125 Volts; 10 Amperes, 250 Volts

**2¹/₁₆-Inch Porcelain Base; No. 2779 Flat Composition Handle
Operating, Circuit 1, Off, Circuit 2, Off
Bakelite Covers**

Diameter of porcelain base, 2¹/₁₆ inches.
Height over cover, 1²⁹/₃₂ inches.
Height over handle, 2⁵/₈ inches.
Supporting screw spacing, 2¹/₂ inches.

2613	\$413.00	Solid, Indicating.....	2	10	5
2614	413.00	Slotted, Indicating.....	2	10	5

Rotary switches can be converted into lock switches by removing the handles and substituting No. 2384 Universal Rotary Switch Lock Attachment.

**Bryant 3 and 4-Point Surface Switches
With Black Bakelite Covers, Porcelain Bases,
and Round Composition Handles**



3-Way—3-Amp., 125 V.; 1 Amps., 250 V.

Diameter of base, 2 inches. Height over cover, 1¹¹/₁₆ inches. Height over handle, 1¹¹/₁₆ inches. Supporting screw spacing, 1³/₈ inches.

Cat. No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lbs.
2455	\$80.00	Solid.....	10	100	25
2456	80.00	Slotted.....	10	100	25

3-Way—10 Amps., 125 V.; 5 Amps., 250V.

Diameter of base, 2⁷/₁₆ inches.
Height over cover, 1⁹/₁₆ inches.
Height over handle, 2¹/₄ inches.
Supporting screw spacing, 1³/₄ inches.

2176	\$140.00	Solid.....	10	50	18
2030	\$140.00	Slotted.....	10	50	18

4-Way—5 Amps., 125 V.; 2 Amps., 250 V.

Four-point switches are used in connection with two 3-point switches where current is to be controlled from any one of more than two points. A 4-point switch is installed between the 3-point switches at each additional point.

Can also be used individually as pole-changing switches.

Diameter of base, 2⁷/₁₆ inches.
Height over cover, 1⁹/₁₆ inches.
Height over handle, 2¹/₄ inches.

2183	\$297.00	Solid.....	10	30	11
2033	297.00	Slotted.....	10	30	11

Rotary switches can be converted into lock switches by removing the handles and substituting No. 2384 Universal Rotary Switch Lock Attachment.

Bryant Triple-Pole Surface Switches

With Bakelite Cover

20 Amperes, 125 Volts; 10 Amperes, 250 Volts

2¹/₁₆" Porcelain Base; No. 2779 Wing Composition Handle



Diameter of base, 2¹/₁₆ inches.
Height over cover, 1²⁹/₃₂ inches.
Height over handle, 2⁵/₈ inches.
Supporting screw spacing, 2¹/₂ inches.
Standard finish on metal covers unless otherwise noted is polished nickel which will be supplied when the finish is not specified.

Carton, 2. Standard package, 10.
Weight package, 5 pounds.

No. 2046, Solid, Indicating.....	per 100	\$364.00
No. 2634, Slotted, Indicating.....	per 100	364.00

**Bryant Expulsion Type Electric Railway
Surface Switches**

**Single-Pole, Brown Porcelain Base, Cover, Handle
3 Amperes, 600 Volts**

Connections for one enclosed fuse No. 2316.

Has No. 2782 brown porcelain handle.

Solid, indicating base, size 3⁷/₈x3 inches.

Height over cover, 1²³/₃₂ inches; over handle, 2¹/₂ inches.

Screw spacings, 3¹/₈x5⁹/₁₆ in.

No.	Per 100	Car-ton	Std. Pkg.	Wt. Lbs.
2315	\$270.00	2	25	45

Ferrule Type Cartridge Fuse
For use with No. 2315.

Enclosed, indicating base.

Length, 3³/₁₆ inches.

Diameter, 9/₁₆ inch.

2316	\$28.00	10	100	4
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No. 2316



No. 4781 Bryant Triple-Pole Surface Rotary Switches

35 Amperes, 125 Volts
20 Amperes, 250 Volts
2 Hp., 3-Phase, 230 Volts
1 Hp., 3-Phase, 575 Volts

With black bakelite cover; flat top.

No.	Per 100	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
4781	\$454.00	2	10	14

Bryant Reversible Triple-Pole Expulsion Type Surface Switches

For Inductive Loads

35 Amperes, 125 Volts; 20 Amperes, 250 Volts
2 Hp., 3 Phase, 230 Volts
1 Hp., 3 Phase, 575 Volts

For controlling 3-phase a.c. motors up to and including 2 hp.

The switch mechanism has a composition base and handle which serves to indicate the position of the switch. Two covers are available: One is cast iron, lined, finished black, designed to be attached to conduit fittings made by The Crouse-Hinds Co., The Appleton Electric Co., The Columbia Metal



No. 781

Box Co., and the V. V. Fittings Co.; the other cover is stamped steel, finished black, with insulating lining.

The cast iron cover is dust-tight and ideal for use in flour and textile mills.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
780	\$408.00	Switch Only, No Cover	2	10	13
781	728.00	Switch with Black Cast Iron Cover, Indicating	2	10	40
782	454.00	Switch with Stamped Steel Cover, Indicating	2	10	16

Bryant Expulsion Type Switches

For Inductive Loads and Electric Railway Circuits



No. 2773

Designed with barriers between parts of opposite polarity which are effective in limiting the arc formed when the circuit is broken.

The window in the cover of the indicating switch, is located so that, when switch is mounted on a wall above eye level, the indications can be read right side up under the handle.

Slotted bases furnished on specifications.

Packed 2 in a carton, 50 in a standard package.

Single Pole

10 Amperes, 250 Volts—5 Amperes, 600 Volts

No.	Per 100	Description	Diam. In.	Screw Spacing In.	Wt., Lb. Std. Pkg.
*2049	\$138.00	Solid Base, Indicating	2 7/16	1 3/4	20
2060	\$306.00	Solid Base, Indicating	3 1/2	2 3/16	40
2303	\$358.00	Solid Base, Indicating	3 1/2	2 3/16	50

Double Pole

10 Amperes, 250 Volts—5 Amperes, 600 Volts

*2773	\$180.00	Solid Base, Indicating	2 7/16	1 3/4	25
2447	\$341.00	Solid Base, Indicating	3 1/2	2 3/16	41

3-Way

10 Amperes, 250 Volts—5 Amperes, 600 Volts

*2179	\$165.00	Solid Base	2 7/16	1 3/4	18
*2413	180.00	Solid Base, Indicating, for 2-Circuit Use	2 7/16	1 3/4	18
2397	\$305.00	Solid Base	3 1/2	2 3/16	40
2415	324.00	Solid Base, Indicating, for 2-Circuit Use	3 1/2	2 3/16	40

*Regularly furnished with bakelite cover.

Bryant Standard Heater Type and Standard Range Type Switches



3-Heat Switch

Surface heater switch, reversible rotation, with indicating handle.

Bakelite angle cover with raised polished indications.

Solid base.

Single-Pole

Series-Parallel, 3-Heat—Operating High, Medium, Low, Off

Cat. No.	Per 100	AMPERES 125 Volts	250 Volts	Base Diam. Inches	Mounting Screw Centers Inches	Car-ton	Std. Pkg.	Wt., Lb.
6259	\$198.00	10	5	2 3/16	1 7/16 to 1 1/2	2	10	4 1/4
6269	220.00	15	7 1/2	2 1/2	1 21/32 to 1 3/4	2	10	5 3/4
6279	242.00	20	10	2 13/16	1 21/32 to 1 3/4	2	10	7 3/4
6289	352.00	30	15	3 5/16	2 1/16 to 2 3/16	2	10	13

Double-Pole

Series Parallel, 3-Heat—Operating High, Medium, Low, Off

6258	\$220.00	10	5	2 3/16	1 7/16 to 1 1/2	2	10	4 1/4
6278	286.00	20	10	2 13/16	1 21/32 to 1 3/4	2	10	8
6288	396.00	30	15	3 5/16	2 1/16 to 2 3/16	2	10	13

Bryant Residential Push Button Switches

Porcelain—Shallow Cup

Listed by Underwriters' Laboratories, Inc.



No. 5501

Depth of cups, 1 1/4 inches.

No.	Per 100	Description	Amperes and Volts	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
5501	\$60.00	S.P., Plain	10-125; 5-250	10	100	34
5501-L	138.00	S.P., Lock Type	10-125; 5-250	10	100	34
5520	128.00	S.P., Quad. Break	20-125; 10-250	10	50	18
5502	129.00	Double Pole, Plain	10-125; 10-250	10	50	19
5502-L	211.00	D.P., Lock Type	10-125; 10-250	10	50	19
5505	145.00	D.P., Plain	20-125; 10-250	10	50	19
5503	85.00	3-Way, Plain	10-125; 5-250	10	50	19
5503-L	156.00	3-Way, Lock Type	10-125; 5-250	10	50	19
5504	364.00	4-Way, Plain	5-125; 2-250	2	10	3
5504-L	446.00	4-Way, Lock Type	5-125; 2-250	2	10	3

Bryant Lock Attachments and Keys

No. 2384 Rotary Switch Lock Attachments



No. 2384

By substituting this lock attachment for the handle on any Bryant Rotary Switch, except heater and reversible switches, lock switches are obtained. Polished nickel.

Packed 20 in a carton, 100 in a standard package. Weight standard package, 2 pounds.

No. 2384..... per 100 \$48.00



No. 6000

Keys for Lock Switches

One key furnished with each lock switch. Packed 2 in a carton, 10 in a standard package. Weight standard package, 2 ounces.

No. 6000, for No. 2384 rotary; 3951 Line, 4961 Line, 3971 Line, 5421 Line, 5431 Line and 1L Switches... per 100 \$18.00
No. 2299, for Push Lock..... per 100 18.00



No. 2299

Bryant Rotary Switch Handles



All switch handles, lock attachments, and switch center posts, except heater and reversible switches, are threaded 8x32 except No. 18150. The handles differ in external shape and size for purposes of leverage appropriate to the size of the switch.

In an emergency, any available handle can be attached to any switch. The list below shows in a general way what handles are suitable for various sizes of switches.

Cat. No.	Per 100	Description	Std. Pkg.
2777	\$15.00	Round Composition.....	100
2779	15.00	Flat, Composition.....	100
2780	15.00	Flat, Composition.....	100
2781	15.00	Round, White Porcelain.....	100
18150	24.00	For No. 780, 781, 782, with Screw & Spring.....	10

Bryant Heater Switch Handles



Porcelain Indicating Handles for No. 6200 Line of Reversible Switches

Cat. No.	Per 100	For Switch No.	Std. Pkg.
6201	\$30.00	6258, 6259, 6269.....	100
6202	30.00	6279, 6278.....	100
6203	30.00	6289, 6288.....	100

No. 2572 Bryant Pendent Push Switches Push-Through Buttons



Metal Casings—Single-Pole
6 Amps., 125 V.; 3 Amps., 250 V.
Listed by Underwriters' Laboratories, Inc.

Has .406 (13/32)-Inch cord hole.
Carton, 10. Standard package, 100. Weight per standard package, 16 pounds.

No. 2572.....per 100 \$70.00

No. 2842 Bryant Canopy Pull Switches

6 Amperes, 125 Volts; 3 Amperes, 250 Volts

Each switch is provided with two washers for mounting in outlet boxes.

Furnished with short chain and 4 feet of cord.

Stem, 1 3/32 inch long.

Has brown bakelite body, brass shell, and screw terminals.

Standard finish of exposed parts is brush brass which will be furnished when no finish is specified.

Carton, 10. Standard package, 100.

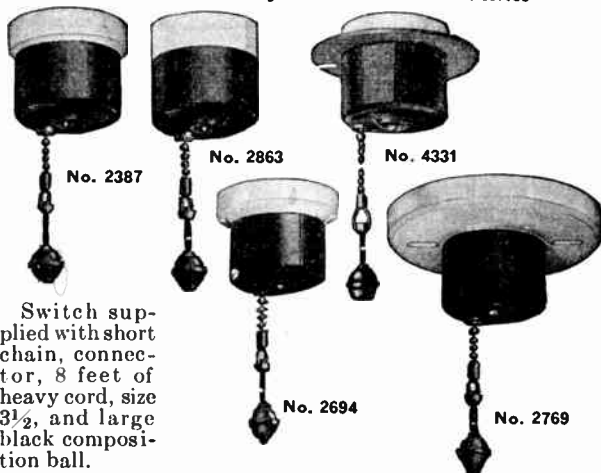
Weight per standard package, 16 lb.

No. 2842
Per 100..... \$98.00



Bryant Ceiling Type Pull Switches

Listed as Standard by Underwriters' Laboratories



Switch supplied with short chain, connector, 8 feet of heavy cord, size 3 1/2, and large black composition ball.

With Porcelain Base—Bakelite Cover Non-Indicating

Diameter of base, 2 5/16 inches. Height over cover, 2 5/16 inches. Supporting screw spacing, 1 3/4 inches.

No.	Per 100	Description	AMPERES		Car-ton	Std. Pkg.	Std. Pkg.
			125 Volts	250 Volts			
2387	\$190.00	Single-Pole, Solid....	10	5	10	30	16
2309	190.00	Single-Pole, Slotted..	10	5	10	30	16
2396	233.00	Double-Pole, Solid....	10	10	2	10	5 1/2
2314	233.00	Double-Pole, Slotted..	10	10	2	10	5 1/2
2388	233.00	3-Way, Solid.....	10	5	2	10	5 1/2
2310	233.00	3-Way, Slotted.....	10	5	2	10	5 1/2
2389	466.00	4-Way, Solid.....	5	2	2	10	5 1/2
2311	466.00	4-Way, Slotted.....	5	2	2	10	5 1/2

With Porcelain Base Flush with Bakelite Switch Cover 3-Speed Motor Control, Operating 1, 2, 3, Off

Bakelite cover is mounted flush to the surface of the porcelain base on which switch mechanism is mounted.

Diameter of base, 2 1/4 inches. Diameter of cover, 2 1/4 inches. Height over cover, 2 7/8 inches.

Supporting screw spacing, 1 5/8 inches.

2863	\$256.00	Solid.....	10	5	2	10	5
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With Bakelite Switch Cover Cadmium Finish Metal Box Covers Non-Indicating For 3/4-Inch Outlet Boxes

Diameter of cover, 3 1/2 inches. Height of cover, 1 1/2 inches. Screw spacing, 2 3/4 inches. Porcelain base, 2 1/4 inches in diameter, extends 5/16 inch below box cover.

4331	\$198.00	Single-Pole.....	10	5	10	30	18
4336	227.00	Single-Pole.....	20	10	2	10	7
4332	227.00	Double Pole.....	10	10	2	10	6
4333	256.00	3-Way.....	10	5	2	10	6
4334	478.00	4-Way.....	5	2	2	10	6

For 4-Inch Outlet Boxes

Diameter of cover, 4 3/8 inches. Height of cover, 1 1/2 inches. Screw spacing, 3 1/2 inches. Porcelain base, 2 1/4 inches in diameter, extends 5/16 inch below box cover.

4341	\$204.00	Single-Pole.....	10	5	10	30	23
4346	233.00	Single-Pole.....	20	10	2	10	8
4342	233.00	Double-Pole.....	10	10	2	10	8
4343	262.00	3-Way.....	10	5	2	10	6
4344	484.00	4-Way.....	5	2	2	10	8

With Porcelain Base—Bakelite Cover For Conduit Fittings

Fits No. 500 adaptiboxes, Nos. GN, HM, and W (Forms 5 and 10) octagonal unilets, size 10 round opening pipe taplets.

Base diameter, 2 7/8 in. Supporting screw spacing, 2 5/16 in.

2694	\$187.00	Single-Pole.....	10	5	10	20	12
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On Porcelain Box Cover—Bakelite Switch Cover For 3/4 and 4-Inch Outlet Boxes

Diameter of base, 4 5/8 inches. Supporting screw spacings, 2 3/4 and 3 1/2 inches.

2769	\$233.00	Single-Pole.....	10	5	2	10	13
2770	262.00	Double-Pole.....	10	10	2	10	13

Switches furnished with metal covers when specified.

Pendent Switches

6 Amperes, 125 Volts; 3 Amperes, 250 Volts

For kitchen lighting units which are placed out of reach. Takes any standard parallel or tandem blade attachment plug cap.



Cat. No.	Per 100	Car-ton	Std. Pkg.	Wt., Lbs. Std. Pkg.
H9081	\$72.00	10	50	9

Hubbell Ceiling Pull Switches

10 Amperes, 125 Volts; 5 Amperes, 250 Volts

With bakelite cover. Supplied with 8 feet of black cord.

Diameter of base, 2 1/2 inches. Mounting screws spaced 1 1/2 inches on centers.



No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7650-BC	\$190.00	S.P., Slotted Base	10	30	18
7651-BC	190.00	S.P., Solid Base..	10	30	18
*7652-BC	233.00	D.P., Slotted Base	10	10	6
*7655-BC	233.00	D.P., Solid Base.	10	10	6
7653-BC	233.00	3-Way, Slotted Base.	10	10	8
7654-BC	233.00	3-Way, Solid Base	10	10	8

No. 7651

*In 10 amperes, 250 volts, only.

No. 271 Hubbell Bakelite Cord Switches

6 Amperes, 125 Volts; 3 Amperes, 250 Volts



A single pole switch fitted with large head binding screws. Ample space is provided in wiring channels.

Carton, 10. Standard package, 50.

Weight per standard package, 6 pounds.

No. 271..... per 100 \$60.00

Hubbell Battery Toggle Switches and Plates

10 Amperes, 24 Volts

Screw spacings, 1 1/16 inches. Handle, 3/4 inch.

May be furnished with luminous tipped handle at a slight additional charge.



No. 8051



No. 8071

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt., Lb. Std. Pkg.
8051	\$98.00	Single Pole.....	25	100	9
8053	164.00	3-Way.....	25	100	13
8071	80.00	Single Plate.....	25	100	3

Hubbell Push Button Switches

One key is furnished with each lock type switch.



No. 4401

No.	Per 100	Description	AMPERES 125V. 250V.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
4401	\$60.00	S.P.....	10 5	10	100	32
4402	129.00	D.P.....	10 10	10	50	19
4403	85.00	3-Way...	10 5	10	50	18
4404	364.00	4-Way...	5 2	10	10	5

Lock Type

4401-L	\$138.00	S.P.....	10 5	10	100	32
4402-L	211.00	D.P.....	10 10	10	50	19
4403-L	156.00	3-Way...	10 5	10	50	18
4404-L	446.00	4-Way...	5 2	10	10	5
4405	18.00	Key.....	20	100	1	

Hubbell Specification Grade Flush Toggle Switches

With T Rating on 125 Volts for Type C Lamp Loads

Enclosed Bakelite Base With Bakelite Handle

This switch will fit 1 1/2-inch switch boxes. Brown handle is standard.

If desired grounded, suffix letter G to number.



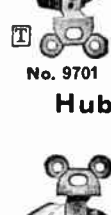
No. 9801



No. 9801-I



No. 9701



No. 8801



No. 8801-I



No. 8961



No. 8961

No.	Per 100	Description	AMPERES 125V. 250V.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9801	\$93.00	S.P., Ind...	10 5	10	50	12
9802	151.00	D.P., Ind...	10 10	10	10	3
9803	116.00	3-Way.....	10 5	10	20	6
9933	174.00	3-Way.....	20 10	10	10	3
9804	373.00	4-Way.....	5 2	10	10	3
9805	152.00	S.P., Ind...	20 10	10	20	8
9806	175.00	D.P., Ind...	20 10	10	10	3

With Ivorine Handle

No.	Per 100	Description	AMPERES 125V. 250V.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9801-I	\$97.00	S.P., Ind...	10 5	10	25	7
9802-I	155.00	D.P., Ind...	10 10	10	10	8
9803-I	120.00	3-Way....	10 5	10	10	7
9933-I	178.00	3-Way....	20 10	10	10	7
9804-I	377.00	4-Way....	5 2	10	10	6
9805-I	156.00	S.P., Ind...	20 10	10	10	7
9806-I	179.00	D.P., Ind...	20 10	10	10	8

Locking Type

One No. 8965 key furnished with each switch.

No.	Per 100	Description	AMPERES 125V. 250V.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
9701	\$176.00	S.P.....	10 5	10	50	12
9702	234.00	D.P.....	10 10	10	10	3
9703	199.00	3-Way....	10 5	10	20	4
9613	257.00	3-Way....	20 10	10	10	3
9704	455.00	4-Way....	5 2	10	10	3
9705	234.00	S.P.....	20 10	10	20	8
9706	257.00	D.P.....	20 10	10	10	3
8965	19.00	Key.....	..	..	100	2

Hubbell Standard Grade Flush Toggle Switches

Porcelain Base

With T Rating on 125 Volts for Type C Lamp Loads

With Bakelite Handle

Brown handle is standard.

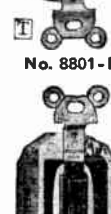
If desired grounded, suffix letter G to number.



No. 8801



No. 8801-I



No. 8961



No. 8961

No.	Per 100	Description	AMPERES 125 V. 250 V.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
8801	\$48.00	S.P., Ind...	10 5	10	100	34
8941	98.00	S.P., Ind...	20 20	10	50	19
8942	140.00	D.P., Ind...	.. 20	10	20	13
8802	98.00	D.P., Ind...	10 10	10	50	19
8803	68.00	3-Way....	10 5	10	50	19
8804	326.00	4-Way....	5 2	10	10	5

With Ivorine Handle

No.	Per 100	Description	AMPERES 125 V. 250 V.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
8801-I	\$52.00	S.P., Ind...	10 5	10	50	19
8941-I	102.00	S.P., Ind...	20 20	10	10	6
8942-I	144.00	D.P., Ind...	.. 20	10	10	7
8802-I	102.00	D.P., Ind...	10 10	10	25	10
8803-I	72.00	3-Way...	10 5	10	25	10
8804-I	330.00	4-Way...	5 2	10	10	8

Locking Type

For use with standard rectangular opening switch plates. One key furnished with each switch.

Brush brass standard finish on keyway. Regularly supplied grounded.

No.	Per 100	Description	AMPERES 125 V. 250 V.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
8961	\$121.00	S.P.....	10 5	10	100	34
8962	180.00	D.P.....	10 10	10	50	19
8963	145.00	3-Way....	10 5	10	50	18
8964	409.00	4-Way....	5 2	10	10	4
8965	19.00	Key.....	..	..	100	2

Hubbell Sphinx Mercury Flush Toggle Switches

5 Amperes, 250 Volts; 5 Amperes, 126 Volts—T Rating on 125 Volts Only, A.C. or D.C.

Bakelite Base



No. 9711

This switch cannot be mounted horizontally; must be mounted vertically. "Top" on one support indicates correct mounting position.

The 3 and 4-way types cannot be used with Master Control or Emergency Systems of wiring where all lights are turned on by a master switch.

With Bakelite Handle

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9711	\$96.00	S.P., Ind.	10	100	21
9712	152.00	D.P., Ind.	10	50	14
9713	150.00	3-Way	10	50	14
9714	374.00	4-Way	2	10	3

With Ivorine Handle

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
9711-I	\$106.00	S.P., Ind.	10	50	11
9712-I	162.00	D.P., Ind.	10	30	9
9713-I	160.00	3-Way	10	30	9
9714-I	385.00	4-Way	2	10	3

Hubbell Heavy Duty Flush Toggle Switches

With T Rating on 125 Volts for Type C Lamp Loads

Bakelite Base



No. 2971



No. 2971-L

Length, 2³/₄ inches. Width, 1¹/₁₆ inches. Depth, 1¹/₃₂ inches. One key furnished with each locking switch.

Bakelite Handle		Lock Type		Description	AMPERES 125 250 V.T. V.	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
No.	Per 100	No.	Per 100					
2971	\$152.00	2971-L	\$234.00	Single Pole	20 20	10	30	20
2972	199.00	2972-L	281.00	Double Pole	20 20	2	10	6
2973	175.00	2973-L	257.00	3-Way	20 20	2	10	6
2974	524.00	2974-L	607.00	4-Way	20 10	2	10	4
2923	187.00	2923-L	269.00	Single Pole	30 30	10	30	20
2924	268.00	2924-L	351.00	Double Pole	30 30	2	10	6
2925	233.00	2925-L	316.00	3-Way	30 30	2	10	6
2926	699.00	2926-L	782.00	4-Way	20 10	2	10	4
		2308	17.60	Key		10	100	2

Hubbell Acorn Switches

Acorn switches are designed to meet competition and are priced accordingly. Not to be confused with the regular line of Hubbell switches listed elsewhere.

Flush Toggle Switches

With Bakelite Handles—10 Amperes, 125 Volts; 5 Amperes 250 Volts



No. 9891



No. 9893

Porcelain base and wide plaster ears.

No.	Description	Car-ton	Std. Pkg.	Wt. Lb.
9891	\$30.00 Single Pole, Ind., Brown	10	100	26
9891-I	34.00 Single Pole, Ind., Ivorine	10	50	14
9893	38.00 3-Way, Brown	10	50	15
9893-I	42.00 3-Way, Ivorine	10	25	8

Surface Toggle Switches

With Bakelite Covers

6 Amperes, 125 Volts; 3 Amperes, 250 Volts

Diameter of base, 2 inches. Screw spacings on centers, 1¹/₁₆ inches.



No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
4442	\$36.00	Single Pole, Slotted Base	10	50	10
4443	36.00	Single Pole, Solid Base	10	50	10
4444	46.00	3-Way, Slotted Base	10	50	10
4445	46.00	3-Way, Solid Base	10	50	10

With Bakelite Covers—For Outlet Boxes

Single Pole: 6 Amperes, 125 Volts; 3 Amperes, 250 Volts

3-Way: 5 Amperes, 125 Volts; 2 Amperes, 250 Volts



No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
4431	\$52.00	Single Pole, For 3 ¹ / ₄ -Inch Box	10	50	26
4433	60.00	3-Way, For 3 ¹ / ₄ -Inch Box	10	50	26
4451	58.00	Single Pole, For 4-Inch Box	10	50	34
4453	66.00	3-Way, For 4-Inch Box	10	50	30

Hubbell Bakelite Flush Toggle Switches

Residential Type

10 Amperes, 125 Volts; 5 Amperes, 250 Volts

For 3¹/₄ and 4-Inch Outlet Boxes



No. 7441



No. 9668

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
7441	\$42.00	S.P., 3 ¹ / ₄ -Inch Cover	10	50	21
7443	52.00	3-Way, 3 ¹ / ₄ -Inch Cover	10	50	21
7451	47.00	S.P., 4-Inch Cover	10	50	25
7453	57.00	3-Way, 4-Inch Cover	10	50	25
7444	52.00	S.P. Oil Burner Switch on 3 ¹ / ₄ -Inch Red Cover	10	50	18
7445	42.00	S.P. Oil Burner Switch on 4-Inch Red Cover	10	50	25

Hubbell Outdoor Weatherproof Flush Switches



No. 7981



No. 7991

Mechanism is protected from moisture, weather, or atmospheric conditions. Switch is operated with a lever pointing to On and Off indications stamped on the plate.

A cadmium finish brass plate fits over a rubber mat to make it watertight. Number includes plate and rubber mat.

No.	Per 100	Description	AMPERES		Car-ton	Std. Pkg.	Wt. Lb.
			125V.T.	250V.			
7981	\$197.00	Single Pole.....	10	5	2	10	7
7982	250.00	Double Pole.....	10	10	2	10	7
7983	220.00	3-Way.....	10	5	2	10	7
7984	479.00	4-Way.....	5	2	2	5	4

For FS Type Fittings

Same as the switches above, except furnished with cadmium finished steel plate with rounded edges, for FS Type fittings.

No.	Per 100	Description	AMPERES		Car-ton	Std. Pkg.	Wt. Lb.
			125V.T.	250V.			
7991	\$221.00	Single Pole.....	10	5	2	10	7
7992	274.00	Double Pole.....	10	10	2	10	7
7993	244.00	3-Way.....	10	5	2	10	7
7994	503.00	4-Way.....	5	2	2	5	4

Hubbell Door Switches

6 Amperes, 125 Volts; 3 Amperes, 250 Volts

Length of box, 3³/₈ inches; width, 1¹/₄ inches; depth, 2⁵/₈ inches. Has one ⁵/₈-inch knockout in bottom, one ⁵/₈-inch knockout in one end, and one ¹/₂-inch knockout in other end.



No. 2355

Self-Restoring—with Box—Single Pole

Packed 1 in a carton.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
2356	410.00	*Switch Off.....	10	12	

*When door is open.

Small Door—Porcelain Lined Steel Box



No. 2022



No. 2035

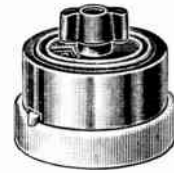
Plate size, 3³/₄x1¹/₄ inches. Hole required: width, 1¹/₁₆ inches; length, 2³/₈ inches; and depth, 1¹/₂ inches.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
2023	370.00	Switch Off When Door is Closed	2	10	6
2035	68.00	Steel Box for Nos. 2022 & 2023..	5	25	16

Hubbell Surface Snap Switches With Polished Nickel Covers



No. 9512



No. 9527

Single Pole

Pony Size—5 Amperes, 125 Volts; 3 Amperes, 250 Volts

Diameter of base, 2 inches. Screws spaced 1¹³/₃₂ inches.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
9511	70.00	Slotted, Ind.....	10	100	23
9512	60.00	Solid.....	10	100	23
9513	70.00	Solid, Ind.....	10	100	23

10 Amperes, 125 Volts; 5 Amperes, 250 Volts

Diameter of base, 2¹³/₃₂ inches. Screws spaced 1³/₄ inches.

9515	\$98.00	Slotted, Ind.....	10	100	42
9517	98.00	Solid, Ind.....	10	100	42

Three-Way

3 Amperes, 125 Volts; 1 Ampere, 250 Volts

Diameter of base, 2¹/₈ inches. Screws spaced 1¹/₁₆ inches.

9330	\$80.00	Slotted, Ind.....	10	100	25
9331	80.00	Solid.....	10	100	25

Double Pole

5 Amperes, 250 Volts

Diameter of base, 2¹/₈ inches. Screws spaced 1¹/₁₆ inches.

9521	\$121.00	Slotted, Ind.....	10	100	35
9523	121.00	Solid, Ind.....	10	100	35

10 Amperes, 250 Volts

Diameter of base, 2¹³/₃₂ inches. Screws spaced 1³/₄ inches.

9525	\$140.00	Slotted, Ind.....	10	100	42
9527	140.00	Solid, Ind.....	10	100	42

Four-Way

5 Amperes, 125 Volts; 2 Amperes, 250 Volts

Diameter of base, 2¹/₂ inches. Screws spaced 1³/₄ inches.

9540	\$297.00	Slotted.....	10	30	12
9541	297.00	Solid.....	10	30	12

Hubbell Toggle Appliance Switches

Single Pole



Nos. 8745 and 8659



Nos. 8650 and 8657

Diameter of neck, ¹/₂ inch. Diameter of switch base, 1¹/₄ inches.

Standard finishes are brush brass or polished nickel.

6 Amperes, 125 Volts; 3 Amperes, 250 Volts

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
*8656	82.00	With 1 ¹ / ₂ -Inch Neck.....	10	50	4
8745	73.00	With 1 ⁷ / ₆₄ -Inch Neck, Ind.....	10	50	4
*8746	90.00	With 1 ¹ / ₂ -Inch Neck, Ind.....	10	50	5

10 Amperes, 250 Volts; 15 Amperes, 125 Volts

Depth, 1¹/₁₆ inch.

8657	\$85.00	With 1 ⁷ / ₆₄ -Inch Neck.....	10	50	4
8658	95.00	With 1 ¹ / ₂ -Inch Neck.....	10	50	4
8659	90.00	With 1 ⁷ / ₆₄ -Inch Neck, Ind.....	10	50	4
8660	115.00	With 1 ¹ / ₂ -Inch Neck, Ind.....	10	50	5

*Can be supplied with luminous tip on handle at an addition of \$40.00 per 100 units.

Hubbell Surface Toggle Switches



With Black Bakelite Covers

Carton, 10.
Standard package, 100.

No.	Per 100	Description	Amperes	Diam. Base	Hole Spacing	Screw In.	Pkg. Wt. Lb.
9061	\$55.00	S.P., Solid.....	6	3 2	1 1/16	23	23
9063	79.00	3-Way Solid.....	5	2 2 1/8	1 1/16	27	27
9072	55.00	S.P., Slotted.....	6	3 2	1 1/16	22	22
9074	79.00	3-Way, Slotted.....	5	2 2 1/8	1 1/16	24	24

With Black Bakelite Covers—For Outlet Boxes

Outlet box covers are cadmium finished.
Carton, 5. Standard package, 50.

No.	Per 100	Description	Amperes	Diam. Base	Hole Spacing	Screw In.	Pkg. Wt. Lb.
9068	\$76.00	S.P., 3 1/4-Inch Boxes....	6	3 3 1/16	2 3/4	25	25
9069	82.00	S.P., 4-Inch Boxes.....	6	3 4 1/16	3 1/2	30	30
9070	87.00	3-Way, 3 1/4-Inch Boxes..	5	2 3 1/16	2 3/4	25	25
9071	91.00	3-Way, 4-Inch Boxes....	5	2 4 1/16	3 1/2	30	30

Hubbell Toggle Switches With Metal Handles



Black porcelain base. Screw holes are elongated.
Brush brass and nickel plate are standard finishes.

With 2 1/4-Inch O.D. Base

Screw spacings, 1 1/2 to 1 3/8 inches.

No.	Per 100	Description	Amperes	Car-ton	Std. Pkg.	Wt. Lb.
8171	\$80.00	S.P., Solid.....	5	3 10	100	37
8191	80.00	S.P., Slotted.....	5	3 10	100	37
8421	100.00	S.P., Solid.....	10	5 10	100	37
8431	100.00	S.P., Slotted.....	10	5 10	100	37
8173	120.00	3-Way, Solid.....	5	3 10	100	37
8193	120.00	3-Way, Slotted.....	5	3 10	100	37

With 2 5/8-Inch O.D. Base

Screw spacings, 1 3/8 to 1 5/8 inches.

No.	Per 100	Description	Amperes	Car-ton	Std. Pkg.	Wt. Lb.
8112	\$200.00	D.P., Solid.....	10	10 100	57	57
8162	200.00	D.P., Slotted.....	10	10 100	58	58
8153	240.00	3-Way, Solid.....	10	5 10	50	20
8233	240.00	3-Way, Slotted.....	10	5 10	50	28

SWITCHES WITH T RATING

Switches having the letter T as part of the rating are capable of controlling tungsten filament gas filled lamp loads corresponding to the 125-volt ampere rating of switches. For 5-ampere this means 625 watts, for 10-ampere, 1250 watts, for 20-ampere, 2500 watts and for 30-ampere, 3750 watts.

H & H Flush Tumbler Switches

1-Inch Porcelain Base

With Composition Handles
T Rating 125 Volts Only



No. 8601

No.	Per 100	Description	Amperes	Car-ton	Std. Pkg.	Wt. Lb.
8601	\$48.00	Single Pole.....	10T	5 10	100	23
8914	98.00	Single Pole.....	20T	10 10	50	20
8602	98.00	Double Pole.....	10T	10 10	50	20
8931	140.00	Double Pole.....	20T	20 2	10	4
8603	68.00	Three-Way.....	10T	5 10	50	20
8913	128.00	Three-Way.....	20	10 2	10	4
8604	326.00	Four-Way.....	5T	2 2	10	4
8625	159.00	2-Circuit Electroliner..	10T	5 2	10	4
8324	159.00	3-Circuit Electroliner..	10T	5 2	10	4
8660	248.00	Double Pole, D.T....	10	5 10	50	20

H & H Flush Tumbler Switches

1-Inch Porcelain Base

With Ivorylite Handles
T Rating 125 Volts Only



No. 8601-I

Ivorylite is a white, cream tinted material. The color is solid, moulded throughout. It is not a finish and will not chip, flake or wear off. Attractive in appearance, permanent and serviceable.

No.	Per 100	Description	Amperes	Car-ton	Std. Pkg.	Wt. Lb.
8601-I	\$52.00	Single Pole.....	10T	5 10	50	16
8914-I	108.00	Single Pole.....	20T	10 2	10	4
8602-I	102.00	Double Pole.....	10T	10 10	25	10
8931-I	144.00	Double Pole.....	20T	20 2	10	4
8603-I	72.00	Three-Way.....	10T	5 10	25	10
8913-I	138.00	Three-Way.....	20	10 2	10	4
8604-I	330.00	Four-Way.....	5T	2 2	10	4

H & H Flush Tumbler Switches

1-Inch Composition Base

With Composition Handles
T Rating 125 Volts Only



No. 1611

No.	Per 100	Description	Amperes	Car-ton	Std. Pkg.	Wt. Lb.
1611	\$93.00	Single Pole.....	10T	5 10	50	16
3933	151.00	Single Pole.....	20T	20 10	20	8
1612	151.00	Double Pole.....	10T	10 2	10	4
3939	174.00	Double Pole.....	20T	20 2	10	4
1613	116.00	Three-Way.....	10T	5 10	20	8
8916	174.00	Three-Way.....	20	10 2	10	4
1614	373.00	Four-Way.....	5T	2 2	10	4

H & H Flush Tumbler Switches

Residential Type

With Composition Handles
10 Amperes, 125 Volts
5 Amperes, 250 Volts



No. 1881

Completely enclosed mechanism in small bakelite base, 1 inch deep, 1 1/2 inches long, 3/8 inch wide, allowing generous wiring room in any switch box. Large binding screws accommodate heavy wire.

Fits standard tumbler plates.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
1881	\$34.00	Single Pole, Bakelite....	10	100	15
1881-I	38.00	Single Pole, Ivorylite....	10	100	15
1883	44.00	Three-Way, Bakelite....	10	50	8
1883-I	48.00	Three-Way, Ivorylite....	10	50	8

H & H Type C Tumbler Switches For Type C Tungsten Lamps

T Rating 125 Volts Only
10 Amperes, 1½-Inch Bakelite Base
With Composition Handles



No. 1531



No. 1532

No.	Per 100	Description	AMPERES	125 V.	250 V.	Car-ton	Std. Pkg.	Pkg. Lb.	Wt. Lb.
1531	\$93.00	Single Pole.....	10T	5	10	50	16		
1532	151.00	Double Pole.....	10T	10	2	10	4		
1533	116.00	Three-Way.....	10T	5	10	20	8		
1534	373.00	Four-Way.....	5T	2	2	10	4		

10 Amperes, 1½-Inch Bakelite Base With Ivorylite Handles



No. 1531-I



No. 1532-I

No.	Per 100	Description	10T	5	10	25	10
1531-I	\$97.00	Single Pole.....	10T	5	10	25	10
1532-I	155.00	Double Pole.....	10T	10	2	10	4
1533-I	120.00	Three-Way.....	10T	5	2	10	4
1534-I	377.00	Four-Way.....	5T	2	2	10	4

1½-Inch Bakelite Base, 20 Amperes

No.	Per 100	Description	20T	20	10	30	12
1541	\$152.00	Single Pole.....	20T	20	10	30	12
1542	175.00	Double Pole.....	20T	10	2	10	4
1543	175.00	Three-Way.....	20T	20	2	10	4
1544	374.00	Four-Way.....	5T	2	2	10	4
1545	175.00	S.P. Quad. Break....	20T	20	2	10	4



No. 1542-I

20 Amperes, 1½-Inch Bakelite Base

With Ivorylite Handles

No.	Per 100	Description	20T	20	10	30	12
1541-I	\$163.00	Single Pole.....	20T	20	10	30	12
1542-I	186.00	Double Pole.....	20T	10	2	10	4
1543-I	186.00	Three-Way.....	20T	20	2	10	4
1544-I	385.00	Four-Way.....	5T	2	2	10	4
1545-I	186.00	S.P. Quad. Break....	20T	20	2	10	4

2-Inch Bakelite Base, 20 Amperes

No.	Per 100	Description	20T	20	10	30	12
4281	\$138.00	Single Pole.....	20T	20	10	30	12
4282	180.50	Double Pole.....	20T	20	2	10	4
4283	159.00	Three-Way.....	20T	20	2	10	4
4286	477.00	Four-Way.....	20T	10	2	10	4
4284	159.00	S.P. Quad. Break....	20T	20	2	10	4



No. 4272

30 Amperes, 2-Inch Bakelite Base

With Composition Handles

No.	Per 100	Description	30T	30	10	30	13
4271	\$187.00	Single Pole.....	30T	30	10	30	13
4272	268.00	Double Pole.....	30T	30	2	10	4
4273	233.00	Three-Way.....	30T	30	2	10	4
4274	699.00	Four-Way.....	20T	10	2	10	4
4275	233.00	S.P. Quad. Break....	30T	30	2	10	4

These switches take standard tumbler plates, brass or bakelite.

H & H Flush Tumbler Switches

Timesaver Switches Bakelite Base

T Rating 125 Volts Only

Designed for Type C lamp loads. Fit standard boxes and take standard plates.

Base is 7/8 inch deep, 1/2 inch wide and 1 1/4 inches long.

Can be supplied on order, mounted on 3/4 or 4-inch outlet box cover, at slight additional charge.



No. TL-1



No. TL-1-I

Brown

No.	Per 100	Description	AMPERES AT 125 V.	250 V.	Car-ton	Std. Pkg.	Wt. Lb.
TL-1	\$48.00	Single-Pole.....	10T	5	10	100	18
TL-2	98.00	Double-Pole.....	10T	10	10	50	10
TL-3	68.00	Three-Way.....	10T	5	10	50	9
TL-4	200.00	Four-Way.....	5T	2	2	10	2

Ivorylite

No.	Per 100	Description	10T	5	10	50	9
TL-1-I	\$52.00	Single Pole.....	10T	5	10	50	9
TL-2-I	102.00	Double-Pole.....	10T	10	2	10	2
TL-3-I	72.00	Three-Way.....	10T	5	10	30	5
TL-4-I	204.00	Four-Way.....	5T	2	2	10	2

Lock Style Single Switches

No. 79C8

T Rating 125 Volts Only

Keyhole is flush with the plate. Attractive appearance which harmonizes with the lever style.

Fits standard tumbler plates.



No. TL-1 Lock



No. TL-1-I Lock

Brown

No.	Per 100	Description	AMPERES AT 125 V.	250 V.	Car-ton	Std. Pkg.	Wt. Lb.
TL-1-Lock	\$121.00	Single Pole....	10T	5	10	100	18
TL-2-Lock	181.00	Double Pole....	10T	10	10	50	10
TL-3-Lock	146.00	Three-Way.....	10T	5	10	50	9
TL-4-Lock	281.00	Four-Way.....	5T	2	2	10	2

Ivorylite

No.	Per 100	Description	10T	5	10	50	9
TL-1-I Lock	\$128.00	Single Pole....	10T	5	10	50	9
TL-2-I Lock	188.00	Double Pole..	10T	10	2	10	2
TL-3-I Lock	153.00	Three-Way....	10T	5	10	30	5
TL-4-I Lock	288.00	Four-Way....	5T	2	2	10	2
7908	17.00	Key.....				1	1 1 oz.

H & H Sphinx Flush Tumbler Switches

Silent, Mercury Break

5 Amperes, 250 Volts, A.C. or D.C.
5 Amperes, 125 Volts, T, A.C. or D.C.
T Rating 125 Volts Only
(All Switches Carry This Rating)

This switch fits standard switch boxes and must be installed vertically. Top stamped on mounting ears shows the correct position.



No. 821



No. 822

With Brown Handles

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
821	\$96.00	Single Pole.....	10	100	21
822	152.00	Double Pole.....	10	50	14
823	150.00	Three-Way.....	10	50	14
824	374.00	Four-Way.....	2	10	4

With Ivorylite Handles

No.	Per 100	Description	10	50	11
821-I	\$106.00	Single Pole.....	10	50	11
822-I	162.80	Double Pole.....	10	30	9
823-I	160.00	Three-Way.....	10	30	9
824-I	385.00	Four-Way.....	2	10	4



H & H Weatherproof Switches
For Outlet Boxes or Wall Cases
T Rating 125 Volts Only

For installations exposed to weather, dampness and special atmospheric conditions as on porches, garages, patios, industrial plants and other exposed locations.

Switch is operated with a lever pointing to On and Off positions.

Each switch includes a brass plate, cadmium finished, and a weatherproof mat.

No. 7981

No.	Per 100	Description	AMPERES			Car-ton	Std. Pkg.	Pkg. Wt. Lb.
			125 V.	250 V.				
7981	\$197.00	Single Pole.....	10T	5	2	10	7	
7865	256.00	Single Pole.....	20T	10	2	10	7	
7982	250.00	Double Pole....	10T	10	2	10	7	
7866	292.00	Double Pole....	20T	20	2	10	7	
7983	220.00	Three-Way.....	10T	5	2	10	7	
7867	285.00	Three-Way.....	20	10	2	10	7	
7984	479.00	Four-Way.....	5T	2	2	5	4	

H & H Door Switches

6 Amperes, 125 Volts; 3 Amperes, 250 Volts



Nos. 6550 and 2022 are made so that light is on when door is open; No. 2023 so light is on when door is closed.

No. 6550 is rectangular in shape, mounted in a porcelain base, and fits all standard door switch boxes.

Nos. 2022 and 2023 are mounted in a steel box, porcelain lined.



No. 2022

No.	Per 100	Plate Dim. Inches	HOLE REQUIRED, IN.			Car-ton	Std. Pkg.	Pkg. Wt. Lb.
			Width	Length	Depth			
6550	\$370.00	4 5/8 x 1 1/4	1 1/16	3 3/8	1 5/8	5	25	15
2022	370.00	3 3/4 x 1 1/4	1 1/16	2 3/8	1 1/2	5	25	14
2023	370.00	3 3/4 x 1 1/4	1 1/16	2 3/8	1 1/2	2	10	6

H & H Surface Tumbler Switches

With Bakelite Cover

Single Pole, 6 Amperes, 125 Volts; 3 Amperes, 250 Volts
Three-Way, 5 Amperes, 125 Volts; 2 Amperes, 250 Volts



No. 611-BC

Base diameter of single pole, 2 inches; three-way, 2 1/8 inches.

Screw hole spacing, 1 1/16 inches.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
613-BC	79.00	Three-Way, Slotted.....	10	100	24
6089-BC	274.00	*Single Pole, Slotted.....	10	30	13
6090-BC	248.50	*Single Pole, Closed.....	10	30	13
8490-BC	274.00	Double Pole, Slotted.....	10	30	13
8485-BC	248.50	Double Pole, Closed.....	10	30	13

*Quadruple break.

H&H Surface Tumbler Switches

With Bakelite Cover

Single Pole, 3-Way, 4-Way, 10 Amperes, 125 Volts; 5 Amperes, 250 Volts
Double Pole, 10 Amperes, 250 Volts



No. 8472-BC

Base diameter, 2 1/32 inches. Screw hole spacing, 1 3/4 inches.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
8476-BC	140.00	Three-Way, Slotted.....	10	50	22
8474-BC	140.00	Double Pole, Slotted.....	10	100	44
8478-BC	345.00	Four-Way, Slotted.....	2	10	5

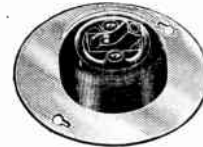
H & H Surface Tumbler Switches

Pony Type

For Outlet Boxes

With Bakelite Switch Cover

Single Pole, 6 Amperes, 125 Volts; 3 Amperes, 250 Volts
Three-Way, 5 Amperes, 125 Volts; 2 Amperes, 250 Volts



No. 6065-BC

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
6065-BC	82.00	Single Pole, 4-In. Cover.....	5	50	29
6068-BC	87.00	Three-Way, 3 1/4-In. Cover.....	5	50	23
6069-BC	91.00	Three-Way, 4-In. Cover.....	5	50	30

H & H Surface Tumbler Switches

For Outlet Boxes

With Cadmium Finish Outlet Box Cover

10 Amperes, 125 Volts; 5 Amperes, 250 Volts



No. 4411

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
4412	47.00	Single Pole, 4-In. Cover.....	10	50	25
4413	52.00	Three-Way, 3 1/4-In. Cover.....	10	50	19
4414	57.00	Three-Way, 4-In. Cover.....	10	50	26

H & H Surface Snap Switches

Nickel Finish, Metal Cover

Pony Size

5 Amperes, 125 Volts; 3 Amperes, 250 Volts



Single Pole, Indicating Cover

No.	Per 100	Description	AMPERES	Base 125V. 250V.	Screw Diam. In.	Spacing In.	Car-ton	Std. Pkg.	Wt. Lb.
220	66.00	Closed.....	5	3	2 1/8	1 1/16	10	100	26
321	98.00	Slotted.....	10	5	2 15/32	1 3/4	10	100	39
221	98.00	Closed.....	10	5	2 15/32	1 3/4	10	100	39
2986	138.00	*Slotted.....	10	2 15/32	1 3/4	10	100	42	
2985	138.00	*Closed.....	10	2 15/32	1 3/4	10	100	42	
331	182.00	Slotted.....	20	3 1/16	2 5/32	2	10	7	
643	274.00	Slotted.....	30	3 3/8	2 5/16	2	10	11	

Double Pole

2086	\$102.00	Slotted, Non-Ind.....	5	2 1/8	1 1/16	10	100	28
2088	121.00	Slotted, Ind.....	5	2 1/8	1 1/16	10	100	30
2085	102.00	Closed, Non-Ind.....	5	2 1/8	1 1/16	10	100	28
2087	121.00	Closed, Ind.....	5	2 1/8	1 1/16	10	100	30
322	140.00	Slotted, Ind.....	10	2 15/32	1 3/4	10	100	43
222	140.00	Closed, Ind.....	10	2 15/32	1 3/4	10	100	43
532	273.00	Slotted, Ind.....	20	3 1/16	2 5/32	2	30	26
647	326.00	Slotted, Ind.....	30	3 3/8	2 5/16	2	30	33

Three-Way

2090	\$94.00	Slotted.....	5	3	2 1/8	1 1/16	10	100	30
123	140.00	Slotted.....	10	5	2 15/32	1 1/16	10	50	21
133	273.00	Slotted.....	20	3 1/16	2 5/32	2	10	8	

*Quadruple break.

H & H Canopy Switches Bakelite—Pull

6 Amperes, 125 Volts; 3 Amperes, 250 Volts



Current carrying parts are enclosed in a bakelite compartment, separated and insulated from all other metal parts.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7743	\$86.00	7-Inch Chain, 1/4-Inch Stem...	10	100	12
7745	86.00	Short Chain, 6' Cord, 1/4" Stem.	10	100	13
7746	86.00	Short Chain, 6' Cord, 3/8" Stem.	10	100	13
7716	86.00	Short Chain, 6' Cord, 5/8" Stem.	10	100	13

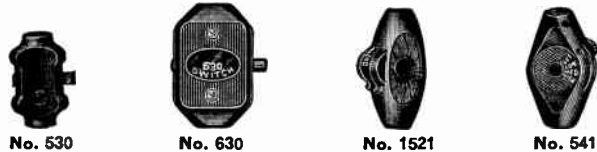
Rotary—With Removable Metal Handles 3 Amperes, 125 Volts; 1 Ampere, 250 Volts



Has 6 inches of No. 18 stranded fixture wire. Wires up to and including 8 inches supplied without extra charge. Switches with longer wires supplied on special order at an advance in price. Standard finish on exposed metal is brass, but wash nickel, bronze or black supplied without extra charge when specified.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
7775	\$22.00	3/16-Inch Stem.....	25	100	4
7776	22.00	3/16-Inch Stem.....	25	100	4
7777	22.00	1/16-Inch Stem.....	25	100	4

H & H Feed Through Cord Switches Pony Size



Single Pole

No.	Per 100	Description	AMPERES		Car-ton	Std. Pkg.	Wt. Lb.
			125 V.	250 V.			
530	\$41.50	3/32" (.281") Brown Bakelite..	3	1	10	50	3
530-I	51.50	3/32" (.281") Ivorylite.....	3	1	10	50	3
630	32.00	1 1/32" (.406") Composition...	6	3	10	50	9
1521	46.00	3/32" (.281") Black Bakelite..	6	3	10	50	4

Three Heat

541	\$80.00	5/16" (.312") Black Bakelite..	3	1	10	50	6
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H & H Feed Through Cord Switches Black Bakelite

No. 6837 Double Pole, 10 Amperes, 250 Volts
No. 730 Single Pole, 10 Amperes, 125 Volts;
5 Amperes, 250 Volts



No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
6837	\$128.00	1 1/32-Inch (.406-Inch).....	10	50	8
730	42.50	1 1/32-Inch (.406-Inch).....	10	50	5

No. 1554 H & H Porcelain Sub-Bases

For neat, concealed and molding work. For 5 and 10-ampere switches. Screw hole spacing, 1 1/32 inches to 1 1/2 inches.

Standard package, 100; carton, 10.

Weight per standard package, 26 pounds.

No. 1554.....per 100 \$12.00



H & H Brass Shell Pendant Switches

6 Amperes, 125 Volts; 3 Amperes, 250 Volts



No. 2532



No. 2532-CG

Nos. 2531 and 3672 have pendant cap and 1 1/32-inch composition bushed cord hole; cord hole size, .406-inch.

No. 2532-CG has cord-grip cap; cord hole size, 1/4 to 3/8-inch (.250 to .375-inch). Standard finish, brush brass.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
2532	\$95.00	Bottom Buttons.....	10	100	26
2532-CG	117.00	Bottom Buttons.....	10	50	14

H & H Ceiling Pull Switches

Bakelite Cover

Base diameter, 2 1/2 inches; screw hole spacing, 1 1/2 inches.

No. 3741-BC

No.	Per 100	Description	AMPERES		Car-ton	Std. Pkg.	Wt. Lb.
			125 Volts	250 Volts			
3742-BC	\$190.00	Single Pole, Slotted.	10	5	10	30	18
3741-BC	170.00	Single Pole, Closed.	10	5	10	30	18
3744-BC	233.00	Double Pole, Slotted	..	10	2	10	7
3743-BC	196.50	Double Pole, Closed	..	10	2	10	7
3746-BC	233.00	3-Way, Slotted.....	10	5	2	10	7
3745-BC	212.00	3-Way, Closed.....	10	5	2	10	7
4060-BC	466.00	4-Way, Closed.....	10	5	2	10	7
3747-BC	256.00	2-Circuit, Closed....	10	5	2	10	7
3749-BC	256.00	3-Circuit, Closed....	10	5	2	10	7

H & H Back Wired Ceiling Pull Switches

Without Outlet Box Cover and Bakelite Switch Cover

Single Pole

10 Amperes, 125 Volts; 5 Amperes, 250 Volts



No. 5020-BCW

Easy to wire, no switch covers to remove. Wires connect to contacts on back of base and fasten to box.

An 8-foot heavy black cord is standard.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
5020-BCW	\$209.00	For 3 1/4-Inch Outlet Box..	10	30	22
5026-BCW	215.00	For 4-Inch Outlet Box....	10	30	25

H & H Type C Ceiling Pull Switches

Bakelite Cover—Closed Base

20T Amperes, 125 Volts; 10 Amperes, 250 Volts



No. 3731

Base diameter, 2 1/16 inches. Screw holes 1 1/32 to 1 3/4 inches center to center.

This switch can be supplied in wall pull type with a side cord outlet if desired. Add letter S to number for this type of switch.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
3731	\$270.00	Single Pole.....	2	10	9
3732	318.00	Double Pole.....	2	10	9
3733	318.00	Three-Way.....	2	10	9
3734	478.00	D.P., D.T., 2 Off Positions....	2	10	9

P&S Specification Type Flush Tumbler Switches

**All Bakelite—Totally Enclosed
T Rating for Type C Lamp Load**

The mechanism is fully enclosed in a dustproof bakelite housing. Made to fit rectangular opening brass or bakelite plates.



Meets all requirements for specification work or all-purpose wiring.

Small size allows ample room in box for wiring and splicing.

Size for single-pole and 3-way bodies, $1\frac{39}{64} \times \frac{29}{32} \times \frac{13}{16}$ inches; double-pole and 4-way bodies, $1\frac{1}{2} \times \frac{7}{8} \times 1\frac{1}{2}$ inches.

One No. 1499 key is furnished with each lock switch.

For special appliance application, 15-ampere switch can be furnished. Prices and complete information on request.

No.	Per 100	Description	(AMPERES) 125V. 250V.	Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
*1215D	\$48.00	Single Pole.....	10T	5	10	100 20
*1825D	98.00	Double Pole.....	10	10	10	50 13
1835D	68.00	Three-Way.....	10T	5	10	50 13
1844D	200.00	Four-Way.....	5T	2	2	10 4
Ivory						
1915D	\$52.00	Single Pole.....	10T	5	10	50 11
1925D	102.00	Double Pole.....	10	10	2	10 4
1935I	72.00	Three-Way.....	10T	5	10	30 7
1944I	204.00	Four-Way.....	5T	2	2	10 4
Lock Type						
1815DL	\$121.00	Single Pole.....	10T	5	10	100 20
1825DL	181.00	Double Pole.....	10	10	10	50 13
1835DL	146.00	Three-Way.....	10T	5	10	50 13
1844DL	281.00	Four-Way.....	5T	2	2	10 4
1498	18.00	†Key.....		1	1	1 1/16
1499	18.00	†Key.....		1	1	1 1/16

*Indicating type. †For Nos. 1814DL and 1835DL. ‡For Nos. 1825DL and 1844DL.

**P&S Tumbler Flush Switches
With Porcelain Cups**

10 Amperes, 125 Volts; 5 Amperes, 250 Volts



Dimensions: length, $1\frac{13}{16}$ inches; width, $1\frac{1}{2}$ inches; depth, $1\frac{3}{16}$ inches.

Supporting screw spacing, $3\frac{3}{32}$ inches.

*Indicating type.

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt. Lb. Std. Pkg.
*4301	\$24.00	Single Pole.....	10	100	23
4303	32.00	Three-Way.....	10	50	13
Ivory					
4301I	\$28.00	Single Pole.....	10	100	23
4303I	36.00	Three-Way.....	10	50	13

**No. 1871 P&S Residential Type
Flush Tumbler Switches**

10 Amperes, 125 Volts—5 Amperes, 250 Volts



All bakelite, totally enclosed.

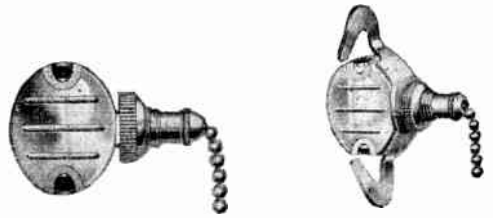
Body dimensions: length, $1\frac{5}{8}$ inches; width, $\frac{7}{8}$ inches; depth, 1 inch.

Weight of standard package 14 pounds.

No.	Per 100	Description	Car- ton	Std. Pkg.
1871	\$34.00	Single-Pole.....	10	100
1873	44.00	Three-Way.....	10	50
Ivory				
1971	\$38.00	Single-Pole.....	10	100
1973	48.00	Three-Way.....	10	50

**Levolier Conduit Box and Fixture Switches
Thin Model**

6 Amperes, 125 Volts—3 Amperes, 250 Volts



No. 41

No. 39

No. 39 is the same as No. 41 with the addition of a link. This adapts it for use in any chain fixture—simply remove the top link immediately below canopy ring in the chain, and substitute No. 39 Switch. Eliminates the expense of re-wiring.

Equipped with 7-foot cord, with bell at end, or plain lever control.

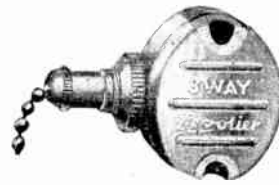
Standard finishes are brush brass, bronze and nickel. Other finishes supplied on special order.

No.	Each	STEM, INCHES Diameter	Length	Carton	Std. Pkg.	Wt. Lb. Std. Pkg.
41	\$.85	$\frac{7}{16}$	$\frac{3}{16}$	10	100	12
*41-PL	.75	$\frac{7}{16}$	$\frac{3}{16}$	10	100	11
42	.85	$\frac{7}{16}$	$\frac{3}{8}$	10	100	12
43	.85	$\frac{7}{16}$	$\frac{3}{4}$	10	100	13
39	.85	Link Type		10	100	15

*Plain lever without chain.

McGill Levolver Three-Way Switches

3 Amperes, 125 Volts



No. 301

Equipped with lever for pull chain operation, and adapted for use wherever a three-way switch is to be used.

Permits the control of one or more lights from two remote points.

No.	Each	STEM, INCHES Diameter	Length	Carton	Standard Package	Wt. Lb. Std. Pkg.	Ship. Std. Pkg.
301	\$.90	$\frac{7}{16}$	$\frac{3}{16}$	10	100	13	
302	.95	$\frac{7}{16}$	$\frac{3}{8}$	10	100	13	
303	.95	$\frac{7}{16}$	$\frac{3}{4}$	10	100	14	

Levolier Canopy Pull Switches

10 Amperes, T Rating, 125 Volts—5 Amperes, 250 Volts



No. 1010

A single-pole switch designed for safe control of modern high watt and high intensity lamps.

No. 1039 is the same as No. 1010 with the addition of a link for fitting into chain fixture without rewiring.

Equipped with 7-foot cord, with bell at end, or plain lever control.

Standard finishes are brush brass, bronze and nickel.

No.	Each	STEM, INCHES Diameter	Length	Carton	Std. Pkg.	Wt. Lb. Std. Pkg.
1010	\$1.30	$\frac{1}{2}$	$\frac{3}{8}$	10	50	10
1010-L	1.30	$\frac{1}{2}$	$\frac{5}{8}$	10	50	10
*1010-PL	1.20	$\frac{1}{2}$	$\frac{3}{8}$	10	50	9
1039	1.35	Link Type		10	50	13

*Plain lever without chain.

Levolier Multiple Circuit Switches

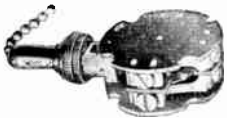
4 and 6 Amperes, 125 Volts

These switches carry a 6-ampere load, 125 volts, d.c. without undue arcing, pitting or heating. They are adaptable to a wide scope and variety of circuits, and can be furnished with standard plain lever, chain or cord pull control.



No. 400

No. 400 3-speed switch is designed particularly for ventilating fans and fractional hp. motors. Enclosed in fan housing—caps or casings are not necessary.



No. 265

No. 265 is a double pole, double throw switch with complete line cut-off. Load leads may be winding of a motor, in which case by interchanging the load leads it is possible to use the switch as a pole changer. Order of rotation: first pull, load 1; second pull, off; third pull, load 2; and fourth pull, off. Subsequent pulls repetition of order.

No.	Each	Control	STEM, INCHES		Carton	Std. Pkg.	Wt. Lb.
			Diameter	Length			
265	\$1.70	1 Off, 2 Off	7/16	3/8	10	100	15
276	1.70	1 Off	7/16	3/8	10	100	15
400	1.70	1-2-3 Off	7/16	3/8	10	100	15
402	1.70	1 Off, 2 Off	7/16	3/8	10	100	15
404	1.70	1-2-3-4 No Off	7/16	3/8	10	100	15
406	1.70	1-2 Off	7/16	3/8	10	100	15

Levolier Canopy Pull Switches

2-Circuit
3 Amperes, 125 Volts



No. 201

Operates the No. PS-35 three-light lamp. Equipped with 7-foot cord with bell at end. Standard finishes are brush brass, Jap bronze and nickel flash. Other finishes supplied on special order.

No.	Each	STEM, INCHES		Carton	Std. Pkg.	Approx. Wt. Lb.
		Diam.	Length			
201	\$.85	7/16	3/16	10	100	13
202	.90	7/16	3/8	10	100	13
203	.90	7/16	3/4	10	100	14

Levolier Two-Circuit Canopy Pull Switches

10 Amperes, T Rating, 125 Volts—5 Amperes, 250 Volts



No. 1020

Adaptable to every type of installation for the control of double-filament, three light lamps.

Equipped with 7-foot cord, with bell at end, or plain lever control. Standard finishes are brush brass, Jap bronze and nickel.

No.	Each	STEM, INCHES		Carton	Std. Pkg.	Wt. Lb.
		Diameter	Length			
1020	\$1.50	7/16	3/16	10	50	10
1020-S	1.50	7/16	3/8	10	50	10
1020-L	1.50	7/16	3/4	10	50	10
*1020-PL	1.40	7/16	3/8	10	50	9

*Plain lever without chain.

McGill Fixture Switches

3 Amperes, 125 Volts—1 Ampere, 250 Volts



No. 21 is made to fit any canopy wall thickness up to 5/16-inch. Equipped with 9-inch leads. Rating: 3 amperes. Mechanism is enclosed in bakelite body.

No. 23 is a smaller switch. Size, 5/8x1/2x1/8 inches. Fits wall thickness up to 5/16-inch. Has 9-inch leads. Rating: 3 amperes, 125 volts; 1 ampere, 250 volts.

No.	Each	Description	Carton	Std. Pkg.	Wt. Lb.
21	\$.40	Single Pole, On and Off	10	100	10
23	.30	Single Pole, On and Off	10	100	10

McGill Toggle Switches

6 Amperes, 125 Volts



A small, thin, multiple switch for individual control of lights in Pullman cars, passenger cars and busses, interior lights in automobiles; wall, floor, and table lamps; airplane and trailer lights; as well as power control in appliances, small tools, industrial and office machines, and fractional power motors.

Standard package, 100, carton 10.

No.	Each	Description	Wt. Lb.
			Std. Pkg.
25	\$.40	Single Pole, Wire Leads, T Rating	10
25-L	.40	Single Pole, Soldering Lugs, T Rating	10
27	.45	Three-Way, Wire Leads	10
27-L	.45	Three-Way, Soldering Lugs	10
28	.45	2-Circuit, Wire Leads	10
28-L	.45	2-Circuit, Soldering Lugs	10

Levolier Extension Arms



No. 85

No. 86

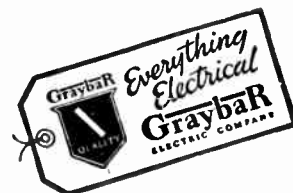
Constant pulling of lamp cords that rub against reflectors, shades and bowls can be eliminated by slipping an extension arm over each switch lever, inserting the cord through the end hole or loop, and knotting to hold. Arm is 1/32 inch thick, tubular formed for rigidity. Standard or special finished to match all Levolier switches.

No. 85-W can be extended to meet changing conditions for use with 18 or 22-inch and larger basin fixtures.

Nos. 86-L and 86 have two wire type extension arms which are designed to fit the lever on the No. 41-B plastic shell switch.

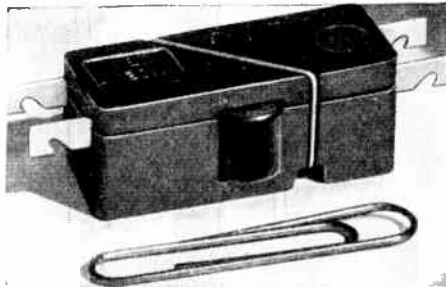
Packed 10 in a carton; standard package, 100.

No.	85-W	85	86-L	86
Each	\$.25	.20	.15	.10
Length	9	5 1/4	9	5
Weight of Standard Package	4	3	3	2

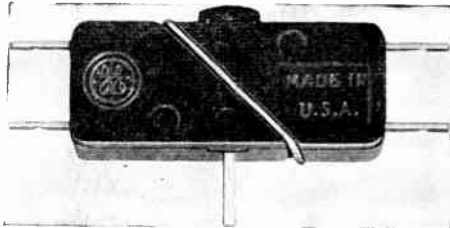


G-E Type CR1070 Switchettes

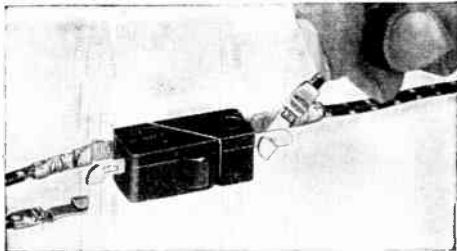
115/230 Volts, A.C.



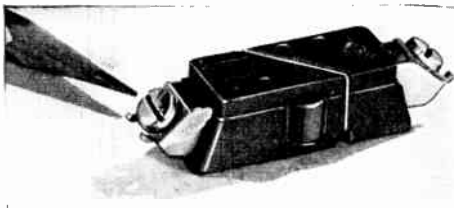
Size No. 1, No. CR1070-C103 Spring-Return



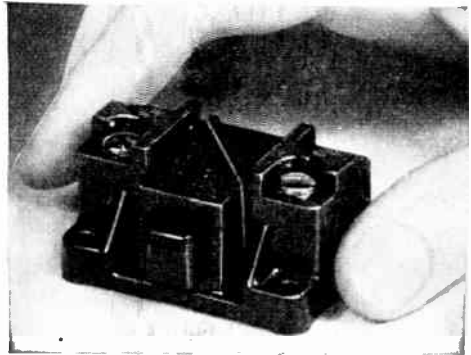
Size No. 1, No. CR1070-C110 Maintaining Contact



Size No. 1, No. CR1070-C114 Quick-Disconnect



Size No. 1, No. CR1070-C122 With No. 6 Screw Terminals



Size No. 2, No. CR1070-A102

Available in many forms with special contact arrangement and design modification. Especially applicable where space is limited, and long life is desired. Used wherever a manually or mechanically operated switch is desired.

Applications

As a float switch in automatic washing machines, the Switchette measures the height of the water, and regulates water flow. Selected for this application because of its small size and its ability to handle a 1/3-hp washing-machine motor.

As a contact mechanism in temperature pressure limits in domestic oil burners and stokers, to provide protection against overtemperature or overpressure. The use of a Switchette on this application resulted in a smaller complete device.

As a contact unit in juke boxes, and coin vending machines, it controls the mechanisms that turn records, or deliver the merchandise. Its wide variety of special contact arrangements makes this switch ideally suited to this application.

A cam-operated Switchette is used to time industrial processes and operation. The small size and easy mounting of this unit makes it very desirable.

In private aircraft, the Switchette is used to control radios, to limit the travel of the mechanism used to raise and lower landing wheels, to operate such safety devices as a flashing light to indicate to the pilot of the airplane that the landing gear has not been lowered, and to perform numerous other duties.

A manually operated Switchette is used as a trigger switch in automatic hand drills, since its small size permits an easy fit into the motor casting. Similar units also have been used in foot-operated switches for machine tools, and dashboard tools for road-grading equipment.

Size No. 1—For Motors Up to 1/2 Horsepower—2x1/2x1/2 Inches

Single-Circuit Normally Closed		Single-Pole, Normally Closed		Single-Pole, Normally Open		Single-Pole, Double Throw	
No.	Each	No.	Each	No.	Each	No.	Each
CR1070-C101D3	\$1.95	CR1070-C103A3	\$1.30	CR1070-C103B3	\$1.30	CR1070-C103J2	\$1.50
CR1070-C114A3	1.65	CR1070-C103D3	1.30	CR1070-C103E3	1.30	CR1070-C103J4	1.50
CR1070-C122A3	1.70	CR1070-C103G2	1.30	CR1070-C103H2	1.30	CR1070-C103M2	1.50
		CR1070-C103G4	1.30	CR1070-C103H4	1.30	CR1070-C103M4	1.50
		CR1070-C103K2	1.30	CR1070-C103L2	1.30	CR1070-C110J2	1.75
		CR1070-C103K4	1.30	CR1070-C103L4	1.30	CR1070-C110J4	1.75
		CR1070-C110A3	1.55	CR1070-C110B3	1.55	CR1070-C110M2	1.75
		CR1070-C110D3	1.55	CR1070-C110E3	1.55	CR1070-C110M4	1.75
		CR1070-C110G2	1.55	CR1070-C110H2	1.55		
		CR1070-C110G4	1.55	CR1070-C110H4	1.55	Three-Point Normally Closed	
		CR1070-C110K2	1.55	CR1070-C110L2	1.55	CR1070-C103N3	\$1.70
		CR1070-C110K4	1.55	CR1070-C110L4	1.55	CR1070-C103Q3	1.70
		CR1070-C111A3	1.40	CR1070-C111B3	1.40	Three-Point Normally Open	
		CR1070-C111D3	1.40	CR1070-C111E3	1.40	CR1070-C103P3	\$1.70
		CR1070-C111G2	1.40	CR1070-C111H2	1.40	CR1070-C103R3	1.70
		CR1070-C111G4	1.40	CR1070-C111H4	1.40	Two Closed and One Open Contacts	
		CR1070-C111K2	1.40	CR1070-C111J2	1.40	CR1070-C103S3	\$2.00
		CR1070-C111K4	1.40	CR1070-C111J4	1.40	CR1070-C103U3	2.00
		CR1070-C111J2	1.60	CR1070-C111L2	1.40	Two Open and One Closed Contacts	
		CR1070-C111J4	1.60	CR1070-C111L4	1.40	CR1070-C103T3	\$2.00
		CR1070-C111M2	1.60			CR1070-C103V3	2.00
		CR1070-C111M4	1.60				

Size No. 2—For Motors Up to 3/4 Horsepower—2x1 3/8x1 1/16 Inches

No.	Single-Pole Normally Closed	Single-Pole Normally Open	Two-Circuit
Each	CR1070-A102D	CR1070-A102E	CR1070-A102F
	\$2.80	2.80	3.15

Spencer Klixon Circuit Breakers

Capacity, 30 Volts, D.C.

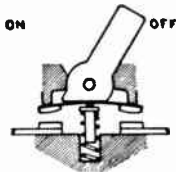
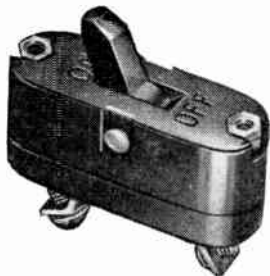
Klixon Circuit Breakers provide positive electrical circuit protection from possible damage due to overloads and short circuits. They operate similarly to fuses but are permanent protective devices and have nothing that burns out.

Recommended for use in circuits or mobile equipment, boats, radio apparatus, home lighting plants, test and laboratory equipment, etc. Suitable for any equipment operating at 30 volts d.c. or less and as a secondary breaker on many 110 and 220-volt a.c. applications.

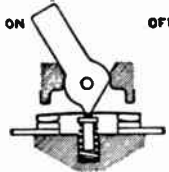
Light in weight, compact, easy to install. Unaffected by vibration, shock or motion.

Types CDLM, CDLA, CDM, and CDA have weatherproof case which keeps out dust, moisture, and prevents corrosion.

Type C-6363

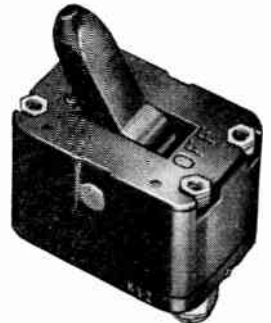


Opens when the Circuit Becomes Dangerously Overloaded



Snap Switch to Close Circuit Turned On or Off Manually

Type D-6364



Rating Amperes	Trip Free No.
5	C-6363-1-5
10	C-6363-1-10
15	C-6363-1-15
20	C-6363-1-20
25	C-6363-1-25
30	C-6363-1-30
35	C-6363-1-35

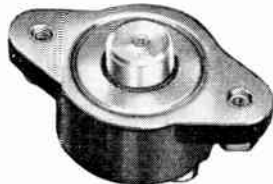
Non-Trip Free No.
C-6363-2-5
C-6363-2-10
C-6363-2-15
C-6363-2-20
C-6363-2-25
C-6363-2-30
C-6363-2-35

Rating Amperes	Trip Free No.
35	D-6364-1-35
40	D-6364-1-40
45	D-6364-1-45
50	D-6364-1-50
60	D-6364-1-60
70	D-6364-1-70
80	D-6364-1-80
90	D-6364-1-90
100	D-6364-1-100
120	D-6364-1-120

Non-Trip Free No.
D-6364-2-35
D-6364-2-40
D-6364-2-45
D-6364-2-50
D-6364-2-60
D-6364-2-70
D-6364-2-80
D-6364-2-90
D-6364-2-100
D-6364-2-120

Type CDLM

Manual Reset
Weatherproof



Type CDLA

Automatic Reset
Weatherproof

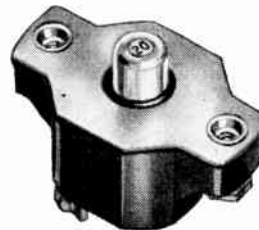


Rating Amperes	No.
35	CDLM-35
40	CDLM-40
45	CDLM-45
50	CDLM-50
60	CDLM-60
70	CDLM-70
80	CDLM-80
90	CDLM-90
105	CDLM-105
135	CDLM-135
150	CDLM-150

Rating Amperes	No.
35	CDLA-35
40	CDLA-40
45	CDLA-45
50	CDLA-50
60	CDLA-60
70	CDLA-70
80	CDLA-80
90	CDLA-90
105	CDLA-105
135	CDLA-135
150	CDLA-150

Type CDM

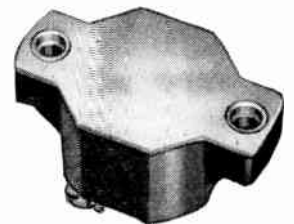
Manual Reset
Weatherproof



Rating Amperes	No.
15	CDM-15
20	CDM-20
25	CDM-25
30	CDM-30
35	CDM-35
40	CDM-40

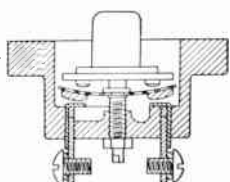
Type CDA

Automatic Reset
Weatherproof

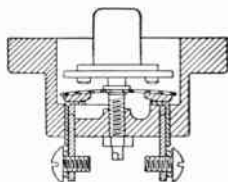


Rating Amperes	No.
15	CDA-15
20	CDA-20
25	CDA-25
30	CDA-30
35	CDA-35
40	CDA-40

Manual Reset

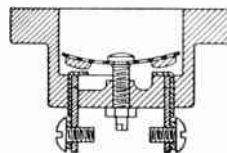


Opens when the circuit becomes dangerously overloaded.

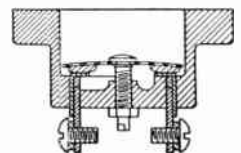


Push button to re-close circuit.

Automatic Reset



Opens when the circuit becomes dangerously overloaded.



Closes automatically when circuit cools.

H & H Type NF Line Starting Switches

Surface Type—For Small Motors

Quick Make and Quick Break

No. 6808 2-Pole, Single-Phase, 2 Hp., 115-600 Volts;

30 Amperes, 250 Volts; 20 Amperes, 600 Volts

No. 7810 3-Pole, 3-Phase, 2 Hp., 110-600 Volts A.C.;

30 Amperes, 250 Volts; 20 Amperes, 600 Volts

Listed as Standard by Underwriters' Laboratories, Inc.



No. 6808

Gives positive control for motors and is especially suitable for oil burners, refrigerators, motor driven machinery, and lighting loads.

No fuses or overload protection are provided for.

Box is made of pressed metal.

This switch passed the stalled rotor test which is six times the normal full motor load.

Standard finish is cadmium.

No.	6808	7810
Each.	\$1.90	4.80
Box Number.	34	34
Weight. pounds	1½	1½

Type RB Trumbull Motor Control Tumbler Switches

Across-the-Line Type—Without Overload Protection

Schedule MS



Surface Type



Starter Unit Only



Flush Cover

Surface type has one ½x¾-inch knockout in each end; two ½-inch knockouts in rear; and one ½-inch knockout in sides.

Starter unit: height, 2½ inches; width, 1¾ inches; and depth, 1½ inches. Fits into standard deep wall box. Machine grey finish.

2-Pole

30 Amperes, 250 Volts; 5 Amperes, 600 Volts
2 Hp., 250 Volts; 1 Hp., 600 Volts, D.C.; 2 Hp., 600 Volts, A.C.

No.	Each	Type	Width In.	Height Inches	Diam. In.
2228	\$1.95	Surface.....	2½ ¹ / ₁₆	4¾ ¹ / ₁₆	3
2228C	6.95	Water and Dust Tight.....	...	...	...
2228E	6.95	Hazardous—Class I, Group D.....	...	...	...
2228F	3.40	Float.....	2½ ¹ / ₁₆	4¾ ¹ / ₁₆	3
2228S	1.45	Switch Unit.....	...	...	...
*2227S	1.45	Switch Unit.....	...	...	...

3-Pole

30 Amperes, 250 Volts; 20 Amperes, 600 Volts
2 Hp., 600 Volts, A.C.

No.	Each	Type	Width In.	Height Inches	Diam. In.
2368	\$4.80	Surface.....	2½ ¹ / ₁₆	4¾ ¹ / ₁₆	3
2368C	12.50	Water and Dust Tight.....	...	...	...
2368E	12.50	Hazardous—Class I, Group D.....	...	...	...
2368S	4.30	Switch Unit.....	...	...	...

3-Way

10 Amperes, 125 Volts; 5 Amperes, 250 Volts

No.	Each	Type	Width In.	Height Inches	Diam. In.
2328	\$1.95	Surface.....	2½ ¹ / ₁₆	4¾ ¹ / ₁₆	3
2328S	1.45	Switch Unit.....	...	...	...

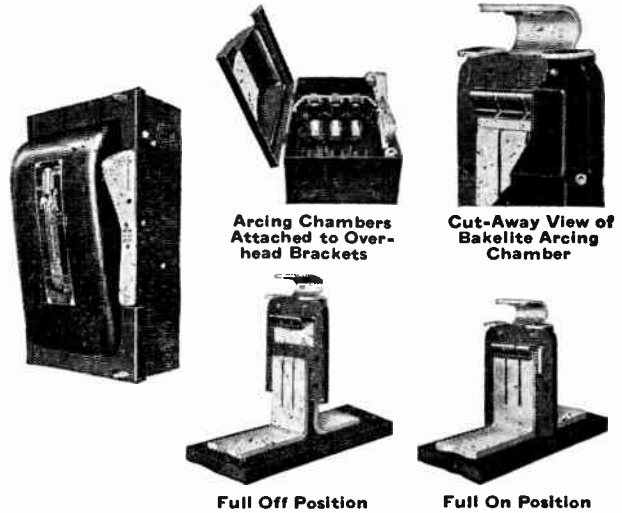
Flush Covers

For Nos. 2228S, 2328S and 2368S

No.	Each	Type	Width In.	Height Inches	Diam. In.
1199	\$.30	Cover.....	3½	4¼ ¹ / ₁₆	...

*For Type FS shallow cast fittings.

Bull Dog Clampmatic Vacu-Break Safety Switches



Arcing Chambers Attached to Over-head Brackets

Cut-Away View of Bakelite Arcing Chamber

Full Off Position

Full On Position

A clamp type pressure switch contact, with quick, easy operation. Exerts a wedging action when the moving contact engages the prongs of the stationary contacts. This wedging action puts great pressure on the contact surfaces while in the On position. When the handle is pushed to Off position, the clamping spring releases pressure first, and the stored energy thus released accelerates the breaking of circuit.

Rocker handle of the push type is directly connected to a bail on which the switch heads are mounted. Bakelite chambers confine arcs—prevent burning and pitting of contacts. Wiring room ample, yet compact.

Type T.T. Trumbull Manual Starters
Across-the-Line Type—Interchangeable Heaters
Thermostatic Overload Protection

Schedule MS



Surface Type



Starter Unit



Flush Cover

Surface type has one ½x¾-inch knockout in each end, two ½-inch knockouts in rear, and one ½-inch knockout in sides.

One heater required for each starter, either single or double pole. In ordering heaters only, or starters with heaters, select the heater rated nearest to the ampere rating indicated on the motor nameplate. Machine grey finish.

Hp. Ratings

Volts	A.C.		D.C.		
	115-230	1	32	125	250
1-Pole.....	1	1	¼	¾	1½
2-Pole.....	1	1	¼	1	1

Without Heaters

N.E.M.A. Enclosure	1-Pole		2-Pole	
	No.	Each	No.	Each
General Purpose, Type 1....	1800	\$2.20	1900	\$2.50
Watertight, Type 4.....	1800C	9.50	1900C	9.80
Hazardous, Type 7.....	1800E	9.50	1900E	9.80
Interior Only.....	1800S	1.70	1900S	2.00

Heaters Only

No.	Each	Amp.	No.	Each	Amp.	No.	Each	Amp.
9700-5	\$.65	.5	9703	\$.65	3.	9707	\$.65	7
9700-7	.65	.7	9703-5	.65	3.5	9708	.65	8
9701	.65	1.	9704	.65	4.	9709	.65	9
9701-5	.65	1.5	9704-5	.65	4.5	9710	.65	10
9702	.65	2.	9705	.65	5.	9712	.65	12
9702-5	.65	2.5	9706	.65	6.	.....	.....	.....

No. 1199 Flush Covers

No. 1199, Flush Cover for Nos. 1800S and 1900S... each \$.30

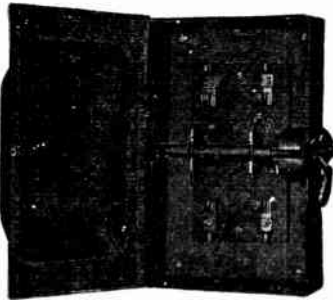
Type A Bull Dog Safety Switches

Double Throw Knife Blade Type

Positive Make—Quick Break

Safety Interlocks

Black Enamel Finish



No. 23222

Solderless wire terminals are standard.

Fusible—Both Ends

Not Fusible

2-Pole, 230 Volts A.C.
250 Volts D.C.

2-Pole, 230 Volts A.C.
250 Volts D.C.

No.	Each	Amp.	*Box Ref. No.	Wt. Lb. Each	No.	Each	Amp.	*Box Ref. No.	Wt. Lb. Each
20221	\$30.00	30	113	16	†33221	\$18.00	30	101D	14
20222	54.00	60	113	24	23222	29.00	30-60	106	21
20223	82.00	100	115	80	23223	43.00	100	105	29
20224	114.00	200	117	118	23224	57.00	200	118	40
20225	231.00	400	124	178	23225	162.00	400	117	73
.....	.....	.....	.....	.....	23226	230.00	600	124	103

3-Pole, 230 Volts A.C.

3-Pole, 230 Volts A.C.

20321	\$33.00	30	113	21	†33321	\$22.00	30	101D	17
20322	59.00	60	113	31	23322	33.00	30-60	106	25
20323	99.00	100	115	100	23323	53.00	100	105	40
20324	150.00	200	117	135	23324	83.00	200	118	63
20325	317.00	400	124	225	23325	218.00	400	117	105
.....	.....	.....	.....	.....	23326	303.00	600	124	123

4-Pole, 230 Volts A.C.

4-Pole, 230 Volts A.C.

20421	\$45.00	30	115	54	23422	\$45.00	30-60	105	26
20422	73.00	60	115	55	23423	94.00	100	118	73
20423	116.00	100	117	118	23424	130.00	200	117	79
20424	190.00	200	117	180	23425	293.00	400	124	128

2-Pole, 575 Volts A.C.
600 Volts D.C.

2-Pole, 575 Volts A.C.
600 Volts D.C.

†20261	\$61.00	30	115	35	†23262	\$27.00	30-60	106	31
†20262	63.00	60	115	39	†23263	47.00	100	105	55
†20263	109.00	100	117	102	†23264	64.00	200	118	80
†20264	132.00	200	124	161	†23265	183.00	400	117	90
.....	.....	.....	.....	.....	†23266	257.00	600	124	110

3-Pole, 575 Volts A.C.

3-Pole, 575 Volts A.C.

20351	\$64.00	30	115	36	23352	\$35.00	30-60	106	25
20352	66.00	60	115	41	23353	57.00	100	105	40
20353	116.00	100	117	112	23354	88.00	200	118	63
20354	175.00	200	124	165	23355	230.00	400	117	105
.....	.....	.....	.....	.....	23356	333.00	600	124	123

4-Pole, 575 Volts A.C.

4-Pole, 575 Volts A.C.

20451	\$96.00	30	115	58	23452	\$50.00	30-60	105	26
20452	99.00	60	115	68	23453	106.00	100	118	73
20453	172.00	100	117	155	23454	142.00	200	117	79
20454	222.00	200	124	182	23455	318.00	400	124	128

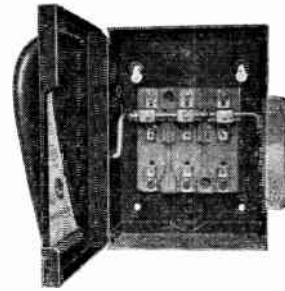
*Box information furnished on request.

†Type C, non-interlocking.

These switches are listed as enclosed switches by Underwriters' Laboratories under File E1776, with exception of those marked with a double dagger (‡).

Type D Bull Dog Vacu-Break Safety Switches

Junior Line—Non-Interlocking



Cable terminals are solderless wire grips.

Single Throw—Fusible

2-Pole

No.	Each	Amp.	Voltage	CABINET SIZE (OVERALL, INCHES)			Wt. Lb.
				Ht.	Width	Depth	
334211S	\$3.20	30	125/250-125 D.C.	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	5
334221S	4.00	30	230 A.C.-250 D.C.	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	5
334222	9.50	60	230 A.C.-250 D.C.	12 ¹ / ₂	8	5 ⁵ / ₈	11
334223	19.00	100	230 A.C.-250 D.C.	15 ¹ / ₂	8 ¹ / ₂	6 ³ / ₈	26
334224	35.00	200	230 A.C.-250 D.C.	24 ¹ / ₂	13	9 ¹ / ₄	35

3-Pole

334311S	\$6.00	30	115 A.C.	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	6
334321S	7.50	30	230 A.C.	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	6
334322	12.00	60	230 A.C.	12 ¹ / ₂	8	5	12
334323	22.00	100	230 A.C.	15 ¹ / ₂	8 ¹ / ₂	6 ³ / ₈	27
334324	48.00	200	230 A.C.	24 ¹ / ₂	13	9 ¹ / ₄	38

4-Pole

334421	\$11.00	30	230 A.C.	12 ¹ / ₂	11	5	15
334422	21.00	60	230 A.C.	12 ¹ / ₂	11	5	16
334423	47.00	100	230 A.C.	15 ¹ / ₂	11	6 ¹ / ₂	32
334424	85.00	200	230 A.C.	24 ¹ / ₂	15 ¹ / ₂	9 ¹ / ₄	50

2-Pole, Solid Neutral (1 Blade, 1 Fuse Connection)

336211S	\$2.70	30	125 D.C.	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	5
336221S	3.00	30	250 D.C.	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	5

3-Pole, Solid Neutral (2 Blades, 2 Fuse Connections)

336311S	\$3.50	30	125-250	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	6
336321S	5.00	30	125-250-230 A.C.	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	6
336322	10.00	60	125-250-230 A.C.	12 ¹ / ₂	8	5	12
336323	20.00	100	125-250-230 A.C.	15 ¹ / ₂	8 ¹ / ₂	6 ³ / ₈	27
336324	44.00	200	125-250-230 A.C.	24 ¹ / ₂	13	9 ¹ / ₄	36

4-Pole, Solid Neutral (3 Blades, 3 Fuse Connections)

336421	\$10.00	30	230 A.C.	12 ¹ / ₂	11	5	14
336422	20.00	60	230 A.C.	12 ¹ / ₂	11	5	15
336423	33.00	100	230 A.C.	15 ¹ / ₂	11	6 ¹ / ₂	31
336424	59.00	200	230 A.C.	24 ¹ / ₂	15 ¹ / ₂	9 ¹ / ₄	47

Single Throw—Not Fusible

2-Pole

No.	Each	Amp.	Voltage	CABINET SIZE (OVERALL, INCHES)			Wt. Lb.
				Ht.	Width	Depth	
337221S	\$3.00	30	230 A.C.-250 D.C.	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	5
337222	9.00	60	230 A.C.-250 D.C.	12 ¹ / ₂	8	5	9
337223	18.00	100	230 A.C.-250 D.C.	13 ¹ / ₂	8 ¹ / ₂	6 ¹ / ₈	15
337224	26.00	200	230 A.C.-250 D.C.	24 ¹ / ₂	13	9 ¹ / ₄	23

3-Pole

337321S	\$5.50	30	230 A.C.	8 ⁵ / ₈	6 ³ / ₈	4 ⁵ / ₈	6
337322	11.00	60	230 A.C.	9 ⁵ / ₈	8	5	9
337323	20.00	100	230 A.C.	13 ¹ / ₂	8 ¹ / ₂	6 ¹ / ₈	16
337324	35.00	200	230 A.C.	24 ¹ / ₂	13	9 ¹ / ₄	25

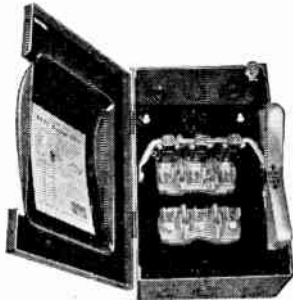
4-Pole

337421	\$10.00	30	230 A.C.	12 ¹ / ₂	11	5	10
337422	19.00	60	230 A.C.	12 ¹ / ₂	11	5	14
337423	45.00	100	230 A.C.	13 ¹ / ₂	11	6 ¹ / ₂	25
337424	80.00	200	230 A.C.	24 ¹ / ₂	15 ¹ / ₂	9 ¹ / ₄	37

Type C Bull Dog Vacu-Break Safety Switches

Front Operated, 30 to 200 Amperes
Side Operated, 400 and 600 Amperes
Standard Line

Single Throw—Fusible—Non-Interlocking
Quick Make—Quick Break



The highly effective Vacu-Break arc control principle is incorporated in all Bull Dog Vacu-Break Safety Switches, regardless of price. As in other lines of switches, the Master (Type A) construction provides the maximum in service and safety. The Standard (Type C) construction is designed for those installations where an interlock is not required, as motor circuits and certain other industrial uses. The Junior (Type D) construction is intended for general purpose installations, such as service entrance and for motor circuits not exceeding 2 hp.

Cable terminals are Bull Dog solderless wire grips. Standard finish is black enamel.

2-Pole, 230 Volts A.C.—250 Volts D.C.

No.	Each	Amp.	HP. RATING			Weight Pounds
			575 V. A.C.	220 V. A.C.	250 V. D.C.	
224221S	\$9.00	30	..	2	5	6
*224221	14.00	30	..	2	5	9
224222	16.00	60	..	5	10	13
224223	25.00	100	..	10	15	27
224224	38.00	200	..	15	30	36
24225	96.00	400	..	30	50	141
24226	190.00	600	..	..	..	205

3-Pole, 230 Volts A.C.

224321S	\$11.00	30	..	3	..	7
*224321	18.00	30	..	3	..	11
224322	20.00	60	..	7½	..	16
224323	31.00	100	..	15	..	36
224324	53.00	200	..	30	..	47
24325	111.00	400	..	50	..	148
24326	219.00	600	..	..	..	184

3-Pole, Switched Neutral, 125-250 Volts

225321S	\$11.00	30	..	..	..	7
*225321	18.00	30	..	..	..	11
225322	20.00	60	..	..	..	13
225323	31.00	100	..	..	..	36
225324	53.00	200	..	..	..	39
25325	111.00	400	..	..	..	153
25326	219.00	600	..	..	..	226

4-Pole, 230 Volts A.C.

*224421	\$21.00	30	..	3	..	16
224422	29.00	60	..	10	..	17
224423	47.00	100	..	20	..	32
224424	85.00	200	..	30	..	51
24425	158.00	400	..	50	..	174
24426	290.00	600	..	..	..	253

3-Pole, 575 Volts A.C.

224351A	\$19.00	30	7½	..	..	13
224352	23.00	60	20	..	..	13
224353	42.00	100	30	..	..	29
224354	63.00	200	50	..	..	47

4-Pole, 575 Volts A.C.

224451	\$31.00	30	7½	..	..	18
224452	35.00	60	20	..	..	19
224453	63.00	100	30	..	..	38
224454	102.00	200	50	..	..	54

*60-ampere switch parts with 30-ampere fuse clips and spacings.

Type C Bull Dog Vacu-Break Safety Switches

Front Operated, 30 to 200 Amperes
Side Operated, 400 and 600 Amperes
Standard Line

Quick Make—Quick Break



Cable terminals are Bull Dog solderless wire grips. Standard finish is black enamel.

Single Throw—Fusible—Non-Interlocking

3-Pole, Solid Neutral, 230 Volts A.C.—125-250 Volts (2 Blades, 2 Fuse Connections)

No.	Each	Amp.	HP. RATING			Weight Pounds
			575 V. A.C.	230 V. A.C.	250 V. D.C.	
226321S	\$10.00	30	..	3	..	7
*226321	12.00	30	..	3	..	11
226322	17.00	60	..	7½	..	13
226322PT	17.00	60	..	..	..	13
226322P	17.00	60	..	..	..	13
226323	26.00	100	..	15	..	36
226323PT	26.00	100	..	..	..	36
226323P	26.00	100	..	..	..	36
226324	48.00	200	..	30	..	45
26325	105.00	400	..	50	..	140
26326	204.00	600	..	..	..	224

4-Pole, Solid Neutral, 230 Volts A.C.

(3 Blades, 3 Fuse Connections)

226421	\$14.00	30	..	3	..	14
226422	23.00	60	..	7½	..	15
226423	36.00	100	..	15	..	44
226424	63.00	200	..	30	..	48
26425	135.00	400	..	50	..	162
26426	242.00	600	..	..	..	237

Single Throw—Not Fusible—Non-Interlocking

2-Pole, 230 Volts A.C.—250 Volts D.C.

227221S	\$8.00	30	..	3	5	6
227222	14.00	60	..	7½	10	11
227223	24.00	100	..	15	20	18
227224	32.00	200	..	25	30	24
27225	80.00	400	..	30	50	86
27226	150.00	600	..	..	..	122

3-Pole, 230 Volts A.C.

227321S	\$10.00	30	..	5	..	7
227322	18.00	60	..	10	..	11
227323	27.00	100	..	20	..	18
227324	44.00	200	..	40	..	41
27325	96.00	400	..	50	..	132
27326	196.00	600	..	..	..	172

4-Pole, 230 Volts A.C.

227421	\$19.00	30	..	10	..	14
227422	24.00	60	..	15	..	14
227423	45.00	100	..	25	..	27
227424	80.00	200	..	50	..	38
27425	137.00	400	..	50	..	157
27426	240.00	600	..	..	..	222

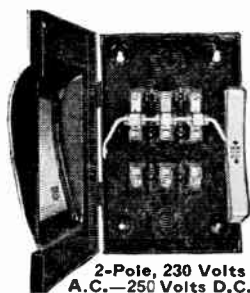
3-Pole, 575 Volts A.C.

227351	\$14.00	30	10	..	..	8
227352	19.00	60	25	..	..	12
227353	35.00	100	40	..	..	19
227354	48.00	200	50	..	..	41

4-Pole, 575 Volts A.C.

227451	\$22.00	30	25	..	..	16
227452	31.00	60	25	..	..	16
227453	57.00	100	40	..	..	29
227454	82.00	200	50	..	..	40

*60-ampere switch parts with 30-ampere fuse clips and spacings.



Type A Bull Dog Vacuum-Break Safety Switches

Front Operated, 30 to 200 A.
 Side Operated, 400 A. & Over
 Master Line
 Single Throw—Fusible—
 Safety Interlocks
 Quick Make—Quick Break

Cable terminals are Bull Dog solderless wire grips.
 Standard finish is black enamel.

No.	Each	Amp.	H.P. RATINGS			Weight Pounds
			575 V. A.C.	230 V. A.C.	250 V. D.C.	
114221S	\$16.00	30	..	2	5	7
*114221	20.00	30	..	2	5	11
114222	21.00	60	..	5	10	14
114223	33.00	100	..	10	15	29
114224	54.00	200	..	15	30	38
14225	122.00	400	..	30	50	140
14226	195.00	600	..	..	..	208
14227	298.00	800	..	..	..	260
14228	413.00	1200	..	..	..	320
3-Pole, 230 Volts A.C.						
114321S	\$20.00	30	..	3	..	8
*114321	24.00	30	..	3	..	12
114322	28.00	60	..	7½	..	15
114323	43.00	100	..	15	..	30
114324	64.00	200	..	30	..	47
14325	139.00	400	..	50	..	153
14326	238.00	600	..	..	..	229
14327	406.00	800	..	..	..	370
14328	521.00	1200	..	..	..	381
3-Pole, Solid Neutral, 230 Volts A.C. or 125-250 V.						
116321S	\$18.00	30	..	3	..	8
116321	21.00	30	..	3	..	12
116322	24.00	60	..	7½	..	15
116323	38.00	100	..	15	..	30
116324	59.00	200	..	30	..	39
16325	135.00	400	..	50	..	155
16326	217.00	600	..	..	..	227
16327	325.00	800	..	..	..	292
16328	460.00	1200	..	..	..	375
4-Pole, 230 Volts A.C.						
114421	\$28.00	30	..	3	..	18
114422	34.00	60	..	10	..	20
114423	56.00	100	..	20	..	33
114424	100.00	200	..	30	..	55
14425	190.00	400	..	50	..	177
14426	327.00	600	..	..	..	256
14427	614.00	800	..	..	..	350
14428	750.00	1200	..	..	..	465
2-Pole, 575 Volts A.C.						
114261A	\$26.00	30	..	5	..	13
114262	28.00	60	..	10	..	15
114263	43.00	100	..	15	..	30
114264	64.00	200	..	30	..	39
14265	149.00	400	..	..	..	150
14266	236.00	600	..	..	..	218
14267	365.00	800	..	..	..	275
14268	514.00	1200	..	..	..	350
3-Pole, 575 Volts A.C.						
114351A	\$31.00	30	..	7½	..	14
114352	33.00	60	..	20	..	16
114353	49.00	100	..	30	..	31
114354	79.00	200	..	50	..	49
14355	162.00	400	..	..	..	150
14356	270.00	600	..	..	..	240
14357	473.00	800	..	..	..	370
14358	622.00	1200	..	..	..	410
4-Pole, 575 Volts A.C.						
114451	\$38.00	30	..	7½	..	21
114452	41.00	60	..	20	..	23
114453	65.00	100	..	30	..	40
114454	110.00	200	..	50	..	56
14455	210.00	400	..	..	..	180
14456	341.00	600	..	..	..	270
14457	625.00	800	..	..	..	370
14458	877.00	1200	..	..	..	490

*60-ampere switch parts with 30-ampere fuse clips and spacings.

Type A Bull Dog Vacuum-Break Safety Switches

Front Operated, 30 to 200 Amps.
 Side Operated, 400 to 1200 Amps.

Master Line
 Single Throw—Not Fusible
 Safety Interlocks

Quick Make—Quick Break



Cable terminals are Bull Dog solderless wire grips.
 Standard finish is black enamel.

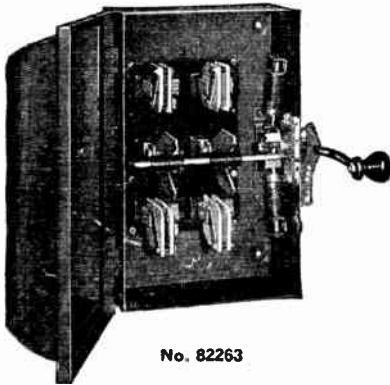
2-Pole						2-Pole					
230 V.—250 V.						575 V.					
Amp.	No.	Each	HP. RATING			No.	Each	HP. RATING			
			230V. A.C.	250V. D.C.	Lb.			575 V. A.C.	230V. A.C.	Lb.	
30	*117221S	\$15.00	3	5	6	117261	\$18.00	7½	7	7	
60	117222	20.00	7½	10	12	117262	23.00	15	12	12	
100	117223	32.00	15	20	20	117263	38.00	25	20	20	
200	117224	45.00	25	30	26	117264	49.00	50	27	27	
400	17225	85.00	30	50	89	17265	122.00	..	92	92	
600	17226	167.00	..	..	125	17266	176.00	..	135	135
800	17227	264.00	..	..	170	..	..	..	..	..
1200	17228	359.00	..	..	250	..	..	..	..	..
3-Pole						4-Pole					
575 V.—230 V.						575 V.—230 V.					
Amp.	No.	Each	HP. RATING			No.	Each	HP. RATING			
			575V. A.C.	230V. A.C.	Lb.			575 V. A.C.	230V. A.C.	Lb.	
30	*117321S	\$18.00	..	5	7	*117421	\$26.00	..	10	12	
60	..	..	..	..	..	117452	34.00	25	15	17
30	117351	21.00	10	..	8	..	..	..	..	..
60	117352	26.00	25	10	13	..	..	..	..	..
100	117353	40.00	40	20	21	117453	61.00	40	25	31	
200	117354	52.00	50	40	29	117454	95.00	50	50	42	
400	17355	135.00	..	50	135	17455	176.00	..	50	160	
600	17356	217.00	..	..	175	17456	306.00	..	..	225
800	17357	352.00	..	..	240	17457	454.00	..	..	295
1200	17358	473.00	..	..	310	17458	622.00	..	..	360

*Rated at 230 volts a.c. only.



Square D Double Throw Safety Switches

82,000 Series Switches: Quick Make—Quick Break—Interlocked Cover—Solder-Solderless Lugs
 92,000 Series Switches: Not Quick Make or Quick Break—Solder-Solderless Lugs on 60 to 600-Ampere Sizes
 52,000 Series Switches: Positive Make—Quick Break

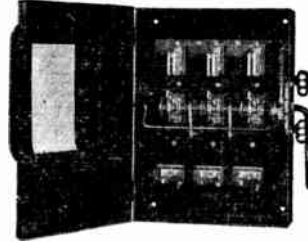


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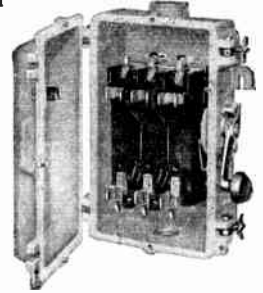
Explosion-resisting boxes are equipped with two threaded conduit hubs of proper size. Black enamel finish.

Type A Square D Heavy Duty Industrial Safety Switches

With Arc Suppressors
 Single Throw—Fusible
 30 to 600 Ampere Switches:
 Quick Make—Quick Break—Keyed Interlocked Cover Control
 800 to 1200—Ampere Switches:
 Quick Break Only—Cover Not Interlocked
 Schedule A



No. 88342



No. 55342

The 60-600 ampere switches have Solder-Solderless Lugs. The 80,000 Series switches have visible blades. The 50,000 Series are compact type.

Standard finish is black enamel. 3-wire switching neutral price same as for 3-pole switch, add SWN to 3-pole No.

2-Pole, 230 Volts, A.C.; 250 Volts D.C.
 Fusible, Not Fusible

Amps.	Sheet Steel Enclosure		Sheet Steel Enclosure		Cast Iron Explosion Resisting Enclosure	
	No.	Each	No.	Each	No.	Each
30	92251F	\$30.00	92251	\$18.00		
60	82252F	54.00	82252	29.00		
100	82253F	82.00	82253	43.00		
200	82254F	114.00	82254	57.00		
400	92255F	231.00	92255	162.00		
600	†92256F	287.00	†92256	230.00		
3-Pole, 230 Volts A.C.; 250 Volts D.C.						
30	92351F	\$33.00	92351	\$22.00		
60	82352F	59.00	82352	33.00		
100	82353F	99.00	82353	53.00		
200	82354F	150.00	82354	83.00		
400	92355F	317.00	92355	218.00		
600	†92356F	384.90	†92356	303.00		
4-Pole, 230 Volts A.C.; 250 Volts D.C.						
30	92451F	\$45.00	92451	\$32.00		
60	92452F	73.00	92452	45.00		
100	92453F	116.00	92453	94.00		
200	92454F	190.00	92454	130.00		
400	92455F	352.00	92455	293.00		
600	†92456F	454.00	†92456	380.00		
2-Pole, 575 Volts A.C.; 600 Volts D.C.						
30	82261F	\$61.00				
30-60			82262	\$30.00		
60	82262F	63.00			†52262	\$225.00
100	*82263F	109.00	*82263	47.00	†52263	
200	*82264F	132.00	*82264	64.00	52264	
400	*92245F	249.00	*92245	183.00		
600			*92246	257.00		
3-Pole, 575 Volts A.C.						
30	82341F	\$64.00				
30-60			82342	\$35.00		
60	82342F	66.00			†52342	\$235.00
100	82343F	116.00	82343	57.00	†52343	
200	82344F	175.00	82344	88.00	52344	
400	92345F	325.00	92345	230.00		
600			†92346	333.00		
4-Pole, 575 Volts A.C.						
30	92441F	\$96.00				
30-60			92442	\$50.00		
60	92442F	99.00				
100	92443F	172.00	92443	106.00		
200	92444F	222.00	92444	142.00		
400	92445F	382.00	92445	318.00		
600			92446	413.00		

*575 volts a.c.; 250 volts d.c. only.
 †Double lugs. Standard single lugs furnished on order.
 ‡Approved for Class I, Group D hazardous locations and all lower classifications.

Amps.	HP. RATING A.C. D.C.	Sheet Steel Enclosure				†Cast Aluminum Weatherproof Dust-Tight Enclosure	
		No.	Each	*No.	Each	*No.	Each
30	7½	†88261	\$26.00	56261	\$26.00	55261	\$74.00
60	15	88262	28.00	56262	28.00	55262	78.00
100	25	88263	43.00	56263	43.00	55263	175.00
200	50	88264	64.00	56264	64.00	55264	252.00
400		88265	149.00				
600		*88266	236.00				
800		†88247	365.00				
1200		†88248	514.00				
3-Pole, 575 Volts A.C.							
30	7½	†88341	\$31.00	56341	\$31.00	55341	\$80.00
30	7½	*88341	32.00				
60	20	88342	33.00	56342	33.00	55342	86.00
100	30	88343	49.00	56343	49.00	55343	188.00
200	50	88344	79.00	56344	79.00	55344	264.00
400		88345	162.00				
600		*88346	270.00				
800		*88347	473.00				
1200		*88348	622.00				
4-Pole, 575 Volts A.C.							
30	7½	*86441	\$38.00				
60	20	88442	41.00				
100	30	88443	65.00				
200	50	88444	110.00				
400		88445	210.00				
600		*88446	341.00				
800		*88447	625.00				
1200		*88448	877.00				

*Interlock not keyed.
 †Cast aluminum enclosures standard but cast iron supplied at same price. Enclosures are equipped with two threaded conduit hubs of proper size. Two additional holes will be drilled and tapped where pads are provided and two pipe plugs furnished at no extra cost.
 ‡Front operated and has elevated removable base. Interlock is not keyed.
 §60-ampere switch with 30-ampere fuse spacing and clips.
 ¶Double lugs. Standard single lugs furnished on order.
 The 800 and 1200-ampere switches are arranged for two fuses per pole.
 ††575 volts a.c.; 250 volts d.c. only.



No. 70010 Square D Cover Control Keys

Schedule A

Fits No. 8000 series.

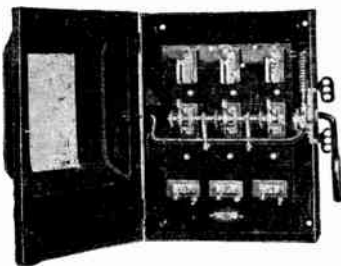
No. 70010 each .80

Type A Square D Heavy Duty Industrial Safety Switches

Single Throw—Fusible
30 to 600-Ampere Switches:

Quick Make—Quick Break—Keyed Interlocked Cover Control
800 to 1200-Ampere Switches:
Quick Break Only—Cover Not Interlocked

Schedule A



No. 89412

2-Pole, 230 Volts A.C.; 250 Volts D.C.

The 60-600-ampere switches have Solder-Solderless Lugs. The 80,000 Series switches have visible blades. The 50,000 series are compact type.

Standard finish is black enamel. 3-wire switching neutral price same as for 3-pole switch, add SWN to 3-pole No.

Amps.	HP. RATING A.C. D.C.	Sheet Steel Enclosure		†Cast Aluminum Weatherproof Dust-Tight Enclosure	
		No.	Each	*No.	Each
30	2 5	88251	\$16.00	56251	\$16.00
30	2 5	88251	20.00		
60	5 10	88252	21.00	56252	21.00
100	10 15	88253	33.00	56253	33.00
200	15 30	88254	54.00	56254	54.00
400	30 50	88255	122.00		
600	.. ..	88256	195.00		
800	.. ..	88257	298.00		
1200	.. ..	88258	413.00		

3-Wire, Solid Neutral, 2 Blades, 2 Fuses, 230 Volts A.C.; 250 Volts D.C.

30	3	89311	\$18.00	59311	\$18.00	50311	\$65.00
60	7½	89312	24.00	59312	24.00	50312	71.00
100	15	89313	38.00	59313	38.00	50313	175.00
200	30	89314	59.00	59314	59.00	50314	252.00
400	50	89315	135.00				
600	.. ..	89316	217.00				
800	.. ..	89317	325.00				
1200	.. ..	89318	460.00				

3-Pole, 230 Volts A.C.; 250 Volts D.C.

30	3	88351	\$20.00	56351	\$20.00	55351	\$66.00
30	3	88351	24.00				
60	7½	88352	28.00	56352	28.00	55352	73.00
100	15	88353	43.00	56353	43.00	55353	179.00
200	30	88354	64.00	56354	64.00	55354	258.00
400	50	88355	139.00				
600	.. ..	88356	238.00				
800	.. ..	88357	406.00				
1200	.. ..	88358	521.00				

4-Wire, Solid Neutral, 3 Blades, 3 Fuses, 230 Volts A.C.; 250 Volts D.C.

30	3	89411	\$26.00				
60	7½	89412	33.00				
100	15	89413	51.00				
200	30	89414	75.00				
400	50	89415	156.00				
600	.. ..	89416	260.00				
800	.. ..	89417	584.00				
1200	.. ..	89418	716.00				

4-Pole, 230 Volts A.C.; 250 Volts D.C.

30	3	88451	\$28.00				
60	10	88452	34.00				
100	20	88453	56.00				
200	30	88454	100.00				
400	50	88455	190.00				
600	.. ..	88456	327.00				
800	.. ..	88457	614.00				
1200	.. ..	88458	750.00				

*Interlock not keyed.
†Cast aluminum enclosures standard but cast iron supplied at same price. Enclosures are equipped with two threaded conduit hubs of proper size. Two additional holes will be drilled and tapped where pads are provided and two pipe plugs furnished at no extra cost.
‡Front operated and has elevated removable base. Interlock is not keyed.
§60-ampere switch with 30-ampere fuse spacing and clips.
¶Double lugs. Standard single lugs furnished on special order. The 800 and 1200-ampere switches are arranged for two fuses per pole.

Type A Square D Heavy Duty Industrial Safety Switches

Single Throw—Not Fusible
30 to 600-Ampere Switches:

Quick Make—Quick Break—Keyed Interlocked Cover Control
800 to 1200-Ampere Switches:

Quick Break Only—Cover Not Interlocked

Schedule A



No. 53342

The 60-600-ampere switches have Solder-Solderless Lugs.

The 84,000 and 54,000 Series have visible blades. The 51,000 and 53,000 Series are compact type.

Standard finish is black enamel.

2-Pole, 230 Volts, A.C.; 250 Volts D.C.

Amps.	HP. RATING A.C. D.C.	Sheet Steel Enclosure		†Cast Aluminum Weatherproof Enclosure	
		No.	Each	*No.	Each
30	3 5	84251	\$15.00	51251	\$15.00
60	7½ 10	84252	20.00	51252	20.00
100	15 15	84253	32.00	51253	32.00
200	25 30	84254	45.00	51254	45.00
400	50 50	84255	85.00		
600	.. ..	84256	167.00		
800	.. ..	84257	264.00		
1200	.. ..	84258	359.00		

3-Pole, 230 Volts A.C.; 250 Volts D.C.

30	5	84351	\$18.00	51351	\$18.00	53351	
60	10	84342	26.00	51342	26.00	53342	\$70.00
100	20	84343	40.00	51343	40.00	53343	
200	40	84344	52.00	51344	52.00	53344	240.00
400	50	84345	135.00				
600	.. ..	84346	217.00				
800	.. ..	84347	352.00				
1200	.. ..	84348	473.00				

4-Pole, 230 Volts A.C.; 250 Volts D.C.

30	5	81451	\$26.00				
30-60	15	84442	34.00				
100	25	84443	61.00				
200	50	84444	95.00				
400	.. ..	84445	176.00				
600	.. ..	84446	306.00				
800	.. ..	84447	454.00				
1200	.. ..	84448	622.00				

2-Pole, 575 Volts A.C.; 600 Volts D.C.; With Arc Suppressors

30	5	84261	\$18.00	51261	\$18.00	53261	\$60.00
60	15	84262	23.00	51262	23.00	53262	64.00
100	25	84263	38.00	51263	38.00	53263	165.00
200	50	84264	49.00	51264	49.00	53264	228.00
400	.. ..	84265	122.00				
600	.. ..	84266	176.00				
800	.. ..	84247	264.00				
1200	.. ..	84248	359.00				

3-Pole, 575 Volts A.C.; With Arc Suppressors

30	10	84341	\$21.00	51341	\$21.00	53341	\$66.00
60	25	84342	26.00	51342	26.00	53342	70.00
100	40	84343	40.00	51343	40.00	53343	
200	50	84344	52.00	51344	52.00	53344	240.00
400	.. ..	84345	135.00				
600	.. ..	84346	217.00				
800	.. ..	84347	352.00				
1200	.. ..	84348	473.00				

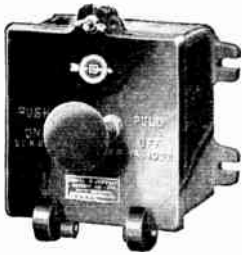
4-Pole, 575 Volts A.C.; With Arc Suppressors

30-60	25	84442	\$34.00				
100	40	84443	61.00				
200	50	84444	95.00				
400	.. ..	84445	176.00				
600	.. ..	84446	306.00				
800	.. ..	84447	454.00				
1200	.. ..	84448	622.00				

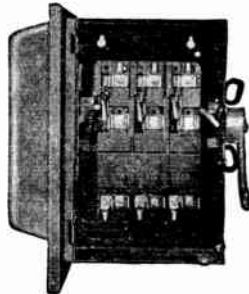
*Interlock not keyed.
†Cast aluminum enclosures standard but cast iron supplied at same price. Enclosures are equipped with two threaded conduit hubs of proper size. Two additional holes will be drilled and tapped where pads are provided and two pipe plugs furnished at no extra cost.
‡Front operated and has elevated removable base. Interlock not keyed.
¶Double lugs. Standard single lugs furnished on order. The 800 and 1200-ampere switches are arranged for two fuses per pole.
§575 volts a.c.; 250 volts d.c. only.
||Dust-tight enclosures, approved for Class II, Group G hazardous locations, available at same price, add suffix D when ordering.

Type C Square D Enclosed Industrial Safety Switches
Single Throw—Quick Make—Quick Break

Schedule A



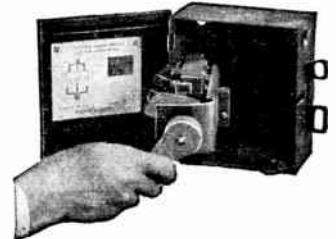
No. 7251



No. 46352



No. 46352R



No. 47311

Indoor types; 30-60-ampere finished in aluminum, 100-ampere and over finished in black enamel. Raintight switches finished in aluminum. The 60-600-ampere switches

have solder-solderless lugs. The 3-wire switching neutral price is the same as for 3-pole switch, add SWN to 3-pole No.

2-Pole, 230 Volts A.C.; 250 Volts D.C.

		Fusible										Not Fusible			
		Sheet Steel Enclosure		Without Hub		One Hub in Top		Hub Size In.		HP. RATING		Sheet Steel Enclosure			
Amps.	A.C. D.C.	No.	Each	No.	Each	No.	Each			Amps.	A.C. D.C.	No.	Each		
30	2 5	*45251	\$9.00	.....	.....	.....	.....	.....	.....	30	3 5	*43251	\$8.00
30	2 5	*†46251	14.00	.....	.....	.....	.....	.....	.....	60	7½ 10	*41252	14.00
30	..	§ 7251	.....	45251R	\$16.00	45251RD	\$17.50	1	.....	100	15 15	41253	24.00
60	5 10	*46252	16.00	46252R	30.00	46252RE	31.50	1¼	.....	200	25 30	41254	32.00	
100	10 15	46253	25.00	46253R	40.00	46253RII	42.50	2	.....	400	50 50	41255	80.00	
200	15 30	46254	38.00	46254R	56.00	46254RW	60.00	2½	.....	600	.....	†41256	150.00
400	30 50	46255	96.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	†46256	190.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3-Wire, Solid Neutral, 2 Blades, 2 Fuses, 230 Volts A.C.; 250 Volts D.C.															
30	3 ..	*47311	\$10.00	47311R	\$17.00	47311RD	\$18.50	1	.....	.....	.....	.....	.....
60	7½ ..	*47312	17.00	47312R	31.00	47312RE	32.50	1¼	.....	.....	.....	.....	.....
100	15 ..	47313	26.00	47313R	42.00	47313RII	44.50	2	.....	.....	.....	.....	.....
200	30 ..	47314	48.00	47314R	58.00	47314RW	62.00	2½	.....	.....	.....	.....	.....
400	50 ..	47315	105.00	47315R	138.00	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	†47316	204.00	47316R	258.00	.....	.....	.....	.....	.....	.....	.....	.....
3-Pole, 230 Volts A.C.; 250 Volts D.C.															
30	3 ..	*45351	\$11.00	.....	.....	.....	.....	.....	.....	30	5 ..	*43351	\$10.00
30	3 ..	*†46351	18.00	45351R	\$20.00	45351RD	\$21.50	1	.....	60	10 ..	*41352	18.00	
60	7½ ..	*46352	20.00	46352R	32.00	46352RE	33.50	1¼	.....	100	20 ..	41353	27.00	
100	15 ..	46353	31.00	46353R	46.00	46353RII	48.50	2	.....	200	40 ..	41354	44.00	
200	30 ..	46354	53.00	46354R	62.00	46354RW	66.00	2½	.....	400	50 ..	41355	96.00	
400	50 ..	46355	111.00	46355R	141.00	.....	.....	.....	.....	600	.....	†41356	196.00
600	.....	†46356	219.00	46356R	294.00	.....	.....	.....	.....	.....	.....	.....	.....
4-Wire, Solid Neutral, 3 Blades, 3 Fuses, 230 Volts A.C.; 250 Volts D.C.															
30	3 ..	*47411	\$14.00	47411R	\$25.00	47411RD	\$26.50	1	.....	.....	.....	.....	.....
60	7½ ..	*47412	23.00	47412R	38.00	47412RE	39.50	1¼	.....	.....	.....	.....	.....
100	15 ..	47413	36.00	47413R	56.00	47413RII	58.50	2	.....	.....	.....	.....	.....
200	30 ..	47414	63.00	47414R	79.00	47414RW	83.00	2½	.....	.....	.....	.....	.....
400	50 ..	47415	135.00	47415R	230.00	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	†47416	242.00	47416R	403.00	.....	.....	.....	.....	.....	.....	.....	.....
4-Pole, 230 Volts A.C.; 250 Volts D.C.															
30	3 ..	*45451	.....	.....	.....	.....	.....	.....	.....	30-60	15 ..	41452	\$24.00
30	3 ..	†46451	\$24.00	.....	.....	.....	.....	.....	.....	100	25 ..	41453	45.00
60	10 ..	*46452	29.00	.....	.....	.....	.....	.....	.....	200	50 ..	41454	80.00
100	20 ..	46453	47.00	.....	.....	.....	.....	.....	.....	400	..	41455	137.00
200	30 ..	46454	85.00	.....	.....	.....	.....	.....	.....	600	..	†41456	240.00
400	50 ..	46455	158.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	..	†46456	290.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3-Pole, 575 Volts A.C.; With Arc Suppressors															
30	7½ ..	*45341	\$19.00	46341R	\$33.00	46341RD	\$34.50	1	.....	30	10 ..	43341	\$14.00	
60	20 ..	*46342	23.00	46342R	38.00	46342RE	39.50	1¼	.....	30-60	25 ..	*41342	.....	
100	30 ..	46343	42.00	46343R	59.00	46343RII	61.50	2	.....	100	40 ..	41343	35.00	
200	50 ..	46344	63.00	46344R	81.00	46344RW	85.00	2½	.....	200	50 ..	41344	48.00	
4-Pole, 575 Volts A.C.; With Arc Suppressors															
30	7½ ..	†46441	\$31.00	.....	.....	.....	.....	.....	.....	30-60	25 ..	41442	\$31.00
60	20 ..	46442	35.00	.....	.....	.....	.....	.....	.....	100	40 ..	41443	57.00
100	30 ..	46443	63.00	.....	.....	.....	.....	.....	.....	200	50 ..	41444	82.00
200	50 ..	46444	102.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

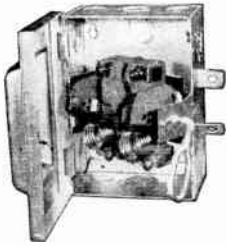
*Has swing-out interior for easier wiring.
†60-ampere switch with 30-ampere fuse spacing and clips.

‡Double lugs. Standard single lugs furnished on order.
§Cast iron enclosure, including end plates.

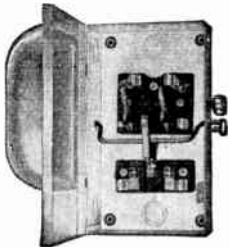
Square D General Purpose Single Throw Safety Switches

30-Ampere Switches: Not Quick Break or Quick Make—60-600 Ampere Switches: Quick Break Only
Schedule A

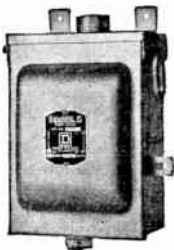
All 30-60-ampere switches have aluminum finish. The 100-ampere and above have black enamel finish; raintight, aluminum finish. Blue label switches are rotor disc type, all others are blade type. The 3-wire switching neutral price is the same as for 3-pole switch, add SWN to 3-pole No.



No. 99211 With Swing-Out Interior



No. 97313



No. 97311RC Raintight



No. 90211 Blue Label

		Fusible										
		2-Wire, Solid Neutral, 1 Blade, 1 Fuse, 115 Volts A.C.; 125 Volts D.C.										
		Flat Base					Raintight					
Amps.	Fuse	No.	Each	Swing-out Interior No.	Each	Blue Label No.	Each	Without Hub No.	Each	One Hub In Top		Hub Size, In.
										No.	Each	
30	Plug	97211C	\$2.70	97211	\$3.50	90211	\$2.70	97211R	\$6.50	97211RC	\$8.00	3/4
30	Plug	.....	.....	*97211WH	4.70	\$90211M	2.70	.....	.....	97211RD	8.00	1
30	Cart	97251C	3.00	97251	3.60	.....	.....	97251R	7.00	97251RC	8.50	3/4
30	Cart	.....	.....	.....	.....	.....	.....	.....	.....	97251RD	8.50	1
2-Pole, 230 Volts A.C.; 250 Volts D.C.												
30	Plug	*99211C	\$3.20	*99211	\$3.80	*93211	\$3.20	*99211R	\$7.00	99211RC	\$8.50	3/4
30	Plug	.....	.....	*99211WH	5.20	*92311C	5.20	.....	.....	99211RD	8.50	1
30	Plug	.....	.....	.....	.....	*93011	8.00	.....	.....	.....	.....	.....
30	Plug	.....	.....	.....	.....	*93011M	10.00	.....	.....	.....	.....	.....
30	Cart	98251C	4.00	98251	4.50	93251	4.00	98251R	7.50	98251RC	9.00	3/4
30	Cart	.....	.....	.....	.....	.....	.....	.....	.....	98251RD	9.00	1
60	.....	.....	.....	96252	9.50	34302	10.00	96252R	9.50	96252RC	16.50	1 1/4
100	.....	96253	19.00	.....	.....	.....	.....	96253R	28.00	96253RH	30.50	2
200	.....	96254	35.00	.....	.....	.....	.....	96254R	45.00	96254RW	49.00	2 1/2
400	.....	96255	96.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	96256	190.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
3-Wire, Solid Neutral, 2 Blades, 2 Fuses, 125/250 Volts A.C. or D.C.; 230 Volts A.C.												
30	Plug	*97311C	\$3.50	97311	\$4.00	*90311	\$3.50	*97311R	\$7.50	97311RC	\$9.00	3/4
30	Plug	.....	.....	*97311WH	5.50	.....	.....	.....	.....	97311RD	9.00	1
30	Cart	97351X	.....	97351	5.00	90351	5.00	97351R	8.50	97351RC	10.00	3/4
30	Cart	.....	.....	.....	.....	.....	.....	.....	.....	97351RD	10.00	1
60	.....	97312D	.....	97312	10.00	34302	10.00	97312R	16.00	97312RE	17.50	1 1/4
100	.....	97313	20.00	.....	.....	.....	.....	97313R	29.00	97313RH	31.50	2
200	.....	97314	44.00	.....	.....	.....	.....	97314R	54.00	97314RW	58.00	2 1/2
400	.....	97315	105.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	97316	204.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
3-Pole, 230 Volts A.C.												
30	Plug	.....	.....	99311	\$6.00	.....	.....	99311R	\$12.00	99311RC	\$13.50	3/4
30	Plug	.....	.....	.....	.....	.....	.....	.....	.....	99311RD	13.50	1
30	Cart	.....	.....	99351	7.50	.....	.....	99351R	13.00	99351RC	14.50	3/4
30	Cart	.....	.....	.....	.....	.....	.....	.....	.....	99351RD	14.50	1
60	.....	.....	.....	96352	12.00	.....	.....	96352R	17.00	96352RC	19.50	1 1/4
100	.....	96353	22.00	.....	.....	.....	.....	96353R	33.00	96353RH	35.50	2
200	.....	96354	48.00	.....	.....	.....	.....	96354R	58.00	96354RW	62.00	2 1/2
400	.....	96355	111.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	96356	219.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
4-Wire, Solid Neutral, 3 Blades, 3 Fuses, 230 Volts A.C.												
30	Cart	.....	.....	97451	\$10.00	.....	.....	97451R	\$17.00	97451RD	\$18.50	1
60	.....	97412	\$20.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
100	.....	97413	33.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
200	.....	97414	59.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
400	.....	97415	135.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	97416	242.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
4-Pole, 230 Volts A.C.												
30	Plug	96411	\$10.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Cart	96451	11.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
60	.....	96452	21.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
100	.....	96453	47.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
200	.....	96454	85.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
400	.....	96455	158.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	96456	290.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not Fusible												
2-Pole, 230 Volts A.C.; 250 Volts D.C.												
30	.....	.....	.....	91251	\$3.00	.....	.....	.....	.....	.....	.....	.....
60	.....	.....	.....	91252	9.00	.....	.....	.....	.....	.....	.....	.....
100	.....	91253	\$18.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
200	.....	91254	26.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
400	.....	91255	80.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	91256	150.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
3-Pole, 230 Volts, A.C.												
30	.....	.....	.....	91351	\$5.50	.....	.....	.....	.....	.....	.....	.....
60	.....	.....	.....	91352	11.00	.....	.....	.....	.....	.....	.....	.....
100	.....	91353	\$20.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
200	.....	91354	35.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
400	.....	91355	86.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	91356	173.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
4-Pole, 230 Volts, A.C.												
30	.....	91451	\$10.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
60	.....	91452	19.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
100	.....	91453	45.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
200	.....	91454	80.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
400	.....	91455	137.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
600	.....	91456	240.00	.....	.....	.....	.....	.....	.....	.....	.....	.....

*115/230 volts a.c.; 125/250 volts d.c. only.

†115 volts a.c. only.

‡Dual water heater switch; two No. 92311's in one box.

§Same as No. 90211 except in larger box.

¶Has dead-front shield over interior.

||Double lugs. Standard single lugs furnished on order.

Square D Service Equipment

Sequence: Meter—Switch—Fuse

115 and 116/230 Volts A.C.

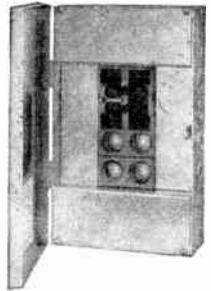
Schedule A

Standard finish is aluminum. A 30-ampere cartridge type Square D fuse-break will be supplied in place of 60-ampere Square D fuse-break at no additional cost if specified on order.

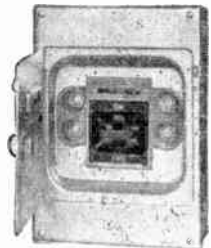
Group C1 Pull-Out Main Switch—Fully Interlocked (or Dead Main Fuses)—Square D Fuse-Breaks



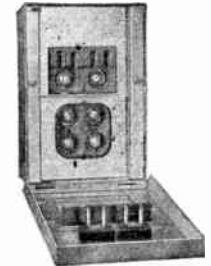
No. 33582S



No. 39532H



No. 32582



No. 33401



No. 39902D

Amps.	MAINS		BRANCH CIRCUITS		*End Walls	Grounded Neutral				Insulated Groundable Neutral						
	Poles	Blades	Fusible Poles	30 A. 60 A. 3 W. S/N		Surface Mounting No.	Flush Mounting Each	Surface Mounting No.	Flush Mounting Each	Surface Mounting No.	Flush Mounting Each	Surface Mounting No.	Flush Mounting Each			
60	3	2	2	..	C	..	..	..	..	..	..	..	..	..	..	..
	3	2	2	..	M	..	..	..	..	..	..	..	..	..	..	..
	3	2	2	2	..	C	..	..	..	..	..	..	..	..	..	..
	3	2	2	2	..	M	..	..	..	..	..	..	..	..	..	..
	3	2	2	4	..	C	..	..	..	..	..	..	..	..	..	..
	3	2	2	4	..	M	..	..	..	..	..	..	..	..	..	..
	3	2	2	6	..	C	..	..	..	..	..	..	..	..	..	..
	3	2	2	6	..	M	..	..	..	..	..	..	..	..	..	..
	3	2	2	8	..	C	..	..	..	..	..	..	..	..	..	..
	3	2	2	8	..	M	..	..	..	..	..	..	..	..	..	..
	3	2	2	4	1	C	33582S	\$12.00	33582F	\$13.00	33582ZS	9.50	33582ZF	10.50	..	..
	3	2	2	4	1	M	33582H	12.00	..	..	..	..	..	..	..	..
	3	2	2	4	1	C	†33582PS	13.00	†33582PF	14.00	..	..	..	..	..	..
	3	2	2	4	1	M	†33582PH	13.00	..	..	..	..	..	..	..	..
	3	2	2	6	1	C	†33782PS	25.00	†33782PF	21.00	..	..	..	..	..	..
3	2	2	6	1	C	33782S	19.00	33782F	20.00	..	..	..	..	..	..
3	2	2	8	1	C	†33982PS	25.00	†33982PF	28.00	..	..	..	..	..	..
3	2	2	8	1	C	33982S	24.00	33982F	27.00	..	..	..	..	..	..
100	3	2	2	4	1	C	**33583PS	14.00	**33583PF	15.00	..	..	..	..	..	..
	3	2	2	4	1	M	**33583PH	14.00	..	..	..	..	..	..	..	..

Group B5 Toggle or Rotary Switch Main—Fuseless

Amps.	Poles	Blades	Fusible Poles	30 A. 60 A. 3 W. S/N	*End Walls	Surface Mounting No.	Flush Mounting Each	Surface Mounting No.	Flush Mounting Each	
30	3	2	..	2	..	C	..	..	..
	3	2	..	4	..	C	32482	\$11.00	32472	\$12.00
	3	2	..	6	..	C	32682	12.00	32672	13.00
60	3	2	..	4	1	C	32582	12.00	32572	13.00
	3	2	..	4	1	C	32583	14.00	32573	15.00

Group D1 Letterbox Type—Cover-Operated Main Switch—Fully Interlocked (or Dead Main Fuses)

Indoor Type—For Ganging or Single Installations

For ganging type with removable sidewalls add X to number, furnished at same price.

Amps.	Poles	Blades	Fusible Poles	30 A. 60 A. 3 W. S/N	*End Walls	Surface Mounting No.	Flush Mounting Each	Surface Mounting No.	Flush Mounting Each
30	2	1	1P	..	C	33021	\$8.50	..	..
	2	2	2P	..	C	33001	9.00	..	..
	3	2	2P	..	C	§33091M	16.00	..	..
	3	2	2P	..	C	33031	9.50	..	..

No. 29001 ganging connector available, 30 cents each.

Non-Ganging Type—With Swingout Interiors for Easier Wiring—Indoor Type

Amps.	Poles	Blades	Fusible Poles	30 A. 60 A. 3 W. S/N	*End Walls	Surface Mounting No.	Flush Mounting Each	Surface Mounting No.	Flush Mounting Each
30	2	1	1P	2	..	C	33221	\$11.00	..
	2	1	1P	4	..	C	33421	12.00	..
	2	2	2P	2	..	C	33201	11.00	..
	2	2	2P	4	..	C	33401	12.00	..
	3	2	2P	2	..	C	33231	11.00	..
	3	2	2P	4	..	C	33431	12.00	..

Raintight Outdoor Type—Surface Mounting

Amps.	MAINS		BRANCH CIRCUITS		Group	Grounded Neutral				Hub Size In.
	Poles	Blades	Fusible Poles	30 A. 60 A. 3 W. S/N		Without Hub No.	Each	One Hub In Top No.	Each	
30	2	1	1P	..	D1	39021	\$11.00	39021D	\$12.50	1
	3	2	2P	..	D1	39031	12.00	39031D	13.50	1
60	3	2	..	4	B5	32582R	18.00	32582RE	19.50	1 1/4
	3	2	2	..	C1	39902	12.00	39902D	13.50	1
	3	2	2	..	C1	..	..	39902E	13.50	1 1/4
	3	2	2	..	C1	..	..	39902YS	13.50	1 1/4
100	3	2	2	4	C1	33582R	18.00	33582RE	19.50	1 1/4
	3	2	2	4	C1	†33582PR	19.00	†33582PRE	20.50	1 1/4
	3	2	..	4	B5	32583R	20.00	32583RG	22.50	1 1/2
	3	2	2	..	D1	39903	37.00	39903G	39.50	1 1/2
	3	2	2	4	C1	†33583PR	20.00	**33583PRG	22.50	1 1/2
	3	2	2	4	C1	..	..	..	..	..

*C is conduit endwall; M is metering endwall.

†60-ampere main and range circuits are wired in parallel. 60-ampere main switch controls lighting circuits only.

§Has provision for one meter socket at top, for off peak water heat service.

¶Group A5—Knife switch main, fuseless.

||Has 1 1/4-inch nipple in top and external mounting brackets.

**Main switch 60 amperes with 100-ampere main lugs and connectors.

Square D Service Equipment

Sequence: Meter—Switch—Fuse. Sealable Main Fuses

115 Volts and 115/230 Volts A.C.

Schedule A

Group B3: Knife Switch Mains—Live Front

Group B4: Toggle Switch Mains—Live Front—Square D

Fuse-Break in 60-Ampere Branches Only



No. S-3104

Standard finish: all boxes and surface covers, aluminum; flush covers, gray enamel.

MAINS				Surface Mounting		
Amps.	Poles	Blades	Fused Poles	Group	No.	Each
30	2	1	1P	B3	97211CS	\$2.70
30	2	2	2P	...	.....
30	2	2	2C	...	.....
30	3	2	2P	B3	97311CS	3.50
60	2	2	2	...	.....
60	3	2	2	B3	97321S	10.00
100	2	2	2	...	.....
100	3	2	2	B3	97313CS	20.00

With Transformer Barrier and Knockouts for Despard Fittings

MAINS				BRANCH FUSES		Flush Mounting		Surface Mounting	
Amps.	Poles	Blades	Fused	30 Amps.	60 Amps.	No.	Each	No.	Each
30	2	1	1P	2	..	B4	TF-2102 \$12.00	TS-2102	\$11.00
30	2	1	1P	4	..	B4	TF-2104 13.00	TS-2104	12.00
30	3	2	2P	4	..	B4	TF-3104 14.00	TS-3104	13.00
30	3	2	2P	6	..	B4	TF-3106 16.00	TS-3106	15.00
30	3	2	2P	8	..	B4	TF-3108 22.00	TS-3108	21.00
60	3	2	2	6	..	B4	TF-3206 19.00	TS-3206	18.00
60	3	2	2	8	..	B4	TF-3208 26.00	TS-3208	25.00
60	3	2	2	10	..	B4	TF-3210 31.00	TS-3210	30.00
60	3	2	2	12	..	B4	TF-3212 36.00	TS-3212	35.00

Without Transformer Barrier and Knockouts for Despard Fittings

MAINS				BRANCH FUSES		Flush Mounting		Surface Mounting	
Amps.	Poles	Blades	Fused	30 Amps.	60 Amps.	No.	Each	No.	Each
30	2	1	1P	2	..	B4	F-2102 \$11.00	S-2102	\$10.00
30	2	1	1P	4	..	B4	F-2104 12.00	S-2104	11.00
30	3	2	2P	4	..	B4	F-3104 13.00	S-3104	12.00
30	3	2	2P	6	..	B4	F-3106 15.00	S-3106	14.00
30	3	2	2P	8	..	B4	F-3108 21.00	S-3108	20.00
60	3	2	2	6	..	B4	F-3206 18.00	S-3206	17.00
60	3	2	2	8	..	B4	F-3208 25.00	S-3208	24.00
60	3	2	2	10	..	B4	F-3210 30.00	S-3210	28.00
60	3	2	2	12	..	B4	F-3212 35.00	S-3212	34.00

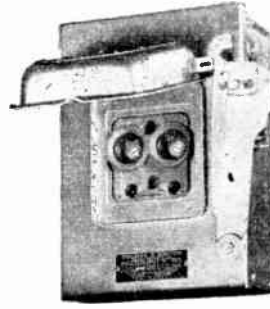
Square D Meter Service Switches

Sequence: Switch—Fuse—Meter Accessible Main Fuses

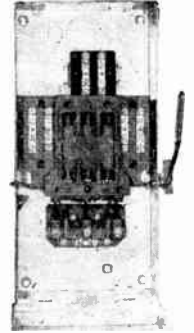
Insulated Neutral—Meter Test and Not Meter Test

115 Volts and 115/230 Volts A.C.

Schedule A



No. 30331



No. 30413

All of these switches are bottom connected, and have meter endwalls.

Standard finish, aluminum.

MAINS			BRANCHES		Meter Test		Not Meter Test	
Amps.	Poles	Fused Poles	30 Amps.	30 Amps.	No.	With Endwall Each	No.	With Endwall Each
30	2	1P	..	..	30231	\$9.00	10231	\$8.50
30	2	2P	..	..	30211	9.50	10211	9.00
30	3	2P	..	..	30331	10.00	10331	9.50
30	3	2C	..	..	30371	12.00	10371	11.00
30	3	3C	..	..	*30391	28.00	*10391	26.00
60	3	2	..	..	30372	26.00	10372	23.00
60	3	2	..	..	*30312	40.00	*10312	37.00
60	3	3	..	..	*30392	44.00	*10392	38.00
60	4	3	..	..	*30412	57.00	*10412	49.00
100	3	2	..	..	30373	42.00	10373	39.00
100	3	2	..	..	*30313	42.00	*10313	39.00
100	3	3	..	..	*30393	71.00	*10393	50.00
100	4	3	..	..	*30413	85.00	*10413	60.00
200	3	2	..	..	*30314	96.00	*10314	83.00
200	3	3	..	..	*30394	135.00	*10394	90.00
200	4	3	..	..	*30414	168.00	*10414	116.00
400	3	2	..	..	*30315	203.00	*10315	180.00
400	3	3	..	..	*30395	240.00	*10395	188.00
400	4	3	..	..	.....	.....	*10415	203.00

*Switches with visible blades.

Square D Meter Service Switches

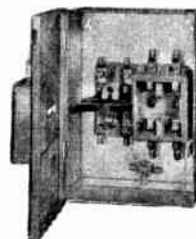
Sequence: Switch—Meter—Fuse—Accessible Main Fuses

Insulated Neutral—Test Facilities

115 Volts and 115/230 Volts A.C.

Schedule A

Switches have meter endwalls. Standard finish, aluminum.

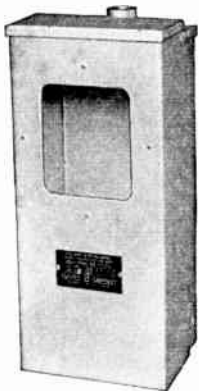


No. 31312

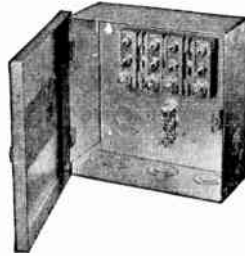
MAINS		BRANCH FUSES		With End-wall, Each	
Amps.	Poles	Blades	30 Amps.	60 Amps.	No.
30	2	1	..	..	31211 \$9.00
30	3	2	..	..	31311 10.00
60	3	2	..	..	*31312 16.00
60	3	2	4	2	*31352 27.00
60	3	2	6	2	*31372 30.00
100	3	2	..	..	*31313 30.00

*Rotor disc type. Grounded neutral.

Square D Meter Boxes
Standard Finish—Aluminum

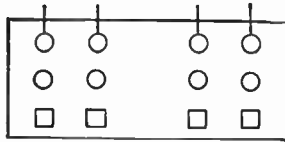


No. 12332D



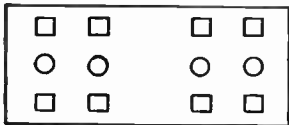
No. 12302

Wiring Diagrams
No. 1



2 or 3 Wire, Grounded Neutral

No. 2



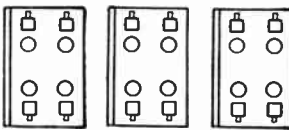
2 or 3-Wire
Insulated Neutral—12464
Insulated Groundable
Neutral—12312, 12342D

No. 4



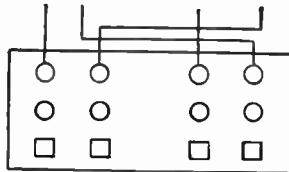
2-Wire
Grounded Neutral—12232D
Insulated Groundable
Neutral—12202

No. 7



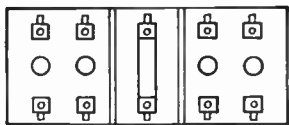
4-Wire
Insulated Neutral

No. 3



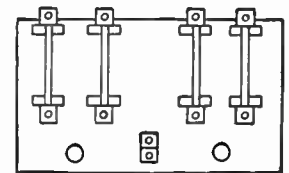
2 or 3-Wire
Grounded Neutral—12362D
Insulated Groundable
Neutral—12322

No. 5



2 or 3-Wire
Insulated Neutral

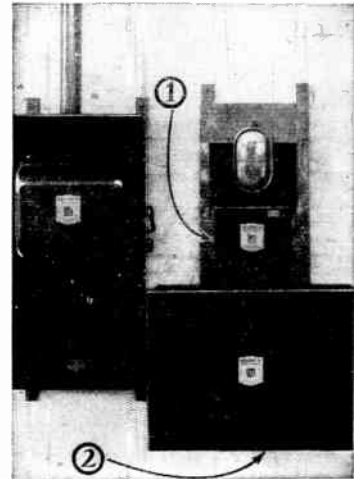
No. 9



2 or 3-Wire
Insulated Neutral

No. 13991 Square D Meter Test Block Cabinets

(Cabinet Marked "1" in Illustration Below)



Box is hinged at top and has tapped holes in back to mount "States" and "Eastern Specialty" (Type E-4) meter test blocks. These test blocks are used in combination with current transformers or with current and potential transformers for testing watt-hour meters.

Cabinet has 60 and 100-ampere standardized shutter openings at top. Furnished with blank shutters in place.

Height, 11¹/₈ inches. Width, 12⁷/₈ inches. Depth, 4⁵/₈ inches.

Standard finish, aluminum.

No. 13991.....each \$7.00

Square D Current Transformer Cabinets

(Cabinet Marked "2" in Illustration Above)

Standard finish, aluminum.

No. 13922 accommodates one or two transformers and has one-piece removable cover hinged at long side. Drilled for current transformer. Knockouts provided at side and top for line, load and meter wires.

No. SK2040 is similar to No. 13992, except has sealing stud with wing nut in place of spring latch.

No. SK2146 has removable cover and accommodates three transformers.

No. SK2256 accommodates one transformer.

No.	Each	Height Inches	Width Inches	Depth Inches
13992	\$25.00	24 ⁵ / ₈	32 ⁵ / ₈	10 ¹ / ₁₆
SK2040	25.00	24 ⁵ / ₈	32 ⁵ / ₈	10 ¹ / ₁₆
SK2146	54.00	36 ⁵ / ₈	32 ⁵ / ₈	10 ¹ / ₁₆
SK2256	25.00	18 ⁵ / ₈	18 ⁵ / ₈	9 ¹ / ₈

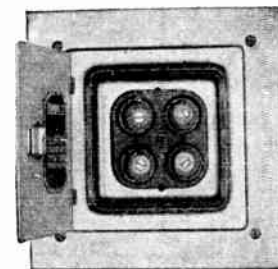
Square D Fuse Cabinets

Schedule A

Rated at 30 amperes, for 125/250-volt 2 or 3-wire a.c. or d.c. Fuse shells will accommodate either standard or non-temperable plug fuses. Neutrals are insulated from box.

Aluminum finish. No. 37421 is illustrated.

*For outside dimensions of flush front, add about 1¹/₄ in.



Surface No.	39211	39411	39611	39811	39011	39111
Flush No.	37221	37421	37621	37821	37021	37121
Each	\$4.00	5.00	8.00	10.00	15.00	20.00
No. Branches	2	4	6	8	10	12
*Height..inches	6 ⁵ / ₈	6 ⁵ / ₈	11 ¹ / ₈	14 ¹ / ₈	15 ¹ / ₄	16 ⁷ / ₈
*Width..inches	6 ⁵ / ₈	6 ⁵ / ₈	7 ³ / ₈	7 ³ / ₈	7 ³ / ₈	7 ³ / ₈
Depth...inches	2 ³ / ₄	2 ³ / ₄	3 ¹ / ₈	3 ¹ / ₈	3 ¹ / ₈	3 ¹ / ₈

Amp.	Volts	Wiring Wire No.	Dia. Meter Leads	Test Block No. without Leads	No.	Indoor		Outdoor		Hub Size In.
						No.	Each	No.	Each	
*30	125	2	4	Yes	SK2890	12202	\$8.00	12232D	\$9.00	1
†30	250/600	2-3	9	No	.....	12461	10.00	.....	.....	.....
*60	125/250	2-3	3	Yes	SK2891	12322	10.00	12362D	12.00	1
*60	125/250	2-3	1	Yes	SK2892	12302	10.00	12332D	12.00	1
*60	125/250	2-3	2	No	SK2893	12312	10.00	12342D	12.00	1
†60	250/600	2-3	5	No	SK2349	12462	17.00	.....	.....	.....
†60	250/600	4	7	No	SK2684	12662	19.00	.....	.....	.....
†100	250/600	2-3	5	No	SK2305	12463	20.00	.....	.....	.....
†100	250/600	4	7	No	SK2685	12663	30.00	.....	.....	.....
†200	250/600	2-3	2	No	SK2306	12464	27.00	.....	.....	.....

*Back-off nut type of test block. †Removable link type of test block. ‡Outdoor meter box only—no test block—No. 12002D—each, \$7.00. §One-inch hub furnished as standard; 1¹/₄-inch hub will be furnished at no extra cost, if specified.

Square D Industrial Circuit Breakers Manually Operable—Quick Make—Quick Break

250 and 600 Volts A.C.; 125/250 and 250 Volts D.C.

Schedule D1



No. 77350



No. 77670Y



No. 77716X

2-Pole, 250 Volts A.C.; 125/250 Volts D.C., Non-Interchangeable Trip

Type L, Breaker Unit, 50-Ampere Frame

Amps.	*Dust-Resisting Sheet Steel Enclosure		Weatherproof and Dust-Tight			Cast Iron Enclosures Class II—Group G			Class I—Group D		
	No.	Each	No.	Each	†Drilling Inches	No.	Each	†Drilling Inches	No.	Each	†Drilling Inches
15	76215	\$19.00	76215D	\$35.00	3/4	†	.....	.....	76215X	\$41.00	3/4
20	76220	19.00	76220D	35.00	3/4	†	.....	.....	76220X	41.00	3/4
25	76225	19.00	76225D	35.00	1	†	.....	.....	76225X	41.00	1
35	76235	19.00	76235D	35.00	1 1/4	†	.....	.....	76235X	41.00	1 1/4
50	76250	19.00	76250D	35.00	1 1/4	†	.....	.....	76250X	41.00	1 1/4

3-Pole, 250 Volts A.C.; 125/250 Volts D.C., Non-Interchangeable Trip

Type L Breaker Unit, 50-Ampere Frame

15	76315	\$26.00	76315D	\$50.00	3/4	76315Y	\$54.00	3/4	76315X	\$62.00	3/4
20	76320	26.00	76320D	50.00	3/4	76320Y	54.00	3/4	76320X	62.00	3/4
25	76325	26.00	76325D	50.00	1	76325Y	54.00	1	76325X	62.00	1
35	76335	26.00	76335D	50.00	1 1/4	76335Y	54.00	1 1/4	76335X	62.00	1 1/4
50	76350	26.00	76350D	50.00	1 1/4	76350Y	54.00	1 1/4	76350X	62.00	1 1/4

2-Pole, 250 Volts A.C.; 125/250 Volts D.C., Non-Interchangeable Trip

Type ML2, Breaker Unit, 100-Ampere Frame

70	77270	\$37.00	77270D	\$78.00	1 1/2	77270Y	\$98.00	1 1/2	77270X	\$117.00	1 1/2
90	77290	37.00	77290D	78.00	1 1/2	77290Y	98.00	1 1/2	77290X	117.00	2
100	77216	37.00	77216D	78.00	1 1/2	77216Y	98.00	1 1/2	77216X	.....	2

3-Pole, 250 Volts A.C.; 125/250 Volts D.C., Non-Interchangeable Trip

Type ML2, Breaker Unit, 100-Ampere Frame

70	77370	\$47.00	77370D	\$88.00	1 1/2	77370Y	\$107.00	1 1/2	77370X	\$126.00	1 1/2
90	77390	47.00	77390D	88.00	1 1/2	77390Y	107.00	1 1/2	77390X	126.00	2
100	77316	47.00	77316D	88.00	1 1/2	77316Y	107.00	1 1/2	77316X	126.00	2

2-Pole, 600 Volts A.C.; 250 Volts D.C., Non-Interchangeable Trip

Type ML2, Breaker Unit, 100-Ampere Frame

15	77615	\$35.00	77615D	\$65.00	1 1/4	77615Y	\$71.00	1 1/4	77615X	\$84.00	3/4
20	77620	35.00	77620D	65.00	1 1/4	77620Y	71.00	1 1/4	77620X	84.00	3/4
25	77625	35.00	77625D	65.00	1 1/4	77625Y	71.00	1 1/4	77625X	84.00	1
35	77635	35.00	77635D	65.00	1 1/4	77635Y	71.00	1 1/4	77635X	84.00	1 1/4
50	77650	35.00	77650D	65.00	1 1/4	77650Y	71.00	1 1/4	77650X	84.00	1 1/4
70	77670	48.00	77670D	90.00	1 1/2	77670Y	109.00	1 1/2	77670X	128.00	1 1/2
90	77690	48.00	77690D	90.00	1 1/2	77690Y	109.00	1 1/2	77690X	128.00	1 1/2
100	77616	48.00	77616D	90.00	1 1/2	77616Y	109.00	1 1/2	77616X	128.00	1 1/2

3-Pole, 600 Volts A.C.; 250 Volts D.C., Non-Interchangeable Trip

Type ML2, Breaker Unit, 100-Ampere Frame

15	77715	\$44.00	77715D	\$73.00	1 1/4	77715Y	\$78.00	1 1/4	77715X	\$93.00	3/4
20	77720	44.00	77720D	73.00	1 1/4	77720Y	78.00	1 1/4	77720X	93.00	3/4
25	77725	44.00	77725D	73.00	1 1/4	77725Y	78.00	1 1/4	77725X	93.00	1
35	77735	44.00	77735D	73.00	1 1/4	77735Y	78.00	1 1/4	77735X	93.00	1 1/4
50	77750	44.00	77750D	73.00	1 1/4	77750Y	78.00	1 1/4	77750X	93.00	1 1/4
70	77770	58.00	77770D	99.00	1 1/2	77770Y	119.00	1 1/2	77770X	138.00	1 1/2
90	77790	58.00	77790D	99.00	1 1/2	77790Y	119.00	1 1/2	77790X	138.00	1 1/2
100	77716	58.00	77716D	99.00	1 1/2	77716Y	119.00	1 1/2	77716X	138.00	1 1/2

*With side-operating handle.

†These enclosures furnished with standard conduit openings of sizes as shown—one in top, two in bottom, except 2-pole, 250 volts a.c. with one in top and one in bottom.

‡For 250-volt d.c. devices add D.C. to number.

‡Use Class I, Group D.

Square D Industrial Circuit Breakers

**Manually Operated—Quick Make—Quick Break
Non-Interchangeable Trip Units**

**Type ML3 Breaker Unit, 225-Ampere Frame
250 and 600 Volts A.C.; 125-250 and 250 Volts D.C.**

Schedule D1



No. 78318

Has a solderless connector which offers ease of inserting heavy cable by swinging open the hinged top of the lug. It is only necessary to cut the cable to proper length, remove 1¼ inches of insulation and lay the cable in the lug, swing the hinged top into position and tighten a set screw.

Trip ratings are 125 to 225 amperes.

Available in sheet steel dust-resisting enclosures with side operated handle for 3 and 4-wire solid neutral applications in addition to 2 and 3-pole devices. Also furnished in panelboards and switchboards.

Dust-Resisting Sheet Steel Enclosure

Amps.	2-Pole, 250V. A.C. 125-250V. D.C.		3-Pole, 250V. A.C. 125-250V. D.C.		2-Pole, 600V. A.C. 250V. D.C.		3-Pole, 600V. A.C. 250V. D.C.	
	No.	Each	No.	Each	No.	Each	No.	Each
125	78217	\$112.	78317	\$134.	78617	\$131.	78717	\$161.
150	78218	112.	78318	134.	78618	131.	78718	161.
175	78219	112.	78319	134.	78619	131.	78719	161.
200	78226	112.	78326	134.	78626	131.	78726	161.
225	78227	112.	78327	134.	78627	131.	78727	161.

Cast Iron Enclosure

2-Pole, 250 Volts A.C.; 125-250 Volts D.C.

Amps.	No.	Each	Weatherproof and Dust-Tight *Drilling Inches		Class II—Group G *Drilling Inches		Class I—Group D *Drilling Inches	
			No.	Each	No.	Each	No.	Each
125	78217D	\$193.	2½	78217Y	\$207.	2½	78217X	\$230.
150	78218D	193.	2½	78218Y	207.	2½	78218X	230.
175	78219D	193.	2½	78219Y	207.	2½	78219X	230.
200	78226D	193.	2½	78226Y	207.	2½	78226X	230.
225	78227D	193.	2½	78227Y	207.	2½	78227X	230.

3-Pole, 250 Volts A.C.; 125-250 Volts D.C.

125	78317D	\$134.	2½	78317Y	\$229.	2½	78317X	\$252.	2½
150	78318D	134.	2½	78318Y	229.	2½	78318X	252.	2½
175	78319D	134.	2½	78319Y	229.	2½	78319X	252.	2½
200	78326D	134.	2½	78326Y	229.	2½	78326X	252.	2½
225	78227D	134.	2½	78327Y	229.	2½	78327X	252.	2½

2-Pole, 600 Volts A.C.; 250 Volts D.C.

125	78617D	\$213.	2½	78617Y	\$227.	2½	78617X	\$250.	2½
150	78618D	213.	2½	78618Y	227.	2½	78618X	250.	2½
175	78619D	213.	2½	78619Y	227.	2½	78619X	250.	2½
200	78626D	213.	2½	78626Y	227.	2½	78626X	250.	2½
225	78627D	213.	2½	78627Y	227.	2½	78627X	250.	2½

3-Pole, 600 Volts A.C.; 250 Volts D.C.

125	78717D	\$242.	2½	78717Y	\$256.	2½	78717X	\$279.	2½
150	78718D	242.	2½	78718Y	256.	2½	78718X	279.	2½
175	78719D	242.	2½	78719Y	256.	2½	78719X	279.	2½
200	78726D	242.	2½	78726Y	256.	2½	78726X	279.	2½
225	78727D	242.	2½	78727Y	256.	2½	78727X	279.	2½

*Furnished with standard conduit openings of sizes as shown—one in top, two in bottom.

Square D Circuit Interrupters

**Non-Automatic
Type ML, 50 Ampere Frame
Type ML2, 100 Ampere Frame
Type ML3, 225 Ampere Frame**

Schedule D1

Non-automatic circuit interrupters consist of essentially the same device as automatic circuit breakers with the exception of the tripping mechanisms. They are used on applications previously requiring non-fusible safety switches.

The non-automatic circuit interrupters are enclosed in the same types and sizes of sheet steel enclosures as are the automatic circuit breakers. Circuit interrupter listings are shown below.

The interrupting capacity of the non-automatic breaker is much higher than that of a comparable Type A unfused safety switch. Comparable standard automatic circuit breakers of 100 amperes or less, rated 250 volts or less, interrupt short circuit values of

5000 amperes. Breakers above 100 amperes, rated 250 volts, as well as all 600 volt a.c. breakers, are required by Underwriters to interrupt 10,000 amperes. Horsepower rated safety switches are only required to interrupt stalled rotor current of the motor they protect, 6 times full load current of motor. Due to the compactness of circuit interrupters, they find ready applications where space is limited

Type ML

No.	76200	76300
Each	\$19.00	26.00
No. of Poles	2	3
Volts	250	250

Type ML2

No.	77200	77300	77600	77700
Each	\$31.00	38.00	42.00	50.00
No. of Poles	2	3	2	3
Volts	250	250	600	600

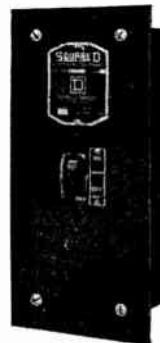
Type ML3

No.	78200	78300	78600	78700
Each	\$91.00	108.00	104.00	127.00
No. of Poles	2	3	2	3
Volts	250	250	600	600

Square D General Purpose Circuit Breakers

**Surface Type
Type ML Breakers**

**125, 125-250 Volts A.C./D.C. and 230 Volts A.C.
*Schedule D1***



Furnished with one handle.
Finished in black.

Amps.	Single-Pole		2-Pole		3-Pole	
	No.	Each	No.	Each	No.	Each
15	76115S	\$9.00	76715S	\$16.00	76515S	\$24.00
20	76120S	9.00	76720S	16.00	76520S	24.00
25	76125S	9.00	76725S	16.00	76525S	24.00
35	76135S	9.00	76735S	16.00	76535S	24.00
50	76150S	9.00	76750S	16.00	76550S	24.00

Heinemann Magnetic Circuit Breakers

120-240 A.C.



An outdoor type breaker which serves as main disconnect and over-current protection for the electrified farm. May be installed on the yard pole or on the farm building.

Meets both R.E.A. and Underwriters' requirements.

Magnetic trip with time delay gives high speed trip on short circuits, and delayed trip on harmless overloads. After the circuit breaker opens on overload or short circuit, it may be closed at once provided current has returned to normal. No resetting necessary, no confusing trip position—handle moves one way to "on" and the other way to "off." There is negligible wattage loss since nothing heats. Provision is made for locking the wiring compartment with meter seal or padlock. Solderless connectors are provided for all connections to circuit breakers and to neutral.

Housing made of 16 gage galvanized steel with baked on aluminum finish. Made by deep drawing and not as a folded box; this results in rounded corners with no sharp projections, as well as providing waterproof construction.

Overall height, 9¹³/₃₂ inches; height of housing, 8¹⁵/₁₆ inches; width of housing, 4¹/₈ inches; depth of housing, 3¹/₈ inches, hub size 1¹/₄ inches.

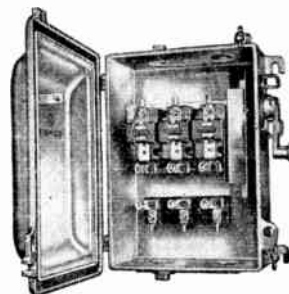
No.	Description	Each
H1801-35	Service Equipment with one 35-Ampere Breaker.....	\$13.60
H1802-35	Service Equipment with two 35-Ampere Breakers.....	17.65
H1802-50	Service Equipment with two 50-Ampere Breakers.....	17.65
H1800	Service Equipment, Enclosure Only.....	8.35
0412-35	Circuit Breaker Only, 35 Amperes.....	4.05
0412-50	Circuit Breaker Only, 50 Amperes.....	4.05

Type A Style RBA Trumbull Water Tight and Dust Tight Safety Switches

Single Throw Weatherproof Boxes

Quick Make and Break Interlocking Cover
Cast Iron N.E.M.A. Types 4 and 5

Schedule C—0-100 Amperes
Schedule ★C—200 Amperes and Over



All weatherproof boxes furnished with two holes drilled and tapped in each end. One hole in each end closed with pipe plug. Pipe size tapped holes; 30 amperes, 3/4-inch; 60 amperes, 1 1/4-inch; 100 amperes, 1 1/2-inch; 200 amperes 2 1/2-inch; and 400 amperes, 3-inch.

Solderless lugs standard.
Machine grey finish.

			Fusible	
			30 Amperes	
No.	Each	No. of Poles	—VOLTAGE AND MAX. HP. RATING—	
68221C	\$38.00	2	230 A.C., 2 Hp.; 250 D.C., 5 Hp.	
68261C	51.00	2	600 D.C., 7 1/2 Hp.	
68321C	43.00	3	230 A.C., 3 Hp.	
68361C	56.00	3	575 A.C., 7 1/2 Hp.	
			60 Amperes	
68222C	\$50.00	2	230 A.C., 5 Hp.; 250 D.C., 10 Hp.	
68262C	62.00	2	600 D.C., 15 Hp.	
68322C	57.00	3	230 A.C., 7 1/2 Hp.	
68362C	69.00	3	575 A.C., 20 Hp.	
			100 Amperes	
68223C	\$130.00	2	230 A.C., 10 Hp.; 250 D.C., 15 Hp.	
68263C	140.00	2	600 D.C., 25 Hp.	
68323C	140.00	3	230 A.C., 15 Hp.	
68363C	150.00	3	575 A.C., 30 Hp.	
			200 Amperes	
68224C	\$200.00	2	230 A.C., 15 Hp.; 250 D.C., 30 Hp.	
68264C	210.00	2	600 D.C., 50 Hp.	
68324C	210.00	3	230 A.C., 30 Hp.	
68364C	220.00	3	575 A.C., 50 Hp.	
			400 Amperes	
68225C	\$405.00	2	230 A.C., 25 Hp.; 250 D.C., 50 Hp.	
68265C	420.00	2	600 A.C. or D.C.	
68325C	420.00	3	230 A.C., 50 Hp.	
68365C	435.00	3	575 A.C.	
			No Fuse	
			30 Amperes	
No.	Each	No. of Poles	—VOLTAGE AND MAX. HP. RATING—	
34361C	\$42.00	3	230 A.C., 5 Hp.; 575 A.C., 10 Hp.; 250 D.C., 5 Hp.; 600 D.C., 7 1/2 Hp.	
			60 Amperes	
34362C	\$54.00	3	230 A.C., 10 Hp.; 575 A.C., 25 Hp.; 250 D.C., 10 Hp.; 600 D.C., 15 Hp.	
			100 Amperes	
34363C	\$135.00	3	230 A.C., 20 Hp.; 575 A.C., 40 Hp.; 250 D.C., 15 Hp.; 600 D.C., 25 Hp.	
			200 Amperes	
34364C	\$200.00	3	230 A.C., 40 Hp.; 575 A.C., 50 Hp.; 250 D.C., 30 Hp.; 600 D.C., 50 Hp.	
			400 Amperes	
34365C	\$400.00	3	230 A.C., 50 Hp.; 575 A.C.; 250 D.C., 50 Hp.; 600 D.C.	



Type A Style A Trumbull Heavy Duty Switches

Single Throw

**Quick Make and Break—Interlocking Cover
General Purpose N.E.M.A. Type 1 Steel Enclosure**

Schedule C—0-100 Amperes

Schedule ★C—200 Amperes and Over

SN (Solid Neutral) Switches have a neutral strap between two poles. For example: No. 72221, a 2-pole switch, by the addition of this neutral strap becomes No. 72321SN, a 3-pole solid neutral switch. Exception: 3 and 4-pole solid neutral switches 800-ampere and above have regular 3 and 4-pole bases.

For switching neutral switches use the corresponding 3-pole switch and insert dummy fuse.

Solderless lugs standard.

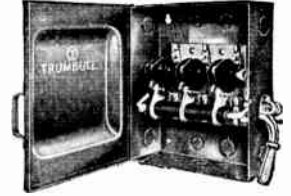
Switches available for 1800 and 2400 amperes. Prices upon request.

Machine grey finish.

*Twin lugs per pole.



Fusible



No Fuse

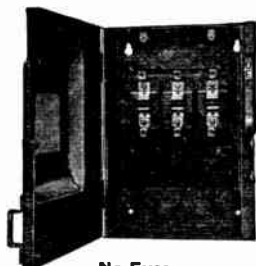
30 Amperes			400 Amperes		
No.	Each	No. of Poles	No.	Each	No. of Poles
VOLTAGE AND MAXIMUM HP. RATING					
72221	\$10.50	2	72225	\$101.50	2
72261	20.50	2	72265	124.00	2
72321	13.50	3	72325	112.50	3
72361	25.00	3	72365	135.00	3
72321SN	12.00	3SN	72325SN	112.50	3SN
72421	20.50	4	72425	146.50	4
72461	30.50	4	72465	174.50	4
72421SN	20.50	4SN	72425SN	129.50	4SN
60 Amperes			600 Amperes		
72222	\$17.00	2	72226	\$146.50	2
72262	21.50	2	72266	197.00	2
72322	22.50	3	72326	175.00	3
72362	26.00	3	72366	225.00	3
72322SN	19.00	3SN	72326SN	163.50	3SN
72422	27.00	4	72426	231.00	4
72462	32.50	4	72466	270.00	4
72422SN	26.00	4SN	72426SN	200.50	4SN
100 Amperes			*800 Amperes		
72223	\$26.00	2	72227	\$248.00	2
72263	34.00	2	72267	304.00	2
72323	34.00	3	72327	338.00	3
72363	39.50	3	72367	394.00	3
72323SN	30.50	3SN	72327SN	270.50	3SN
72423	45.00	4	72427	434.00	4
72463	52.00	4	72467	507.00	4
72423SN	40.50	4SN	72427SN	383.00	4SN
200 Amperes			*1200 Amperes		
72224	\$45.00	2	72228	\$344.00	2
72264	53.00	2	72268	428.00	2
72324	50.50	3	72328	434.00	3
72364	65.50	3	72368	518.00	3
72324SN	49.50	3SN	72328SN	383.00	3SN
72424	67.50	4	72428	575.00	4
72464	79.00	4	72468	647.50	4
72424SN	62.00	4SN	72428SN	476.00	4SN
30 Amperes			400 Amperes		
No.	Each	No. of Poles	No.	Each	No. of Poles
VOLTAGE AND MAXIMUM HP. RATING					
36221	\$9.00	2	36225	\$67.50	2
36261	12.50	2	36265	101.50	2
36321	11.00	3	36365	112.50	3
36361	14.50	3	36465	146.50	4
36461	20.50	4	36226	\$112.50	2
36222	\$12.50	2	36266	146.50	2
36262	17.00	2	36366	180.50	3
36362	20.50	3	36466	220.00	4
36462	27.00	4	36227	\$220.00	2
36223	\$25.00	2	36267	220.00	2
36263	26.00	2	36367	293.00	3
36363	30.50	3	36467	378.00	4
36463	39.50	4	36228	\$299.00	2
36224	\$31.50	2	36268	299.00	2
36264	35.00	2	36368	394.00	3
36364	43.00	3	36468	518.00	4
36464	59.00	4	.....	.....	.....

Type A Trumbull Heavy Duty Safety Switches

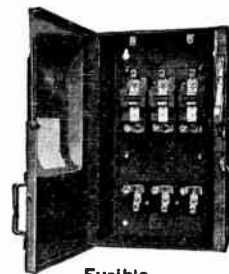
Single-Throw

Quick-Make and Quick-Break—Interlocking Cover—General Purpose N.E.M.A. Type 1 Steel Enclosure
Style RBA

Schedule C—0-100 Amperes
Schedule ★C—200 Amperes and Over



No Fuse



Fusible

For switching neutral switches use the corresponding 3-pole switch and insert dummy fuse.

Solderless lugs standard.

Machine grey finish.

No Fuse

30 Amperes

No.	Each	No. of Poles	VOLTAGE AND MAX. HP. RATING
33221	\$9.00	2	230 A.C., 3 Hp.; 250 D.C., 5 Hp.
33261	12.50	2	600 D.C., 7½ Hp.
33361	14.50	3	230 A.C., 5 Hp.; 575 A.C., 10 Hp.

60 Amperes

33222	\$12.50	2	230 A.C., 7½ Hp., 250 D.C., 10 Hp.
33262	17.00	2	600 D.C., 15 Hp.
33362	20.50	3	230 A.C., 10 Hp.; 575 A.C., 25 Hp.

100 Amperes

33223	\$25.00	2	230 A.C., 15 Hp.; 250 D.C., 15 Hp.
33263	26.00	2	600 D.C., 25 Hp.
33363	30.50	3	230 A.C., 20 Hp.; 575 A.C., 40 Hp.

200 Amperes

33224	\$31.50	2	230 A.C., 25 Hp.; 250 D.C., 30 Hp.
33264	35.00	2	600 D.C., 50 Hp.
33364	43.00	3	230 A.C., 40 Hp.; 575 A.C., 50 Hp.

400 Amperes

33225	\$67.50	2	250 D.C., 50 Hp.
33265	101.50	2	600 A.C. or D.C.
33365	112.50	3	230 A.C., 50 Hp.; 575 A.C.

Fusible

30 Amperes

No.	Each	No. of Poles	VOLTAGE AND MAX. HP. RATING
66221	\$10.50	2	230 A.C., 2 Hp.; 250 D.C., 5 Hp.
66261	20.50	2	600 D.C., 7½ Hp.
66321	13.50	3	230 A.C., 3 Hp.
66361	25.00	3	575 A.C., 7½ Hp.
66321SN	12.00	3SN	230, 3Ø, 3 Hp.

60 Amperes

66222	\$17.00	2	230 A.C., 5 Hp.; 250 D.C., 10 Hp.
66262	21.50	2	600 D.C., 15 Hp.
66322	22.50	3	230 A.C., 7½ Hp.
66362	26.00	3	575 A.C., 20 Hp.
66322SN	19.00	3SN	230, 3Ø, 7½ Hp.

100 Amperes

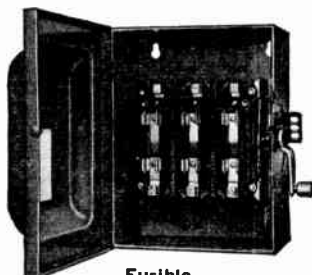
66223	\$26.00	2	230 A.C., 10 Hp.; 250 D.C., 15 Hp.
66263	34.00	2	600 D.C., 25 Hp.
66323	34.00	3	230 A.C., 15 Hp.
66363	39.50	3	575 A.C., 30 Hp.
66323SN	30.50	3SN	230, 3Ø, 15 Hp.

200 Amperes

66224	\$45.00	2	230 A.C., 15 Hp.; 250 D.C., 30 Hp.
66264	53.00	2	575 A.C., 25 Hp.; 600 D.C., 50 Hp.
66324	50.50	3	230 A.C., 30 Hp.
66364	65.50	3	575 A.C., 50 Hp.
66324SN	49.50	3SN	230, 3Ø, 30 Hp.

400 Amperes

66225	\$101.50	2	250 D.C., 50 Hp.
66265	124.00	2	575 A.C.
66325	112.50	3	230 A.C., 50 Hp.
66365	135.00	3	575 A.C.
66325SN	112.50	3SN	230, 3Ø, 50 Hp.



Fusible

Style RM

For switching neutral switches use the corresponding 3-pole switch and insert dummy fuse.

Solderless lugs standard. Machine grey finish.

No Fuse

30 Amperes

No.	Each	No. of Poles	VOLTAGE AND MAX. HP. RATING
46221	\$9.00	2	230 A.C., 3 Hp., 250 D.C., 5 Hp.
46321	11.00	3	230 A.C., 5 Hp.

60 Amperes

46262	\$17.00	2	250 D.C., 10 Hp.; 230 A.C., 7½ Hp.; 600 D.C., 15 Hp.
46362	20.50	3	230 A.C., 10 Hp.; 575 A.C., 25 Hp.

Fusible

30 Amperes

No.	Each	No. of Poles	VOLTAGE AND MAX. HP. RATING
92221	\$10.50	2	230 A.C., 2 Hp.; 250 D.C., 5 Hp.
92261	20.50	2	600 D.C., 7½ Hp.
92321	13.50	3	230 A.C., 3 Hp.
92361	25.00	3	575 A.C., 7½ Hp.

60 Amperes

92222	\$17.00	2	230 A.C., 5 Hp.; 250 D.C., 10 Hp.
92262	21.50	2	600 D.C., 15 Hp.
92322	22.50	3	230 A.C., 7½ Hp.
92362	26.00	3	575 A.C., 20 Hp.

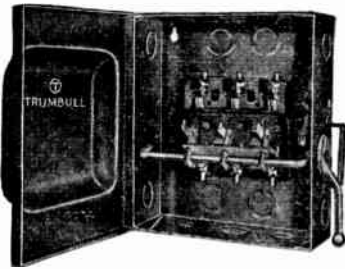
Type C Trumbull Enclosed Safety Switches

Single Throw

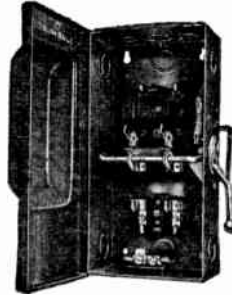
Quick Make and Quick Break

General Purpose N.E.M.A. Type 1 Steel Enclosure

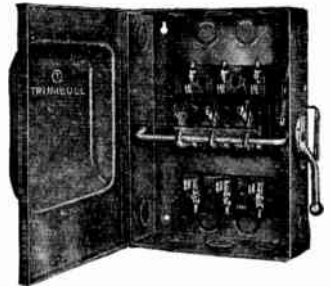
Schedule A



No Fuse—60 Amp. 230 V.



Solid Neutral



Fusible—60 Amp. 230 V.

SN (Solid Neutral) Switches are furnished with insulated groundable neutral 30-100 amperes inclusive; 200 amperes and above insulated neutral only with lug for grounding if desired. Lug on box for conduit ground wire.

For switching neutral switches use corresponding 3-pole switch and insert dummy fuse.

Solderless lugs standard. Machine grey finish.

Fusible

30 Amperes				100 Amperes, cont.			
No.	Each	No. of Poles	VOLTAGE AND MAX. HP. RATING	No.	Each	No. of Poles	VOLTAGE AND MAX. HP. RATING
40221A	\$9.00	2	230 A.C., 2 Hp.; 250 D.C., 5 Hp.	40463	\$63.00	4	575 A.C., 30 Hp.
40321A	11.00	3	230 A.C., 3 Hp.	41423	36.00	4SN	230 A.C., 15 Hp.
40361	19.00	3	575 A.C., 7½ Hp.	200 Amperes			
41321A	10.00	3SN	230 A.C., 3 Ph., 3 Hp.	40224	\$38.00	2	230 A.C., 15 Hp.; 250 D.C., 30 Hp.
40421	21.00	4	230 A.C., 3 Hp.	40324	53.00	3	230 A.C., 30 Hp.
40461	31.00	4	575 A.C., 7½ Hp.	40364	63.00	3	575 A.C., 50 Hp.
41421A	14.00	4SN	230 A.C., 3 Hp.	41324	48.00	3SN	230 A.C., 3 Ph., 30 Hp.
60 Amperes				40424	85.00	4	230 A.C., 30 Hp.
40222	\$16.00	2	230 A.C., 5 Hp.; 250 D.C., 10 Hp.	40464	102.00	4	575 A.C., 50 Hp.
40322	20.00	3	230 A.C., 7½ Hp.	41424	63.00	4SN	230 A.C., 30 Hp.
40362	23.00	3	575 A.C., 20 Hp.	400 Amperes			
41322	17.00	3SN	230 A.C., 3 Ph., 7½ Hp.	40225	\$96.00	2	250 D.C., 50 Hp.; 230 A.C., 25 Hp.
40422	29.00	4	230 A.C., 10 Hp.	40325	111.00	3	230 A.C., 50 Hp.
40462	35.00	4	575 A.C., 20 Hp.	41325	105.00	3SN	230 A.C., 3 Ph., 50 Hp.
41422	23.00	4SN	230 A.C., 7½ Hp.	40425	158.00	4	230 A.C., 50 Hp.
100 Amperes				41425	135.00	4SN	230 A.C., 50 Hp.
40223	\$25.00	2	230 A.C., 10 Hp.; 250 D.C., 15 Hp.	600 Amperes			
40323	31.00	3	230 A.C., 15 Hp.	40226	\$190.00	2	250
40363	42.00	3	575 A.C., 30 Hp.	40326	219.00	3	230 A.C.
41323	26.00	3SN	230 A.C., 3 Ph., 15 Hp.	41326	204.00	3SN	230 A.C.
40423	47.00	4	230 A.C., 20 Hp.	40426	290.00	4	230 A.C.
				41426	242.00	4SN	230 A.C.

No Fuse

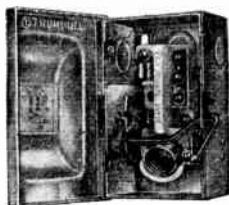
30 Amperes				100 Amperes, cont.			
No.	Each	No. of Poles	VOLTAGE AND MAX. HP. RATING	No.	Each	No. of Poles	VOLTAGE AND MAX. HP. RATING
20221A	\$8.00	2	230 A.C., 3 Hp.; 250 D.C., 5 Hp.	20423	\$45.00	4	230 A.C., 25 Hp.
20321A	10.00	3	230 A.C., 5 Hp.	20463	57.00	4	575 A.C., 40 Hp.
20361	14.00	3	575 A.C., 10 Hp.	200 Amperes			
20421	18.00	4	230 A.C., 5 Hp.	20224	\$32.00	2	230 A.C., 25 Hp.; 250 D.C., 30 Hp.
20461	22.00	4	575 A.C., 10 Hp.	20324	44.00	3	230 A.C., 40 Hp.
60 Amperes				20364	48.00	3	575 A.C., 50 Hp.
20222	\$14.00	2	230 A.C., 7½ Hp.; 250 D.C., 10 Hp.	20424	80.00	4	230 A.C., 50 Hp.
20322	18.00	3	230 A.C., 10 Hp.	20464	82.00	4	575 A.C., 50 Hp.
20362	19.00	3	575 A.C., 25 Hp.	400 Amperes			
20422	24.00	4	230 A.C., 15 Hp.	20225	\$80.00	2	250 D.C., 50 Hp.
20462	31.00	4	575 A.C., 25 Hp.	20325	96.00	3	230 A.C., 50 Hp.
100 Amperes				600 Amperes			
20223	\$24.00	2	230 A.C., 15 Hp.; 250 D.C., 15 Hp.	20226	\$150.00	2	250
20323	27.00	3	230 A.C., 20 Hp.	20326	196.00	3	230 A.C.
20363	35.00	3	575 A.C., 40 Hp.				

Type D Trumbull Enclosed Switches

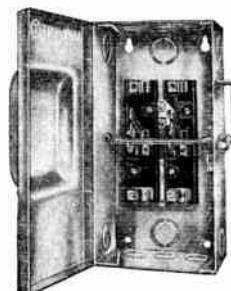
Single Throw

General Purpose N.E.M.A. Type 1 Steel Enclosure

Schedule A



No. 24111



No. 23322

Solderless lugs standard. Machine gray finish.

Side Operated

No Fuse

30 Amperes

No.	Each	No. of Poles	No. of Blades	No. of Fuses	Volts
12221	\$3.00	2	2	0	250
12321	5.50	3	3	0	230 A.C.

60 Amperes

12222	\$9.00	2	2	0	250
12322	11.00	3	3	0	230 A.C.

100 Amperes

12223	\$18.00	2	2	0	250
12323	20.00	3	3	0	230 A.C.

200 Amperes

12224	\$26.00	2	2	0	250
12324	35.00	3	3	0	230 A.C.

Fusible—Plug Fuses

30 Amperes

24211	\$3.20	2	2	2	125-250
*27211	3.20	2	2	2	125-250
†24111	2.70	2SN	1	1	125
23111	2.70	2SN	1	1	125
24311	6.00	3	3	3	‡115 A.C.
*27311	6.00	3	3	3	‡115 A.C.
23311	3.50	3SN	2	2	125-250
*25311	3.50	3SN	2	2	125-250

For switching neutral use the corresponding 3-pole switch and insert dummy fuse.

SN (solid neutral) switches are furnished with insulated groundable neutral 30-100 inclusive. The 200 amperes and above have insulated neutral only with lug for grounding.

Side Operated

Fusible—Cartridge Fuses

30 Amperes

No.	Each	No. of Poles	No. of Blades	No. of Fuses	Volts
24221	\$4.00	2	2	2	250
*27221	4.00				
24321	7.50	3	3	3	230 A.C.
*27321	7.50				
23321	5.00	3SN	2	2	125-250, 230 A.C.
*25321	5.00				
23421	10.00	4SN	3	3	230 A.C.

60 Amperes

24222	\$9.50	2	2	2	250
24322	12.00				
*27322	12.00	3	3	3	230 A.C.
23322	10.00				
*25322	10.00	3SN	2	2	125-250, 230 A.C.
23422	20.00					4SN	3	3	230 A.C.

100 Amperes

24223	\$19.00	2	2	2	250
24323	22.00				
*27323	22.00	3	3	3	230 A.C.
23323	20.00				
*25323	20.00	3SN	2	2	125-250, 230 A.C.
23423	33.00					4SN	3	3	230 A.C.

200 Amperes

24224	\$35.00	2	2	2	250
24324	48.00				
*27324	48.00	3	3	3	230 A.C.
23324	44.00				
*25324	44.00	3SN	2	2	125-250, 230 A.C.
23424	59.00					4SN	3	3	230 A.C.

*Top ends are furnished with twistouts to take standardized meters.

†Base mounted on saddle, entire unit easily removed

‡Can be rated 125-250 volts, if required.

Trumbull Enclosed Circuit Breakers

Sheet Steel—Dust-Resisting N.E.M.A. Type 1A

Automatic Overload Protection

Machine Gray Finish

Quick Make and Break

Schedule C-0-100 Amp. Frame Size

Schedule ★C-225 Amp. Frame Size and Above



Frame Size Amp. *50	Sheet Steel Dust-Resisting Enclosures N.E.M.A. Type 1A 250 V. A.C.—125/250 V. D.C.				Sheet Steel Enclosures, Solid Neutral with Lugs for Grounded Neutral Surface Mounting—N.E.M.A. Type 1 125/250 V. A.C.—250 V. A.C.				
	2-Pole		3-Pole		2-Pole 3W.		3-Pole 4W.		
	No.	Each	No.	Each	No.	Each	No.	Each	
15	AT21015G	\$19.00	AT31015G	\$26.00	AT21015NS	\$22.00	AT31015NS	\$29.00	
20	AT21020G	19.00	AT31020G	26.00	AT21020NS	22.00	AT31020NS	29.00	
25	AT21025G	19.00	AT31025G	26.00	AT21025NS	22.00	AT31025NS	29.00	
35	AT21035G	19.00	AT31035G	26.00	AT21035NS	22.00	AT31035NS	29.00	
50	AT21050G	19.00	AT31050G	26.00	AT21050NS	22.00	AT31050NS	29.00	
*100	70	ATB22070G	37.00	ATB32070G	47.00	ATB22070NS	42.00	ATB32070NS	51.00
	90	ATB22090G	37.00	ATB32090G	47.00	ATB22090NS	42.00	ATB32090NS	51.00
	100	ATB22100G	37.00	ATB32100G	47.00	ATB22100NS	42.00	ATB32100NS	51.00
100	50	ATA22050G	45.00	ATA32050G	56.00				
	70	ATA22070G	45.00	ATA32070G	56.00				
	90	ATA22090G	45.00	ATA32090G	56.00				
	100	ATA22100G	45.00	ATA32100G	56.00				
225	125	AT23125G	112.00	AT33125G	134.00	AT23125NS	119.00	AT33125NS	141.00
	150	AT23150G	112.00	AT33150G	134.00	AT23150NS	119.00	AT33150NS	141.00
	175	AT23175G	112.00	AT33175G	134.00	AT23175NS	119.00	AT33175NS	141.00
	200	AT23200G	112.00	AT33200G	134.00	AT23200NS	119.00	AT33200NS	141.00
	225	AT23225G	112.00	AT33225G	134.00	AT23225NS	119.00	AT33225NS	141.00
600	250	AT24250G	282.00	AT34250G	351.00	AT24250NS	290.00	AT34250NS	360.00
	275	AT24275G	282.00	AT34275G	351.00	AT24275NS	290.00	AT34275NS	360.00
	300	AT24300G	282.00	AT34300G	351.00	AT24300NS	290.00	AT34300NS	360.00
	350	AT24350G	282.00	AT34350G	351.00	AT24350NS	290.00	AT34350NS	360.00
	400	AT24400G	282.00	AT34400G	351.00	AT24400NS	290.00	AT34400NS	360.00
	500	AT24500G	323.00	AT34500G	405.00	AT24500NS	330.00	AT34500NS	412.00
	600	AT24600G	323.00	AT34600G	405.00	AT24600NS	330.00	AT34600NS	412.00

Frame Size Amp. *100	Sheet Steel Dust Resisting Enclosures N.E.M.A. Type 1A 600 V. A.C.—250 V. D.C.				
	2-Pole		3-Pole		
	No.	Each	No.	Each	
15	ATB26015G	\$35.00	ATB36015G	\$44.00	
20	ATB26020G	35.00	ATB36020G	44.00	
25	ATB26025G	35.00	ATB36025G	44.00	
35	ATB26035G	35.00	ATB36035G	44.00	
50	ATB26050G	35.00	ATB36050G	44.00	
70	ATB26070G	48.00	ATB36070G	58.00	
90	ATB26090G	48.00	ATB36090G	58.00	
100	ATB26100G	48.00	ATB36100G	58.00	
100	50	ATA26050G	53.00	ATA36050G	69.00
	70	ATA26070G	53.00	ATA36070G	69.00
	90	ATA26090G	53.00	ATA36090G	69.00
	100	ATA26100G	53.00	ATA36100G	69.00
225	125	AT27125G	131.00	AT37125G	161.00
	150	AT27150G	131.00	AT37150G	161.00
	175	AT27175G	131.00	AT37175G	161.00
	200	AT27200G	131.00	AT37200G	161.00
	225	AT27225G	131.00	AT37225G	161.00
600	250	AT28250G	300.00	AT38250G	378.00
	275	AT28275G	300.00	AT38275G	378.00
	300	AT28300G	300.00	AT38300G	378.00
	350	AT28350G	300.00	AT38350G	378.00
	400	AT28400G	300.00	AT38400G	378.00
	500	AT28500G	341.00	AT38500G	432.00
	600	AT28600G	341.00	AT38600G	432.00

Frame Size amp. No. Each	Single Pole—Dust-Resisting Enclosures N.E.M.A. Type 1A—125 V. A.C. or D.C.				
	50	50	50	50	50
	15	20	25	35	50
	AT11015G	AT11020G	AT11025G	AT11035G	AT11050G
	\$12.00	12.00	12.00	12.00	12.00

***Special Finishes**

For Sheet Steel Enclosures

Frame Size	amp.	50	100	225	600
Cast Plated	each	\$4.00	\$8.00	\$12.00	\$19.00
Electro Galvanized	each	4.00	8.00	12.00	19.00
Hot-Dip Galvanized	each				

For Galvanized Cast Enclosures

Refer to factory.

Drilling and Tapping Cast Enclosures Other than Standard

Conduit Size, 1 1/4-Inch or Less	per hole	\$1.50
Conduit Size, 1 1/2-Inch or Larger	per hole	2.50

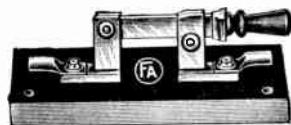
*Non-interchangeable trips.

FA Type A Knife Switches

High Grade—Front Connection

Without Fuse Connections

On Black Finish Slate Bases



SINGLE-POLE

250 Volts D.C. or
500 Volts A.C.

Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*A 3310	30	2½	\$3.30
A 3510	30	3	3.90
A 6310	60	3	4.30
A 10310	100	4½	5.50
A 20310	200	8	8.00
A 40310	400	15½	15.20
A 60310	600	23	22.50
A 80310	800	37	46.20
A100310	1000	40½	53.90
A120310	1200	45	81.80

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*A 3310T	30	3	\$4.50
A 3510T	30	4	5.50
A 6310T	60	5	6.10
A 10310T	100	7	7.60
A 20310T	200	10	11.70
A 40310T	400	20	23.50
A 60310T	600	30	37.20
A 80310T	800	47½	67.40
A100310T	1000	52	81.80
A120310T	1200	54½	97.10

DOUBLE POLE

250 Volts D.C. or
500 Volts A.C.



Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*A 3320	30	3¾	\$6.00
A 3520	30	4	7.00
A 6320	60	5	7.80
A 10320	100	8¾	9.70
A 20320	200	16	14.90
A 40320	400	29	28.20
A 60320	600	37	43.10
A 80320	800	63	89.60
A100320	1000	69	105.80
A120320	1200	76½	129.00

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*A 3320T	30	5	\$8.30
A 3520T	30	7	10.50
A 6320T	60	8	11.60
A 10320T	100	11½	14.60
A 20320T	200	17	22.30
A 40320T	400	33½	44.90
A 60320T	600	50	71.50
A 80320T	800	79	131.00
A100320T	1000	87	157.20
A120320T	1200	91	193.80

3-POLE

250 Volts D.C. or
500 Volts A.C.



Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*A 3330	30	4½	\$8.40
A 3530	30	7½	10.10
A 6330	60	7½	11.10
A 10330	100	12½	14.20
A 20330	200	22½	21.60
A 40330	400	43½	42.20
A 60330	600	51	63.50
A 80330	800	84	133.20
A100330	1000	94	157.10
A120330	1200	109	192.30

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*A 3330T	30	7½	\$12.00
A 3530T	30	12	15.40
A 6330T	60	12	17.10
A 10330T	100	18	21.40
A 20330T	200	25	33.50
A 40330T	400	50	66.70
A 60330T	600	75	106.00
A 80330T	800	118	191.90
A100330T	1000	130	235.00
A120330T	1200	136	288.30

4-POLE

250 Volts D.C. or 500 Volts A.C.

Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*A 3340	30	6	\$11.00
A 3540	30	13	13.60
A 6340	60	13	15.10
A 10340	100	20¾	18.60
A 20340	200	33	29.70
A 40340	400	56	57.00
A 60340	600	78	85.50
A 80340	800	124	176.90
A100340	1000	137	208.20
A120340	1200	157	256.20

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*A 3340T	30	10	\$15.80
A 3540T	30	16	20.60
A 6340T	60	16	22.80
A 10340T	100	23	28.70
A 20340T	200	34	44.60
A 40340T	400	67	89.40
A 60340T	600	100	143.50
A 80340T	800	158	261.10
A100340T	1000	174	312.50
A120340T	1200	182	383.80

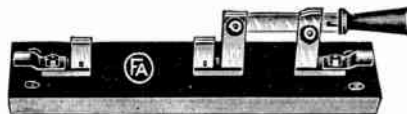
*For 250 volts, d.c. only.

FA Type A Knife Switches

High Grade—Front Connection

With Cartridge Fuse Connections at Hinge End

On Black Finish Slate Bases



SINGLE-POLE

250 Volts D.C.
or A.C.

Single-Throw

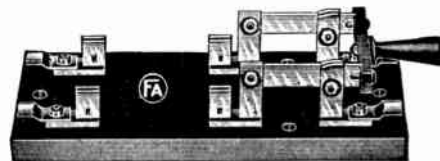
Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3311	30	3	\$3.80
A 6311	60	6	5.20
A 10311	100	8½	7.60
A 20311	200	18	11.00
A 40311	400	25	19.90
A 60311	600	31½	30.60
A 80311	800	56	65.40
A100311	1000	62½	83.80
A120311	1200	70	98.60

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3311T	30	5¼	\$5.60
A 6311T	60	8	8.30
A 10311T	100	13½	12.80
A 20311T	200	22½	19.40
A 40311T	400	43	33.00
A 60311T	600	59	54.20
A 80311T	800	66	107.40
A100311T	1000	70	136.90
A120311T	1200	73	159.40

DOUBLE-POLE

250 Volts D.C.
or A.C.

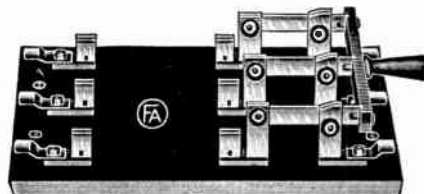


Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3322	30	5	\$7.00
A 6322	60	8¼	9.40
A 10322	100	14	14.10
A 20322	200	26	20.80
A 40322	400	44½	38.90
A 60322	600	67	58.60
A 80322	800	99	128.90
A100322	1000	110	164.00
A120322	1200	122	193.70

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3322T	30	8¾	\$11.10
A 6322T	60	13½	16.60
A 10322T	100	22½	24.90
A 20322T	200	34	36.60
A 40322T	400	72	63.00
A 60322T	600	99	106.40
A 80322T	800	110	209.40
A100322T	1000	117	266.30
A120322T	1200	122	311.80



3-POLE

250 Volts D.C.
or A.C.

Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3333	30	7½	\$9.80
A 6333	60	12¾	13.90
A 10333	100	20	20.60
A 20333	200	35	30.40
A 40333	400	69½	57.10
A 60333	600	87	86.20
A 80333	800	145	192.70
A100333	1000	160	243.00
A120333	1200	177	287.80

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3333T	30	13	\$16.60
A 6333T	60	20	25.10
A 10333T	100	33	36.90
A 20333T	200	51	53.80
A 40333T	400	108	94.40
A 60333T	600	148	156.80
A 80333T	800	165	311.60
A100333T	1000	175	395.40
A120333T	1200	183	471.00

4-POLE

250 Volts D.C. or A.C.

Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3344	30	10	\$13.00
A 6344	60	18	18.60
A 10344	100	34	28.00
A 20344	200	60	41.70
A 40344	400	109	77.90
A 60344	600	144	117.40
A 80344	800	212	256.00
A100344	1000	235	323.70
A120344	1200	265	383.00

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3344T	30	17½	\$21.80
A 6344T	60	27	33.60
A 10344T	100	45	48.40
A 20344T	200	68	72.90
A 40344T	400	144	125.40
A 60344T	600	198	206.40
A 80344T	800	220	413.60
A100344T	1000	234	531.20
A120344T	1200	244	625.60

NOTE.—Double-throw switches will be furnished with fuse connections at both ends.

FA Type F Knife Switches



Formed Clip
Single-Pole—Unfusible
 Front Connection—Plain Finish
 250 Volts D.C.
 or
 500 Volts A.C.

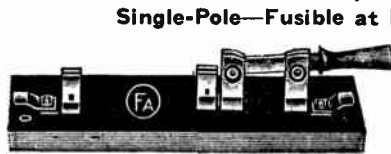
Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*F 3310	30	1½	\$1.80
F 3510	30	2½	2.40
F 6310	60	2½	2.60
F10310	100	4	3.40
F20310	200	7	5.40

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*F 3310T	30	3	\$2.20
F 3510T	30	4½	3.10
F 6310T	60	4½	3.40
F10310T	100	6¼	4.40
F20310T	200	12½	7.80

FA Type F Knife Switches

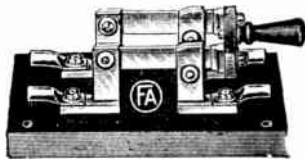


Formed Clip
Single-Pole—Fusible at Bottom
 Front Connection Plain Finish
 250 Volts D.C.
 or A.C.

Single-Throw				Double-Throw			
Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
F 3311	30	2¾	\$2.20	F 3311T	30	5¼	\$3.00
F 6311	60	4½	3.40	F 6311T	60	7¾	4.80
F10311	100	7¾	4.20	F10311T	100	12½	6.90
F20311	200	11¾	7.00	F20311T	200	20	12.40

FA Type F Knife Switches

Formed Clip
Double-Pole—Unfusible
 Front Connection—Plain Finish
 250 Volts D.C.
 or
 500 Volts A.C.



Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*F 3320	30	2½	\$2.50
F 3520	30	4¼	3.80
F 6320	60	4¼	4.20
F10320	100	8½	5.20
F20320	200	15½	9.50

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*F 3320T	30	4¾	\$3.50
F 3520T	30	7¾	5.40
F 6320T	60	7¾	6.00
F10320T	100	13	8.00
F20320T	200	25	14.20

FA Type F Knife Switches



Formed Clip
Double-Pole—Fusible at Bottom
 Front Connection Plain Finish
 250 Volts D.C.
 or A.C.

Single-Throw				Double-Throw			
Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
F 3322	30	4½	\$3.40	F 3322T	30	8¾	\$5.50
F 6322	60	7½	5.40	F 6322T	60	12½	9.30
F10322	100	13½	7.20	F10322T	100	26½	13.00
F20322	200	25	12.50	F20322T	200	37½	22.50

FA Type F Knife Switches



Formed Clip
3-Pole—Unfusible
 Front Connection—Plain Finish
 250 Volts D.C.
 or
 500 Volts A.C.

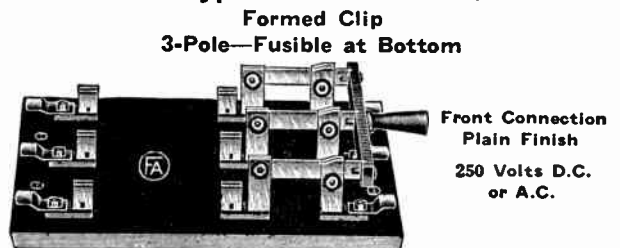
Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*F 3330	30	3¾	\$3.80
F 3530	30	6¼	5.40
F 6330	60	6¼	6.00
F10330	100	11½	7.70
F20330	200	22½	14.00

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*F 3330T	30	7	\$5.00
F 3530T	30	11½	8.00
F 6330T	60	11½	8.90
F10330T	100	17½	12.20
F20330T	200	32	21.90

FA Type F Knife Switches



Formed Clip
3-Pole—Fusible at Bottom
 Front Connection Plain Finish
 250 Volts D.C.
 or A.C.

Single-Throw				Double-Throw			
Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
F 3333	30	6½	\$4.60	F 3333T	30	13	\$8.40
F 6333	60	11	8.10	F 6333T	60	18½	14.30
F10333	100	19½	10.60	F10333T	100	37½	19.50
F20333	200	35	19.20	F20333T	200	59½	33.40

FA Type F Knife Switches

Formed Clip
4-Pole—Unfusible
 Front Connection—Plain Finish
 250 Volts D.C.
 or
 500 Volts A.C.



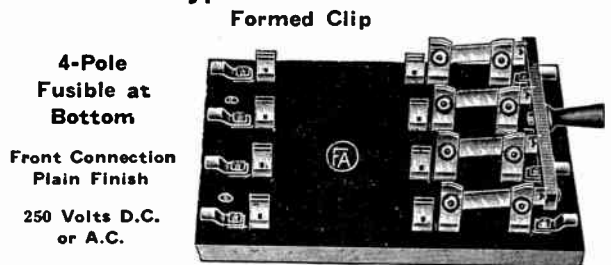
Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*F 3340	30	6½	\$4.60
F 3540	30	12	7.00
F 6340	60	12	7.80
F10340	100	19½	10.50
F20340	200	32½	18.30

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*F 3340T	30	11½	\$6.60
F 3540T	30	20	10.60
F 6340T	60	20	11.80
F10340T	100	29	16.20
F20340T	200	45½	29.00

FA Type F Knife Switches



Formed Clip
4-Pole Fusible at Bottom
 Front Connection Plain Finish
 250 Volts D.C.
 or A.C.

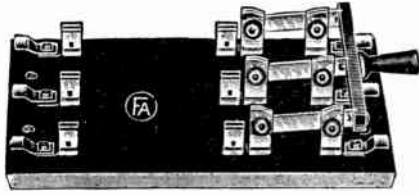
Single-Throw				Double-Throw			
Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
F 3344	30	9	\$5.90	F 3344T	30	18	\$11.00
F 6344	60	17	10.50	F 6344T	60	30	19.20
F10344	100	32½	14.70	F10344T	100	67½	25.40
F20344	200	57	25.70	F20344T	200	97	45.40

NOTE.—Double-throw switches will be furnished with fuse connections at both ends.

*For 250 volts d.c. only.

FA Type F Knife Switches

Formed Clip
With Cartridge Fuse Connections at Hinge End
Front Connection—Plain Finish
On Dead Black Finish Bases



3-POLE

500 Volts A.C.
with 600-Volt
Fuse Connection

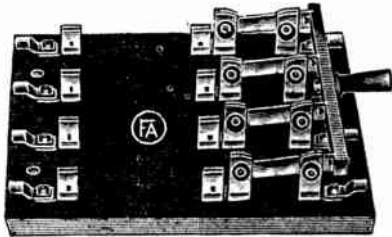
Single-Throw

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
F 3533	30	11½	\$8.30	F 3533T	30	20	\$13.80
F 6533	60	15	9.90	F 6533T	60	20½	17.40
F10533	100	23	13.00	F10533T	100	38	20.80
F20533	200	35½	21.40	F20533T	200	61	36.10

4-POLE

500 Volts A.C.
with 600-Volt
Fuse Connection



Single-Throw

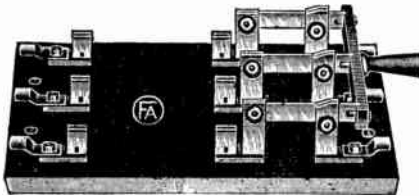
Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
F 3544	30	20	\$11.60	F 3544T	30	31½	\$20.90
F 6544	60	29½	13.70	F 6544T	60	52	24.60
F10544	100	44	17.00	F10544T	100	94½	27.60
F20544	200	70	28.70	F20544T	200	117	47.40

Single and double-pole made to order at special prices.
Double-throw switches will be furnished with fuse connections at both ends.

FA Type A Knife Switches

High Grade Milled In Clip
With Cartridge Fuse Connections at Hinge End
Front Connection—Satin Finish
On Dead Black Finish Bases



3-POLE

500 Volts A.C.
with 600-Volt
Fuse Connection

Single-Throw

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3533	30	13¾	\$14.10	A 3533T	30	31	\$20.60
A 6533	60	15½	14.30	A 6533T	60	41	25.90
A 10533	100	25	22.20	A 10533T	100	43	37.80
A 20533	200	36	31.90	A 20533T	200	71	56.20
A 40533	400	72½	57.50	A 40533T	400	135	97.40
A 60533	600	94	89.00	A 60533T	600	184	159.20
A 80533	800	157	197.00	A 80533T	800	235	318.90
A100533	1000	174	247.40	A100533T	1000	255	409.60
A120533	1200	188	293.60	A120533T	1200	275	478.60

4-POLE

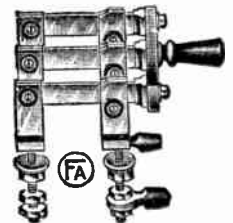
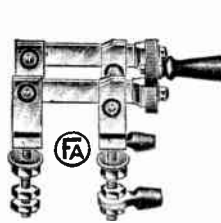
Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
A 3544	30	17½	\$19.40	A 3544T	30	42	\$33.60
A 6544	60	27½	19.70	A 6544T	60	55	34.80
A 10544	100	33	29.50	A 10544T	100	87	49.60
A 20544	200	61	43.00	A 20544T	200	107	74.50
A 40544	400	105	79.00	A 40544T	400	194	125.10
A 60544	600	132	119.30	A 60544T	600	214	212.20
A 80544	800	203	262.60	A 80544T	800	304	431.70
A100544	1000	225	335.00	A100544T	1000	348	546.00
A120544	1200	247	394.40	A120544T	1200	392	637.90

Single and double-pole made to order at special prices.

Double-throw switches will be furnished with fuse connections at both ends.

FA Type B Knife Switches

High Grade Milled In Clip
Without Fuse Connections
Back Connection—Satin Finish—Unmounted
250 Volts D.C. or 500 Volts A.C.



SINGLE-POLE

Single-Throw

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*B 3310	30	1	\$3.00	*B 3310T	30	1¼	\$4.30
B 3510	30	1¼	3.40	B 3510T	30	1½	4.70
B 6310	60	1¼	3.80	B 6310T	60	1½	5.30
B 10310	100	2½	5.00	B 10310T	100	3	6.80
B 20310	200	4½	7.80	B 20310T	200	5½	11.00
B 40310	400	9½	14.70	B 40310T	400	11½	20.40
B 60310	600	15	22.40	B 60310T	600	19	31.20
B 80310	800	18	47.10	B 80310T	800	23	69.70
B100310	1000	20	58.70	B100310T	1000	26	88.40
B120310	1200	26½	70.20	B120310T	1200	41	104.60
†B150310	1500	31	88.40	†B150310T	1500	61	133.90
†B200310	2000	47	111.50	†B200310T	2000	80½	170.20

DOUBLE-POLE

Single-Throw

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*B 3320	30	1½	\$6.20	*B 3320T	30	1¾	\$7.80
B 3520	30	2	6.60	B 3520T	30	2½	9.30
B 6320	60	2	7.40	B 6320T	60	2½	10.30
B 10320	100	4	9.50	B 10320T	100	5	13.30
B 20320	200	7½	15.40	B 20320T	200	9	21.40
B 40320	400	16	28.70	B 40320T	400	19	40.10
B 60320	600	25	43.70	B 60320T	600	32	61.30
B 80320	800	30	92.70	B 80320T	800	38	137.90
B100320	1000	33	116.70	B100320T	1000	43	174.60
B120320	1200	44	139.10	B120320T	1200	68	209.00
†B150320	1500	52	174.80	†B150320T	1500	102	265.80
†B200320	2000	78	221.00	†B200320T	2000	134	338.60

3-POLE

Single-Throw

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*B 3330	30	2¼	\$8.90	*B 3330T	30	2½	\$12.20
B 3530	30	3	9.80	B 3530T	30	3¾	13.90
B 6330	60	3	10.90	B 6330T	60	3¾	15.40
B 10330	100	6	13.80	B 10330T	100	7½	19.50
B 20330	200	11	22.60	B 20330T	200	13½	31.70
B 40330	400	24	42.40	B 40330T	400	28½	59.40
B 60330	600	37	64.00	B 60330T	600	48	90.50
B 80330	800	45	138.20	B 80330T	800	57	206.00
B100330	1000	50	173.50	B100330T	1000	65	260.20
B120330	1200	66	206.60	B120330T	1200	102	311.00
†B150330	1500	79	260.40	†B150330T	1500	153	397.00
†B200330	2000	116	329.50	†B200330T	2000	200	505.90

4-POLE

Single-Throw

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each	Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
*B 3340	30	3	\$11.80	*B 3340T	30	4½	\$16.40
B 3540	30	4	13.20	B 3540T	30	5	18.60
B 6340	60	4	14.60	B 6340T	60	5	20.70
B 10340	100	8	18.50	B 10340T	100	10	26.00
B 20340	200	15	30.20	B 20340T	200	18	42.50
B 40340	400	32	57.10	B 40340T	400	38	79.80
B 60340	600	50	86.20	B 60340T	600	64	121.30
B 80340	800	60	184.00	B 80340T	800	76	255.90
B100340	1000	66	230.60	B100340T	1000	86	346.60
B120340	1200	88	275.00	B120340T	1200	136	415.00
†B150340	1500	104	345.90	†B150340T	1500	204	528.20
†B200340	2000	156	438.00	†B200340T	2000	268	673.30

*For 250 volts d.c. only.

†Give size wire used so proper size lugs can be sent.

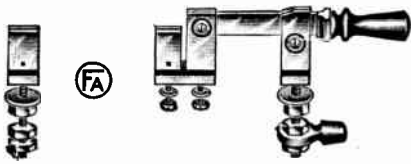
For switches mounted on slate or wood templates, add 50% up to 200 amperes, and 25% for everything over.

For polished finish, add 25%.

Unless otherwise specified, all switches will be furnished for 1½-inch panel mounting.

FA Type B Knife Switches

High Grade Milled In Clip
With Cartridge Fuse Connections at Hinge End
Back Connection—Satin Finish—Unmounted



SINGLE POLE

250 Volts D.C.
or A.C.

Single-Throw

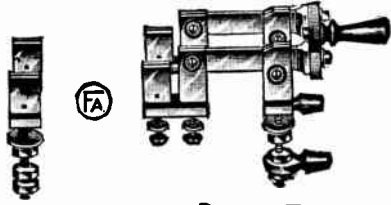
Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
B 3311	30	1	\$3.40
B 6311	60	1 1/2	4.20
B 10311	100	3	6.70
B 20311	200	5 1/2	10.10
B 40311	400	11 1/2	18.90
B 60311	600	18	28.80
B 80311	800	27 1/2	62.70
B100311	1000	30 1/2	78.20
B120311	1200	44 1/2	91.70

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
B 3311T	30	1 1/4	\$4.90
B 6311T	60	1 3/4	6.20
B 10311T	100	3 3/4	10.30
B 20311T	200	8	15.70
B 40311T	400	15	28.70
B 60311T	600	23	44.90
B 80311T	800	33	106.30
B100311T	1000	36	133.40
B120311T	1200	65	159.90

DOUBLE POLE

250 Volts D.C.
or A.C.



Single-Throw

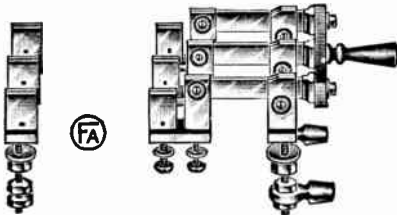
Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
B 3322	30	1 3/4	\$6.70
B 6322	60	2 1/2	8.50
B 10322	100	5 1/4	13.20
B 20322	200	9	19.80
B 40322	400	19	37.00
B 60322	600	30	56.50
B 80322	800	46	123.10
B100322	1000	51	153.80
B120322	1200	74	181.20

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
B 3322T	30	2	\$9.70
B 6322T	60	3	12.80
B 10322T	100	6 1/4	20.30
B 20322T	200	13	31.30
B 40322T	400	25	56.70
B 60322T	600	39	88.60
B 80322T	800	55	209.50
B100322T	1000	61	263.90
B120322T	1200	109	317.50

3-POLE

250 Volts D.C.
or A.C.



Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
B 3333	30	2 3/4	\$9.80
B 6333	60	3 1/2	12.40
B 10333	100	8	19.40
B 20333	200	13 1/2	29.10
B 40333	400	28 1/2	54.80
B 60333	600	45	83.30
B 80333	800	69	183.80
B100333	1000	76	229.00
B120333	1200	111	270.20

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
B 3333T	30	3	\$14.20
B 6333T	60	4 1/2	18.40
B 10333T	100	9 1/2	30.00
B 20333T	200	19 1/2	45.90
B 40333T	400	37	84.00
B 60333T	600	59	135.40
B 80333T	800	82	313.40
B100333T	1000	91	393.80
B120333T	1200	163	474.70

4-POLE
250 Volts D.C. or A.C.

Single-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
B 3344	30	2 1/2	\$13.00
B 6344	60	5	16.80
B 10344	100	10 1/2	25.80
B 20344	200	18	38.70
B 40344	400	38	73.70
B 60344	600	60	111.80
B 80344	800	92	243.90
B100344	1000	102	304.60
B120344	1200	148	359.30

Double-Throw

Cat. No.	Cap. Amp.	Wt., Lbs. Each	Price Each
B 3344T	30	4	\$19.00
B 6344T	60	6	24.80
B 10344T	100	12 1/2	40.00
B 20344T	200	26	61.10
B 40344T	400	50	121.00
B 60344T	600	78	183.90
B 80344T	800	110	416.40
B100344T	1000	122	516.30
B120344T	1200	218	632.00

For switches on slate or wood template, add 25%. For polished finish, add 25%. Unless otherwise specified, all switches will be furnished for 1 1/2-inch panel mounting.

Double-throw switches will be furnished with fuse connections at both ends.

Type A Trumbull Open Knife Switches

Single Throw—Front Connected
No Fuse
250 Volts D.C.,—250 and 500 Volts A.C.
Brush Finish



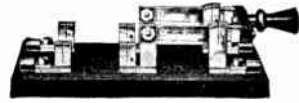
2-Pole

Cap. Amp.	1-Pole		2-Pole		3-Pole	
	No.	Each	No.	Each	No.	Each
*30	3721	\$1.70	3801	\$2.40	3881	\$3.70
30	3721 1/2	2.30	3801 1/2	3.30	3881 1/2	5.00
60	3722	2.40	3802	3.60	3882	5.50
100	3724	4.60	3804	7.00	3884	11.00
200	3726	7.00	3806	10.00	3886	15.00
400	3729	16.00	3809	24.00	3889	36.00
600	3731	23.00	3811	34.00	3891	51.00
800	3732	39.00	3812	58.00	3892	88.00
1200	3734	53.00	3814	80.00	3894	119.00
1600	3735 1/2	101.00	3815 1/2	151.00	3895 1/2	226.00
2000	3736	112.00	3816	167.00	3896	251.00

*For 250 volts only.

Type A Trumbull Open Knife Switches

Schedule B-1
Single Throw—Front Connected—Fusible
250 Volts D.C. and A.C.
High Posts—Brush Finish



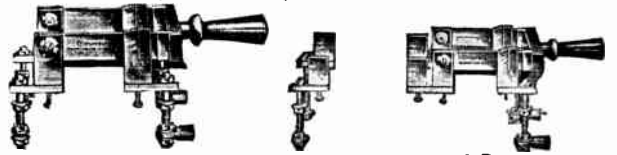
2-Pole

Cap. Amp.	1-Pole		2-Pole		3-Pole	
	No.	Each	No.	Each	No.	Each
30	4361	\$2.40	4381	\$3.60	4401	\$5.50
60	4362	3.60	4382	5.50	4402	8.50
100	4364	7.00	4384	10.00	4404	14.00
200	4366	10.00	4386	15.00	4406	23.00
400	4368	23.00	4388	34.00	4408	51.00
600	4370	32.00	4390	48.00	4410	72.00
800	4371	50.00	4391	77.00	4411	116.00
1200	4373	69.00	4393	102.00	4413	154.00

Type A Trumbull Open Knife Switches

Schedule B-1
Single Throw—Back Connected
Brush Finish
No Fuse

250 Volts, A.C. or D.C.; 500 Volts A.C.—Low Posts



No Fuse, 2-Pole

Cap. Amp.	1-Pole		2-Pole		3-Pole	
	No.	Each	No.	Each	No.	Each
*30	3761	\$1.80	3841	\$3.20	3921	\$4.90
30	3761 1/2	2.60	3841 1/2	4.70	3921 1/2	7.50
60	3762	2.70	3842	5.00	3922	7.50
100	3764	4.60	3844	8.50	3924	13.00
200	3766	7.00	3846	13.00	3926	19.00
400	3769	15.00	3849	27.00	3929	41.00
600	3771	23.00	3851	41.00	3931	62.00
800	3772	40.00	3852	72.00	3932	108.00
1200	3774	54.00	3854	98.00	3934	147.00

Fusible

Cap. Amp.	1-Pole		2-Pole		3-Pole	
	No.	Each	No.	Each	No.	Each
30	4081	\$2.10	4161	\$3.80	4241	\$6.00
60	4082	3.30	4162	6.00	4242	9.00
100	4084	6.50	4164	11.00	4244	17.00
200	4086	9.00	4166	16.00	4246	24.00
400	4088	19.00	4168	35.00	4248	52.00
600	4090	29.00	4170	52.00	4250	79.00

*Up to 350 volts only.

Type C Trumbull Open Knife Switches

Schedule B-1

Single Throw—Front Connected

Plain Finish

No Fuse



2-Pole, No Fuse
250 Volts, A.C. or D.C.; 500 Volts, A.C.—Low Posts

Cap. Amp.	1-Pole		2-Pole		3-Pole	
	No.	Each	No.	Each	No.	Each
*30	3001	\$.70	3041	\$1.10	3081	\$1.70
30	3002	1.10	3042	1.70	3082	2.50
60	3003	1.30	3043	2.00	3083	2.90
100	3005	2.60	3045	3.90	3085	6.00
200	3006	4.60	3046	7.00	3086	10.00

Fusible

250 Volts, D.C. and A.C.—High Posts

Cap. Amp.	No.	Each	No.	Each	No.	Each
30	1120	\$1.10	1130	\$1.70	1140	\$2.50
60	1121	1.90	1131	2.80	1141	4.30
100	1123	3.80	1133	6.00	1143	9.00
200	1124	7.00	1134	10.00	1144	15.00

*Up to 250 volts only.

Trumbull Telephone or Battery Knife Switches

Schedule B

Front Connections—Mounted

30 Amperes—125 Volts

Porcelain Base



No. 707



No. 711



No. 9

No.	Each	Style	Size, In.	Std. Pkg.
			Length, Width	Pkg. Wt. Lb.
707	\$.50	S. P. S. T.	2 7/16 x 1 1/4	10 2 1/2
708	.65	S. P. D. T.	3 5/8 x 1 3/16	5 1 1/2
709	.75	D. P. S. T.	2 7/16 x 2	10 3 1/2
710	.95	D. P. D. T.	3 5/8 x 2	5 2 1/2
711	1.20	3 P. S. T.	2 7/16 x 3 1/4	5 3
712	1.50	3 P. D. T.	3 5/8 x 3 1/4	5 5

Fiber Base

No.	Each	Style	Size, In.	Std. Pkg.
			Length, Width	Pkg. Wt. Lb.
7	\$.70	S. P. S. T.	2 1/2 x 1 1/8	20 3
8	.85	S. P. D. T.	3 3/4 x 1 1/8	10 2
9	1.00	D. P. S. T.	2 1/2 x 2	10 2 1/2
10	1.30	D. P. D. T.	3 3/4 x 2	10 4
40	1.50	3 P. S. T.	2 1/2 x 3 1/4	10 5
41	2.10	3 P. D. T.	3 3/4 x 3 1/4	10 6
42	2.30	4 P. S. T.	2 1/2 x 4 3/8	10 6
43	3.30	4 P. D. T.	3 3/4 x 4 3/8	10 10

Trumbull Telephone or Battery Knife Switches

Back Connections—Unmounted



No. 783



No. 885

Length of studs, 1 1/2 in., threaded 3/8 inch from the ends with 10x24 threads. Plain finish. Also available with polished finish.

No Fuse

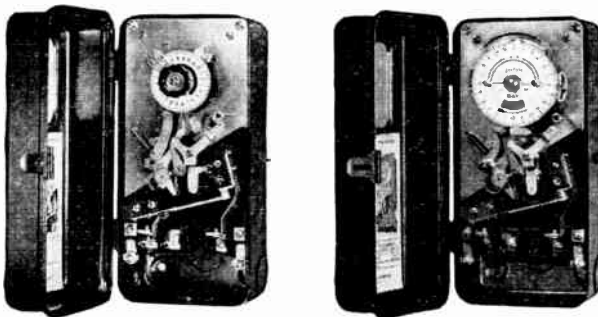
No.	Each	Style	Std. Pkg.	Std. Pkg.
			Wt. Lb.	
783	\$.65	S. P. S. T.	50	10
784	.80	S. P. D. T.	50	13
785	1.00	D. P. S. T.	50	18
786	1.30	D. P. D. T.	25	10
787	1.40	3 P. S. T.	25	10
788	2.00	3 P. D. T.	10	5
789	2.10	4 P. S. T.	10	5 1/2
790	2.70	4 P. D. T.	10	8

Fusible

No.	Each	Style	Std. Pkg.	Std. Pkg.
			Wt. Lb.	
883	\$.85	S. P. S. T.	50	13
885	1.30	D. P. S. T.	25	15
887	1.90	3 P. S. T.	25	20
889	2.60	4 P. S. T.	10	12

Types KA and KAZ Sangamo Time Switches

Synchronous Motor—Silver Contacts



Type KA

Type KAZ

Six levers are provided for a maximum of three daily on and off operations. Accurate timing is obtained by turning the minute hand reset staff on 24-hour dial. Time-switch can be manually operated without affecting subsequent operations. Available in a wide variety of combinations providing two-circuit duplex and outdoor switches; also with Sunday and holiday omitting device, as well as advanced time cutoff. Type KAZ is furnished with astronomic dial.

Dimensions: 9 1/4 x 4 1/2 x 3 3/4 inches; four 3/4-inch pryouts in back, bottom, and both sides.

Shipping weight, 6 1/2 pounds.

Type	120V. A.C.		240V. A.C.		Poles	Throw
	Each	Amps.	Each	Amps.		
KA-11	\$25.00	35	\$25.00	35	Single	Single
KA-21	27.50	35	27.50	35	Double	Single
KA-31	31.00	6	31.00	6	Triple	Single
KA-12	27.50	35	27.50	35	Single	Double
KA-22	30.00	6	30.00	6	Double	Double
KA-32	33.00	6	33.00	6	Triple	Double

Specify voltage and frequency.

Form KAG, for reverse time limits between off and on, furnished at no extra charge.

Double Knobs, for Both Off and On.....	add	\$4.00
Form KAY, Two-Circuit.....	add	6.00
Form KAH, Omitting Device.....	add	2.00
Form KAHE, Advance Time Cutoff with Omitting Device.....	add	7.00
Outdoor Case Without Window.....	add	15.00

Type VSW Sangamo Time-Switches

Synchronous Motor—With Carryover



Synchronous timing is combined with reserve spring clock operation during current interruptions up to 10 hours. This entirely automatic carryover eliminates the necessity of resetting the dial after current interruptions, and insures accurate timing under all conditions. The omitting device is included.

Dimensions: 9 1/4 x 4 1/2 x 3 3/4 inches; 3/4-inch pryouts in back, bottom, and both sides.

Shipping weight, 6 1/2 pounds.

Type	120V. A.C.		240V. A.C.		Poles	Throw
	Each	Amps.	Each	Amps.		
VSW-11	\$42.00	35	\$42.00	35	Single	Single
VSW-21	44.50	35	44.50	35	Double	Single
VSW-31	48.00	6	48.00	6	Triple	Single
VSW-12	44.50	35	44.50	35	Single	Double
VSW-22	47.00	6	47.00	6	Double	Double
VSW-32	50.00	6	50.00	6	Triple	Double

Specify voltage and frequency.

Form VSWE, Advance Time Cutoff..... add \$5.00
Also available in the same combinations as Type KA, including astronomic dial.

Sangamo Astronomic Dials

For automatic control of outdoor advertising, flood-lights, air beacons, lighthouses, etc.

Turns lights on at sunset and off at sunrise. Also permit off operation at any time between 9:30 p.m. and 2:15 a.m. Special schedules are available.

For 30, 35, 40, 42 1/2 and 45 Latitudes..... each \$11.00

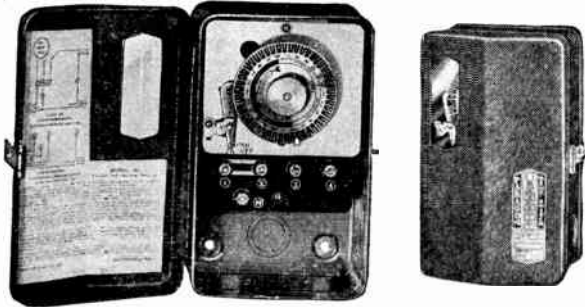
For 20, 27 1/2, 32 1/2, 37 1/2, 50, and 52 Latitudes..... each 13.50

When ordering, latitude must be specified.

Series 300 Paragon Self-Lubricating Time Switches

Telechron Motored

30 Amperes, 115 or 230 Volts, 60 Cycles, A.C.



Interior

Exterior

Accurate and durable for controlling signs, commercial lights, attic fans, stokers, oil burners, blowers, pumps, valves, motors, etc.

Telechron motored, has only two exposed gears, all other gears operate in a sealed, oil filled chamber.

Features sturdy clock train, snap action switch, and simple hand trip. Figure 2000 per cent more dial power than required.

Furnished in an attractive case.

Shipping weight, 5 pounds.

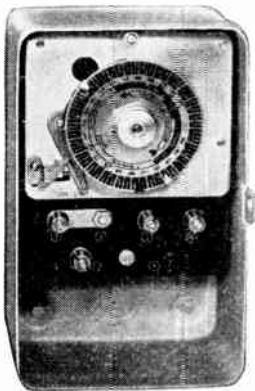
No.	Each	Amps. per Pole	Watts per Pole	Switch and Motor Rating	No. Poles	No. Throws
301	30	3000	115 V 60 Cy. A.C.	1	1
302	15	3000	230 V 60 Cy. A.C.	1	1
303	30	3000	115 V 60 Cy. A.C.	2	1
304	15	3000	230 V 60 Cy. A.C.	2	1
305	30	3000	115 V 60 Cy. A.C.	1	2
306	15	3000	230 V 60 Cy. A.C.	1	2
307	30	3000	24 V 60 Cy. A.C.	1	2

No. PS-30 Paragon Poultry House Lighting Time Control Switches

110 Volts, 60 Cycles—A.C.

Schedule No. 1

Developed especially for poultry house lighting. Sturdy construction.



Time switch is modern, efficient, precision-built control instrument. Complete with heavy case and cover, and designed for wall mounting. Has knock-outs at back, sides, and bottom for ease of installation.

The procedure when morning and evening lights are used is to turn the lights on Bright in the morning and Off after sunrise. Then they are turned on again about one-half hour before sundown, and after a couple of hours the bright lights are turned off and the dim lights turned on. The dim lights are left on for 15 or 20 minutes and then turned off. This method

gets the birds up at the same hour and puts them to roost at the same hour each day. It has been found with this arrangement that all of the birds will go onto the roost within a very few minutes after the bright lights are turned off and the dim, or roosting lights are turned on.

Watts per pole: bright circuit, 3000; dim circuit, 1000.

Shipping weight, 4 pounds.

No. PS-30, Morning and Evening Lighting..... each **\$13.50**

No. PSN-30, Evening Lighting Only..... each **13.50**

No. 301, Morning Lighting Only..... each **11.75**

For 220 volts or 25 cycles add \$1.00. No extra charge for 50 cycles.

G-E Automatic Time Switches and Timing Devices

Telechron Motor Driven

G-E automatic time switches are operated by the well-known telechron synchronous motor, and do not require winding, regulating, or other attention.

While the types listed include a wide range of ratings and meet many requirements, switches of other ratings and types can be furnished.

The following table may be of assistance in selecting the proper type of switch for the desired operation.

For Uses Requiring	Use Type
Operation Related to Hour of Day (Outdoor and Indoor Installation).....	T-27
Repeating Operation Cycle, Not Related to Hour of Day (Indoor Installation).....	TSA-14
Process Timing and Control, Readily Adjusted Switch (Indoor Installation).....	TSA-10
Counting Units of Time (Machine Operating Time)	KT

Type T-27 General-Purpose Timer

60 Cycles—230 Volts, A.C.—Contacts 35 Amperes



The Type T-27 time switch employs the well-known Telechron synchronous motor, and is equipped with removable and adjustable riders to provide for convenience of adjustment. Can be furnished with the skip-a-day omitting device at \$3.00 extra.

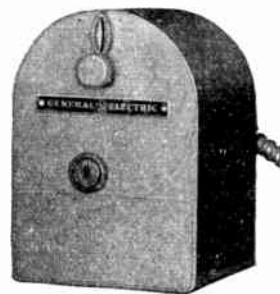
Switches are equipped with Type B-8, 2-watt motor. Can be furnished equipped with 6-watt motors for operation in temperature ranges of -20°F. to +110°F, at no increase in price. Dimensions, 7½x5½x4¼ inches.

Approximate shipping weight, 8 pounds.

Motor Volts	Switch		Plain Dial		Astronomic Dial	
	Pole	Throw	No.	Each	No.	Each
115	1	1	83X948	\$23.00	88X467	\$33.00
230	1	1	83X949	23.00	88X468	33.00
115	1	2	83X950	26.00	88X469	36.00
230	1	2	83X951	26.00	88X470	36.00
115	2	1	83X952	26.00	88X471	36.00
230	2	1	83X953	26.00	88X472	36.00
115	2	2	88X443	29.00	88X473	39.00
230	2	2	88X444	29.00	88X474	39.00

Same prices for 50 and 25-cycle ratings.

Type TSC-6 Coin-Operated Time Switch



The TSC-6 coin-operated time switch dispenses the services of appliances. Automatically, this time switch collects and banks a coin, and in return, permits the use of an appliance for a predetermined number of minutes.

Approximate dimensions, 4¼ x6x4 inches.

Approximate shipping weight, 7 pounds.

Volts	Cycles	Contact Hp.	Coin	Time Interval Minutes	No.	Each
115	60	¼	Dime	30	75X850	\$17.25
115	50	¼	Dime	30	75X849	17.25
115	25	¼	Dime	30	75X848	17.25

G-E Automatic Time Switches and Timing Devices

Telechron Motor Driven

Type TSA-14 for Control of Repeating Schedules

60 Cycles—Contact Rated 10 Amperes, A.C.



Type TSA-14 is designed to control repeating cycles of operation of electric circuits without respect to the time of day. The "on" time may be varied between 1 and 99 per cent of the total time cycle.

Die-cast base is equipped with a pipe nipple that is suitable for mounting in a knockout of any convenient junction box or switch box.

Timing is obtained by a Telechron synchronous motor, therefore no winding or regulating is required.

Dimensions, 5-inch diameter by 3 1/8-inch depth.

Approximate shipping weight, 4 pounds.

Total Cycle: 10 or 15 Seconds			Total Cycle: 5, 7, 10, or 15 Minutes		
Conduit Mounting Nipple	Volts	Each	Conduit Mounting Nipple	Volts	Each
Top	115	\$22.50	Top	115	\$18.00
Bottom	115	22.50	Bottom	115	18.00
Top	230	22.50	Top	230	18.00
Bottom	230	22.50	Bottom	230	18.00
Total Cycle 20, 30, or 40 Seconds; 1 or 3 Minutes			Total Cycle 30, 45, or 60 Minutes		
Top	115	\$20.00	Top	115	\$16.50
Bottom	115	20.00	Bottom	115	16.50
Top	230	20.00	Top	230	16.50
Bottom	230	20.00	Bottom	230	16.50

When ordering specify total ("on" plus "off") time cycle. Same prices for 50 or 25-cycle ratings.

Type TSA-10 for Process Timing

60 Cycles



Type TSA-10 process timer is suitable for the control of electrically operated machines, devices, etc., and is readily adjusted over a wide range of operating cycles. Can be supplied with normally open or normally closed contacts. Resetting is automatic when the clutch coil is de-energized.

Because of its flexibility of adjustment and connection, and since its operations can be controlled electrically, this timer is adaptable to many control applications.

Relays for use with the Type TSA-10 timer, enabling completely automatic control, can also be furnished.

Dimensions, 9x6x4 inches.

Approximate shipping weight, 8 pounds.

Double-Time Scale—1/5, 1/10, 2/10, 3/10, 4/10, 10/100 Seconds; 1/5, 2/5, 3/5, 4/5, 2/10, 3/10, 4/10 Minutes; 1/2 or 3/4 Hours

Volts	Contacts	Time-Set Knob	Each
115	With	Internal	\$43.25
230	With	Internal	43.75
115	Without	Internal	43.00
230	Without	Internal	43.50
115	With	External	46.00
230	With	External	46.50
115	Without	External	45.75
230	Without	External	46.25
Single-Time Scale—5, 10, 15, 20, 30, 40 Seconds; 1, 2, 3, 5, 6, 10, 15, 20, 30, 40 Minutes; 1, 2, 3, 4, or 6 Hours			
115	With	Internal	\$37.50
230	With	Internal	38.00
115	Without	Internal	37.25
230	Without	Internal	37.75
115	With	External	40.25
230	With	External	40.75
115	Without	External	40.00
230	Without	External	40.50

When ordering specify scale rating and normally open or normally closed main contacts.

Same prices for 50 or 25-cycle ratings.

G-E Automatic Time Switches and Timing Devices

Telechron Motor Driven

Type KT Automatic Time Meters

60 Cycles



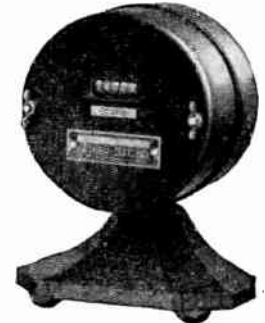
Round for Flush Mounting



Square for Flush Mounting



Conduit



Portable

Whenever knowledge of elapsed time is of value, the Type KT time meter is a profitable investment. Machine-operating time, often very difficult and expensive to measure, is easily and inexpensively measured with this device.

This time meter consists of a cyclometer, driven by a Telechron synchronous motor. Connected to an electric circuit, it will measure and indicate the number of hours, tenths of hours, or minutes that the circuit is in use.

Approximate shipping weight, 6 pounds.

Round

Approximate dimensions, 3 1/2 inches in diameter.

Volts	REGISTERS			Each
	Hours No.	1/10 Hours No.	Minutes No.	
11	94X917	94X921	94X925	\$20.50
115	94X918	94X922	94X926	19.50
230	94X919	94X923	94X927	20.00
460	94X920	94X924	94X928	22.00

Square

Approximate dimensions, 3x3 1/8 inches.

11	94X929	94X933	94X937	\$20.50
115	94X930	94X934	94X938	19.50
230	94X931	94X935	94X939	20.00
460	94X932	94X936	94X940	22.00

Conduit

Approximate dimensions: 1 1/4 inches in diameter; 3 inches deep.

11	94X893	94X897	94X901	\$20.50
115	94X894	94X898	94X902	19.50
230	94X895	94X899	94X903	20.00
460	94X896	94X900	94X904	22.00

Portable

Approximate dimensions: 6 1/8 inches high; 3 inches deep.

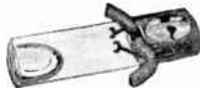
11	94X905	94X909	94X913	\$22.00
115	94X906	94X910	94X914	20.50
230	94X907	94X911	94X915	22.00
460	94X908	94X912	94X916	23.00

Same prices for 50 or 25-cycle ratings.

Mercoïd Mercury Switches



Type 9-51R



Type 9-61R



Type 9-81

Mercoïd Hermetically Sealed Mercury Switch is used for making and breaking an electrical circuit. Not subject to open arcing, pitting or sticking of contacts. Cannot be affected by dust, dirt or corrosion. Long lived dependable service. Positive operation is assured under various operating conditions.

Many types available to meet different requirements.
 Types 9-51R or 9-51S, 10 Amp. 115 V., 5 Amp. 230 V. each **\$2.60**
 Types 9-61R or 9-61S, 4 Amp. 115 V., 2 Amp. 230 V. 1.50
 Type 9-81, 9/10 Amp. 24 V. each **3.80**
 Type PP-93-11 Magnet for Type 9-81 Switch. each **1.00**

Mercoïd Sensatherms

9/10 Ampere, 24 Volts or Less



Extremely sensitive and accurate in performance. Follows room temperature changes so quickly that uniform control is assured.

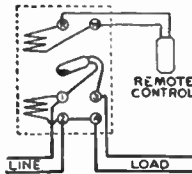
Operates on temperature variation of 1/2° above or below point set (total differential 1°F.) No internal heater coils or other means of artificial acceleration are used.

Champagne tone finish.

Type H, for Heating Applications 55-85°F. each **\$8.00**
 Type R, for Air Conditioning and Cooling, 55-85°F. and 65-95°F. each **8.00**

Mercoïd Transformer-Relays

For A.C. Current



For use with stokers, oil burners, air conditioning and industrial applications.

Transformer is self-contained in the relay, as the primary coil induces 24 volts in the secondary coil by transformer action. Quiet and dependable mercury contact instrument with low voltage thermostat or pilot circuit. No metal contacting faces to hum or chatter.

Single pole circuit, normally open (load circuit common with supply circuit). Electrical capacity, 10 amperes, 115 volts; 5 amperes, 230 volts. Motor rating, 1 hp. repulsion-induction; 1/2 hp. split-phase. Remote control circuit, 24-volt, self induced.

Type . . .	V2-3A	V2-3B	V2-3D	V2-3F	V2-3G	V2-3J
Each . . .	\$12.00	13.00	13.00	12.50	13.00	13.00
Volts . . .	115	115	115	230	230	230
Cycles . . .	60	50	25	60	50	25

For Heater Loads

Types V2-26A and V2-26F especially designed to handle heavy non-inductive heater loads. Non-inductive a.c. heater load rating: Type V2-26A, 20 amperes, 115 volts, maximum 2000 watt; Type V2-26F, 20 amperes, 230 volts, maximum 4000 watt.

Type	V2-26A	V2-26F
Each	\$13.00	13.00
Volts	115	230
Cycles	60	60

Other types also available in many different circuit arrangements and capacities.

Type K10-1 Mercoïd Lever Valves



Designed for controlling light and heavy oils, water, air, steam, gas and ammonia. The lever-action develops six times the power of usual solenoid, making possible operation at very high pressures for corresponding port sizes.

Quiet in operation, two-wire, of packless construction and closes upon current failure.

Normally closed type; opens when energized.

Pipe size, 3/8 and 1/2 inch; 3/8-inch is standard.

Standard port sizes, 3/32, 1/32, and 1/4 inch.

Type K10-1, 3/8-Inch Pipe Size. each **\$13.40**

Type K10-1, 1/2-Inch Pipe Size. each **14.40**

Other solenoid and hydrometer valves upon application.

Type DA-31 Mercoïd Pressure Controls



Has independent outside adjustments for setting both cut-in and cut-out pressures. Indicators show exact pressures for which instrument is set to operate.

Furnished with adjustment locking device and iron pig-tail siphon.

Electrical capacity, 10 amperes, 115 volts; 5 amperes, 230 volts and on order 3 amperes, 440 volts, a.c. or d.c. Motor rating 1-hp. repulsion-induction, 1/2-hp. split phase or d.c.

Range No.	Each	Adjustable Operating Range Pounds	DIFFERENTIALS, POUNDS		Maximum Pressure Pounds
			Min.	Max.	
1	\$12.00	0 to 14	1	14	30
2	15.00	0 to 30-In. Vac.	2-In. Vac.	30-In. Vac.	
3	12.50	10-In. Vac. to 12	1	Entire Range	30
4	13.50	0 to 35	1 3/4	35	50
5	13.50	0 to 60	2 1/2	60	80
6	13.50	0 to 100	3 3/4	100	125
7	15.00	0 to 150	6	150	200
8	15.50	0 to 200	6	200	240
9	16.00	0 to 300	12	300	400

Mounting bracket with 12 feet copper tubing, \$4.20 extra.

Type DA-21 Mercoïd Pressure Controls

Similar to Type DA-31 except that it has a heavier gage bourdon tube with a check valve to dampen out pulsations. Adjustments, electrical capacity same as Type DA-31.

Range No.	Each	Adjustable Operating Range Pounds	Bourdon Tubing	DIFFERENTIALS, POUNDS		Maximum Pressure Pounds
				Min.	Max.	
1	\$12.50	0 to 14	Brass	1	14	30
4	14.00	0 to 35	Brass	2 1/2	35	80
5	14.00	0 to 60	Brass	3	60	125
5S	20.00	0 to 60	Steel	6	60	150
6	15.00	0 to 100	Brass	6	100	200

Types DA-31 and DA-21 can be furnished in explosion-proof housing. Closer differential controls on application.

Type DA-121 Mercoïd Combination Pressure and Low Water Controls



For low pressure steam. Dial has two adjustable pointers which show pressures at which instrument is set to operate. Range is set by turning outside adjustments.

Electrical capacity, 10 amperes 115 volts, 5 amperes 230 volts; and on special order 3 amperes 440 volts, a.c. or d.c. Motor rating, 1-hp. repulsion-induction, 1/2-hp. split phase, or d.c.

Range No.	Each	Adjustable Operating Range, Lb.	DIFFERENTIALS POUNDS		Max. Press. Lb.
			Min.	Max.	
1	\$28.00	0 to 14-Lb.	1	14	30
3	29.00	10-In. Vac. to 12-Lb.	1	Entire Range	30

Other types liquid level controls on application.

Type DA-36 Mercoid Immersion Hot Water Controls



Used as hot water storage tank or boiler water temperature control; also as a limit control.

Has double outside adjustments, accurately calibrated visible dial and close operating differential.

Differential 2° minimum, 100° maximum. Rating, 10 amperes 115 volts, 5 amperes 230 volts. Motor rating, 1-hp., R.I. 1/2-hp. s.p. or d.c. Bulb, 3 inches long with 1/2-inch I.P.T. connection.

Type DA-36 has straight stem.

If back angle stem is desired, specify Type DA-37.

Range No.	Each	Adjustable Operating Range	MIN. DIFFERENTIALS		Max. Temp. Must Not Exceed
			High	Low	
5	\$15.00	100-200°	2°	9°	220°
6	15.00	135-235°	3°	10°	260°

Type DA-35 Mercoid Temperature Controls



For control of liquids or gases not injurious to copper or brass, such as air, oil, water, paraffin, glue or distillate vapors.

Has double outside adjustment, accurately calibrated visible dial.

Furnished standard with 6 feet flexible tubing.

Electric capacity, 10 amperes 115 volts, 5 amperes 230 volts. Motor rating, 1-hp., R.I. 1/2-hp. s.p. or d.c.

Range No.	Each	Adjustable Operating Range	MIN. DIFFERENTIALS	
			High	Low
3	\$22.00	25-100°	1°	5°
4	22.00	50-150°	2°	12°
5	19.00	100-200°	2°	9°

Other ranges available.

Type 115-W Mercoid Immersatherms



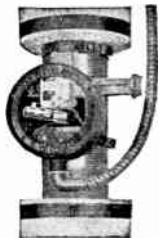
A summer-winter hot water supply control.

Has many industrial applications for controlling temperatures of liquids or gases not injurious to copper.

Low voltage, 9/10 amperes, 24 volts.

Type 115-W, Range 50-250°F.	each \$9.00
Type 115-W, Range 170-430°F	each 15.00

Mercoid Clamp-On Type Risertherms



A temperature limiting control designed to be clamped on risers of hot water heating systems or the surfaces of hot water tanks.

Electrical capacity either a.c. or d.c., 10 amperes, 115 volts, 5 amperes, 230 volts. and on special order at extra charge of \$3.60, 3 amperes, 440 volts. Motor is 1-hp. repulsion-induction, 1/2-hp. split phase, or d.c.

No. 34

For use in connection with thermostat for dual control of unit heaters. Standard range 140 to 230°F., differential 6 to 25°F.

No. 34, 10-Ampere, Single Pole.	each \$10.00
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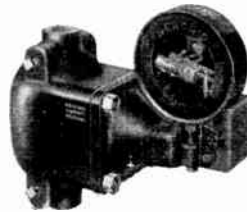
No. 35

A limit control for hot water systems. Standard range 110 to 200°F., differential 6 to 25°F.

No. 35, 10-Ampere, Single Pole.	each \$10.00
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Type 75 Mercoid Boiler Feed Water Pump Controls

300 Pounds Pressure Rating



Especially designed for regulation of motor-driven feed water pumps on boilers where pressures do not exceed 300 pounds. Operates feed water pump on approximately 3/4-inch variation in water level.

Boilers used for generation of steam for industrial applications require constant replacement of water to make up for evaporation

losses. As such boilers generally operate on high pressures, motor-driven feed water pumps are required. Close regulation of the water level is desirable to prevent lowering of steam pressure due to admission of too great a quantity of water.

Equipped with hermetically sealed mercury contact switch. No. 2120. Feed water pump control only. Single pole, 10 amperes.

No. 2122. Feed water pump control with alarm circuit. As water level drops 10 amperes pump circuit closes first. If water level continues to drop 4 amperes alarm circuit closes.

No. 2123. Feed water pump control and low water cut-out. As water level drops 10 amperes pump circuit closes first. If water level continues to drop 10 amperes, circuit controlling heating equipment opens.

Pipe connections, 1-inch I.P.S.

Electrical capacity: 10 amperes 115 volts, 5 amperes 230 volts, a.c. or d.c. Alarm circuit, 4 amperes 115 volts, 2 amperes 230 volts.

Motor rating: 1-hp. repulsion-induction, 1/2-hp. split phase or d.c.

Approximate shipping weight, 35 pounds.

No. 2120	2120	2122	2123
Each	\$40.00	43.00	44.00

Available for 3 amp. 440 volts at \$3.60 additional.

If desired for maximum pressures of 150 pounds, deduct \$5.00 from price.

Mercoid Pyrratherms



Type JM1 is a safety and ignition control for oil burners employing intermittent spark or gas ignition. Full protection against flame or ignition failure. Positive ignition control closes ignition circuit before every starting operation of burner.

Type JM for constant ignition burners.

Electric capacity, 10 amperes, 115 volts, 5 amperes 230 volts, a.c. only, 60 cycles.

Type JM1	each \$26.00
Type JM	each 24.00

Mercoid Controls

Lever Arm Type

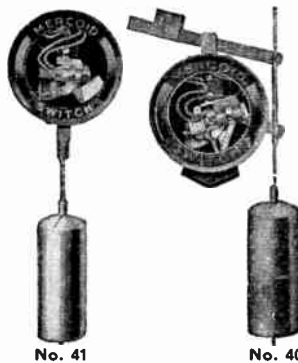
To open and close circuits
 No. 46 Snap Action ea. \$8.50
 No. 47 Direct Action ea. 7.00
 No. 48 3-Position ea. 10.00

Float Type

To maintain fluid levels in tanks or control sump pumps or cellar drainers.

No. 40 Counter-Balance ea. \$20.00
 No. 41 Plunger ea. 20.00

If rod or floats are not desired, deduct \$5.50.



No. 41

No. 40

No. 855 Mercoid Thermostats

For high voltage applications, to handle motor load directly without use of relay.

Standard ranges: 56-80°, 38-70°, 65-90° and 25-60°.

Shipping weight, 2 pounds.

No. 855, without Thermometer	each \$12.00
No. 855T, with Thermometer	each 13.00

Special ranges available at additional cost.

Buss One-Time Fuses

Non-Renewable—250 to 600 Volts

Buss One-Time Fuses are guaranteed, with good contact, to operate perfectly at any overload without charring or burning the fuse case.

Buss One-Time Cartridge Fuses are listed as standard by the Underwriters' Laboratories.

Except for instrument protection. Fusetrons should be used instead of fuses, as they give true and complete protection while their remarkable time-lag prevents useless blows from starting currents, etc.

Ferrule Contact—1 to 60 Amperes



250 Volts					600 Volts				
Type and Amperes	Each	Lgth. in.	No. in Ctn.	Wt. Lb. per 100	Type and Amperes	Each	Lgth. in.	No. in Ctn.	Wt. Lb. per 100
NON1	\$.15	2	10	3.8	NOS1	\$.50	5	10	14.5
NON3	.15	2	10	3.8	NOS3	.50	5	10	14.5
NON6	.15	2	10	3.8	NOS6	.50	5	10	14.5
NON10	.15	2	10	3.8	NOS10	.50	5	10	14.5
NON15	.15	2	10	3.8	NOS15	.50	5	10	14.5
NON20	.15	2	10	3.8	NOS20	.50	5	10	14.5
NON25	.15	2	10	3.8	NOS25	.50	5	10	14.5
NON30	.15	2	10	3.8	NOS30	.50	5	10	14.5
NON35	.30	3	10	10.0	NOS35	.80	5 1/2	10	26.0
NON40	.30	3	10	10.0	NOS40	.80	5 1/2	10	26.0
NON45	.30	3	10	10.0	NOS45	.80	5 1/2	10	26.0
NON50	.30	3	10	10.0	NOS50	.80	5 1/2	10	26.0
NON60	.30	3	10	10.0	NOS60	.80	5 1/2	10	26.0

Knife Blade Contact—70 to 600 Amperes



250 Volts					600 Volts				
Type and Amperes	Each	Lgth. in.	No. in Ctn.	Wt. Lb. per 100	Type and Amperes	Each	Lgth. in.	No. in Ctn.	Wt. Lb. per 100
NON70	\$.90	5 7/8	5	32	NOS70	\$1.80	7 7/8	5	56
NON80	.90	5 7/8	5	32	NOS80	1.80	7 7/8	5	56
NON90	.90	5 7/8	5	32	NOS90	1.80	7 7/8	5	56
NON100	.90	5 7/8	5	32	NOS100	1.80	7 7/8	5	56
NON110	2.00	7 1/8	1	79	NOS110	3.50	9 5/8	1	124
NON125	2.00	7 1/8	1	79	NOS125	3.50	9 5/8	1	124
NON150	2.00	7 1/8	1	79	NOS150	3.50	9 5/8	1	124
NON175	2.00	7 1/8	1	79	NOS175	3.50	9 5/8	1	124
NON200	2.00	7 1/8	1	79	NOS200	3.50	9 5/8	1	124
NON225	3.60	8 5/8	1	165	NOS225	7.00	11 5/8	1	303
NON250	3.60	8 5/8	1	165	NOS250	7.00	11 5/8	1	303
NON300	3.60	8 5/8	1	165	NOS300	7.00	11 5/8	1	303
NON350	3.60	8 5/8	1	165	NOS350	7.00	11 5/8	1	303
NON400	3.60	8 5/8	1	165	NOS400	7.00	11 5/8	1	303
NON450	5.50	10 3/8	1	276	NOS450	10.00	13 3/8	1	463
NON500	5.50	10 3/8	1	276	NOS500	10.00	13 3/8	1	463
NON600	5.50	10 3/8	1	276	NOS600	10.00	13 3/8	1	463

Sizes from 1 to 600 not listed, in any quantity, take larger quantity price on next larger amperage, plus a set-up charge of \$2.50 on each size or type on each shipment.

Buss Super-Lag Renewable Fuses and Renewal Links



Code (Paragraph 4346) in many cases permits smaller sized fused safety switches, fuse panels or fuse blocks if Buss Super-Lag fuse is used. One-piece link has long time lag that reduces number of blows on starting currents or other harmless overloads.

Complete Fuses				Renewal Links			
Type and Amperes	Each	Length Overall Inches	Weight Pounds per 100 Ctn.	Type and Amperes	Each	Length Overall Inches	Weight Pounds per 100 Ctn.
REN3	\$.40	2	10	LKN3	\$.02	20	.25
REN6	.40	2	10	LKN6	.02	20	.25
REN10	.40	2	10	LKN10	.02	20	.25
REN15	.40	2	10	LKN15	.02	20	.25
REN20	.40	2	10	LKN20	.02	20	.25
REN25	.40	2	10	LKN25	.02	20	.25
REN30	.40	2	10	LKN30	.02	20	.25
REN35	.80	3	10	LKN35	.04	20	1
REN40	.80	3	10	LKN40	.04	20	1
REN45	.80	3	10	LKN45	.04	20	1
REN50	.80	3	10	LKN50	.04	20	1
REN60	.80	3	10	LKN60	.04	20	1
REN70	1.80	5 7/8	5	LKN70	.09	10	2
REN80	1.80	5 7/8	5	LKN80	.09	10	2
REN90	1.80	5 7/8	5	LKN90	.09	10	2
REN100	1.80	5 7/8	5	LKN100	.09	10	2
REN110	4.00	7 1/8	1	LKN110	.20	5	5
REN125	4.00	7 1/8	1	LKN125	.20	5	5
REN150	4.00	7 1/8	1	LKN150	.20	5	5
REN175	4.00	7 1/8	1	LKN175	.20	5	5
REN200	4.00	7 1/8	1	LKN200	.20	5	5
REN225	7.20	8 5/8	1	LKN225	.36	5	11
REN250	7.20	8 5/8	1	LKN250	.36	5	11
REN300	7.20	8 5/8	1	LKN300	.36	5	11
REN350	7.20	8 5/8	1	LKN350	.36	5	11
REN400	7.20	8 5/8	1	LKN400	.36	5	11
REN450	11.00	10 3/8	1	LKN450	.55	2	16
REN500	11.00	10 3/8	1	LKN500	.55	2	16
REN600	11.00	10 3/8	1	LKN600	.55	2	16

Complete Fuses				Renewal Links			
Type and Amperes	Each	Length Overall Inches	Weight Pounds per 100 Ctn.	Type and Amperes	Each	Length Overall Inches	Weight Pounds per 100 Ctn.
RES3	\$1.00	5	10	LKS3	\$.05	20	1
RES6	1.00	5	10	LKS6	.05	20	1
RES10	1.00	5	10	LKS10	.05	20	1
RES15	1.00	5	10	LKS15	.05	20	1
RES20	1.00	5	10	LKS20	.05	20	1
RES25	1.00	5	10	LKS25	.05	20	1
RES30	1.00	5	10	LKS30	.05	20	1
RES35	1.60	5 1/2	10	LKS35	.08	20	3
RES40	1.60	5 1/2	10	LKS40	.08	20	3
RES45	1.60	5 1/2	10	LKS45	.08	20	3
RES50	1.60	5 1/2	10	LKS50	.08	20	3
RES60	1.60	5 1/2	10	LKS60	.08	20	3
RES70	3.60	7 7/8	5	LKS70	.18	10	5
RES80	3.60	7 7/8	5	LKS80	.18	10	5
RES90	3.60	7 7/8	5	LKS90	.18	10	5
RES100	3.60	7 7/8	5	LKS100	.18	10	5
RES110	7.00	9 5/8	1	LKS110	.35	5	14
RES125	7.00	9 5/8	1	LKS125	.35	5	14
RES150	7.00	9 5/8	1	LKS150	.35	5	14
RES175	7.00	9 5/8	1	LKS175	.35	5	14
RES200	7.00	9 5/8	1	LKS200	.35	5	14
RES225	14.00	11 5/8	1	LKS225	.70	5	29
RES250	14.00	11 5/8	1	LKS250	.70	5	29
RES300	14.00	11 5/8	1	LKS300	.70	5	29
RES350	14.00	11 5/8	1	LKS350	.70	5	29
RES400	14.00	11 5/8	1	LKS400	.70	5	29
RES450	20.00	13 3/8	1	LKS450	1.00	2	37
RES500	20.00	13 3/8	1	LKS500	1.00	2	37
RES600	20.00	13 3/8	1	LKS600	1.00	2	37

Sizes from 1 to 600 Not Listed take price of next larger size, on any quantity. Plus a Set-up Charge of \$2.50 on each size or type on each shipment. Fuses and links of the same size and type in the same shipment take only one set-up charge for such size.

Jefferson Super-Lag Renewable Enclosed Fuses

Care should be taken to insure clean contact surfaces between the copper blades, renewals and washers. The nut should always be drawn up tight.

Ferrule Type



Cap. Amp.	Carton	250 Volts			600 Volts		
		Cat. No.	Per 100	Wt., Lbs. Per 100	Cat. No.	Per 100	Wt., Lbs. Per 100
3	10	391-003	\$40.00	5 3/4	393-003	\$100.00	19
6	10	391-006	40.00	5 3/4	393-006	100.00	19
10	10	391-010	40.00	5 3/4	393-010	100.00	19
15	10	391-015	40.00	5 3/4	393-015	100.00	19
20	10	391-020	40.00	5 3/4	393-020	100.00	19
25	10	391-025	40.00	5 3/4	393-025	100.00	19
30	10	391-030	40.00	5 3/4	393-030	100.00	19
35	10	391-035	80.00	14 3/4	393-035	160.00	37
40	10	391-040	80.00	14 3/4	393-040	160.00	37
45	10	391-045	80.00	14 3/4	393-045	160.00	37
50	10	391-050	80.00	14 3/4	393-050	160.00	37
50	10	391-060	80.00	14 3/4	393-060	160.00	37

Dimensions

Cap. Amp.	250 Volts			600 Volts		
	Lgth. Over All In.	Diam. Tube In.	Diam. Ferrule In.	Lgth. Over All In.	Diam. Tube In.	Diam. Ferrule In.
3-30	2	1/2	9/16	5	3/4	13/16
35-60	3	3/4	13/16	5 1/2	1	1 1/16

Knife Blade Type



Cap. Amp.	Carton	250 Volts			600 Volts		
		Cat. No.	Per 100	Wt., Lbs. Per 100	Cat. No.	Per 100	Wt., Lbs. Per 100
70	5	391-070	\$180.00	46	393-070	\$360.00	83
80	5	391-080	180.00	46	393-080	360.00	83
90	5	391-090	180.00	46	393-090	360.00	83
100	5	391-100	180.00	46	393-100	360.00	83
110	1	391-110	400.00	109	393-110	700.00	183
125	1	391-125	400.00	109	393-125	700.00	183
150	1	391-150	400.00	109	393-150	700.00	183
175	1	391-175	400.00	109	393-175	700.00	183
200	1	391-200	400.00	109	393-200	700.00	183
225	1	391-225	720.00	266	393-225	1400.00	373
250	1	391-250	720.00	266	393-250	1400.00	373
300	1	391-300	720.00	266	393-300	1400.00	373
350	1	391-350	720.00	266	393-350	1400.00	373
400	1	391-400	720.00	266	393-400	1400.00	373
450	1	391-450	1100.00	389	393-450	2000.00	573
500	1	391-500	1100.00	389	393-500	2000.00	573
600	1	391-600	1100.00	389	393-600	2000.00	573

Dimensions

Cap. Amp.	250 Volts				600 Volts			
	Lgth. Over All In.	Diam. Tube In.	Width Blade In.	Thick. Blade In.	Lgth. Over All In.	Diam. Tube In.	Width Blade In.	Thick. Blade In.
70-100	5 7/8	1	3/4	1/8	7 7/8	1 1/4	3/4	1/8
110-200	7 1/8	1 1/2	1 1/8	3/16	9 5/8	1 3/4	1 1/8	3/16
225-400	8 5/8	2	1 5/8	1/4	11 5/8	2 1/2	1 5/8	1/4
450-600	10 3/8	2 1/2	2	1/4	13 3/8	3	2	1/4

Jefferson Union Renewable Enclosed Fuses

250 and 600 Volts

Listed As Standard by Underwriters' Laboratories

Ferrule Type

3 to 60 Amperes



The ferrule type fuse is quick and easy to renew. No loose washers, both ends open for inspection and cleaning, and the link bent at one end which automatically adjusts it to the proper length.

Only three simple parts.

Amperes	Carton	250 Volts			600 Volts		
		Cat. No.	Per 100	Wt. Lbs. per 100	Cat. No.	Per 100	Wt. Lbs. per 100
3	10	380-003	\$40.00	5 1/2	382-003	\$100.00	18 1/2
6	10	380-006	40.00	5 1/2	382-006	100.00	18 1/2
10	10	380-010	40.00	5 1/2	382-010	100.00	18 1/2
15	10	380-015	40.00	5 1/2	382-015	100.00	18 1/2
20	10	380-020	40.00	5 1/2	382-020	100.00	18 1/2
25	10	380-025	40.00	5 1/2	382-025	100.00	18 1/2
30	10	380-030	40.00	5 1/2	382-030	100.00	18 1/2
35	10	380-035	80.00	14 1/4	382-035	160.00	35
40	10	380-040	80.00	14 1/4	382-040	160.00	35
45	10	380-045	80.00	14 1/4	382-045	160.00	35
50	10	380-050	80.00	14 1/4	382-050	160.00	35
60	10	380-060	80.00	14 1/4	382-060	160.00	35

Dimensions

Amperes	250 Volts		600 Volts	
	Size Overall Inches	Size Ferrule Tube Inches	Size Overall Inches	Size Ferrule Tube Inches
1-30	2	9/16	5	13/16
35-60	3	13/16	5 1/2	1 1/16

Knife Blade Type

70 to 600 Amperes



Jefferson Union Renewable Fuses are assembled in casings of extreme durability, from which all trace of volatilized link metal can be quickly removed and in which all threads are protected from molten metal. The renewability of such a fuse will continue after any number of blows.

In addition to these important advantages Jefferson Union Renewable Fuses can be renewed with exceptional speed. They are made in all standard ratings.

Amperes	Carton	250 Volts			600 Volts		
		Cat. No.	Per 100	Wt. Lbs. per 100	Cat. No.	Per 100	Wt. Lbs. per 100
70	5	380-070	\$180.00	45	382-070	\$360.00	67 1/2
80	5	380-080	180.00	45	382-080	360.00	67 1/2
90	5	380-090	180.00	45	382-090	360.00	67 1/2
100	5	380-100	180.00	45	382-100	360.00	67 1/2
110	1	380-110	400.00	110	382-110	700.00	135
125	1	380-125	400.00	110	382-125	700.00	135
150	1	380-150	400.00	110	382-150	700.00	135
175	1	380-175	400.00	110	382-175	700.00	135
200	1	380-200	400.00	110	382-200	700.00	135
225	1	380-225	720.00	212 1/2	382-225	1400.00	350
250	1	380-250	720.00	212 1/2	382-250	1400.00	350
300	1	380-300	720.00	212 1/2	382-300	1400.00	350
350	1	380-350	720.00	212 1/2	382-350	1400.00	350
400	1	380-400	720.00	212 1/2	382-400	1400.00	350
450	1	380-450	1100.00	337 1/2	382-450	2000.00	545
500	1	380-500	1100.00	337 1/2	382-500	2000.00	545
600	1	380-600	1100.00	337 1/2	382-600	2000.00	545

Dimensions

Amperes	250 Volts			600 Volts		
	Length Overall Inches	Width Blade Inches	Thickness Blade Inches	Length Overall Inches	Width Blade Inches	Thickness Blade Inches
70-100	5 7/8	3/4	1/8	7 7/8	3/4	1/8
110-200	7 1/8	1 1/8	3/16	9 5/8	1 1/8	3/16
225-400	8 5/8	1 5/8	1/4	11 5/8	1 5/8	1/4
450-600	10 3/8	2	1/4	13 3/8	2	1/4

Jefferson Super-Lag Renewable Links



		250 Volts				600 Volts			
Cap. Amp.	Carton	No.	Per 100	Wt., Lb. per 100	No.	Per 100	Wt., Lb. per 100		
3	100	392-003	\$2.00	1/4	394-003	\$5.00	1		
6	100	392-006	2.00	1/4	394-006	5.00	1		
10	100	392-010	2.00	1/4	394-010	5.00	1		
15	100	392-015	2.00	1/4	394-015	5.00	1		
20	100	392-020	2.00	1/4	394-020	5.00	1		
25	100	392-025	2.00	1/4	394-025	5.00	1		
30	100	392-030	2.00	1/4	394-030	5.00	1		
35	100	392-035	4.00	1	394-035	8.00	3		
40	100	392-040	4.00	1	394-040	8.00	3		
45	100	392-045	4.00	1	394-045	8.00	3		
50	100	392-050	4.00	1	394-050	8.00	3		
60	100	392-060	4.00	1	394-060	8.00	3		
Knife Blade Type									
70	50	392-070	\$9.00	2	394-070	\$18.00	5.3		
80	50	392-080	9.00	2	394-080	18.00	5.3		
90	50	392-090	9.00	2	394-090	18.00	5.3		
100	50	392-100	9.00	2	394-100	18.00	5.3		
110	25	392-110	20.00	5	394-110	35.00	14.6		
125	25	392-125	20.00	5	394-125	35.00	14.6		
150	25	392-150	20.00	5	394-150	35.00	14.6		
175	25	392-175	20.00	5	394-175	35.00	14.6		
200	25	392-200	20.00	5	394-200	35.00	14.6		
225	25	392-225	36.00	11	394-225	70.00	29		
250	25	392-250	36.00	11	394-250	70.00	29		
300	25	392-300	36.00	11	394-300	70.00	29		
350	25	392-350	36.00	11	394-350	70.00	29		
400	25	392-400	36.00	11	394-400	70.00	29		
450	10	392-450	55.00	16	394-450	100.00	37		
500	10	392-500	55.00	16	394-500	100.00	37		
600	10	392-600	55.00	16	394-600	100.00	37		

Union Indicating Non-Renewable Enclosed Fuses
Ferrule Contact Style



		250 Volts			600 Volts		
Amp.	Carton	No.	Each	Wt. Lbs. 10 Full Cartons	No.	Each	Wt. Lbs. 10 Full Cartons
3	10	386-003	\$.15	4	387-003	\$.50	14 3/4
6	10	386-006	.15	4	387-006	.50	14 3/4
10	10	386-010	.15	4	387-010	.50	14 3/4
15	10	386-015	.15	4	387-015	.50	14 3/4
20	10	386-020	.15	4	387-020	.50	14 3/4
25	10	386-025	.15	4	387-025	.50	14 3/4
30	10	386-030	.15	4	387-030	.50	14 3/4
35	10	386-035	.30	10 1/2	387-035	.80	24 3/4
40	10	386-040	.30	10 1/2	387-040	.80	24 3/4
45	10	386-045	.30	10 1/2	387-045	.80	24 3/4
50	10	386-050	.30	10 1/2	387-050	.80	24 3/4
60	10	386-060	.30	10 1/2	387-060	.80	24 3/4

Dimensions

Amperes	250 Volts		600 Volts	
	Length Over All Inches	Diameter Tube Inches	Length Over All Inches	Diameter Tube Inches
1-30	2	1/2	5	3/4
35-60	3	3/4	5 1/2	1

Knife-Blade Contact Style



		250 Volts			600 Volts		
Amp.	Carton	No.	Each	Wt. Lbs. 10 Full Cartons	No.	Each	Wt. Lbs. 10 Full Cartons
70	5	386-070	\$.90	15	387-070	\$1.80	27
80	5	386-080	.90	15	387-080	1.80	27
90	5	386-090	.90	15	387-090	1.80	27
100	5	386-100	.90	15	387-100	1.80	27
110	1	386-110	2.00	7 3/4	387-110	3.50	12 1/2
125	1	386-125	2.00	7 3/4	387-125	3.50	12 1/2
150	1	386-150	2.00	7 3/4	387-150	3.50	12 1/2
175	1	386-175	2.00	7 3/4	387-175	3.50	12 1/2
200	1	386-200	2.00	7 3/4	387-200	3.50	12 1/2
225	1	386-225	3.60	17 1/4	387-225	7.00	29
250	1	386-250	3.60	17 1/4	387-250	7.00	29
300	1	386-300	3.60	17 1/4	387-300	7.00	29
350	1	386-350	3.60	17 1/4	387-350	7.00	29
400	1	386-400	3.60	17 1/4	387-400	7.00	29
450	1	386-450	5.50	28	387-450	10.00	43
500	1	386-500	5.50	28	387-500	10.00	43
600	1	386-600	5.50	28	387-600	10.00	43
* 700	1	386-700	12.00	50 1/2	387-700	15.00	77 1/2
* 800	1	386-800	12.00	50 1/2	387-800	15.00	77 1/2
* 900	1	386-900	15.00	72 1/2	387-900	18.00	92 1/2
* 1000	1	386-999	15.00	72 1/2	387-999	18.00	92 1/2

Dimensions

Amperes	250 Volts		600 Volts	
	Length Over All Inches	Diameter Tube Inches	Length Over All Inches	Diameter Tube Inches
61-100	5 7/8	1	7 7/8	1 1/4
101-200	7 1/8	1 1/2	9 5/8	1 3/4
201-400	8 5/8	2	11 5/8	2 1/2
401-600	10 3/8	2 1/2	13 3/8	3
601-800	11 1/2	3	14 1/2	3 1/2
801-1000	12 5/8	3 1/2	15 5/8	4

*The National Electrical Code does not cover any type of 250-volt enclosed fuse above 600 amperes. Fuses of higher capacity are not listed as Standard by the Underwriters' Laboratories but are built to the same strict standards as those so listed.

Jefferson Union Renewable Fuse Links

Ferrule Type



		250 Volts			600 Volts		
Amperes	Carton	Cat. No.	Per 100	Wt. Lbs. per 100	Cat. No.	Per 100	Wt. Lbs. per 100
3	100	381-003	\$2.00	1/4	383-003	\$5.00	5/8
6	100	381-006	2.00	1/4	383-006	5.00	5/8
10	100	381-010	2.00	1/4	383-010	5.00	5/8
15	100	381-015	2.00	1/4	383-015	5.00	5/8
20	100	381-020	2.00	1/4	383-020	5.00	5/8
25	100	381-025	2.00	1/4	383-025	5.00	5/8
30	100	381-030	2.00	1/4	383-030	5.00	5/8
35	100	381-035	4.00	1/2	383-035	8.00	2 3/8
40	100	381-040	4.00	1/2	383-040	8.00	2 3/8
45	100	381-045	4.00	1/2	383-045	8.00	2 3/8
50	100	381-050	4.00	1/2	383-050	8.00	2 3/8
60	100	381-060	4.00	1/2	383-060	8.00	2 3/8

Knife Blade Type

70	50	381-070	9.00	1 3/8	383-070	18.00	2 5/8
80	50	381-080	9.00	1 3/8	383-080	18.00	2 5/8
90	50	381-090	9.00	1 3/8	383-090	18.00	2 5/8
100	50	381-100	9.00	1 3/8	383-100	18.00	2 5/8
110	25	381-110	20.00	2 3/8	383-110	35.00	7 3/8
125	25	381-125	20.00	2 3/8	383-125	35.00	7 3/8
150	25	381-150	20.00	2 3/8	383-150	35.00	7 3/8
175	25	381-175	20.00	2 3/8	383-175	35.00	7 3/8
200	25	381-200	20.00	2 3/8	383-200	35.00	7 3/8
225	25	381-225	36.00	7	383-225	70.00	18
250	25	381-250	36.00	7	383-250	70.00	18
300	25	381-300	36.00	7	383-300	70.00	18
350	25	381-350	36.00	7	383-350	70.00	18
400	25	381-400	36.00	7	383-400	70.00	18
450	10	381-450	55.00	10	383-450	100.00	26
500	10	381-500	55.00	10	383-500	100.00	26
600	10	381-600	55.00	10	383-600	100.00	26

Gem Non-Indicating Enclosed Fuses None Renewable Ferrule Style



Amp.	Car- ton	250 Volts			600 Volts		
		No.	Each	Wt., Lb. per 100	No.	Each	Wt., Lb. per 100
1	10	384-001	\$.15	4	385-001	\$.50	14 ³ / ₄
3	10	384-003	.15	4	385-003	.50	14 ³ / ₄
6	10	384-006	.15	4	385-006	.50	14 ³ / ₄
10	10	384-010	.15	4	385-010	.50	14 ³ / ₄
15	10	384-015	.15	4	385-015	.50	14 ³ / ₄
20	10	384-020	.15	4	385-020	.50	14 ³ / ₄
25	10	384-025	.15	4	385-025	.50	14 ³ / ₄
30	10	384-030	.15	4	385-030	.50	14 ³ / ₄
35	10	384-035	.30	10 ¹ / ₂	385-035	.80	24 ³ / ₄
40	10	384-040	.30	10 ¹ / ₂	385-040	.80	24 ³ / ₄
45	10	384-045	.30	10 ¹ / ₂	385-045	.80	24 ³ / ₄
50	10	384-050	.30	10 ¹ / ₂	385-050	.80	24 ³ / ₄
60	10	384-060	.30	10 ¹ / ₂	385-060	.80	24 ³ / ₄

Amperes	250 Volts		600 Volts	
	Length Over All Inches	Diameter Tube Inches	Length Over All Inches	Diameter Tube Inches
1-30	2	1/2	5	3/4
35-60	3	3/4	5 1/2	1

Knife-Blade Style



Amp.	Car- ton	250 Volts			600 Volts		
		No.	Each	Wt., Lb. per 100	No.	Each	Wt., Lb. per 100
70	5	384-070	\$.90	30	385-070	\$1.80	54
80	5	384-080	.90	30	385-080	1.80	54
90	5	384-090	.90	30	385-090	1.80	54
100	5	384-100	.90	30	385-100	1.80	54
110	1	384-110	2.00	78	385-110	3.50	125
125	1	384-125	2.00	78	385-125	3.50	125
150	1	384-150	2.00	78	385-150	3.50	125
175	1	384-175	2.00	78	385-175	3.50	125
200	1	384-200	2.00	78	385-200	3.50	125
225	1	384-225	3.60	175	385-225	7.00	290
250	1	384-250	3.60	175	385-250	7.00	290
300	1	384-300	3.60	175	385-300	7.00	290
350	1	384-350	3.60	175	385-350	7.00	290
400	1	384-400	3.60	175	385-400	7.00	290
450	1	384-450	5.50	280	385-450	10.00	430
500	1	384-500	5.50	280	385-500	10.00	430
600	1	384-600	5.50	280	385-600	10.00	430
* 700	1	384-700	12.00	505	385-700	15.00	775
* 800	1	384-800	12.00	505	385-800	15.00	775
* 900	1	384-900	15.00	725	385-900	18.00	925
*1000	1	384-999	15.00	725	385-999	18.00	925

Amperes	250 Volts		600 Volts	
	Length Over All Inches	Diameter Tube Inches	Length Over All Inches	Diameter Tube Inches
61-100	5 ⁷ / ₈	1	7 ⁷ / ₈	1 ¹ / ₄
101-200	7 ¹ / ₈	1 1/2	9 ⁵ / ₈	1 3/4
201-400	8 ⁵ / ₈	2	11 ⁵ / ₈	2 1/2
401-600	10 ³ / ₈	2 1/2	13 ³ / ₈	3
601-800	11 1/2	3	14 1/2	3 1/2
801-1000	12 ⁵ / ₈	3 1/2	15 ⁵ / ₈	4

*The National Electrical Code does not cover any type of 250-volt enclosed fuse above 600 amperes. Fuses of higher capacity are not listed as Standard by the Underwriters' Laboratories but are built to the same strict standards as those so listed.

Economy Delay Renewable Cartridge Fuses 250 and 600 Volts

Listed by Underwriters' Laboratories, Inc.

Always operate at rated capacities.
May be used successfully under all conditions of service without filling material of any description.

The delay renewal link is quickly and easily replaced and the restoration of a blown fuse to its original efficiency takes only a few moments.

Complete Fuses—Ferrule Type—3 to 60 Amperes



Amp.	250 Volts			600 Volts		
	No.	Each	Wt. Lb. per Ctn.	No.	Each	Wt. Lb. per Ctn.
3	F- 325	\$.40	5 ⁵ / ₈	F- 305	\$1.00	15 ⁵ / ₈
6	F- 625	.40	5 ⁵ / ₈	F- 605	1.00	15 ⁵ / ₈
10	F-1025	.40	5 ⁵ / ₈	F-1005	1.00	15 ⁵ / ₈
15	F-1525	.40	5 ⁵ / ₈	F-1505	1.00	15 ⁵ / ₈
20	F-2025	.40	5 ⁵ / ₈	F-2005	1.00	15 ⁵ / ₈
25	F-2525	.40	5 ⁵ / ₈	F-2505	1.00	15 ⁵ / ₈
30	F-3025	.40	5 ⁵ / ₈	F-3005	1.00	15 ⁵ / ₈
35	F-3525	.80	13 ³ / ₈	F-3505	1.60	33 ³ / ₈
40	F-4025	.80	13 ³ / ₈	F-4005	1.60	33 ³ / ₈
45	F-4525	.80	13 ³ / ₈	F-4505	1.60	33 ³ / ₈
50	F-5025	.80	13 ³ / ₈	F-5005	1.60	33 ³ / ₈
60	F-6025	.80	13 ³ / ₈	F-6005	1.60	33 ³ / ₈

Amperes	250 Volts		600 Volts	
	Length Inches	Diameter Inches	Length Inches	Diameter Inches
1-30	2	9 ¹ / ₁₆	5	13 ¹ / ₁₆
35-60	3	13 ¹ / ₁₆	5 1/2	1 1/16

Complete Fuses—Knife Blade Type—61 to 600 Amperes



Amp.	250 Volts			600 Volts		
	No.	Each	Wt. Lb. per Ctn.	No.	Each	Wt. Lb. per Ctn.
70	F- 7025	\$1.80	2	F- 7005	\$3.60	33 ³ / ₈
80	F- 8025	1.80	2	F- 8005	3.60	33 ³ / ₈
90	F- 9025	1.80	2	F- 9005	3.60	33 ³ / ₈
100	F-10025	1.80	2	F-10005	3.60	33 ³ / ₈
110	F-11025	4.00	1 1/16	F-11005	7.00	13 ³ / ₄
125	F-12525	4.00	1 1/16	F-12505	7.00	13 ³ / ₄
150	F-15025	4.00	1 1/16	F-15005	7.00	13 ³ / ₄
175	F-17525	4.00	1 1/16	F-17505	7.00	13 ³ / ₄
200	F-20025	4.00	1 1/16	F-20005	7.00	13 ³ / ₄
225	F-22525	7.20	23 ¹ / ₁₆	F-22505	14.00	31 ¹ / ₂
250	F-25025	7.20	23 ¹ / ₁₆	F-25005	14.00	31 ¹ / ₂
300	F-30025	7.20	23 ¹ / ₁₆	F-30005	14.00	31 ¹ / ₂
350	F-35025	7.20	23 ¹ / ₁₆	F-35005	14.00	31 ¹ / ₂
400	F-40025	7.20	23 ¹ / ₁₆	F-40005	14.00	31 ¹ / ₂
450	F-45025	11.00	3 1/2	F-45005	20.00	5 1/2
500	F-50025	11.00	3 1/2	F-50005	20.00	5 1/2
600	F-60025	11.00	3 1/2	F-60005	20.00	5 1/2

Amperes	250 Volts		600 Volts	
	Length Inches	Blade Width Inches	Length Inches	Blade Width Inches
61-100	5 ⁷ / ₈	3/4	7 ⁷ / ₈	3/4
110-200	7 1/8	1 1/8	9 ⁵ / ₈	1 1/8
225-400	8 ⁵ / ₈	1 5/8	11 ⁵ / ₈	1 5/8
450-600	10 ³ / ₈	2	13 ³ / ₈	2

Economy Delay Renewal Links



250 Volts				600 Volts					
Cat. No.	Each	Am-peres	Car- ton	Wt. Lb.	Cat. No.	Each	Am-peres	Car- ton	Wt. Lb.
R-203	\$.02	3	100	3/16	R-603	\$.05	3	100	11/16
R-206	.02	6	100	3/16	R-606	.05	6	100	11/16
R-210	.02	10	100	3/16	R-610	.05	10	100	11/16
R-215	.02	15	100	3/16	R-615	.05	15	100	11/16
R-220	.02	20	100	3/16	R-620	.05	20	100	11/16
R-225	.02	25	100	3/16	R-625	.05	25	100	11/16
R-230	.02	30	100	3/16	R-630	.05	30	100	11/16
R-235	.04	35	100	5/8	R-635	.08	35	100	23/16
R-240	.04	40	100	5/8	R-640	.08	40	100	23/16
R-245	.04	45	100	5/8	R-645	.08	45	100	23/16
R-250	.04	50	100	5/8	R-650	.08	50	100	23/16
R-260	.04	60	100	5/8	R-660	.08	60	100	23/16



**Knife Blade Type
70 to 600 Amperes**

250 Volts				600 Volts					
Cat. No.	Each	Am-peres	Wt. Lb.	Cat. No.	Each	Am-peres	Wt. Lb.		
R-270	\$.09	70	50	7/8	R-670	\$.18	70	50	1 1/2
R-280	.09	80	50	7/8	R-680	.18	80	50	1 1/2
R-290	.09	90	50	7/8	R-690	.18	90	50	1 1/2
R-2100	.09	100	50	7/8	R-6100	.18	100	50	1 1/2
R-2110	.20	110	25	1	R-6110	.35	110	25	2 3/4
R-2125	.20	125	25	1	R-6125	.35	125	25	2 3/4
R-2150	.20	150	25	1	R-6150	.35	150	25	2 3/4
R-2175	.20	175	25	1	R-6175	.35	175	25	2 3/4
R-2200	.20	200	25	1	R-6200	.35	200	25	2 3/4
R-2225	.36	225	12	1	R-6225	.70	225	12	2 5/8
R-2250	.36	250	12	1	R-6250	.70	250	12	2 5/8
R-2300	.36	300	12	1	R-6300	.70	300	12	2 5/8
R-2350	.36	350	12	1	R-6350	.70	350	12	2 5/8
R-2400	.36	400	12	1	R-6400	.70	400	12	2 5/8
R-2450	.55	450	10	1 1/4	R-6450	1.00	450	10	4 7/8
R-2500	.55	500	10	1 1/4	R-6500	1.00	500	10	4 7/8
R-2600	.55	600	10	1 1/4	R-6600	1.00	600	10	4 7/8

Ideal Safe-T-Grip Fuse Pullers



Eliminates danger of pulling and replacing cartridge fuses by hand and bending of fuse clips through improper removal. Also adjusts loose cutout clips, handles laboratory test tubes, live electrical parts, etc. Laminated fiber construction. Possesses high di-electric qualities. Withstands exceptional atmospheric conditions of heat and humidity.

No. 34-001 Midget Size

For handling small fuses, grid leaks, etc., 1/4 to 1/2 inch in diameter. Has 3 laminations, 5 inches long.

No. 34-001, Weight, 1 Ounce.....each \$3.35

No. 34-002 Pocket Size

A popular size for general use. For fuses 0 to 200 amperes 250 volts and 1 to 100 amperes, 600 volts. Has 5 laminations 7 1/2 inches long.

No. 34-002, Weight, 3 Ounces.....each \$1.00

No. 34-003 Giant Size

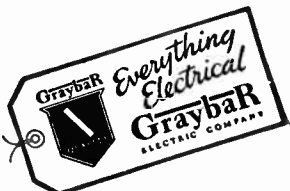
For fuses 100 to 600 amperes, 250 volts and 60 to 400 amperes, 600 volts. Has 7 laminations, 12 inches long.

No. 34-003, Weight, 8 Ounces.....each \$3.00

No. 34-004 Jumbo Size

A large powerful tool for handling fuses 200 to 800 amperes, 250 volts and 200 to 600 amperes, 600 volts. Has 9 laminations, 20 inches long.

No. 34-004, Weight, 24 Ounces.....each \$9.00



**Eco Non-Indicating Non-Renewable Enclosed Fuses
250 and 600 Volts**

Listed by Underwriters' Laboratories, Inc.

Made of heavy tubing. Caps are all brass, permanently rolled on the tube, not merely crimped. Caps on ferrule type fuses are pierced without distorting out-of-round, and the piercing not only permanently prevents relative movement, but it also provides full clip contact and a means for venting.

Heavy copper lead-in terminals are used and thereby provide accurate and dependable rating and performance. Unexcelled for uniformity of current-time operation.

Ferrule Type



Cap. Amps.	250 Volts		600 Volts		No. in Carton
	No.	Each	No.	Each	
1	1101	\$.15	1601	\$.50	10
3	1103	.15	1603	.50	10
6	1106	.15	1606	.50	10
10	1110	.15	1610	.50	10
15	1115	.15	1615	.50	10
20	1120	.15	1620	.50	10
25	1125	.15	1625	.50	10
30	1130	.15	1630	.50	10
35	1135	.30	1635	.80	10
40	1140	.30	1640	.80	10
45	1145	.30	1645	.80	10
50	1150	.30	1650	.80	10
60	1160	.30	1660	.80	10

Knife Blade Type



Cap. Amps.	250 Volts		600 Volts		No. in Carton
	No.	Each	No.	Each	
70	11070	\$.90	16070	\$1.80	5
80	11080	.90	16080	1.80	5
90	11090	.90	16090	1.80	5
100	11100	.90	16100	1.80	5
110	11110	2.00	16110	3.50	1
125	11125	2.00	16125	3.50	1
150	11150	2.00	16150	3.50	1
175	11175	2.00	16175	3.50	1
200	11200	2.00	16200	3.50	1
225	11225	3.60	16225	7.00	1
250	11250	3.60	16250	7.00	1
300	11300	3.60	16300	7.00	1
350	11350	3.60	16350	7.00	1
400	11400	3.60	16400	7.00	1
450	11450	5.50	16450	10.00	1
500	11500	5.50	16500	10.00	1
600	11600	5.50	16600	10.00	1

No. 34-005 Ideal Combination Test-Lites and Fuse Pullers



For testing, removing, or inserting fuses from 30 to 100 amperes capacity, testing circuits of from 110 to 550 volts, handling all types of live electrical parts, adjusting loose cut-out clips, etc.

Made of reinforced bakelite. Similar in design to a pair of pliers. Test pins are mounted in handle ends and are adjusted to various spans by opening or closing the handles. Test-lite is enclosed in handle to safeguard against breakage.

Length overall, 7 inches. Weight, 6 ounces.

No. 34-005.....each \$3.24
No. 34-006, 18-Inch Flexible Leads.....each .65

15 to 30-Ampere Buss Fusetrons

For Circuit Protection on Voltages up to 125



Stops needless blowing of plug fuses. Will not blow when motors start on washing machines, refrigerators and such appliances. Has a long time-lag, because it is a fuse to which a thermal cutout has been added.

Abolishes unsafe practice of using over-size fuse to prevent needless blowing. Gives all the protection a fuse does, holds like a large fuse when safety permits, yet opens like a small fuse when safety demands.

Large clear window facilitates locating of blown Fusetron. No installation cost; fits regular fuse receptacle. Packed 4 in a box, 100 in a shelf package.

No.	T15	T20	T25	T30
Each	\$.10	.10	.10	.10
Amperes	15	20	25	30

15 to 30-Ampere Buss Fustats

Type S Fuses

For Circuit Protection on Voltages up to 125



Permits addition of more appliances to present circuits. Will not blow out when motors start on washing machines, refrigerators, or other appliances. Fits all Edison base fuse holder by use of adapter which locks in place.



Adapter

Has a thermal cutout combined with a fuse. Operates like a Fusetron, but has a non-tamperable base. Resists over-fusing. A 20, 25, or 30-ampere size will not fit in a 15-ampere receptacle or adapter. Similar limitations apply to all other sizes.

Adapters not included with Fustats; order separately and specify size.

Packed 4 in a box; 100 in a shelf package.

Amperes	Fustats		Adapters	
	No.	Each	No.	Each
15	S15	\$.10	SA15	\$.07 1/2
20	S20	.10	SA20	.07 1/2
25	S25	.10	SA30	.07 1/2
30	S30	.10	SA30	.07 1/2

0 to 14-Ampere Buss Fustats

For Motor Apparatus, or Circuit Protection on Voltages up to 125



A fuse to which is added a thermal cutout. Has non-tamperable base to prevent anyone destroying protection. Fits all standard Edison base fuse holders by use of adapter which locks in place.



Adapter

Holds starting current and harmless overloads, yet protects motor against burnout from any excessive current, even light overloads if continued. Opens like a fuse on short-circuit.

Instead of fuse, install in the same block or switch, a Fustat having the same, or slightly higher, ampere rating as the motor. It will protect motor against burnout.

Adapters not included with Fustats; order separately, and specify size Fustat for which they are intended.

Packed 4 in a box; 100 in a shelf package.

Amperes	Fustats		Adapter	
	No.	Each	No.	Each
1.	S 1	\$.20	SA 1	\$.07 1/2
1.25	S 1 1/4	.20	SA 1 1/4	.07 1/2
1.6	S 1 3/4	.20	SA 1 3/4	.07 1/2
2.	S 2	.20	SA 2	.07 1/2
2.5	S 2 1/2	.20	SA 2 1/2	.07 1/2
3.2	S 3 3/4	.20	SA 3 3/4	.07 1/2
4.	S 4	.20	SA 4	.07 1/2
5.	S 5	.20	SA 5	.07 1/2
6.25	S 6 1/4	.20	SA 6 1/4	.07 1/2
8.	S 8	.20	SA 8	.07 1/2
10.	S10	.20	SA10	.07 1/2
12.	S12	.20	SA15	.07 1/2
14.	S14	.20	SA15	.07 1/2

Many other sizes from 3/10 to 9 amperes can be obtained.

Buss Fusetrons

250 and 600 Volts



1 to 60 Amp.



70 to 600 Amp.

Fits ordinary fuse holders. A fuse and a thermal cutout. Has long time-lag and less electrical resistance.

For all types of circuits or feeders. Long time-lag prevents blowing on starting currents or other harmless overloads, yet they protect against short-circuit with speed of a fuse.

Low resistance lets switches and panelboards operate at a lower temperature. This prevents damage and wipes out needless blowing of fuses. In cases of heating from poor contact or other causes the thermal cutout in the Fusetron will open to protect panelboard or switch against damage.

On normal installations size about 100 to 125 per cent of ampere rating of motor, installed in disconnect switch or branch circuit panel gives safe and dependable motor-running protection. Motors protected by other thermal devices get double protection. If other devices fail Fusetrons will open to protect against dangerous overload or single phasing. Because Fusetrons can be used in smaller sizes than ordinary fuses, savings on original installations can be made through use of smaller size switches and panelboards.

Carries Underwriters' Laboratories label and is approved for both motor-running and circuit protection.

250 Volts				600 Volts				Wt. Lb. in per Car- ton
Type and Amp.	Each	Lgth. In.	Wt. Lb. per 100	Type and Amp.	Each	Lgth. In.	Wt. Lb. in per Car- ton	
FRN 1	\$.25	2	3 1/2	FRS 1	\$.65	5	14 10	
FRN 1 1/4	.25	2	3 1/2	FRS 1 1/4	.65	5	14 10	
FRN 1 3/4	.25	2	3 1/2	FRS 1 3/4	.65	5	14 10	
FRN 2	.25	2	3 1/2	FRS 2	.65	5	14 10	
FRN 2 1/2	.25	2	3 1/2	FRS 2 1/2	.65	5	14 10	
FRN 3 1/4	.25	2	3 1/2	FRS 3 1/4	.65	5	14 10	
FRN 4	.25	2	3 1/2	FRS 4	.65	5	14 10	
FRN 5	.25	2	3 1/2	FRS 5	.65	5	14 10	
FRN 6 1/4	.25	2	3 1/2	FRS 6 1/4	.65	5	14 10	
FRN 8	.25	2	3 1/2	FRS 8	.65	5	14 10	
FRN 10	.25	2	3 1/2	FRS 10	.65	5	14 10	
FRN 12	.25	2	5	FRS 12	.65	5	16 10	
FRN 15	.25	2	5	FRS 15	.65	5	16 10	
FRN 17 1/2	.25	2	5	FRN 17 1/2	.65	5	16 10	
FRN 20	.25	2	5	FRS 20	.65	5	16 10	
FRN 25	.30	2	5	FRS 25	.75	5	16 10	
FRN 30	.30	2	5	FRS 30	.75	5	16 10	
FRN 35	.60	3	12	FRS 35	1.35	5 1/2	26 10	
FRN 40	.60	3	12	FRS 40	1.35	5 1/2	26 10	
FRN 45	.60	3	12	FRS 45	1.35	5 1/2	26 10	
FRN 50	.60	3	12	FRS 50	1.35	5 1/2	26 10	
FRN 60	.60	3	12	FRS 60	1.35	5 1/2	26 10	
FRN 70	1.45	5 7/8	35	FRS 70	2.75	7 7/8	56 5	
FRN 80	1.45	5 7/8	35	FRS 80	2.75	7 7/8	56 5	
FRN 90	1.45	5 7/8	35	FRS 90	2.75	7 7/8	56 5	
FRN100	1.45	5 7/8	35	FRS100	2.75	7 7/8	56 5	
FRN110	3.10	7 1/8	88	FRS110	5.50	9 5/8	125 1	
FRN125	3.10	7 1/8	88	FRS125	5.50	9 5/8	125 1	
FRN150	3.10	7 1/8	88	FRS150	5.50	9 5/8	125 1	
FRN175	3.10	7 1/8	88	FRS175	5.50	9 5/8	125 1	
FRN200	3.10	7 1/8	88	FRS200	5.50	9 5/8	125 1	
FRN225	5.70	8 5/8	182	FRS225	10.50	11 5/8	305 1	
FRN250	5.70	8 5/8	182	FRS250	10.50	11 5/8	305 1	
FRN300	5.70	8 5/8	182	FRS300	10.50	11 5/8	305 1	
FRN350	5.70	8 5/8	182	FRS350	10.50	11 5/8	305 1	
FRN400	5.70	8 5/8	182	FRS400	10.50	11 5/8	305 1	
FRN450	8.50	10 3/8	304	FRS450	15.00	13 3/8	480 1	
FRN500	8.50	10 3/8	304	FRS500	15.00	13 3/8	480 1	
FRN600	8.50	10 3/8	304	FRS600	15.00	13 3/8	480 1	

Other standard dimension Fusetrons are available from 1/10 to 9 amp. and midjet dimensions from 1/10 to 10 amp.

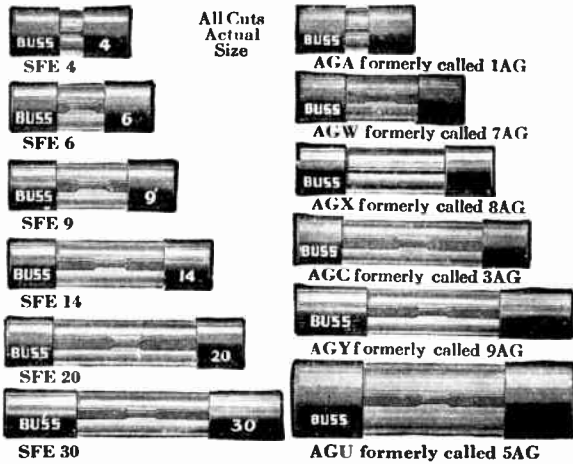
Return 35 to 60 Ampere Blown Fusetrons and Get Replacements at One-Half Price

Note on the order the items of blown Fusetrons being returned. If such Fusetrons are in good condition, except for being blown, the replacement Fusetrons, up to an amount equal in list value to those returned, will be billed at one-half price.

This applies only to 35 ampere and larger size.

Buss Glass Tube Fuses

For Auto, Radio, and Instrument Protection



All Cuts Actual Size

Packed 5 in a slide cover metal box.

Type	Former No.	Amperes	Dimen. In.	Wt., Lb., 100	Each
SFE 4	...	4	1/4 x 5/8	0.70	\$.05
SFE 6	...	6	1/4 x 3/4	0.71	.05
SFE 9	...	9	1/4 x 7/8	0.72	.04
SFE 14	...	14	1/4 x 1 1/16	0.77	.04
SFE 20	...	20	1/4 x 1 1/4	0.83	.03 1/2
SFE 30	...	30	1/4 x 1 1/16	1.05	.06
AGA	1AG	2	1/4 x 5/8	0.70	.07
AGA	1AG	6, 7 1/2 or 10	1/4 x 5/8	0.70	.05
AGC	3AG	1, 1 1/2, 2 or 3	1/4 x 1 1/4	0.83	.07
AGC	3AG	5, 6, 25 or 30	1/4 x 1 1/4	0.83	.05
AGC	3AG	10 or 15	1/4 x 1 1/4	0.83	.04
AGU	5AG	20 or 30	1 3/32 x 1 1/2	2.00	.11
AGW	7AG	6	1/4 x 7/8	0.71	.05
AGX	8AG	20	1/4 x 1	0.82	.05
AGY	9AG	50	1/4 x 1 1/16	1.10	.12

Type AGC fuses 3 amperes and smaller can be used on 250-volt circuits.

Buss Fuse Holders



Used for mounting fuses on radios, instruments, electronic equipment, automobiles, or any equipment where ease of changing fuses is particularly desirable. Removable knob of holder changes fuse quickly and simply.

Good contact on fuse caps is assured by strong coil spring pressure.

Protects fuse from dirt and fumes.

Inserted through holes on panel. HJM, HKP, and HCM can be used on panels up to 1/16-inch thick. They are held in place by locking nut on holder.

HPC is attached to panel by screws or rivets through flange on holder, and can be used on panels of any thickness.

Type	Each	For Currents Amperes	For Fuse or Fusetron Inches	Shipping Wt. Lb. per 100
HJM	\$.50	15	1/4 x 1	4
HKP	.50	15	1/4 x 1 1/4	4
HCM	.75	18	1/4 x 1 1/4 and 3/32 x 1 1/4	5
HPC	1.50	22	1 3/32 x 1 1/2	7

Buss Special Fuses

Special fuses for every purpose can be furnished.

Submit a sample of the fuse needed if possible, otherwise submit full details as to type, voltage, amperage, etc.

Care must be exercised in ordering fuses as they are made to order and are not returnable.

Buss Aircraft Fuses

A complete line of Buss aircraft fuses is available.

For detailed information, write for Buss Bulletin AF.

Buss Fuse Wire and Strip



Buss fuse wire and strips will carry indefinitely current shown under heading capacity and will open the circuit when subjected to current 25 per cent in excess thereof.

This is based on a distance between contacts or terminals of 2 inches.

When used on contacts of other distances, the carrying capacity is affected as shown in table below.

Will Carry More Current		Will Carry Less Current	
Distance Between Contacts Inches	Per Cent Additional	Distance Between Contacts Inches	Per Cent Less
1/2	100	2 1/2	5
3/4	70	3	10
1	45	4	15
1 1/4	30	5	20
1 1/2	15	6	25

The size of terminal and other local conditions will greatly affect these figures. They are only approximate.

Fuse Wire

The 1/4-ampere size is furnished on 250-foot spools; sizes 1/2 to 3 amperes, on 1/2-pound spools; and 5 to 100-amperes, on 1-pound spools.

Furnished only in full spools.

Size Amp.	Per Spool	Carrying Capacity Amperes	Feet per Pound	Size Amp.	Per Spool	Carrying Capacity Amperes	Feet per Pound
1/4	\$2.00	.45	12920	20	\$1.50	27	39
1/2	5.00	1.25	2616	25	1.50	33	30
1	2.00	2.2	1020	30	1.50	38	25
2	1.75	4.3	420	40	1.50	49	17.6
3	1.50	6	273	50	1.50	59	14
4	2.25	7.3	213	60	1.50	75	10.5
5	2.25	8	172	70	1.50	85	9
6	2.25	9	148	80	1.50	101	7.3
8	2.25	12	109	90	1.50	125	5.8
10	2.00	14	87	100	1.50	141	5.1
15	2.00	20	57	...	...	...	...

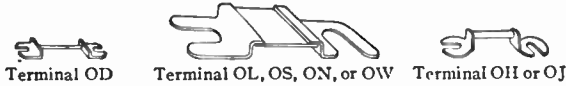
Fuse Strip

Packed in 5-pound cans. All in one piece. Each strip is marked at the inner end of the coil with the ampere rating. Width of strip, 1 inch.

Furnished only in full cans.

Size Amp.	Per Can	Thick. Inches	Carrying Capacity Amperes	Feet per Lb.	Size Amp.	Per Can	Thick. Inches	Carrying Capacity Amperes	Feet per Lb.
100	\$7.50	.028	125	7.3	300	\$7.50	.092	340	2.2
125	7.50	.035	155	5.8	350	7.50	.110	405	1.9
150	7.50	.043	180	4.7	400	7.50	.128	440	1.6
175	7.50	.051	200	4	500	7.50	.166	545	1.2
200	7.50	.059	225	3.5	600	7.50	.204	625	1
250	7.50	.075	285	2.7	...	...	...	...	...

Buss Open Link Fuses



Buss open link fuses can be obtained with many other styles of terminals and in larger capacities. When in need of any open link fuses not listed, send sample or complete description.

Unless otherwise specified, standard terminals as listed will be furnished. The terminals listed under heading of Other Terminal, can be obtained if desired without additional cost. Slots are slightly larger than dimensions given so that bolts of such sizes will fit the slot. Terminals are all copper.

Amperes	*Each	STANDARD TERMINAL		Old No.	Other Terminal
		Type	Slot Width Inches		
1 to 30	\$.04	OD	5/32	1	OH
35 to 60	.05	OJ	3/16	3	OJ
65 to 100	.08	OJ	1/4	5	OL
110 to 200	.13	OL	3/8	7	OS
225 to 400	.22	OS	7/16	16	ON
450 to 600	.40	ON	1 1/2	10	OS
650 to 1000	.80	OW	5/8	28	ON

When ordering, be sure to specify exact amperage and length desired. By length is meant the center to center dimension of the slots in the terminals. This dimension will be designated by one of the symbols shown below, this symbol immediately following the terminal symbol.
 Symbol..... A C D F H J L N R S U X Y Z
 Size..... in. 1 1 1/4 1 1/2 1 3/4 2 2 1/4 2 1/2 3 3 1/2 4 5 6 7 8

*A set up charge of \$1.50 is made for each size and type fuse ordered on each shipment, in addition to prices shown.

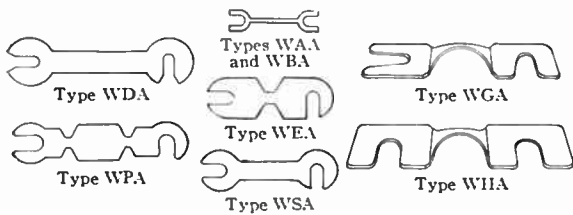
Large Open Link Fuses



Terminals of cold rolled copper, entirely flat, one edge being slotted to receive the fuse strip.

When ordering specify: ampere range desired; width, length, and thickness of terminals; size of hole desired, center to center dimension of terminal hole. If more than one hole in each terminal is desired, a sketch of the fuse must be submitted in addition to the information above.

Stamped Open Link Fuses



Types WGA and WIA usually made of copper. All other types are made of zinc.

A set up charge of \$1.50 is made for each size and type fuse ordered on each shipment, in addition to prices shown.

Type	Each	Set-up	Old No.	Center to Center Inches	Slot Inches	Max. Width of Terminal Portion Inches	Usual Amperages
WAA	\$.02	\$1.50	A	1 1/4	3/16	3/8	...
WBA	.02	1.50	B	1 5/8	3/16	15/32	...
WSA	.025	2.50	S	1 3/4	9/32	3/4	20 to 200
WDA	.035	1.50	D	2 7/16-2 5/8	1/4	7/8	30 to 200
WPA	.035	1.50	P	2 3/8	9/32	23/32	30 to 200
WGA	.12	2.50	G	2 1/8	7/16	1	35 to 750
WIA	.17	2.50	H	3	9/16	2	500 to 1500
WFA	.035	1.50	66A	1 9/16	1/4	3/4	75 or 125

Buss Clear Window Plug Fuses



Carries Underwriters' Laboratories inspected label.



Buss fuses have an extra large, clear window and an all white background which makes it easy to see if fuse is blown. Brass cap protects fuse against any chipping of the top. Insulated with porcelain and mica.

Packed 5 in a box. Information printed on box tells what to do when a fuse blows.

Standard package, 100. Weight per 1000, 65 pounds.

No.	AMPERES									
	1	3	5	6	8	10	15	20	25	30
W1	W3	W5	W6	W8	W10	W15	W20	W25	W30	
Each	\$.08	.08	.08	.08	.08	.07	.07	.07	.07	.07

Jefferson Plug Fuses



Jefferson Gem Plug Fuses are equipped with clear mica windows making it possible to see at a glance whether or not fuse is blown.

These fuses are listed as standard and bear the Underwriters' label. Packed in display cartons of 5 each and shelf packages of 100 fuses (20 cartons of 5 each).

No.	Each	Cap. Amp.	Carton Quantity	Wt. Lb. per 100
388-103	\$.07	3	100	6 1/4
388-105	.07	5	100	6 1/4
388-106	.07	6	100	6 1/4
388-108	.07	8	100	6 1/4
388-110	.05	10	100	6 1/4
388-115	.05	15	100	6 1/4
388-120	.05	20	100	6 1/4
388-125	.05	25	100	6 1/4
388-130	.05	30	100	6 1/4



Carton of 5 Fuses

Clearsite Non-Renewable Plug Fuses



The fuse link is mounted under the fuse window thereby giving clear vision of the link. The drop-out type of link is used which lessens the internal operating pressure.

The fuse body is made of heat-resisting molded insulation, black in color.

Regular package consists of 50 plugs to a carton. Retail package consists of 5 plugs to a package, 100 plugs to a carton.

Standard Sizes

Cap. Amp.	Each	Regular Package No.	Retail Package No.
10	\$.07	4310	5710
15	.07	4315	5715
20	.07	4320	5720
25	.07	4325	5725
30	.07	4330	5730

Sub-Standard Sizes

Cap. Amp.	Each	Regular Package No.	Retail Package No.
3	\$.07	4303	5703
5	.07	4305	5705
6	.07	4306	5706
8	.07	4308	5708
..

Economy Renewable Plug Fuses

Fuses packed 10 in a carton; weight, 1 1/4 pounds.

Links packed 100 in a carton; weight, 2 ounces.

Drop-Out Renewal Links



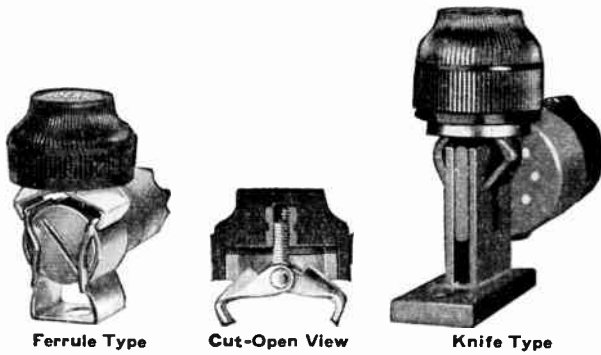
Fuse



Link

No.	Each	Capacity Amperes			
		Standard Sizes	Sub-Standard Sizes		
PF1068	\$.50	10	PR6810	\$.02	10
PF1568	.50	15	PR6815	.02	15
PF2068	.50	20	PR6820	.02	20
PF2568	.50	25	PR6825	.02	25
PF3068	.50	30	PR6830	.02	30
PF368	\$.50	3	PR6803	\$.02	3
PF568	.50	5	PR6805	.02	5
PF668	.50	6	PR6806	.02	6
PF868	.50	8	PR6808	.02	8

Ideal Fuse Clip Clamps



Ferrule Type

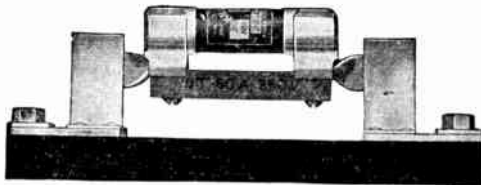
Cut-Open View

Knife Type

These fuse clip clamps grip all makes of clips. The knurled grip knob completely insulates the metal parts. The heavy steel clamping ring brings pressure directly around outside of jaws adjacent to ends of clip. This clamping ring rides on a steel washer, reducing friction of turning knob. The steel jaws are strongly reinforced, and the spring holds the jaws in open position. All metal parts are cadmium plated.

Ferrule Type					
No.	Size	Each	Amperes	Volts	Std. Ctn.
32-001	1	\$.36	30	250	12
32-002	2	.53	30	600	12
32-003	4	.75	60	250	6
			60	600	
Knife Blade Type					
32-004	5	\$.67	100	250	12
			100	600	
32-005	6	1.10	200	250	6
			200	600	
32-006	7	1.55	400	250	6
			400	600	
32-007	8	2.20	600	250	6
			600	600	

Ideal Fuse Reducers



Ferrule Type

Ideal Fuse Reducers protect over fused circuits without the expense of a change in switch, panel or switchboard equipment. Fully approved by Underwriters' Laboratories. These reducers can be supplied for both ferrule and knife type standard N. E. C. cartridge fuse holders.

Special reducers are also available for reducing from 600 volts to 250 volts. If a circuit is being changed from 600 volts to 250 volts by means of special adaptors, the same switches, panel boards, cutouts, etc. can be used.

Amperes	250 Volts		600 Volts	
	No.	Each	No.	Each
60-30	FR-263	\$.64	FR-663	\$.71
100-30	FR-213	1.06	FR-613	1.24
100-60	FR-216	1.06	FR-616	1.24
200-30	FR-223	1.77	FR-623	2.48
200-60	FR-226	1.42	FR-626	2.12
200-100	FR-221	2.48	FR-621	3.18
400-30	FR-243	4.95	FR-643	5.30
400-60	FR-246	4.24	FR-646	4.59
400-100	FR-241	4.24	FR-641	4.95
400-200	FR-242	5.65	FR-642	6.36
600-30	FR-2603	4.95	FR-6603	5.65
600-60	FR-266	4.95	FR-666	5.65
600-100	FR-261	5.65	FR-661	6.36
600-200	FR-262	6.36	FR-662	7.06
600-400	FR-264	7.06	FR-664	7.77

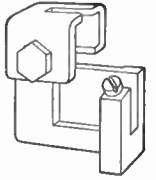
Buss Fuse Reducers



60 to 30 Amp.

Packed 1 pair in a carton.

Volts	Amperes	Wt. Lb. per 100	No.	Each
250	60 to 30	16	263	\$.60
250	100 to 60	34	216	.85
600	60 to 30	16	663	.70
600	100 to 60	39	616	1.40
600	100 to 30	..	Use No. 216	..
250 or 600	200 to 100	30	2621	1.65
250 or 600	400 to 200	55	2642	2.60



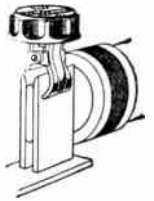
200 to 100 Amp.

Buss Clip-Clamps



These clip-clamps are built for hard service, and insure good contact between clips and fuses or Fusetrans. They make replacement of fuse-clips unnecessary; generally permit even injured clips to be used.

To prevent corrosion, all steel parts are heavily cadmium plated.



No.	Each	Size of Clamp	Carton Quantity	Wt. Lb. per 100
1	\$.40	0-30 Amp. 250 Volt	12	5
2	.60	{ 31-60 Amp. 250 Volt } { 0-30 Amp. 600 Volt }	12	8
4	.85	31-60 Amp. 600 Volt	12	12
5	.75	61-100 Amp. 250 or 600 Volt	12	10
6	1.25	101-200 Amp. 250 or 600 Volt	6	21
7	1.75	201-400 Amp. 250 or 600 Volt	6	31
8	2.50	401-600 Amp. 250 or 600 Volt	6	42

Sherman Fuse Clips



30-60 Amp.



100-200 Amp.

Ferrule types are made of special heat and fatigue resisting bronze. Knife blade types are heavy special tempered spring copper, and especially designed to secure strong spring tension with resulting perfect contact.

Capacity.....amp.	0-30	30-60	61-100	100-200
250 Volts.....each	\$.08	\$.16	.....	.....
600 Volts.....each	.12	.18	\$.28	\$.62

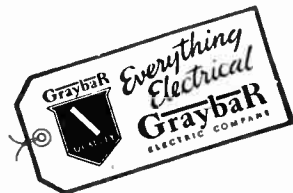
Relyon Porcelain Entrance Switches

30 Amperes, 125 Volts
Dimensions, 5 1/4 x 3 inches.



No. 4014

No.	Per 100	Description	Carton	Std. Pkg.	Wt. Lb.
4014	\$78.00	Fuses at Top.....	10	50	75
4016	78.00	Fuses at Bottom.....	10	50	75



Multi N.E.C. Porcelain Cutout Bases

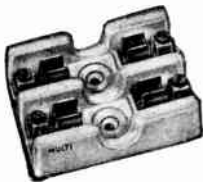
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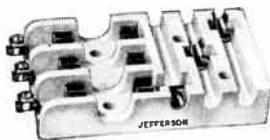
No. 2503



No. 2506



No. 2512



No. 2515



No. 2517



No. 2521



No. 2525

0 to 30 Amperes, 250 Volts, Without Lugs

No.	Each	Description	Length Inches	Width Inches	Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
2501	\$33.68	S.P. Main Line.....	3 1/4	1 1/2	5	50	20
2502	46.32	D.P. Main Line.....	3 1/4	2 3/4	5	50	35
2503	67.36	T.P. Main Line.....	3 1/4	4	5	50	50
2504	58.94	D.P. Single Branch....	4 7/8	2 3/4	1	10	13
2505	113.68	T.P. Single Branch....	6 1/4	4	1	10	28
2506	109.48	D.P. Double Branch....	7 3/8	2 3/4	1	10	20
2507	189.48	T.P. Double Branch....	8 3/8	4	1	10	40
2508	126.32	3-2 Wire Double Branch	9	2 3/4	1	10	28

*31 to 60 Amperes, 250 Volts, with Lugs

No.	Each	Description	Length Inches	Width Inches	Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
2511	\$54.74	S.P. Main Line.....	4 13/16	1 3/4	2	50	40
2512	117.90	D.P. Main Line.....	4 13/16	3 1/4	1	10	20
2513	168.42	T.P. Main Line.....	4 13/16	4 3/4	1	10	30
2514	147.36	D.P. Single Branch....	7 1/8	3 1/16	1	10	30
2515	252.64	T.P. Single Branch....	8 3/8	4 13/16	1	10	55
2516	294.74	D.P. Double Branch....	11 1/8	3 1/16	1	10	50
2517	505.26	T.P. Double Branch....	11 1/2	4 3/4	1	10	75
2518	353.68	3-2 Wire Double Branch	12 1/4	3 1/16	1	10	60

61 to 100 Amperes, 250 Volts, With Lugs

No.	Each	Description	Length Inches	Width Inches	Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
2525	\$117.90	S.P. Main Line.....	7 7/8	2	5	10	90
2526	235.78	D.P. Main Line.....	7 7/8	3 7/8	1	10	40
2527	336.84	T.P. Main Line.....	7 7/8	5 13/32	1	10	32

0 to 60 Amperes, 600 Volts

No.	Each	Description	Lgth. In.	Wdth. In.	Ctn.	Std. Pkg.	Wt. Lb. Std. Pkg.
2520	\$48.00	S.P. without Lugs, 0-30 Amps.	6 1/4	1 3/4	2	50	22
2521	72.00	S.P. with Lugs, 31-60 Amps..	7 1/16	2 1/2	2	50	35

*Pressure lugs furnished when so ordered.

All 3-wire cutouts can be supplied with solid neutral construction, when so ordered, at the same price as above, and carry the same catalog number with the letter S added.

Multi *N.E.C. Slate Cutout Bases

Listed by Underwriters' Laboratories, Inc.



100 Amperes



200 Amperes



400-600 Amperes

250 Volts, Single Pole

No.	Per 100	Capacity Amperes	Length Inches	Width Inches	Ctn.	Std. Pkg.	Wt. Lb. 10 Ctn.
2202	\$140.00	61-100	8	2	1	10	20
2203	210.00	101-200	9 3/4	2 1/4	1	10	35
2204	525.00	201-400	11 3/4	3	1	10	65
2205	720.00	401-600	14	3 1/2	1	10	100

600 Volts, Single Pole

No.	Per 100	Capacity Amperes	Length Inches	Width Inches	Ctn.	Std. Pkg.	Wt. Lb. 10 Ctn.
2552	\$147.00	61-100	10 1/4	2	1	10	25
2553	230.00	101-200	12 1/4	2 1/2	1	10	40
2554	600.00	201-400	14 7/8	3 3/8	1	10	80
2555	780.00	401-600	17	4	1	10	125

*100 and 200-ampere sizes furnished in approved black molded Rostone.

Pressure lugs furnished on 100-ampere sizes.

Relyon Cartridge Fuse Cutouts

Main Line—250 Volts



No.	Per 100	Description	Amps.	Dimensions Inches	Car- ton Pkg.	Std. Pkg.	Wt. Lb. Std. Pkg.
72569	\$32.00	Single Pole.	3-30	3 7/8 x 2 1/8	5	50	35
82569	55.00	Single Pole.	31-60	5 1/16 x 2 5/16	2	50	45
72965	44.00	Double Pole	3-30	3 7/8 x 3	5	50	50
82965	112.00	Double Pole	31-60	5 x 3 3/8	1	50	115
72165	64.00	Triple Pole.	3-30	4 1/2 x 3 7/8	5	50	73
82165	160.00	Triple Pole.	31-60	5 1/16 x 5 1/16	1	50	170



No. 71935



No. 78042

No.	Per 100	Description	Amps.	Dimensions Inches	Car- ton Pkg.	Std. Pkg.	Wt. Lb. Std. Pkg.
71935	\$60.00	Double Pole	3-30	5 x 3	1	50	70
81935	140.00	Double Pole	31-60	6 5/16 x 3 3/8	1	50	170
78042	114.00	Triple Pole.	3-30	6 1/16 x 4 1/2	1	50	115
88042	240.00	Triple Pole.	31-60	8 1/4 x 5 1/16	1	50	316

Double Branch—250 Volts



No.	Per 100	Description	Amps.	Dimensions Inches	Car- ton Pkg.	Std. Pkg.	Wt. Lb. Std. Pkg.
72587	\$108.00	Double Pole	3-30	7 1/16 x 3	1	50	115
82587	280.00	Double Pole	31-60	10 1/16 x 3 3/8	1	25	133
72199	132.00	3-2 Pole....	3-30	9 x 3	1	25	83
82199	336.00	3-2 Pole....	31-60	11 7/8 x 3 5/8	1	25	158
72135	180.00	Triple Pole.	3-30	9 1/16 x 4 1/2	1	25	108
82135	480.00	Triple Pole.	31-60	11 7/8 x 5 1/16	1	10	100

Relyon Plug Fuse Cutouts
Solid Neutral

30 Amperes, 125 Volts



No. 29650

Main Line



No. 21650

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
29650	\$27.00	2-Wire	10	150	63
21650	4.700	3-Wire	5	50	45

Single Branch



No. 19350



No. 80420

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
19350	\$30.00	2-Wire	10	100	64
80420	70.00	3-Wire, or 2-Circuit	5	25	29

Double Branch



No. 25870



No. 21990

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
25870	\$53.00	2-Wire	5	50	46
21990	58.00	3 to 2-Wire	5	50	58
23150	110.00	3-Wire or 4-Circuit	5	25	41
23115	44.00	2-Wire or 2-Circuit	10	100	70

Relyon Plug Fuse Cutouts
Fused Neutral

30 Amperes, 125 Volts
Main Line



No. 2569



No. 2965



No. 2165

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
2569	\$22.00	Single Pole	10	100	42
2965	30.00	2-Wire	10	100	60
2165	47.00	3-Wire	5	50	46

Single Branch



No. 1935



No. 8020



No. 8042

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
1935	\$34.00	2-Wire	5	50	43
8020	38.00	2-Wire, or Double Cross-Over Branch	5	50	51
8042	70.00	3-Wire	5	50	90

Double Branch



No. 2587



No. 2199



No. 2135

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
2587	\$60.00	2-Wire	5	50	64
2199	66.00	3 to 2-Wire	5	50	76
2135	98.00	3-Wire	5	50	122

Bryant Hemco Plug Fuse Cutouts

30 Amperes, 125 Volts
Listed as Standard by Underwriters' Laboratories, Inc.



No. H110



No. H220



No. H221

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
H110	\$38.00	Single Pole, Main Line	10	100	38
H220	62.00	2-Pole Main Line	10	100	61
H221	70.00	2-Pole Single Branch	5	50	46



No. H224



No. H222



No. H232

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
H224	\$74.00	2-Pole Single or Double Crossover Branch	5	50	53
H222	100.00	2-Pole Double Branch	5	50	67
H232	120.00	Triple to Double-Pole Double Branch	5	50	79



No. H330



No. H331



No. H332

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
H330	\$78.00	3-Pole Main Line	3	50	50
H331	120.00	3-Pole Single Branch	5	50	96
H332	150.00	3-Pole Double Branch	5	50	126

With Solid Neutral



No. H120



No. H121



No. H122



No. H132

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
H120	\$60.00	2-Pole Main Line	10	150	64
H121	70.00	2-Pole Single Branch	10	100	76
H122	110.00	2-Pole Double Branch	5	50	51
H132	120.00	Triple to Double-Pole Double Branch	5	50	61



No. H133



No. H134

No.	Per 100	Description	Car-ton	Std. Pkg.	Pkg. Wt. Lb.
H133	\$85.00	3-Pole Main Line	5	50	49
H134	180.00	3-Pole Double Branch or 4-Circuit	5	25	47

Bryant Entrance Switches

30 Amperes, 125 Volts
Listed by Underwriters' Laboratories, Inc.



Packed 2 in a carton, 25 in a standard package.
Weight per standard package, 38 pounds.

No. H1695, Fuses at Top	per 100	\$128.00
No. H1981, Fuses at Bottom	per 100	128.00

No. 559 Bryant Neutral Wire Fuseless Plugs

30 Amperes, 125 Volts
Listed as Standard by Underwriters' Laboratories, Inc.



Can be inserted in neutral fuse receptacle of triple-pole cut-out base and soldered in place. Complies with N.E.C. which requires omission of fuses from grounded side of line except at cut-out base just preceding lamp socket or other translating device.

Packed 75 in carton, 300 in standard package.
No. 559, Weight per Std. Pkg., 10 Pounds.... per 100 \$9.00

Bryant Cartridge Fuse Cutout Bases

Single-Pole

Listed as Standard by Underwriters' Laboratories, Inc.

250 Volts

Barrier Type—Porcelain Base



No. 3929

No.	Per 100	Cap. Amp.	Lgth. In.	Width In.	Ht. In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
3929	\$48.00	1-30	3 ⁷ / ₁₆	1 ¹⁷ / ₃₂	1 ¹ / ₂	5	50	25
3930	\$96.00	31-60	5	1 ²⁹ / ₃₂	2 ³ / ₁₆	2	50	65

Porcelain Base



No. 1929

No.	Per 100	Cap. Amp.	Lgth. In.	Width In.	Ht. In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1929	\$38.00	1-30	3 ⁷ / ₁₆	1 ¹⁵ / ₃₂	1 ³ / ₈	5	50	18
1930	70.00	31-60	4 ⁷ / ₈	1 ¹ / ₂	1 ³¹ / ₃₂	2	50	35
1931	156.00	61-100	7 ¹ / ₁₆	2 ¹ / ₄	2 ⁹ / ₁₆	1	50	91
*1932	410.00	101-200	10	2 ¹ / ₄	3 ⁵ / ₃₂	1	50	137

Slate Base



No. 1933

No.	Per 100	Cap. Amp.	Lgth. In.	Width In.	Ht. In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
648	\$121.00	1-30	4 ³ / ₄	1 ⁵ / ₈	1 ⁷ / ₁₆	5	50	27
649	143.00	31-60	6	1 ³ / ₄	1 ²³ / ₃₂	2	50	47
1933	236.00	61-100	10	2	2 ³ / ₈	1	50	117
1934	400.00	101-200	10	2 ¹ / ₄	3 ³ / ₃₂	1	25	83
1935	890.00	201-400	14 ³ / ₄	2 ³ / ₄	3 ³ / ₄	1	10	73

600 Volts

Barrier Type—Porcelain Base



No. 3938

No.	Per 100	Cap. Amp.	Lgth. In.	Width In.	Ht. In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
3937	\$70.00	1-30	6 ⁷ / ₁₆	1 ¹¹ / ₁₆	1 ³ / ₄	1	50	66
3938	150.00	31-60	7 ⁹ / ₁₆	2 ¹ / ₈	2 ¹ / ₄	1	50	106

Porcelain Base



No. 1938

No.	Per 100	Cap. Amp.	Lgth. In.	Width In.	Ht. In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1937	\$64.00	1-30	7	1 ¹ / ₂	1 ³¹ / ₃₂	1	50	59
1938	96.00	31-60	7 ⁹ / ₈	1 ³ / ₄	2 ⁷ / ₃₂	1	50	56
1939	178.00	61-100	12	2	2 ⁹ / ₁₆	1	50	115
*1940	303.00	101-200	14 ¹ / ₂	2 ¹ / ₂	3 ⁵ / ₃₂	1	50	142

Slate Base



No. 1941

No.	Per 100	Cap. Amp.	Lgth. In.	Width In.	Ht. In.	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1941	\$253.00	61-100	12	2	2 ¹ / ₂	1	50	129
1942	450.00	101-200	14 ¹ / ₂	2 ¹ / ₂	3 ³ / ₃₂	1	25	122
1943	1020.00	201-400	17 ³ / ₄	3	3 ⁷ / ₈	1	10	108

*Equipped with clamp terminals.

Bryant Cartridge Fuse Cut-Out Bases

Porcelain Base

250 Volts

With connections for one cartridge fuse in each side of the line.

Double-Pole, Main



No. 1917

Cat. No.	Per 100	Amps.	Dimensions Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1917	\$65.00	1-30	3 ⁷ / ₁₆ x2 ¹³ / ₁₆	5	50	45
1918	150.00	31-60	5 x3 ⁵ / ₈	2	50	117

Double-Pole, Single Branch



No. 1919

Cat. No.	Per 100	Amps.	Dimensions Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1919	\$94.00	1-30	4 ¹⁵ / ₁₆ x2 ¹³ / ₁₆	1	50	72
1920	200.00	31-60	6 ¹³ / ₁₆ x3 ⁵ / ₈	1	50	165

Double-Pole, Double Branch



No. 1922

Cat. No.	Per 100	Amps.	Dimensions Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1922	\$200.00	1-30	7 ³ / ₄ x2 ¹³ / ₁₆	1	25	53
1996	400.00	31-60	10 ⁵ / ₈ x3 ⁵ / ₈	1	25	117

Triple-Pole, Main



No. 1924

Cat. No.	Per 100	Amps.	Dimensions Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1924	\$90.00	1-30	3 ⁵ / ₁₆ x4 ¹ / ₁₆	5	50	63
1925	220.00	31-60	5 x5 ⁵ / ₁₆	1	50	155

Triple-Pole, Single Branch



No. 1926

Cat. No.	Per 100	Amps.	Dimensions Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1926	\$150.00	1-30	6 ¹ / ₁₆ x4 ¹ / ₁₆	1	50	125
1927	360.00	31-60	8 ¹ / ₁₆ x5 ⁵ / ₁₆	1	50	398

Triple-Pole Double Branch



No. 1928

Cat. No.	Per 100	Amps.	Dimensions Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1928	\$270.00	1-30	8 ⁷ / ₈ x4 ¹ / ₁₆	1	50	198
1998	600.00	31-60	11 ⁷ / ₈ x5 ⁵ / ₁₆	1	10	78

Triple to Double-Pole, Double Branch



No. 1923

Cat. No.	Per 100	Amps.	Dimensions Inches	Car-ton	Std. Pkg.	Wt. Lb. Std. Pkg.
1923	\$250.00	1-30	8 ⁷ / ₈ x2 ¹³ / ₁₆	1	25	75
1997	500.00	31-60	11 ⁷ / ₈ x3 ⁵ / ₈	1	25	135

FA Standard Fuse Blocks

For N. E. C. Cartridge Type Fuses

Front Connection—Plain Finish
On Dead Black Finish Bases

SINGLE-POLE

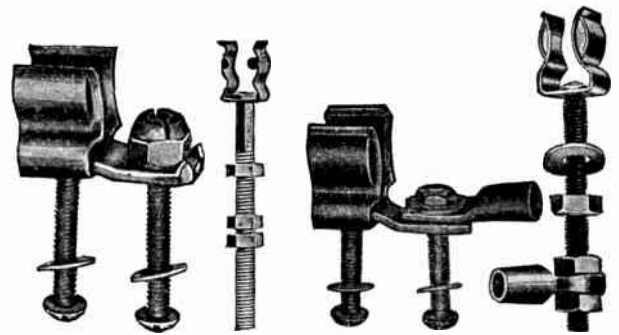


DOUBLE-POLE



FA Fuse Terminals

250 and 600 Volts



Type F
3 to 30
Amperes

Type B
3 to 30
Amperes

Type F
31 to 60
Amperes

Type B
31 to 60
Amperes

Front Connection

250 Volts, D.C. or A.C.

Cat. No.	Capacity Amperes	Price Each
F 331	30	\$1.20
F 631	60	1.80
F 1031	100	2.50
F 2031	200	3.60
A 4031	400	10.10
A 6031	600	15.30
A 8031	800	24.60
A10031	1000	35.80

250 Volts, D.C. or A.C.

Cat. No.	Capacity Amperes	Price Each
F 332	30	\$1.70
F 632	60	2.80
F 1032	100	3.60
F 2032	200	5.80
A 4032	400	18.60
A 6032	600	28.90
A 8032	800	48.20
A10032	1000	70.70

Cat. No.	Ampere Capacity	Volts	Price, Each Plain Finish	Price, Each Satin Finish
F 33	30	250	\$.24	\$.32
F 63	60	250	.38	.48
F 36	30	600	.50	.62
F 66	60	600	.62	.76
F103	100	250 and 600	.68	.84
F203	200	250 and 600	1.12	1.30

600 Volts, D.C. or A.C.

Cat. No.	Capacity Amperes	Price Each
F 361	30	\$1.60
F 661	60	2.20
F 1061	100	2.50
F 2061	200	3.80
A 4061	400	10.30
A 6061	600	16.50

600 Volts, D.C. or A.C.

Cat. No.	Capacity Amperes	Price Each
F 362	30	\$2.50
F 662	60	3.60
F 1062	100	4.00
F 2062	200	6.60
A 4062	400	19.40
A 6062	600	31.40

Cat. No.	Ampere Capacity	Volts	Price, Each Plain Finish	Price, Each Satin Finish
B 33	30	250	\$.62	\$.70
B 63	60	250	.95	1.04
B 36	30	600	1.00	1.10
B 66	60	600	1.16	1.26
B103	100	250 and 600	2.08	2.24
B203	200	250 and 600	3.18	3.36

Back Connection

3-POLE



4-POLE



250 Volts, D.C. or A.C.

Cat. No.	Capacity Amperes	Price Each
F 333	30	\$2.20
F 633	60	3.80
F 1033	100	5.20
F 2033	200	8.70
A 4033	400	28.20
A 6033	600	43.90
A 8033	800	71.50
A10033	1000	105.10

250 Volts, D.C. or A.C.

Cat. No.	Capacity Amperes	Price Each
F 334	30	\$3.70
F 634	60	4.90
F 1034	100	6.90
F 2034	200	12.00
A 4034	400	37.70
A 6034	600	58.20
A 8034	800	94.00
A10034	1000	141.00

600 Volts, D.C. or A.C.

Cat. No.	Capacity Amperes	Price Each
F 363	30	\$3.90
F 663	60	5.50
F 1063	100	6.20
F 2063	200	10.10
A 4063	400	29.40
A 6063	600	46.50

600 Volts, D.C. or A.C.

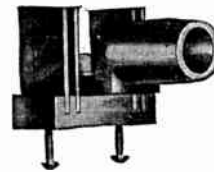
Cat. No.	Capacity Amperes	Price Each
F 364	30	\$4.80
F 664	60	8.70
F 1064	100	9.50
F 2064	200	14.40
A 4064	400	39.60
A 6064	600	63.70



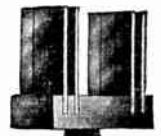
Type B
61 to 600
Amperes



Type A
401 to 600
Amperes



Type A
601 to 1200
Amperes



Type B
601 to 1200
Amperes

Front Connection

Cat. No.	Ampere Capacity	Volts	Price, Each Plain Finish	Price, Each Satin Finish
A 403	400	250 and 600	\$4.30	\$4.66
A 603	600	250 and 600	6.80	7.30
A 803	800	250 and 600	11.75	12.50
A1003	1200	250 and 600	17.55	18.42

Back Connection

Cat. No.	Ampere Capacity	Volts	Price, Each Plain Finish	Price, Each Satin Finish
B 403	400	250 and 600	\$6.54	\$6.80
B 603	600	250 and 600	9.74	10.10
B 803	800	250 and 600	21.72	22.40
B1003	1200	250 and 600	29.64	30.50

The 30 and 60-ampere fuse blocks have ferrule type clips.
The 100 and 200-ampere fuse blocks have formed clips.
The 400 and 600-ampere fuse blocks have milled in clips.
Fuse blocks over 600 amperes are made with multiple milled parts for each pole.

Front connection fuse terminals are furnished with short screws, requiring head to be countersunk.

Back connection fuse terminals are furnished with studs long enough for 2-inch slate or marble mounting.

NOTE.— Plain finish will be sent unless otherwise specified.

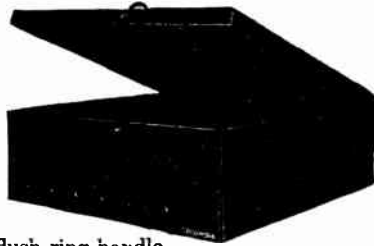
Type A Columbia Surface Steel Cabinets

Adapted to nearly all installations where a cabinet for surface mounting is to be used as a junction, service, switch, panel, or cut-out cabinet.

Construction. Of sheet steel, required thickness to conform with Underwriters'.

Finish. Standard finish is high grade baked-on black Japan. Olive green, aluminum, white enamel, or other special finishes at extra charge.

Hardware. Cabinets up to 18 inches in width or height are regularly equipped with flush ring handle and friction catch; over 18 inches wide and not exceeding 24 inches high a turn knob and latch is used. Larger cabinets and all double door cabinets are fitted with vault handle latch. Unless otherwise specified, all boxes are hinged on the long side. Code requirements for double and three-point catches



are provided for in the listing.

Knockouts. All sizes, including 12x10 inches have one 3/4-inch knockout in center of each side and balance 1/2-inch knockouts; sizes 12x12 inches and up, one 1 1/4 and one 1-inch knockouts located near center of each side with remaining space filled with 1/2-inch knockouts.

Galvanized Cabinets can be furnished at 30% extra charge.

Boxes without Covers can be furnished at a deduction of 20% in list prices.

Flange can be supplied on front edges for mounting a wood trim or other cover when specified.

For drilled holes, 1 cent extra for each hole per box; drilled and tapped holes, 2 cents for each hole per box; minimum charge per order, 50 cents.

Width In.	Ht., In.	DEPTH, INCHES					Width, In.	Ht., In.	DEPTH, INCHES						
		3	4	6	8	10			12	3	4	6	8	10	12
*4 1/2	5	\$.86	\$ 1.17	.....	.....	.....	.....	21	36	\$ 13.14	\$ 13.10	\$ 16.05	\$ 19.55	\$ 21.25	\$ 23.07
*4 1/2	9	1.00	1.32	.....	.....	.....	.....	21	40	14.49	15.45	17.52	21.38	23.17	24.96
*6	6	.94	1.08	\$ 1.88	\$ 2.05	.....	.....	24	24	10.32	11.16	12.84	15.55	17.02	18.50
*6	9	1.15	1.48	2.26	2.54	.....	.....	24	28	11.76	12.69	14.46	17.55	19.14	20.67
*6	10	1.32	1.58	2.41	2.70	.....	.....	24	32	13.26	14.22	16.11	19.46	21.22	22.88
*6	11	1.41	1.70	2.26	2.98	.....	.....	24	36	14.76	15.72	17.76	21.44	23.35	25.12
*6	12	1.50	1.68	2.66	3.06	.....	.....	24	40	16.20	17.22	19.05	23.50	25.40	27.36
*6	16	1.80	2.04	3.00	3.78	.....	.....	24	42	28.30	29.89	33.10	41.45	44.32	47.68
*6	8	1.05	1.32	2.13	2.36	.....	.....	24	48	31.60	34.15	37.81	43.68	45.12	48.75
8	8	1.28	1.53	2.30	2.76	.....	.....	30	24	16.54	17.44	19.30	22.50	24.15	24.35
8	10	1.47	1.72	2.55	3.16	\$ 3.60	.....	30	28	18.28	19.30	21.28	24.96	26.20	28.30
8	12	1.72	2.01	2.90	3.55	4.00	\$ 4.35	30	32	19.72	21.10	23.26	27.20	27.50	30.88
8	15	2.01	2.31	3.30	4.10	4.70	5.25	30	36	34.20	36.10	39.80	43.80	46.50	49.20
8	18	2.31	2.67	3.60	4.75	5.40	6.00	30	40	37.90	40.10	43.20	48.60	51.60	54.60
9	9	1.48	1.89	2.55	3.20	3.75	4.05	30	44	41.70	44.10	47.40	53.50	56.80	60.10
9	12	1.83	2.13	3.00	3.80	4.35	4.30	30	48	45.50	48.10	51.50	58.40	61.90	65.50
9	15	2.10	2.45	3.50	4.45	5.00	5.60	30	54	59.90	63.15	69.70	81.10	85.90	90.70
9	16	2.28	2.52	3.67	4.60	5.25	5.85	30	60	66.60	70.20	77.50	90.00	95.40	100.50
9	18	2.43	2.91	3.95	4.95	5.75	6.35	30	66	71.10	74.80	82.60	96.00	101.80	107.80
9	20	2.70	3.17	4.25	5.35	6.20	6.85	30	72	79.90	84.20	92.80	108.00	114.40	120.90
9	24	3.06	3.55	4.80	6.17	7.20	7.90	36	36	41.70	44.00	47.30	53.50	57.10	60.10
9	28	5.45	6.15	7.55	9.35	10.05	11.55	36	42	56.20	59.30	65.40	76.00	80.60	85.10
9	32	6.25	6.80	8.40	10.45	11.68	12.86	36	48	64.00	67.50	74.40	86.50	91.70	96.90
9	36	6.78	7.60	9.20	11.55	12.90	14.18	36	54	71.80	75.60	83.40	97.10	102.80	108.70
10	10	1.78	2.01	2.95	3.60	4.15	4.55	36	60	79.90	84.30	92.90	108.00	114.40	121.00
10	12	1.98	2.25	3.25	4.05	4.60	5.25	36	66	87.85	92.70	102.10	118.75	125.80	133.00
10	15	2.34	2.61	3.70	4.65	5.35	5.92	36	72	95.80	101.10	111.30	129.50	137.20	145.00
10	18	2.67	2.80	4.20	5.30	6.10	6.75	36	78	103.80	109.50	120.80	140.50	148.80	157.30
10	20	3.16	3.58	4.65	5.66	6.35	7.05	36	84	111.70	117.80	129.90	151.00	160.00	169.00
10	24	3.70	4.15	5.30	6.55	7.30	8.10	42	42	65.50	69.00	76.20	88.50	93.90	99.20
10	28	5.98	6.57	8.07	9.94	10.78	12.20	42	48	74.70	78.80	86.90	101.00	107.10	113.20
10	32	6.60	7.35	8.97	10.69	12.30	13.60	42	54	84.00	88.55	97.55	113.50	120.30	127.10
10	36	7.35	8.12	9.96	12.20	13.60	15.00	42	60	93.30	98.30	108.20	126.00	133.50	141.00
12	12	2.45	2.78	3.72	4.40	4.95	5.50	42	66	102.40	108.00	119.00	138.50	146.80	155.10
12	16	3.05	3.06	4.45	5.37	6.00	6.62	42	72	111.70	117.80	129.90	151.00	160.00	169.00
12	18	3.32	3.30	4.80	5.85	6.50	7.10	42	78	121.30	127.90	141.00	164.00	174.00	183.80
12	20	3.56	3.85	5.15	6.30	7.05	7.75	42	84	130.50	137.50	151.80	176.50	187.00	197.50
12	24	4.24	4.50	5.88	7.30	8.10	8.90	42	90	139.80	147.30	162.50	189.00	200.20	211.70
12	28	6.75	7.44	8.97	11.05	12.20	13.49	42	96	149.20	157.40	173.50	201.80	213.90	226.00
12	32	7.53	8.34	9.93	12.30	13.60	14.90	48	48	85.50	90.10	98.40	115.40	122.30	129.30
12	36	8.40	9.24	10.95	13.60	15.00	16.40	48	54	95.80	101.80	111.30	129.40	137.20	145.00
12	40	9.24	10.07	11.94	14.45	16.40	17.90	48	60	106.50	112.30	123.80	144.00	152.80	161.20
16	12	3.05	3.06	4.45	5.38	6.00	6.63	48	66	117.20	123.50	136.20	158.30	167.80	177.30
16	15	3.55	3.60	5.10	6.20	6.90	7.62	48	72	128.00	135.00	148.80	173.00	183.40	193.80
16	18	4.15	4.15	5.75	7.05	7.80	8.57	48	78	138.30	145.90	160.80	187.00	198.40	209.60
16	20	4.53	4.50	6.10	7.65	8.40	9.24	48	84	149.30	157.40	173.60	201.80	213.70	226.00
15	24	5.00	5.00	6.80	8.40	9.28	10.15	48	90	159.50	168.10	186.30	215.50	228.50	241.80
16	28	8.40	9.18	10.80	13.24	14.48	15.80	48	96	170.20	179.40	197.80	230.00	243.80	256.80
16	32	9.45	10.20	12.00	14.73	16.15	17.50	54	54	107.90	113.80	125.40	146.00	154.70	163.50
16	36	10.50	11.37	13.17	15.45	17.80	19.22	54	60	119.80	126.40	139.20	162.00	171.80	181.50
16	40	10.58	12.48	14.40	17.80	19.40	21.05	54	66	131.70	138.80	153.00	178.00	183.70	199.40
18	18	4.60	5.10	6.25	7.65	8.50	9.27	54	72	143.50	151.20	166.80	194.00	205.70	217.20
18	20	5.00	5.50	6.70	8.25	9.15	10.00	54	78	155.40	163.80	180.70	210.00	222.60	235.40
18	24	8.08	8.88	10.40	12.62	13.95	15.45	54	84	166.80	175.70	193.50	225.00	238.60	252.10
18	28	9.24	10.08	11.70	14.30	15.35	17.00	54	96	188.80	198.90	219.50	255.00	270.20	285.80
18	32	10.38	11.25	13.00	15.90	17.45	18.88	60	60	131.40	138.50	152.80	177.50	188.20	198.80
18	36	11.58	12.45	14.31	17.50	19.20	20.74	60	66	144.30	152.10	167.80	195.00	206.80	208.20
18	40	12.75	13.65	15.60	19.20	20.96	22.20	60	72	159.20	167.80	185.00	215.00	228.00	241.00
21	21	8.19	9.00	10.50	12.80	14.02	15.68	60	78	170.80	180.00	198.50	231.20	244.80	258.40
21	24	9.15	9.96	11.64	13.78	15.50	16.80	60	84	185.00	195.00	215.00	250.00	265.00	280.00
21	28	10.50	11.40	13.08	16.00	17.44	18.85	60	90	198.00	208.50	230.00	258.80	283.80	299.60
21	32	11.85	12.75	14.73	17.76	19.35	20.86	60	96	210.80	222.00	245.00	285.00	302.00	319.00

*Hinged on width or short side.

Type P Columbia Flush Steel Cabinets

Construction. Of sheet steel, required thickness to conform with Board of Underwriters'. Removable trim and door. Plain type without ornamental beads; body is formed from one piece of steel with corners folded in and securely welded.

Finish. Standard finish is black baked Japan.

Hardware. Cabinet is regularly equipped with knob and turn catch. Cabinet with surface area of over 360 square inches is furnished with vault handle.

Cabinet can be supplied with any style hinges, catch or lock.

Holes for Cutouts, Switches, etc. Add 1 cent per hole for each box; for tapped holes, 2



cents per hole for each box; minimum charge per order, 50 cents.

Conduit Drilling. Cabinet is regularly furnished with standard knockouts: all sizes, including 12x10 inches have one 3/4-inch knockout in center of each side and balance 1/2-inch knockouts; sizes 12x12 inches and up, one 1 1/4 and one 1-inch knockouts located near center of each side with remaining space filled with 1/2-inch knockouts.

For special knockouts, add \$1.00 for each additional size change. Specify if boxes are desired without knockouts.

Approved cabinet will be furnished unless otherwise ordered.

Width In.	Ht. In.	DEPTH, INCHES						Width In.	Ht. In.	DEPTH, INCHES					
		3	4	6	8	10	12			3	4	6	8	10	12
4 1/2	5	\$3.56	\$3.90					24	24	\$19.00	\$20.25	\$23.05	\$24.40	\$26.25	\$28.22
4 1/2	9	3.69	4.00	\$5.25				24	28	21.70	23.05	25.95	27.60	29.70	32.20
6	6	3.66	3.95	4.60				24	32	24.40	25.80	28.80	30.78	33.15	35.35
6	9	3.88	4.21	5.00				24	36	27.05	28.62	31.68	34.95	36.55	39.85
6	10	3.97	4.30	5.20	\$5.30	\$5.60	\$6.00	24	40	29.80	31.40	34.55	37.20	39.95	42.45
6	11	4.09	4.45	5.30	5.50	5.75	6.25	24	42	36.45	38.70	43.65	52.65	56.70	61.20
6	12	4.21	4.54	5.15	6.45	6.57	6.90	24	48	43.70	45.00	50.62	61.20	63.45	68.55
6	16	4.69	5.08	6.00	7.00	7.95	8.50	30	24	28.12	24.05	27.44	29.25	31.50	33.75
6	8	3.81	4.11	4.85	5.00	5.33	5.85	30	28	26.35	27.80	30.95	32.95	35.25	37.70
8	8	4.11	4.41	5.25	5.60	5.96	6.45	30	32	29.65	31.15	34.45	36.65	39.05	41.50
8	10	4.38	4.74	5.55	6.10	6.55	6.95	30	36	39.80	42.40	47.05	50.40	53.10	56.70
8	12	4.55	4.94	5.75	6.55	7.00	7.50	30	40	43.60	46.20	51.35	53.90	57.60	61.55
8	15	4.97	5.27	6.15	7.35	7.89	8.70	30	44	47.80	50.90	55.60	57.40	61.50	65.50
8	18	5.39	5.54	7.00	8.25	8.85	9.27	30	48	51.75	54.20	59.80	62.80	66.70	71.30
9	9	4.33	4.69	5.50	6.15	6.55	6.95	30	54	68.10	72.90	81.00	93.90	97.20	100.40
9	12	4.75	5.11	5.90	6.95	7.45	8.00	30	60	75.60	81.00	90.00	104.40	108.00	111.60
9	15	5.20	5.62	6.55	7.90	8.45	9.00	30	66	82.60	86.50	96.10	112.80	115.40	119.10
9	16	5.38	5.80	7.00	8.20	8.77	9.31	30	72	92.80	97.20	108.00	125.60	129.50	133.70
9	18	5.68	6.20	7.75	8.80	9.40	9.81	36	36	46.60	48.50	54.70	58.50	62.75	66.60
9	20	6.10	6.70	8.35	9.40	9.67	10.62	36	42	65.40	68.40	76.10	88.20	91.20	94.30
9	24	7.25	8.00	9.10	9.80	11.20	12.28	36	48	74.30	77.80	86.50	100.40	103.80	107.40
9	28	10.30	11.16	13.45	14.31	15.79	17.37	36	54	83.40	87.40	97.00	112.50	116.50	120.40
9	32	11.38	12.51	14.98	15.84	17.82	19.35	36	60	92.80	97.20	108.00	125.40	129.50	134.00
9	36	11.46	13.86	16.51	17.37	19.84	21.37	36	66	106.10	111.10	123.40	130.80	148.00	153.00
10	10	4.61	4.97	5.80	6.73	7.35	7.68	36	72	111.40	116.40	129.60	150.20	155.40	160.60
10	12	4.94	5.63	6.55	7.37	7.75	8.80	36	78	120.80	126.40	140.40	162.90	168.50	174.10
10	15	5.42	5.84	7.10	8.29	9.08	9.18	36	84	129.80	135.80	151.00	175.20	181.20	187.20
10	18	6.00	6.55	8.30	9.17	9.36	10.35	42	42	73.60	79.00	88.00	102.40	106.00	109.60
10	20	6.75	7.50	8.60	9.25	10.22	11.29	42	48	86.90	90.90	100.50	116.00	120.00	124.00
10	24	7.55	8.25	9.40	10.62	11.78	12.96	42	54	97.60	102.00	113.50	131.80	136.40	140.80
10	28	10.92	12.02	14.35	15.20	16.72	18.27	42	60	108.40	113.50	126.00	146.10	151.20	156.20
10	32	13.32	13.50	16.42	17.10	18.70	20.52	42	66	119.00	124.50	138.40	160.80	166.00	171.50
10	36	13.72	15.00	18.48	19.00	20.70	22.77	42	72	129.80	135.80	151.00	175.10	181.10	187.10
12	12	5.00	5.75	7.25	7.90	8.50	8.85	42	78	141.00	147.50	164.00	190.20	196.80	202.40
12	16	6.35	7.05	8.50	8.85	9.68	12.42	42	84	150.50	157.50	175.00	203.00	210.00	217.00
12	18	7.40	7.85	9.25	9.54	10.52	11.56	42	90	160.80	168.50	187.00	206.80	224.60	231.80
12	20	7.65	8.45	9.25	10.32	11.42	12.51	42	96	171.20	179.10	199.00	231.00	239.00	246.80
12	24	8.60	8.90	10.58	11.48	13.14	14.35	48	48	99.50	104.00	115.60	134.10	138.80	143.20
12	28	12.50	13.58	15.98	16.88	18.60	20.20	48	54	110.40	115.40	128.60	149.20	154.40	159.60
12	32	14.00	15.15	17.72	19.00	20.70	22.50	48	60	123.80	129.80	142.40	164.80	170.00	175.50
12	36	15.48	16.72	19.50	21.10	23.25	24.97	48	66	136.20	141.80	159.00	182.00	189.10	194.10
12	40	16.95	18.36	21.24	23.20	25.40	27.45	48	72	146.50	152.50	169.00	195.20	201.80	207.40
16	12	6.50	7.30	8.25	8.80	9.68	10.62	48	78	159.20	166.50	185.00	204.80	222.60	229.80
16	15	7.50	8.15	9.05	10.08	11.25	11.19	48	84	171.20	179.10	199.00	231.00	239.00	246.80
16	18	8.30	8.65	10.16	11.42	12.60	13.72	48	90	184.80	193.30	214.80	249.00	253.80	266.20
16	20	8.60	9.36	10.92	12.42	13.58	15.80	48	96	197.10	206.10	229.00	265.80	274.80	284.00
15	24	9.50	10.25	12.06	13.62	14.92	15.79	54	54	125.80	131.80	144.40	166.80	172.00	177.50
16	28	15.52	16.65	19.27	20.54	22.24	24.39	54	60	137.50	142.80	160.00	183.00	190.10	195.10
16	32	17.50	18.70	21.52	22.95	24.92	26.77	54	66	151.50	158.50	176.00	204.00	211.00	218.00
16	36	19.48	20.75	23.75	25.38	28.62	29.18	54	72	165.50	173.50	192.00	211.80	229.60	236.80
16	40	21.46	22.84	26.00	27.38	30.30	31.55	54	78	180.00	188.10	208.00	240.00	248.00	255.80
18	18	8.66	9.40	11.06	12.42	13.68	14.88	54	84	193.50	202.10	225.00	261.80	270.80	280.00
18	20	9.36	10.22	11.93	13.42	14.75	15.98	54	96	221.00	230.50	257.00	298.00	308.00	318.00
18	24	14.85	16.10	18.68	19.77	21.40	23.16	60	60	152.50	158.50	175.00	201.20	207.80	214.40
18	28	17.10	18.36	20.92	22.38	23.12	25.92	60	66	167.50	175.10	195.00	227.00	235.00	242.80
18	32	19.35	20.60	23.16	24.88	26.82	28.65	60	72	184.80	193.30	214.80	249.00	253.80	266.20
18	36	21.60	22.88	25.42	27.44	29.50	31.40	60	78	198.50	207.10	231.00	267.80	276.80	286.00
18	40	23.85	25.16	27.65	30.00	32.20	34.18	60	84	215.50	224.50	251.00	292.00	302.00	312.00
21	21	12.08	13.05	14.85	16.70	18.00	19.40	60	90	230.00	240.80	267.00	310.00	320.80	332.00
21	24	17.05	18.22	20.88	22.42	24.21	26.00	60	96	245.00	256.40	285.00	330.80	342.00	353.80
21	28	19.48	20.78	23.50	25.02	27.00	29.00	60							
21	32	21.92	23.38	26.10	27.60	29.80	31.95	60							
21	36	24.36	25.95	28.70	30.24	32.55	34.95	60							
21	40	26.76	28.44	31.75	32.85	35.35	37.85	60							

Square D Standard Fuse Lighting Panelboards

Schedule G

With 30-Ampere Fusible Only Branches

Increased Capacity Mains
FOR ALL PANELS HAVING TWO
UNGROUNDING BUSSES
WITH OR WITHOUT NEUTRAL BAR
Lugs Only Safety Fuse
Switching

FOR ALL PANELS HAVING THREE
UNGROUNDING BUSSES WITH
OR WITHOUT NEUTRAL BAR
Lugs Only Safety Fuse
Switching

From	To	Increased Capacity Mains			FOR ALL PANELS HAVING THREE UNGROUNDING BUSSES WITH OR WITHOUT NEUTRAL BAR		
		Lugs Only	Safety Fuse Switching	Circuit Breaker	Lugs Only	Safety Fuse Switching	Circuit Breaker
30A	60A	.....	.....	.....	.....	.....	.....
30A	100A	\$10.00	\$16.00	.....	\$10.00	\$16.00	.....
60A	100A	10.00	16.00	\$25.00	10.00	21.00	\$28.00
60A	200A	10.00	44.00	96.00	10.00	62.00	122.00
100A	200A	10.00	33.00	83.00	10.00	46.00	99.00

Sub-Feeds—Only One Per Panel

Where sub-feed necessitates mains heavier than standard as listed. Add for increased mains from table above in addition to sub-feed listed below.

FOR ALL SUB-FEEDS HAVING
TWO UNGROUNDING POLES
WITH OR WITHOUT NEUTRAL TAP
Lugs Only Safety Fuse
Switching

FOR ALL SUB-FEEDS HAVING
THREE UNGROUNDING POLES
WITH OR WITHOUT NEUTRAL TAP
Lugs Only Safety Fuse
Switching

Capacity of Sub-Feed	FOR ALL SUB-FEEDS HAVING TWO UNGROUNDING POLES WITH OR WITHOUT NEUTRAL TAP	FOR ALL SUB-FEEDS HAVING THREE UNGROUNDING POLES WITH OR WITHOUT NEUTRAL TAP
	Lugs Only Safety Fuse Switching	Lugs Only Safety Fuse Switching
30A	\$6.00	\$15.00
60A	6.00	15.00
100A	6.00	24.00
200A	6.00	55.00

Types NT1P-3 (Plug) and NT1C-3 (Cartridge)

MAINS. 3-Wire S/N 125-250 Volts.
CABINET. Single Door; 20 In. Wide and 5 3/4 In. Deep. Finish: Front Academy Brown; Box, Galvanized Steel.

No. Branches	Amp. Mains	Mains: Lugs Only				Mains: Safety Fuse—Switching			
		With Plug Fuse, No.	Cartridge Fuse, No.	Each	*Box No.	With Plug Fuse, No.	Cartridge Fuse, No.	Each	*Box No.
4	30	NT1P04-3L	NT1C04-3L	\$48.00	MH14	NT1P04-3F	NT1C04-3F	\$59.00	MH17
8	60	NT1P08-3L	NT1C08-3L	60.00	MH14	NT1P08-3F	NT1C08-3F	71.00	MH20
12	60	NT1P12-3L	NT1C12-3L	72.00	MH17	NT1P12-3F	NT1C12-3F	83.00	MH23
16	100	NT1P16-3L	NT1C16-3L	84.00	MH26	NT1P16-3F	NT1C16-3F	106.00	MH32
20	100	NT1P20-3L	NT1C20-3L	96.00	MH29	NT1P20-3F	NT1C20-3F	118.00	MH35
24	200	NT1P24-3L	NT1C24-3L	108.00	MH32	NT1P24-3F	NT1C24-3F	158.00	MH47
28	200	NT1P28-3L	NT1C28-3L	120.00	MH35	NT1P28-3F	NT1C28-3F	170.00	MH50
32	200	NT1P32-3L	NT1C32-3L	132.00	MH38	NT1P32-3F	NT1C32-3F	182.00	MH53
36	200	NT1P36-3L	NT1C36-3L	144.00	MH41	NT1P36-3F	NT1C36-3F	194.00	MH56
40	200	NT1P40-3L	NT1C40-3L	156.00	MH44	NT1P40-3F	NT1C40-3F	206.00	MH59

Types NT1P-4 (Plug) and NT1C-4 (Cartridge)

MAINS. 4-Wire S/N 120-208 Volts.
CABINET. Single Door; 20 In. Wide and 5 3/4 In. Deep. Finish: Front Academy Brown; Box, Galvanized Steel.

No. Branches	Amp. Mains	Mains: Lugs Only				Mains: Safety Fuse—Switching			
		With Plug Fuse, No.	Cartridge Fuse, No.	Each	*Box No.	With Plug Fuse, No.	Cartridge Fuse, No.	Each	*Box No.
8	60	NT1P08-4L	NT1C08-4L	\$65.00	MH14	NT1P08-4F	NT1C08-4F	\$82.00	MH20
12	60	NT1P12-4L	NT1C12-4L	77.00	MH17	NT1P12-4F	NT1C12-4F	94.00	MH23
16	60	NT1P16-4L	NT1C16-4L	89.00	MH23	NT1P16-4F	NT1C16-4F	106.00	MH29
20	100	NT1P20-4L	NT1C20-4L	101.00	MH29	NT1P20-4F	NT1C20-4F	134.00	MH35
24	100	NT1P24-4L	NT1C24-4L	113.00	MH32	NT1P24-4F	NT1C24-4F	146.00	MH38
28	100	NT1P28-4L	NT1C28-4L	125.00	MH35	NT1P28-4F	NT1C28-4F	158.00	MH41
32	200	NT1P32-4L	NT1C32-4L	137.00	MH38	NT1P32-4F	NT1C32-4F	211.00	MH53
36	200	NT1P36-4L	NT1C36-4L	149.00	MH41	NT1P36-4F	NT1C36-4F	223.00	MH56
40	200	NT1P40-4L	NT1C40-4L	161.00	MH44	NT1P40-4F	NT1C40-4F	235.00	MH59

Types NT1P-3D (Plug) and NT1C-3D (Cartridge)

MAINS. 3-Wire S/N 125-250 Volts.
CABINET. Door-in-Door; 20 In. Wide and 5 3/4 In. Deep. Finish: Front Academy Brown; Box, Galvanized Steel.

No. Branches	Amp. Mains	Mains: Lugs Only				Mains: Safety Fuse—Switching			
		With Plug Fuse, No.	Cartridge Fuse, No.	Each	*Box No.	With Plug Fuse, No.	Cartridge Fuse, No.	Each	*Box No.
4	30	NT1P04-3LD	NT1C04-3LD	\$64.00	MH17	NT1P04-3FD	NT1C04-3FD	\$75.00	MH20
8	60	NT1P08-3LD	NT1C08-3LD	76.00	MH20	NT1P08-3FD	NT1C08-3FD	87.00	MH23
12	60	NT1P12-3LD	NT1C12-3LD	88.00	MH23	NT1P12-3FD	NT1C12-3FD	99.00	MH26
16	100	NT1P16-3LD	NT1C16-3LD	100.00	MH26	NT1P16-3FD	NT1C16-3FD	122.00	MH32
20	100	NT1P20-3LD	NT1C20-3LD	112.00	MH29	NT1P20-3FD	NT1C20-3FD	134.00	MH35
24	200	NT1P24-3LD	NT1C24-3LD	124.00	MH32	NT1P24-3FD	NT1C24-3FD	174.00	MH47
28	200	NT1P28-3LD	NT1C28-3LD	136.00	MH35	NT1P28-3FD	NT1C28-3FD	186.00	MH50
32	200	NT1P32-3LD	NT1C32-3LD	148.00	MH38	NT1P32-3FD	NT1C32-3FD	198.00	MH53
36	200	NT1P36-3LD	NT1C36-3LD	160.00	MH41	NT1P36-3FD	NT1C36-3FD	210.00	MH56
40	200	NT1P40-3LD	NT1C40-3LD	172.00	MH44	NT1P40-3FD	NT1C40-3FD	222.00	MH59

Types NT1P-4D (Plug) and NT1C-4D (Cartridge)

MAINS. 4-Wire S/N 120-208 Volts.
CABINET. Door-in-Door; 20 In. Wide and 5 3/4 In. Deep. Finish: Front Academy Brown; Box, Galvanized Steel.

No. Branches	Amp. Mains	Mains: Lugs Only				Mains: Safety Fuse—Switching			
		With Plug Fuse, No.	Cartridge Fuse, No.	Each	*Box No.	With Plug Fuse, No.	Cartridge Fuse, No.	Each	*Box No.
8	60	NT1P08-4LD	NT1C08-4LD	\$81.00	MH20	NT1P08-4FD	NT1C08-4FD	\$98.00	MH23
12	60	NT1P12-4LD	NT1C12-4LD	93.00	MH23	NT1P12-4FD	NT1C12-4FD	110.00	MH26
16	60	NT1P16-4LD	NT1C16-4LD	105.00	MH26	NT1P16-4FD	NT1C16-4FD	122.00	MH29
20	100	NT1P20-4LD	NT1C20-4LD	117.00	MH29	NT1P20-4FD	NT1C20-4FD	150.00	MH35
24	100	NT1P24-4LD	NT1C24-4LD	129.00	MH32	NT1P24-4FD	NT1C24-4FD	162.00	MH38
28	100	NT1P28-4LD	NT1C28-4LD	141.00	MH35	NT1P28-4FD	NT1C28-4FD	174.00	MH41
32	200	NT1P32-4LD	NT1C32-4LD	153.00	MH38	NT1P32-4FD	NT1C32-4FD	227.00	MH53
36	200	NT1P36-4LD	NT1C36-4LD	165.00	MH41	NT1P36-4FD	NT1C36-4FD	239.00	MH56
40	200	NT1P40-4LD	NT1C40-4LD	177.00	MH44	NT1P40-4FD	NT1C40-4FD	251.00	MH59

*Last two figures of box number indicate box height.

For panel with 1 and 2-pole branches, convert to total number of 1-pole branches and obtain price of corresponding panel, then add \$1.00 for each 2 pole substituted for two 1-pole branches.

When ordering, specify number, number of single and/or double pole branches, ampere rating of mains, flush or surface mounting and price.

Square D Multi-Breaker Type MB Load Centers

**For Use on A.C. Systems Only
With Individual Trip**

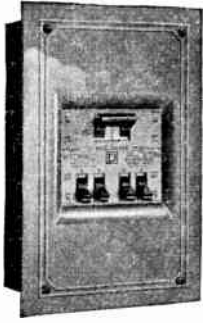
Schedule B1

MAINS: Insulated (Groundable) Neutral—Underwriters' Approved As a Panelboard for Use As a Load Center beyond the Service Equipment, or from One to Six Circuits As Service Equipment Where Required by Local Rules.

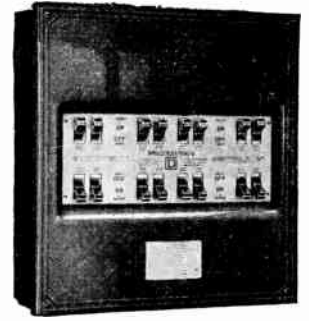
BRANCHES: Lighting Circuits—2-Wire S/N 115 Volts A.C. Single Pole Breaker (Form MB) and Neutral. Range, Water Heater and Subfeed Circuits—3-Wire S/N 115/230 Volts A.C. Double Pole Breaker (Individual Trip) and Neutral.

Specify 15, 20, 25, 35 or 50-ampere one-pole branch circuits desired for each number ordered.

For flush devices, add F to number. For surface devices, add S to number.

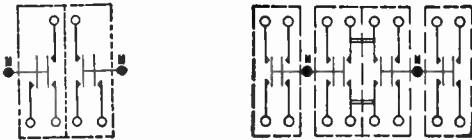


No. 35041F



No. 57160S

3-Wire S/N 115-230 Volts A.C.

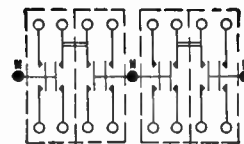


No.	Each	No. OF MAIN OR BRANCH CIRCUITS 1-Pole Breakers	2-Pole Breakers	Box No.	Solid Mains Rating Amps. (Max.)
35020	\$10.00	2	0	3	70
35030	12.00	3	0	3	70
35040	12.00	4	0	3	70
35050	13.00	5	0	3	70
35060	14.00	6	0	3	70
35070	15.00	7	0	3	70
35080	17.00	8	0	3	70
35001	10.00	0	1	3	70
35011	12.00	1	1	3	70
35021	12.00	2	1	3	70
35031	13.00	3	1	3	70
35041	14.00	4	1	3	70
35051	15.00	5	1	3	70
35061	17.00	6	1	3	70
35002	12.00	0	2	3	70
35012	14.00	1	2	3	70
35022	15.00	2	2	3	70
35032	16.00	3	2	3	70
35042	17.00	4	2	3	70
*35003	15.00	0	3	3	70
*35013	16.00	1	3	3	70
*35023	17.00	2	3	3	70
*35004	18.00	0	4	3	70
57090	34.00	9	0	5	100
57100	35.00	10	0	5	100
57110	37.00	11	0	5	100
57120	38.00	12	0	5	100
57130	40.00	13	0	5	100
57140	42.00	14	0	5	100
57150	43.00	15	0	5	100
57160	44.00	16	0	5	100
57071	34.00	7	1	5	100
57081	35.00	8	1	5	100
57091	37.00	9	1	5	100
57101	38.00	10	1	5	100
57111	40.00	11	1	5	100
57121	42.00	12	1	5	100
57131	43.00	13	1	5	100
57141	44.00	14	1	5	100

3-Wire S/N 115-230 Volts A.C.—Continued

No.	Each	No. OF MAIN OR BRANCH CIRCUITS 1-Pole Breakers	2-Pole Breakers	Box No.	Solid Mains Rating Amps. (Max.)
57052	\$34.00	5	2	5	100
57062	35.00	6	2	5	100
57072	37.00	7	2	5	100
57082	38.00	8	2	5	100
57092	40.00	9	2	5	100
57102	42.00	10	2	5	100
57112	43.00	11	2	5	100
57122	44.00	12	2	5	100
57033	34.00	3	3	5	100
57043	35.00	4	3	5	100
57053	37.00	5	3	5	100
57063	38.00	6	3	5	100
57073	40.00	7	3	5	100
57083	42.00	8	3	5	100
57093	43.00	9	3	5	100
57103	44.00	10	3	5	100
57014	34.00	1	4	5	100
57024	35.00	2	4	5	100
57034	37.00	3	4	5	100
57044	38.00	4	4	5	100
57054	40.00	5	4	5	100
57064	42.00	6	4	5	100
57074	43.00	7	4	5	100
57084	44.00	8	4	5	100
*57005	36.00	0	5	5	100
*57015	37.00	1	5	5	100
*57025	38.00	2	5	5	100
*57035	41.00	3	5	5	100
*57045	42.00	4	5	5	100
*57055	43.00	5	5	5	100
*57065	44.00	6	5	5	100
*57006	38.00	0	6	5	100
*57016	41.00	1	6	5	100
*57026	42.00	2	6	5	100
*57036	43.00	3	6	5	100
*57046	45.00	4	6	5	100
*57007	42.00	0	7	5	100
*57017	43.00	1	7	5	100
*57027	45.00	2	7	5	100
*57008	45.00	0	8	5	100

4-Wire 3-Phase S/N 120-208 Volts A.C.



56090	\$37.00	9	0	5	70
56100	38.00	10	0	5	70
56120	40.00	12	0	5	70
56140	44.00	14	0	5	70
56160	47.00	16	0	5	70

*Where more than 2 double poles in box 3 devices or more than 4 double poles in box 5 devices are shown, this is accomplished by use of handle bails, coupling outside single poles.

Type M Square D Multi-Breaker Load Centers

For Use on A.C. Systems Only

Types MO, MO4, and M, 1 and 2 Pole Breakers—Individual Trip

Type M1, 2 or 3 Pole Breakers—Common Trip

Type M2, 2 or 3 Pole Breakers—Common Trip

Schedule B1

MAINS. Insulated (Groundable) Solid Neutral—Underwriters' Approved for Use as a Load Center beyond the Service Equipment or As Service Equipment Where Required by Local Rules. No Neutral—Underwriters' Approved as Enclosed Circuit Breaker but Suitable for Use As Service Equipment.

BRANCHES. Lighting Circuits—2-Wire Solid Neutral 115 Volts A.C. Single Pole Breakers and Neutral. Range, Water Heater and Subfeed Circuits—3-Wire Solid Neutral 115/250 Volts A.C. Double Pole Breakers and Neutral. 4-Wire Solid Neutral 115/230 Volts A.C. 3 Pole Breakers and Neutral.

Specify branch circuit ratings and type of mounting.

For flush devices, add F to number. For surface devices, add S to number.

2-Wire, Solid Neutral, 120 Volts A.C.



No. 111611S



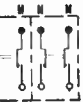
Type Breaker	Frame Size No.	No. of Main or Branch Circuits			Solid Mains Rating Amps. (Max.)	Insulated (Groundable) Solid Neutral		No Neutral		
		1-Pole Breakers	2-Pole Breakers	3-Pole Breakers		No.	Each	No.	Each	Box No.
M0	25A	1-15 A	0	0	*35	131110	\$3.00	13		
		1-20 A	0	0	*35	131120	3.00	13		
		1-25 A	0	0	*35	131130	3.00	13		
		2-15 A	0	0	*35	131711	4.50	13		
		2-20 A	0	0	*35	131722	4.50	13		
		2-25 A	0	0	*35	131733	4.50	13		
†M	50A	1-15 A, 1-20 A	0	0	*35	131712	4.50	13		
		1-15 A	0	0	50	16501	6.50	23		
		1-20 A	0	0	50	16502	6.50	23		
		1-25 A	0	0	50	16503	6.50	23		
		1-35 A	0	0	50	16504	6.50	23		
		1-50 A	0	0	50	16505	6.50	23		
		2-15 A	0	0	70	16611	8.00	23		
		2-20 A	0	0	70	16622	8.00	23		
		2-25 A	0	0	70	16633	8.00	23		
		2-35 A	0	0	70	16644	8.00	23		
		2-50 A	0	0	70	16655	8.00	23		
		1-15 A, 1-20 A	0	0	70	16612	8.00	23		

3-Wire, Solid Neutral, 120/240 Volts A.C.

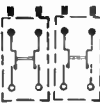


Type Breaker	Frame Size No.	No. of Main or Branch Circuits			Solid Mains Rating Amps. (Max.)	Insulated (Groundable) Solid Neutral		(2 Pole 120/240 Volts A.C.)—"A"		
		1-Pole Breakers	2-Pole Breakers	3-Pole Breakers		No.	Each	No.	Each	Box No.
M0	25A	0	1-15 A	0	*35	131611	\$4.00	13	111611	\$4.00
		0	1-20 A	0	*35	131622	4.00	13	111622	4.00
		0	1-25 A	0	*35	131633	4.50	13	111633	4.00
		2-15 A	0	0	*35	131711	4.50	13		
		2-20 A	0	0	*35	131722	4.50	13		
		2-25 A	0	0	*35	131733	4.50	13		
		1-15 A, 1-20 A	0	0	*35	131712	4.50	13		

3-Wire, Solid Neutral, 120/240 Volts A.C.—"D"



Type Breaker	Frame Size No.	No. of Main or Branch Circuits			Solid Mains Rating Amps. (Max.)	Insulated (Groundable) Solid Neutral		(2 Pole 240 Volts A.C.)—"B"		
		1-Pole Breakers	2-Pole Breakers	3-Pole Breakers		No.	Each	No.	Each	Box No.
M04	..	4-15 A	0	0	50	181111	\$11.00	18		
		4-20 A	0	0	50	182222	11.00	18		
		4-30 A	0	0	50	183333	11.00	18		
		3-15 A, 1-20 A	0	0	50	181112	11.00	18		
		2-15 A, 2-20 A	0	0	50	182211	11.00	18		
		2-15 A, 2-30 A	0	0	50	183311	11.00	18		
		1-15 A, 1-20 A, 2-30 A	0	0	50	183312	11.00	18		
		0	1-10 A	0	50	16766	8.50	23	16966	\$8.00
		0	1-15 A	0	50	16711	8.50	23	16911	8.00
		0	1-20 A	0	50	16722	8.50	23	16922	8.00
		0	1-25 A	0	50	16733	8.50	23	16933	8.00
		0	1-35 A	0	50	16744	8.50	23	16944	8.00
		0	1-50 A	0	50	16755	8.50	23	16955	8.00
		2-15 A	0	0	70	16611	8.00	23		
2-20 A	0	0	70	16622	8.00	23				
2-25 A	0	0	70	16633	8.00	23				
2-35 A	0	0	70	16644	8.00	23				
2-50 A	0	0	70	16655	8.00	23				
1-15 A, 1-20 A	0	0	70	16612	8.00	23				
		3	0	0	70	35530	11.00	3		
		4	0	0	70	35540	12.00	3		
		1	1	0	70	35511	11.00	3		
		2	1	0	70	35521	13.00	3		
		0	2	0	70	35502	13.00	3		
		5	0	0	**3-50	95550	18.00	9		
		6	0	0	**3-50	95560	19.00	9		
		3	1	0	**3-50	95531	19.00	9		
		4	1	0	**3-50	95541	20.00	9		
		1	2	0	**3-50	95512	19.00	9		
		2	2	0	**3-50	95522	20.00	9		
		0	3	0	**3-50	95503	21.00	9		



Type Breaker	Frame Size No.	No. of Main or Branch Circuits			Solid Mains Rating Amps. (Max.)	Insulated (Groundable) Solid Neutral		(2 Pole 240 Volts A.C.)—"B"		
		1-Pole Breakers	2-Pole Breakers	3-Pole Breakers		No.	Each	No.	Each	Box No.
M1	50A	0	4	0	225	79504	54.00	7	212215	\$13.00
		0	5	0	225	79505	58.00	7	212220	13.00
		0	6	0	225	79506	63.00	7	212225	13.00
		0	1-50 A	0	100	333250	21.00	33	313250	19.00
		0	1-70 A	0	100	333270	19.00	33	313270	19.00
		0	1-90 A	0	100	333290	19.00	33	313290	19.00
		0	1-100 A	0	100	333216	21.00	33	313216	19.00

4-Wire, 3-Phase, Solid Neutral 240 Volts A.C.



Type Breaker	Frame Size No.	No. of Main or Branch Circuits			Solid Mains Rating Amps. (Max.)	Insulated (Groundable) Solid Neutral		(3 Pole 240 Volts A.C.)—"C"		
		1-Pole Breakers	2-Pole Breakers	3-Pole Breakers		No.	Each	No.	Each	Box No.
M1	50A	0	0	1-15 A	50	282315	\$24.00	28	262315	\$23.00
		0	0	1-20 A	50	282320	24.00	28	262320	23.00
		0	0	1-25 A	50	282325	24.00	28	262325	23.00
		0	0	1-35 A	50	282335	24.00	28	262335	23.00
		0	0	1-50 A	50	282350	24.00	28	262350	23.00
		0	0	1-70 A	100	333350	38.00	33	313350	36.00
		0	0	1-90 A	100	333370	38.00	33	313370	36.00
		0	0	1-100 A	100	333390	38.00	33	313390	36.00
†M2	100A	0	0	1-100 A	100	333316	38.00	33	313316	36.00

*No. 8 wire terminals.

†Where ampere ratings are not shown on M50A frame breakers, any capacity from 15 to 50 amperes can be furnished.

‡Prices shown are for surface mounting. For flush mounting add \$2.50 on Form M2.

**Can also be furnished with 100-ampere bussed mains.

Square D Multi-Breaker Lighting Panelboards—3 or 4 Wire Mains

Schedule B-2

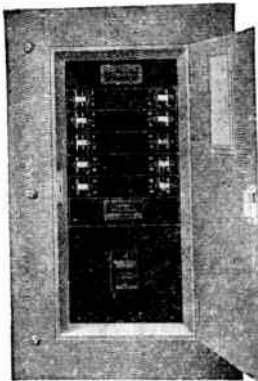


Type NMM1B-3 panels may contain a maximum of 18 double-pole circuits. No. NMM1B panels may have more than 4 poles of 35 or 50-ampere capacity (a maximum of 2 double poles or 4 single poles of 35 or 50 amperes). For panelboards having more than 35 or 50-ampere poles, refer to Type NMM-3 panels listed below.

Type NMM1B-3

MAINS. 3-Wire S/N 115/230 Volts A.C. Only.
BRANCHES. 2-Wire 115-Volt S/N 15-Ampere Single Pole Breakers—Form MB.
CABINET. Single Door; 15 Inches Wide and 4½ Inches Deep. Finish: Front, Academy Brown; Box, Galvanized Steel.

No. of Branches	Main Amperes	Mains, Lugs Only			Mains, Circuit Breaker—2-Pole		
		No.	Complete Each	*Box No.	No.	Complete Each	*Box No.
4	50	NM1B04-3L	\$50.00	MB018	NM1B04-3AB	\$61.00	MB021
6	50	NM1B06-3L	57.00	MB021	NM1B06-3AB	68.00	MB024
8	50	NM1B08-3L	64.00	MB021	NM1B08-3AB	75.00	MB024
10	50	NM1B10-3L	71.00	MB024	NM1B10-3AB	82.00	MB029
12	100	NM1B12-3L	78.00	MB024	NM1B12-3AB	109.00	MB029
14	100	NM1B14-3L	85.00	MB024	NM1B14-3AB	116.00	MB032
16	100	NM1B16-3L	92.00	MB024	NM1B16-3AB	123.00	MB032
18	100	NM1B18-3L	99.00	MB029	NM1B18-3AB	130.00	MB035
20	100	NM1B20-3L	106.00	MB029	NM1B20-3AB	137.00	MB035
22	200	NM1B22-3L	113.00	MB029	NM1B22-3AB	222.00	MB046
24	200	NM1B24-3L	120.00	MB029	NM1B24-3AB	229.00	MB046
26	200	NM1B26-3L	127.00	MB032	NM1B26-3AB	236.00	MB052
28	200	NM1B28-3L	134.00	MB032	NM1B28-3AB	243.00	MB052
30	200	NM1B30-3L	141.00	MB035	NM1B30-3AB	250.00	MB052
32	200	NM1B32-3L	148.00	MB035	NM1B32-3AB	257.00	MB052
34	200	NM1B34-3L	155.00	MB038	NM1B34-3AB	264.00	MB052
36	200	NM1B36-3L	162.00	MB038	NM1B36-3AB	271.00	MB052
38	200	NM1B38-3L	169.00	MB040	NM1B38-3AB	278.00	MB055
40	200	NM1B40-3L	176.00	MB040	NM1B40-3AB	285.00	MB055
42	200	NM1B42-3L	183.00	MB040	NM1B42-3AB	297.00	MB055



May contain all 1-pole circuits, all 2-pole circuits (not exceeding 20 per panel) or any combination of 1 and 2-pole circuits (not exceeding 12 poles per panel).

Type NMM-3

MAINS. 3-Wire S/N 115/230 Volts A.C. Only.
BRANCHES. 2-Wire 115-Volt S/N 15-Ampere Single Pole Breakers—Form M.
CABINET. Single Door; 20 Inches Wide and 5¼ Inches Deep. Finish: Front, Academy Brown; Box, Galvanized Steel.

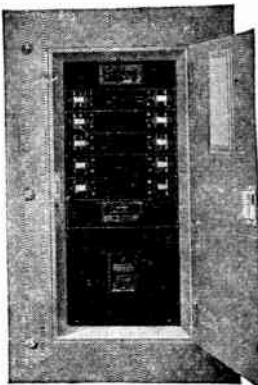
No. of Branches	Main Amperes	Mains, Lugs Only			Mains, Circuit Breaker—2-Pole		
		No.	Complete Each	*Box No.	No.	Complete Each	*Box No.
4	50	NMM04-3L	\$54.00	MH17	NMM04-3AB	\$65.00	MH23
6	50	NMM06-3L	63.00	MH17	NMM06-3AB	74.00	MH23
8	50	NMM08-3L	72.00	MH17	NMM08-3AB	83.00	MH23
10	50	NMM10-3L	81.00	MH20	NMM10-3AB	92.00	MH23
12	100	NMM12-3L	90.00	MH20	NMM12-3AB	121.00	MH26
14	100	NMM14-3L	99.00	MH23	NMM14-3AB	130.00	MH29
16	100	NMM16-3L	108.00	MH23	NMM16-3AB	139.00	MH29
18	100	NMM18-3L	117.00	MH23	NMM18-3AB	148.00	MH29
20	100	NMM20-3L	126.00	MH23	NMM20-3AB	157.00	MH29
22	200	NMM22-3L	135.00	MH26	NMM22-3AB	244.00	MH41
24	200	NMM24-3L	144.00	MH26	NMM24-3AB	253.00	MH41
26	200	NMM26-3L	153.00	MH29	NMM26-3AB	262.00	MH44
28	200	NMM28-3L	162.00	MH29	NMM28-3AB	271.00	MH44
30	200	NMM30-3L	171.00	MH29	NMM30-3AB	280.00	MH47
32	200	NMM32-3L	180.00	MH29	NMM32-3AB	289.00	MH47
34	200	NMM34-3L	189.00	MH32	NMM34-3AB	298.00	MH47
36	200	NMM36-3L	198.00	MH32	NMM36-3AB	307.00	MH47
38	200	NMM38-3L	207.00	MH35	NMM38-3AB	316.00	MH50
40	200	NMM40-3L	216.00	MH35	NMM40-3AB	325.00	MH50
42	200	NMM42-3L	225.00	MH35	NMM42-3AB	334.00	MH53

Type NMM-4

MAINS. 3-Phase, 4-Wire S/N 115/230 Volts A.C. Only. For Use on 120-208 Volts 3Ø 4-Wire Star Connected System.
BRANCHES. 2-Wire 115-Volt S/N 15-Ampere Single Pole Breakers—Form M.
CABINET. Single Door; 20 Inches Wide and 5¼ Inches Deep. Finish: Front, Academy Brown; Box, Galvanized Steel.

No. of Branches	Main Amperes	Mains, Lugs Only			Mains, Circuit Breaker—3-Pole		
		No.	Complete Each	*Box No.	No.	Complete Each	*Box No.
6	50	NMM06-4L	\$68.00	MH17	NMM06-4AB	\$85.00	MH23
8	50	NMM08-4L	77.00	MH17	NMM08-4AB	94.00	MH23
10	50	NMM10-4L	86.00	MH20	NMM10-4AB	103.00	MH23
12	50	NMM12-4L	95.00	MH20	NMM12-4AB	112.00	MH23
14	50	NMM14-4L	104.00	MH23	NMM14-4AB	121.00	MH26
16	100	NMM16-4L	113.00	MH23	NMM16-4AB	153.00	MH29
18	100	NMM18-4L	122.00	MH23	NMM18-4AB	162.00	MH29
20	100	NMM20-4L	131.00	MH23	NMM20-4AB	171.00	MH29
22	100	NMM22-4L	140.00	MH26	NMM22-4AB	180.00	MH32
24	100	NMM24-4L	149.00	MH26	NMM24-4AB	189.00	MH32
26	100	NMM26-4L	158.00	MH29	NMM26-4AB	198.00	MH35
28	100	NMM28-4L	167.00	MH29	NMM28-4AB	207.00	MH35
30	100	NMM30-4L	176.00	MH29	NMM30-4AB	216.00	MH35
32	200	NMM32-4L	185.00	MH29	NMM32-4AB	319.00	MH47
34	200	NMM34-4L	194.00	MH32	NMM34-4AB	328.00	MH47
36	200	NMM36-4L	203.00	MH32	NMM36-4AB	337.00	MH47
38	200	NMM38-4L	212.00	MH35	NMM38-4AB	346.00	MH50
40	200	NMM40-4L	221.00	MH35	NMM40-4AB	355.00	MH50
42	200	NMM42-4L	230.00	MH35	NMM42-4AB	364.00	MH53

*Last two figures of box number indicate box height.



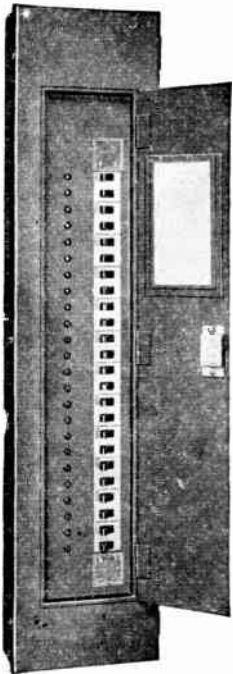
May contain all 1-pole circuits, all 2-pole circuits (not exceeding 20 per panel) or any combination of 1 and 2-pole circuits (not exceeding 42 poles per panel).

Square D Multi-Breaker Lighting Panelboards—3 or 4 Wire Mains

Schedule B2

Narrow Column Types NMM-3X and NMM-3XX—3 Wire Mains

MAIN. Lugs Only, Single Phase, 3-Wire S/N 115/230 Volts A.C. Only.
BRANCHES. 2-Wire 115-Volt S/N 15-Ampere Single Pole Breakers—Form M (Single Row).
CABINET. Single Door in Hinged Front. Finish: Academy Brown.
 Type NMM-3X: 8½ Inches Wide and 4½ Inches Deep (Outside Dimensions).
 Type NMM-3XX: 7¼ Inches Wide and 4½ Inches Deep (Outside Dimensions).



Type NMM-3X

No. of Main Branch Amperes	Mains, Lugs Only				Mains, Circuit Breaker—2-Pole						
	Type NMM-3X		Type NMM-3XX		Type NMM-3X		Type NMM-3XX				
	No.	Box Height Inches	No.	Box Height Inches	No.	Box Height Inches	No.	Box Height Inches			
4	50	NMM04-3LX	22	NMM04-3LXX	22	\$54.00	NMM04-3ABX	22	NMM04-3ABXX	22	\$65.00
6	50	NMM06-3LX	22	NMM06-3LXX	22	63.00	NMM06-3ABX	28	NMM06-3ABXX	28	74.00
8	50	NMM08-3LX	22	NMM08-3LXX	22	72.00	NMM08-3ABX	28	NMM08-3ABXX	28	83.00
10	50	NMM10-3LX	28	NMM10-3LXX	28	81.00	NMM10-3ABX	28	NMM10-3ABXX	28	92.00
12	100	NMM12-3LX	28	NMM12-3LXX	28	90.00	NMM12-3ABX	34	NMM12-3ABXX	34	121.00
14	100	NMM14-3LX	28	NMM14-3LXX	28	99.00	NMM14-3ABX	34	NMM14-3ABXX	34	130.00
16	100	NMM16-3LX	34	NMM16-3LXX	34	108.00	NMM16-3ABX	34	NMM16-3ABXX	34	139.00
18	100	NMM18-3LX	34	NMM18-3LXX	34	117.00	NMM18-3ABX	40	NMM18-3ABXX	40	148.00
20	100	NMM20-3LX	34	NMM20-3LXX	34	126.00	NMM20-3ABX	40	NMM20-3ABXX	40	157.00
22	100	NMM22-3LX	40	NMM22-3LXX	40	135.00					
24	100	NMM24-3LX	40	NMM24-3LXX	40	144.00					
26	100	NMM26-3LX	40	NMM26-3LXX	40	153.00					
28	100	NMM28-3LX	46	NMM28-3LXX	46	162.00					
30	100	NMM30-3LX	46	NMM30-3LXX	46	171.00					
32	100	NMM32-3LX	52	NMM32-3LXX	52	180.00					
34	200	NMM34-3LX	52	NMM34-3LXX	52	189.00					
36	200	NMM36-3LX	58	NMM36-3LXX	58	198.00					
38	200	NMM38-3LX	58	NMM38-3LXX	58	207.00					
40	200	NMM40-3LX	58	NMM40-3LXX	58	216.00					

Narrow Column Types NMM-4X and NMM-4XX—4 Wire Mains

MAIN. Lugs Only, Three Phase, 4-Wire S/N 115/230 Volts A.C. Only. For Use on 120/208 Volts 3Ø 4-Wire Star Connected System.
BRANCHES. 2-Wire 115-Volt S/N 15-Ampere Single Pole Breakers—Form M (Single Row).
CABINET. Single Door in Hinged Front. Finish: Academy Brown.
 Type NMM-4X: 8½ Inches Wide and 4½ Inches Deep (Outside Dimensions).
 Type NMM-4XX: 7¼ Inches Wide and 4½ Inches Deep (Outside Dimensions).

Additions for Increased Mains
 With or without neutral bar. The 2 and 3-pole main breakers have common trip.

No. of Main Branch Amperes	Mains, Lugs Only				Mains, Circuit Breaker—3-Pole						
	Type NMM-4X		Type NMM-4XX		Type NMM-4X		Type NMM-4XX				
	No.	Box Height Inches	No.	Box Height Inches	No.	Box Height Inches	No.	Box Height Inches			
6	50	NMM06-4LX	22	NMM06-4LXX	22	\$68.00	NMM06-4ABX	28	NMM06-4ABXX	28	\$85.00
8	50	NMM08-4LX	22	NMM08-4LXX	22	77.00	NMM08-4ABX	28	NMM08-4ABXX	28	94.00
10	50	NMM10-4LX	28	NMM10-4LXX	28	86.00	NMM10-4ABX	28	NMM10-4ABXX	34	103.00
12	50	NMM12-4LX	28	NMM12-4LXX	28	95.00	NMM12-4ABX	34	NMM12-4ABXX	34	112.00
14	50	NMM14-4LX	28	NMM14-4LXX	28	104.00	NMM14-4ABX	34	NMM14-4ABXX	34	121.00
16	100	NMM16-4LX	34	NMM16-4LXX	34	113.00	NMM16-4ABX	34	NMM16-4ABXX	46	153.00
18	100	NMM18-4LX	34	NMM18-4LXX	34	122.00	NMM18-4ABX	40	NMM18-4ABXX	46	162.00
20	100	NMM20-4LX	34	NMM20-4LXX	34	131.00	NMM20-4ABX	40	NMM20-4ABXX	46	171.00
22	100	NMM22-4LX	40	NMM22-4LXX	40	140.00	NMM22-4ABX	40	NMM22-4ABXX	52	180.00
24	100	NMM24-4LX	40	NMM24-4LXX	40	149.00	NMM24-4ABX	46	NMM24-4ABXX	52	189.00
26	100	NMM26-4LX	40	NMM26-4LXX	40	158.00	NMM26-4ABX	46	NMM26-4ABXX	52	198.00
28	100	NMM28-4LX	46	NMM28-4LXX	46	167.00	NMM28-4ABX	46	NMM28-4ABXX	58	207.00
30	100	NMM30-4LX	46	NMM30-4LXX	46	176.00	NMM30-4ABX	52	NMM30-4ABXX	58	216.00
32	100	NMM32-4LX	52	NMM32-4LXX	52	185.00					
34	100	NMM34-4LX	52	NMM34-4LXX	52	194.00					
36	100	NMM36-4LX	58	NMM36-4LXX	58	203.00					
38	100	NMM38-4LX	58	NMM38-4LXX	58	212.00					
40	100	NMM40-4LX	58	NMM40-4LXX	58	221.00					

- *2 Ungrounded Poles**
- | Main Amp. | Lugs Only Each | Circuit Breaker Each |
|-----------|----------------|----------------------|
| 50-100 | | |
| 50-200 | | |
| 100-200 | | |
- 3 Ungrounded Poles**
- | Main Amp. | Lugs Only Each | Circuit Breaker Each |
|-----------|----------------|----------------------|
| 50-100 | | |
| 50-200 | | |
| 100-200 | | |

*For use on panelboards with 3-wire mains only.
 †Main breakers are limited to 100 amperes.

Prices are for panels either 8½ or 7¼ inches wide. Wiring gutters are at top, bottom and left side. Top gutter varies from 6 to 10 inches, depending on neutral bar which is placed there since branch feeders usually come into that end of box. Bottom gutter is 4 inches high. Side gutter is 3¼ inches wide in the 8½-inch wide cabinet, and 1¾ inches wide in the 7¼-inch wide cabinet.

It is recommended that panels with 16 or more poles have cabinets 6½ inches deep instead of 4½ inches, so that additional wiring space in back of interior may be had. When cabinets 6½ inches deep are desired, increase above prices by 5 per cent (before adding for double pole branches when required).

These panels can be furnished with cable troughs and pull boxes for II-beam mounting. Prices on request.

Listing are based on 15-ampere breakers, which will be furnished unless otherwise specified. The 20, 25, 35 or 50-ampere breakers will be furnished at no extra charge if specified, except that increased mains may be required; see additions in table at right.

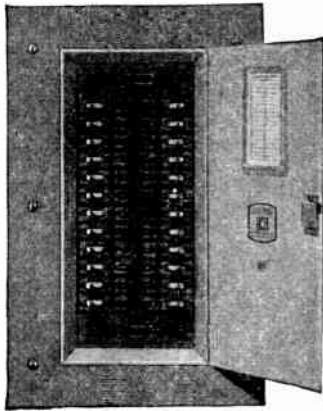
For panels having combination of 1 and 2-pole branches, all fed from same bus and under one door, determine total number of poles in branches. With this equivalent number of 1-pole circuits, obtain price of panel from tables shown, and add \$1.00 for each 2-pole circuit.

All 2-pole branch circuit breakers have separate trip. Standard knockouts are furnished in top and bottom ends of all boxes, except the boxes for Types NMM-3XX and NMM-4XX which are furnished with blank top and bottom ends as standard.

When space only for further branches is required, figure panels on basis of total number of branches and deduct \$1.00 for each breaker pole omitted.

When any panel has both 1 and 2-pole branches, or two or more capacities of breakers, the Square D Company reserves the right to determine the relative positions of the branches on the panels.

When ordering, specify number, number of 1-pole and 1 or 2-pole branch circuits, ampere rating of each branch, ampere rating of mains, flush or surface mounting, and price.



**Square D
Circuit Breaker
Lighting
Panelboards**

Schedule G

Prices are based on 15-ampere breakers. The 10, 20 and 25-ampere breakers can be supplied at the same price. For 35 and 50-ampere breakers, add \$1.00 per single pole and \$2.00 per double pole. Add for increased mains, if required.

Type NA1B-3

MAINS. 125-250 Volts, 1 Φ 3-Wire S/N A.C. or D.C.
BRANCHES. 2-Wire 125-Volt 15-Ampere Single Pole Breaker—Form L.

FINISH. Front, Academy Brown; Box, Galvanized Steel.
With Cabinets 12 Inches Wide and 4 Inches Deep

Mains, Lugs Only				Mains, Circuit Breaker—2-Pole					
No.	Main Br.	Amps.	No.	Complete Each	*Box No.	No.	Complete Each	*Box No.	
4	50	NA1B04	3L	\$62.	LP15	NA1B04	3AB	\$73.	LP21
6	50	NA1B06	3L	75.	LP18	NA1B06	3AB	86.	LP24
8	50	NA1B08	3L	88.	LP21	NA1B08	3AB	99.	LP27
10	50	NA1B10	3L	101.	LP21	NA1B10	3AB	112.	LP27

With Cabinets 20 Inches Wide and 5 $\frac{1}{2}$ Inches Deep.

12	100	NA1B12	3L	\$114.	MH20	NA1B12	3AB	\$145.	MH29
14	100	NA1B14	3L	127.	MH20	NA1B14	3AB	158.	MH29
16	100	NA1B16	3L	140.	MH23	NA1B16	3AB	171.	MH32
18	100	NA1B18	3L	153.	MH23	NA1B18	3AB	184.	MH32
20	100	NA1B20	3L	166.	MH23	NA1B20	3AB	197.	MH32
22	100	NA1B22	3L	179.	MH26	NA1B22	3AB	288.	MH35
24	100	NA1B24	3L	192.	MH26	NA1B24	3AB	301.	MH35
26	100	NA1B26	3L	205.	MH26	NA1B26	3AB	314.	MH35
28	100	NA1B28	3L	218.	MH29	NA1B28	3AB	327.	MH38
30	100	NA1B30	3L	231.	MH29	NA1B30	3AB	340.	MH38
32	100	NA1B32	3L	244.	MH29	NA1B32	3AB	353.	MH38
34	200	NA1B34	3L	257.	MH32	NA1B34	3AB	366.	MH50
36	200	NA1B36	3L	270.	MH32	NA1B36	3AB	379.	MH50
38	200	NA1B38	3L	283.	MH32	NA1B38	3AB	392.	MH50
40	200	NA1B40	3L	296.	MH35	NA1B40	3AB	405.	MH53
42	200	NA1B42	3L	309.	MH35	NA1B42	3AB	418.	MH53

Type NA1B-4

MAINS. 120-208 Volts, 3 Φ 4-Wire S/N A.C.
BRANCHES. 2-Wire 125-Volt 15-Ampere Single Pole Breaker—Form L.

FINISH. Front, Academy Brown; Box, Galvanized Steel.
With Cabinets 12 Inches Wide and 4 Inches Deep

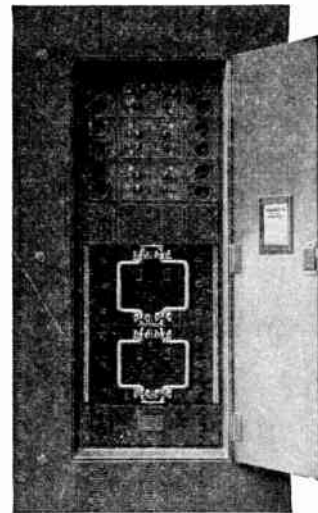
Mains, Lugs Only				Mains, Circuit Breaker—3-Pole					
No.	Main Br.	Amps.	No.	Complete Each	*Box No.	No.	Complete Each	*Box No.	
4	50	NA1B04	4L	\$67.	LP18	NA1B04	4AB	\$84.	LP24
6	50	NA1B06	4L	80.	LP21	NA1B06	4AB	97.	LP27
8	50	NA1B08	4L	93.	LP21	NA1B08	4AB	110.	LP27
10	50	NA1B10	4L	106.	LP24	NA1B10	4AB	123.	LP30
12	50	NA1B12	4L	119.	LP27	NA1B12	4AB	136.	LP33
14	50	NA1B14	4L	132.	LP27	NA1B14	4AB	149.	LP33

With Cabinets 20 Inches Wide and 5 $\frac{1}{2}$ Inches Deep

16	100	NA1B16	4L	\$145.	MH23	NA1B16	4AB	\$185.	MH32
18	100	NA1B18	4L	158.	MH23	NA1B18	4AB	198.	MH32
20	100	NA1B20	4L	171.	MH23	NA1B20	4AB	211.	MH32
22	100	NA1B22	4L	184.	MH26	NA1B22	4AB	224.	MH35
24	100	NA1B24	4L	197.	MH26	NA1B24	4AB	237.	MH35
26	100	NA1B26	4L	210.	MH26	NA1B26	4AB	250.	MH35
28	100	NA1B28	4L	223.	MH29	NA1B28	4AB	263.	MH38
30	100	NA1B30	4L	236.	MH29	NA1B30	4AB	276.	MH38
32	100	NA1B32	4L	249.	MH29	NA1B32	4AB	289.	MH38
34	100	NA1B34	4L	262.	MH32	NA1B34	4AB	302.	MH41
36	100	NA1B36	4L	275.	MH32	NA1B36	4AB	315.	MH41
38	100	NA1B38	4L	288.	MH32	NA1B38	4AB	328.	MH41
40	100	NA1B40	4L	301.	MH35	NA1B40	4AB	341.	MH44
42	100	NA1B42	4L	314.	MH35	NA1B42	4AB	354.	MH44

*Last two figures of box number indicate height.

Square D Saflex Distribution Panels



A Special Combination Lighting and Distribution Panelboard in a Box 20 Inches Wide

The Square D Saflex Distribution Panel was first designed to meet the rigid requirements of the industrial field, with the thought of providing a maximum degree of safety, convenience and dependability in a compact form to control electric service and feeders supplying current for power, heat and light. The Saflex fusible switch units used in these panels have proved, over a decade of actual use, to be highly desirable where trouble-proof service is essential. They insure undisturbed control of electric current where interruptions in electric service are very costly and therefore cannot be allowed.

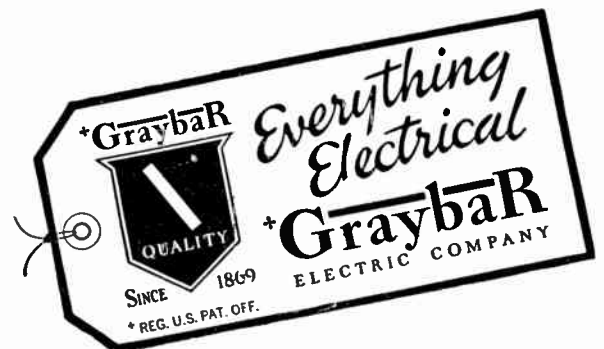
The Saflex panelboard is made up of interchangeable switch units mounted upon steel channels within a steel cabinet with copper bus bars mounted in an isolated bus compartment in the rear of the switch units. All Saflex panels are listed and approved by Underwriters' Laboratories, Inc.

Saflex panels are used and highly recommended by many of the largest industries in the United States and Canada. They can also be found in many other parts of the world. They are ideally suited for industrials, schools, hospitals and other buildings where safety and dependability are of prime importance. They can be furnished for controlling any of the following services:

- 125, 250 or 575 volts, 3 phase, 3 wire, a.c.
- 120/208 volts, 3 phase, 4 wire, a.c.
- 115 or 230 volts, 1 phase, 3 wire, a.c.
- 125, 250 or 575 volts, 1 phase, 2 wire, a.c.
- 115 or 230 volts, 3 wire, d.c.
- 125, 250 or 600 volts, 2 wire, d.c.

Special Combination Lighting and Distribution Panelboards

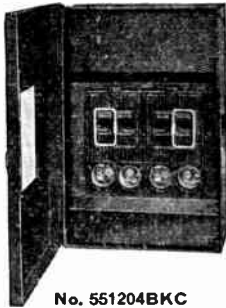
Special combinations can be furnished in addition to the standard Saflex units. These may include double throw Saflex switch units, motor starters, meters, current transformers, etc. Prices and complete information upon request.



Bull Dog Main Service, Range and Lighting Cabinets

Sequence: Meter—Switch—Fuse

Dead Front Construction
Main Switch Fusible—125/250 Volts A.C. Grounded Solid Neutral 3-Pole, 2 Blades, 2 Fuses



No. 551204BKC

Boxes are made from code gage steel, either galvanized or finished to match the fronts. Fronts have black finish and are supplied with pull rings and spring catches.

Surface Mounting

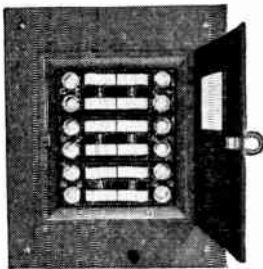
Amps.	No.	Each	BRANCHES			Weight Pounds Each
			Cart. Fuse Conn.	60-Amp. SAF to Switch	30-Amp. FUSE Plug Fuse	
60	551204BKC	\$12.00	2	1	4	10
60	551204XBKC	14.00	2	1	4	10
60	551204PTK	12.00	2	1	4	10
60	551204XPTK	14.00	2	1	4	10

Flush Mounting

Amps.	No.	Each	BRANCHES			Weight Pounds Each
			Cart. Fuse Conn.	60-Amp. SAF to Switch	30-Amp. FUSE Plug Fuse	
60	561204BKC	\$13.00	2	1	4	10
60	561204XBKC	14.00	2	1	4	10

Bull Dog Rocker Type Switch Centers

- MAINS.** Lugs Only, 60-Ampere Solderless Type.
- BRANCHES.** 30-Ampere Single Pole Rocker Type Switches and Plug Fuse Connections.
- CABINET.** One Door Construction, Ring Spring Catch Only Locks Cannot Be Furnished with This Type. Width, 12 Inches, Depth, 3 3/4 Inches, 1 1/2-Inch Wiring Cutters.



No. RPS312L

The shallow boxes permit flush type switch centers to be mounted in thin walls composed of sheet rock, wall board, masonite, or similar material.

3/2 Wire—125-250 Volts Solid Neutral

No. of Circuits	INSIDE BOX DIMENSIONS, INCHES			Weight Pounds	Flush Type No.	Surface Type No.	Each
	Height	Width	Depth				
4	7	12	3 3/8	16	RPS304L	RPS304LS	\$13.00
8	12	12	3 3/8	24	RPS308L	RPS308LS	19.50
12	15	12	3 3/8	30	RPS312L	RPS312LS	37.50

3 Phase 4 Wire—120-208 Volts Solid Neutral

8	12	12	3 3/8	24	RPS408L	RPS408LS	\$27.50
12	15	12	3 3/8	30	RPS412L	RPS412LS	41.00

Bull Dog Lighting Panelboards

Double Row—Unit-Versal Type

Branches: Fuse Only

Using Plug Fuse in 1 Leg Only—Solid Neutral Bar in Other

Cabinets, 20 inches wide, 5 1/2 inches deep.

Wiring gutters, 4 inches.

Numerals in Box No. indicate height in inches.

Mains: 3-Wire, 125/250 Volts
Branches: 2-Wire, 30 Amps., 125 V., Single Pole

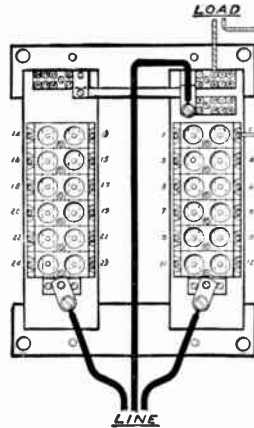
No. Cir.	No.	Each	Mains	
			Ampers	Box No.
16	N2P316L	\$78.00	100	W23
24	N2P324L	94.00	200	W26
32	N2P332L	109.00	200	W29
40	N2P340L	125.00	200	W35

Mains—SAF to FUSE, Solid Neutral				
No. Cir.	No.	Each	Ampers	Box No.
8	N2P308F	\$77.00	60	W26
16	N2P316F	107.00	100	W32
24	N2P324F	159.00	200	W35
32	N2P332F	174.00	200	W38
40	N2P340F	190.00	200	W44

Mains: 4-Wire, 3-Phase, 120/208 Volts
Branches: 2-Wire, 30 Amps. 125 V. Single Pole

Mains—Lugs Only, Solid Neutral				
No. Cir.	No.	Each	Ampers	Box No.
16	N2P416L	\$84.00	60	W26
24	N2P424L	100.00	100	W29
32	N2P432L	116.00	200	W32
40	N2P440L	131.00	200	W35

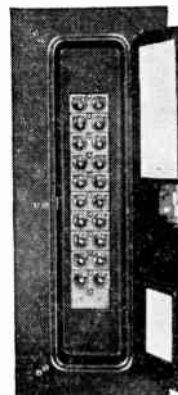
Mains—SAF to FUSE, Solid Neutral				
No. Cir.	No.	Each	Ampers	Box No.
8	N2P408F	\$97.00	60	W26
16	N2P416F	107.00	60	W32
24	N2P424F	143.00	100	W35
32	N2P432F	212.00	200	W38
40	N2P440F	227.00	200	W41



Style N2P324L

Single Row—Narrow Type NRP Fusenter Line

- MAINS.** 3 Wire, 125/250 Volts, Lugs Only.
- BRANCHES.** 2 Wire, 30 Amperes, 125 Volts, Plug Fuse Only.
- CABINET.** Box, Code Gage Galvanized Steel—10 1/2 Inches Wide, 4 1/2 Inches Deep, 3-Inch Wiring Gutters, Front, Code Thickness Steel, Flush Spring Locks—Black Finish.

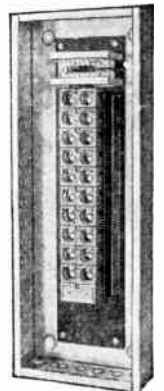


No. NRP320L Flush Type

The Fusenter Lighting Panel contains a compact porcelain unit, with silver surfaced current-carrying parts.

Main terminals are solderless Wire Grips.

Flush fronts will be furnished unless surface type is specified on order.



No. NRP320L Surface Type

No.	Each	No. of Circuits	Main Amp.	Box Height Inches	Weight Pounds Each
NRP308L	\$22.00	8	60	15	20
NRP310L	25.00	10	60	20	25
NRP312L	28.00	12	60	20	26
NRP314L	31.00	14	100	24	34
NRP316L	33.00	16	100	24	35
NRP318L	36.00	18	100	28	40
NRP320L	38.00	20	100	28	41

Bull Dog Rocker Type Lighting Panelboards

CABINET. X Boxes, 15½ Inches; Depth, 4½ Inches; 4-Inch Gutters. W Boxes: Width 20 Inches; Depth 5½ Inches; 4 Inch Gutters. Height in Inches Is Indicated by Numerals in Box Numbers. Front, One Door Construction. Code Thickness Steel, Black Finish—Flush Spring Locks.

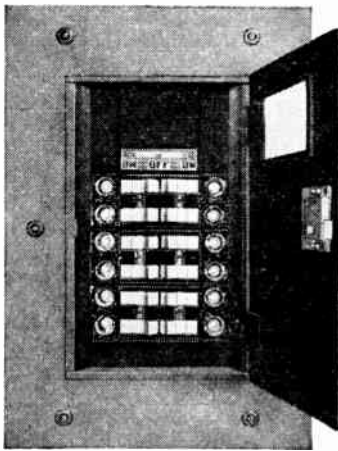
For inner doors, add extra list price shown below, and add suffix "D" to numbers, for example: NTPR316LD.

Flush fronts will be furnished unless surface type is specified on order.

3/2 Wire, Solid Neutral

MAINS. 3-Wire, 125-250 Volts.

BRANCHES. 2-Wire, 125-Volt, 30-Ampere Single Pole Rocker Type Switch and Fuse.



No. NTPR312L Plug Fusible Type

Mains: Lugs Only (Solderless Wire Grips), Solid Neutral

No. of Circuits	Main Amp.	Box No.	With Plug Fuses		With Cartridge Fuses		Add for Inner Doors
			No.	Each	No.	Each	
4	30	X17	NTPR304L	\$33.00	NTCR304L	\$36.00	\$7.00
8	60	X17	NTPR308L	38.00	NTCR308L	42.00	7.00
12	60	X23	NTPR312L	48.00	NTCR312L	53.00	8.00
16	100	X23	NTPR316L	71.00	NTCR316L	78.00	8.00
20	100	X29	NTPR320L	81.00	NTCR320L	89.00	11.00
24	200	X29	NTPR324L	98.00	NTCR324L	108.00	11.00
28	200	X38	NTPR328L	107.00	NTCR328L	118.00	14.00
32	200	X38	NTPR332L	117.00	NTCR332L	129.00	14.00
36	200	X44	NTPR336L	135.00	NTCR336L	148.00	17.00
40	200	X44	NTPR340L	146.00	NTCR340L	161.00	17.00

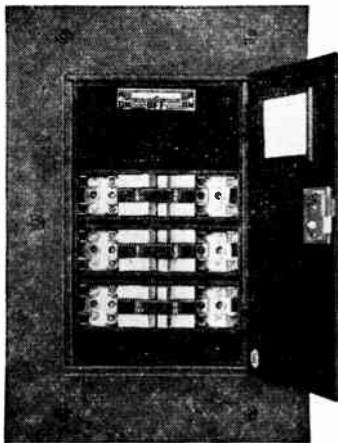
Mains: SAFtoFUSE, Solid Neutral

4	30	X23	NTPR304F	\$55.00	NTCR304F	\$60.00	\$8.00
8	60	X23	NTPR308F	63.00	NTCR308F	69.00	8.00
12	60	X29	NTPR312F	73.00	NTCR312F	80.00	11.00
16	100	X29	NTPR316F	99.00	NTCR316F	109.00	11.00
20	100	X38	NTPR320F	109.00	NTCR320F	120.00	14.00
24	200	W38	NTPR324F	135.00	NTCR324F	148.00	17.00
28	200	W50	NTPR328F	145.00	NTCR328F	159.00	29.00
32	200	W50	NTPR332F	154.00	NTCR332F	169.00	29.00
36	200	W56	NTPR336F	179.00	NTCR336F	197.00	33.00
40	200	W56	NTPR340F	190.00	NTCR340F	209.00	33.00

3-Phase, 4-Wire, Solid Neutral

MAINS. 3-Phase, 4-Wire, 120-208 Volts Solid Neutral.

BRANCHES. 2-Wire, 120-Volt, 30-Ampere Single Pole Rocker Type Switch and Fuse.



No. NTPR312L Cartridge Fusible Type

Mains: Lugs Only (Solderless Wire Grips), Solid Neutral

No. of Circuits	Main Amp.	Box No.	With Plug Fuses		With Cartridge Fuses		Add for Inner Doors
			No.	Each	No.	Each	
8	60	X17	NTPR408L	\$43.00	NTCR408L	\$47.00	\$7.00
12	60	X23	NTPR412L	54.00	NTCR412L	59.00	8.00
16	60	X23	NTPR416L	79.00	NTCR416L	87.00	8.00
20	100	X29	NTPR420L	96.00	NTCR420L	106.00	11.00
24	100	X29	NTPR424L	107.00	NTCR424L	118.00	11.00
28	100	X38	NTPR428L	110.00	NTCR428L	121.00	14.00
32	200	X38	NTPR432L	131.00	NTCR432L	144.00	14.00
36	200	X44	NTPR436L	158.00	NTCR436L	174.00	17.00
40	200	X44	NTPR440L	170.00	NTCR440L	187.00	17.00

Mains: SAFtoFUSE, Solid Neutral

8	60	X23	NTPR408F	\$70.00	NTCR408F	\$77.00	\$8.00
12	60	X29	NTPR412F	81.00	NTCR412F	89.00	11.00
16	60	X29	NTPR416F	106.00	NTCR416F	117.00	11.00
20	100	X38	NTPR420F	125.00	NTCR420F	137.00	14.00
24	100	X38	NTPR424F	136.00	NTCR424F	150.00	14.00
28	100	X44	NTPR428F	140.00	NTCR428F	154.00	17.00
32	200	W53	NTPR432F	173.00	NTCR432F	190.00	32.00
36	200	W59	NTPR436F	201.00	NTCR436F	221.00	33.00
40	200	W59	NTPR440F	213.00	NTCR440F	234.00	33.00

Bull Dog Nofuze Lighting Panels and Cabinets

Circuit Breaker Type

These panels have circuit breakers in the branches in lieu of toggle switches and fuses.

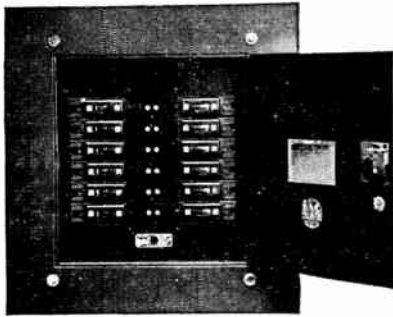
They are adapted for use in buildings where circuits are subject to overloads which would involve much fuse replacement and where frequent switching is done at the panels.

The breakers are quick-make and quick-break with automatic overload trip and inverse-time-limit feature. They cannot be held closed against overload. The trip is automatic and self-indicating with manual reset.

Code gage galvanized sheet steel boxes; width, 20 inches, depth, 5½ inches; gutters, 4 inches. Height of box in inches is indicated by numerals in box catalog numbers shown in tables.

Flush fronts furnished unless surface type specified.

Catalog Nos. listed cover 15-ampere breakers. No increase in price for 20 and 25-ampere breakers. For 35 and 50 amperes, add \$1.00 for single pole and \$2.00 for double pole. Capacity of each branch circuit must be specified on order.



No. NA1B312—with Main Lugs

Type NA1B3

3-Wire, Single Phase, 125/250 Volt, Solid Neutral
 Mains: 125/250 V. 3-Wire, Single Phase, Solid Neutral
 Branches: 125 V. 2-Wire with 15 Amp. S.P. Circuit Breakers A.C. or D.C.

Main Lugs Only

No. of Cir.	Catalog Number	Each	Main Amp.	Box Cat. No.	Approx. Wt. Lbs.
4	NA1B304L	\$81.00	50	W14	62
6	NA1B306L	97.00	50	W17*	68
8	NA1B308L	114.00	50	W17	70
10	NA1B310L	131.00	50	W20*	76
12	NA1B312L	148.00	100	W20	78
14	NA1B314L	165.00	100	W23*	84
16	NA1B316L	182.00	100	W23	86
18	NA1B318L	199.00	100	W26*	95
20	NA1B320L	216.00	100	W26	98
22	NA1B322L	233.00	200	W29*	108
24	NA1B324L	250.00	200	W29	112
26	NA1B326L	266.00	200	W32*	125
28	NA1B328L	283.00	200	W32	130
30	NA1B330L	300.00	200	W35*	145
32	NA1B332L	317.00	200	W35	151
34	NA1B334L	334.00	200	W41*	168
36	NA1B336L	351.00	200	W41	175
38	NA1B338L	368.00	200	W44*	194
40	NA1B340L	385.00	200	W44	202

Main Breakers

4	NA1B304AB	\$95.00	50	W26	78
6	NA1B306AB	112.00	50	W29*	84
8	NA1B308AB	129.00	50	W29	86
10	NA1B310AB	146.00	50	W32*	95
12	NA1B312AB	188.00	100	W32	98
14	NA1B314AB	205.00	100	W35*	108
16	NA1B316AB	222.00	100	W35	112
18	NA1B318AB	239.00	100	W38*	125
20	NA1B320AB	256.00	100	W38	130
22	NA1B322AB	374.00	200	W47*	145
24	NA1B324AB	391.00	200	W47	151
26	NA1B326AB	408.00	200	W50*	168
28	NA1B328AB	425.00	200	W50	175
30	NA1B330AB	442.00	200	W53*	194
32	NA1B332AB	459.00	200	W53	202
34	NA1B334AB	476.00	200	W59*	223
36	NA1B336AB	493.00	200	W59	233
38	NA1B338AB	510.00	200	W62*	256
40	NA1B340AB	526.00	200	W62	267

Type NA1B4

4-Wire, 3-Phase 125/250 Volt, Solid Neutral
 Mains: 125/250 V. 4-Wire, 3-Phase, Solid Neutral
 Branches: 125 Volts 2-Wire with 15 Amp. S.P. Circuit Breakers A.C.

Main Lugs Only

No of Cir.	Catalog Number	Each	Main Amp.	Box Cat. No.	Approx. Wt. Lbs.
4	NA1B404L	\$87.00	50	W14	58
6	NA1B406L	104.00	50	W17*	64
8	NA1B408L	121.00	50	W17	70
10	NA1B410L	138.00	50	W20*	76
12	NA1B412L	155.00	50	W20	78
14	NA1B414L	172.00	50	W23*	84
16	NA1B416L	188.00	100	W23	86
18	NA1B418L	205.00	100	W26*	95
20	NA1B420L	222.00	100	W26	98
22	NA1B422L	239.00	100	W29*	108
24	NA1B424L	256.00	100	W29	112
26	NA1B426L	273.00	100	W32*	125
28	NA1B428L	290.00	100	W32	130
30	NA1B430L	307.00	100	W35*	145
32	NA1B432L	324.00	200	W35	151
34	NA1B434L	341.00	200	W41*	168
36	NA1B436L	357.00	200	W41	175
38	NA1B438L	374.00	200	W44*	194
40	NA1B440L	391.00	200	W44	202

Main Breakers

4	NA1B404AB	\$109.00	50	W26	78
6	NA1B406AB	126.00	50	W29*	84
8	NA1B408AB	143.00	50	W29	86
10	NA1B410AB	160.00	50	W32*	95
12	NA1B412AB	177.00	50	W32	98
14	NA1B414AB	194.00	50	W35*	108
16	NA1B416AB	240.00	100	W35	112
18	NA1B418AB	257.00	100	W38*	125
20	NA1B420AB	274.00	100	W38	130
22	NA1B422AB	291.00	100	W41*	145
24	NA1B424AB	308.00	100	W41	151
26	NA1B426AB	325.00	100	W44*	168
28	NA1B428AB	342.00	100	W44	175
30	NA1B430AB	359.00	100	W47*	194
32	NA1B432AB	498.00	200	W53	202
34	NA1B434AB	515.00	200	W59*	223
36	NA1B436AB	532.00	200	W59	233
38	NA1B438AB	549.00	200	W62*	244
40	NA1B440AB	565.00	200	W62	250

*Spare space included in these panels for 2 future S.P. circuit breakers.

Bull Dog Superba Lighting Panelboards

CABINET. Box, Code Gage Galvanized Steel—20 Inches Wide, 5½ Inches Deep, 4-Inch Gutters.
 Height in Inches is Indicated by Numerals in Box Numbers.
Front, Code, Thickness Steel, Black Finish—Flush Spring Locks.

Modified Type. Has the improved features of the Superba design, but is furnished without separate doors over fuses.
Standard Type. Equipped with separate doors over the fuses of each branch circuit, interlocked with the toggle switches for safety.

Numbers and prices include complete panel (less fuses) and cabinet.

Flush fronts will be furnished unless surface type is specified on order.

Single Fusing—3/2 Wire, Solid Neutral

MAINS. 3-Wire, 125-250 Volts.
BRANCHES. 2-Wire, 125-Volt, 30-Ampere Single Pole Toggle Switch and Fuse.

Mains. Lugs Only, Solid Neutral

No. of Circuits	Main Amp.	Box No.	*Modified Superba Type One Door Construction			Standard Superba Type Individual Doors over Fuses		
			Plug Fuse No.	Cartridge Fuse No.	Each	Plug Fuse No.	Cartridge Fuse No.	Each
4	30	W14	NTP304L	NTC304L	\$62.00	SNTP304LD	SNTC304LD	\$83.00
8	60	W17	NTP308L	NTC308L	78.00	SNTP308LD	SNTC308LD	99.00
12	60	W20	NTP312L	NTC312L	94.00	SNTP312LD	SNTC312LD	114.00
16	100	W23	NTP316L	NTC316L	109.00	SNTP316LD	SNTC316LD	130.00
20	100	W26	NTP320L	NTC320L	125.00	SNTP320LD	SNTC320LD	146.00
24	200	W29	NTP324L	NTC324L	140.00	SNTP324LD	SNTC324LD	161.00
28	200	W32	NTP328L	NTC328L	156.00	SNTP328LD	SNTC328LD	177.00
32	200	W35	NTP332L	NTC332L	172.00	SNTP332LD	SNTC332LD	192.00
36	200	W41	NTP336L	NTC336L	187.00	SNTP336LD	SNTC336LD	208.00
40	200	W44	NTP340L	NTC340L	203.00	SNTP340LD	SNTC340LD	224.00

Mains: SAFtoFUSE, Solid Neutral

4	30	W23	NTP304F	NTC304F	\$77.00	SNTP304FD	SNTC304FD	\$97.00
8	60	W26	NTP308F	NTC308F	92.00	SNTP308FD	SNTC308FD	113.00
12	60	W29	NTP312F	NTC312F	108.00	SNTP312FD	SNTC312FD	129.00
16	100	W32	NTP316F	NTC316F	138.00	SNTP316FD	SNTC316FD	159.00
20	100	W35	NTP320F	NTC320F	153.00	SNTP320FD	SNTC320FD	174.00
24	200	W44	NTP324F	NTC324F	205.00	SNTP324FD	SNTC324FD	226.00
28	200	W47	NTP328F	NTC328F	221.00	SNTP328FD	SNTC328FD	242.00
32	200	W50	NTP332F	NTC332F	237.00	SNTP332FD	SNTC332FD	257.00
36	200	W56	NTP336F	NTC336F	252.00	SNTP336FD	SNTC336FD	273.00
40	200	W59	NTP340F	NTC340F	268.00	SNTP340FD	SNTC340FD	289.00

Single Fusing—3-Phase, 4-Wire, Solid Neutral

MAINS. 3-Phase, 4-Wire, 120-208 Volts, Solid Neutral.
BRANCHES. 2-Wire, 125-Volt, 30-Ampere Single Pole Toggle Switch and Fuse.

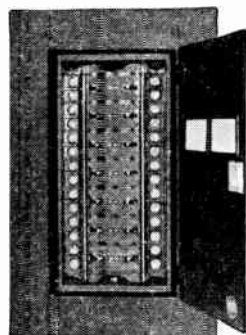
Mains: Lugs Only, Solid Neutral

4	30	W14	NTP404L	NTC404L	\$69.00	SNTP404LD	SNTC404LD	\$90.00
8	60	W17	NTP408L	NTC408L	84.00	SNTP408LD	SNTC408LD	105.00
12	60	W20	NTP412L	NTC412L	100.00	SNTP412LD	SNTC412LD	121.00
16	60	W23	NTP416L	NTC416L	116.00	SNTP416LD	SNTC416LD	136.00
20	60	W26	NTP420L	NTC420L	131.00	SNTP420LD	SNTC420LD	152.00
24	60	W29	NTP424L	NTC424L	147.00	SNTP424LD	SNTC424LD	168.00
28	100	W32	NTP428L	NTC428L	162.00	SNTP428LD	SNTC428LD	183.00
32	200	W35	NTP432L	NTC432L	178.00	SNTP432LD	SNTC432LD	199.00
36	200	W41	NTP436L	NTC436L	194.00	SNTP436LD	SNTC436LD	214.00
40	200	W44	NTP440L	NTC440L	209.00	SNTP440LD	SNTC440LD	230.00

Mains: SAFtoFUSE, Solid Neutral

4	30	W23	NTP404F	NTC404F	\$91.00	SNTP404FD	SNTC404FD	\$112.00
8	60	W26	NTP408F	NTC408F	107.00	SNTP408FD	SNTC408FD	127.00
12	60	W29	NTP412F	NTC412F	122.00	SNTP412FD	SNTC412FD	143.00
16	60	W32	NTP416F	NTC416F	138.00	SNTP416FD	SNTC416FD	159.00
20	60	W35	NTP420F	NTC420F	174.00	SNTP420FD	SNTC420FD	195.00
24	60	W38	NTP424F	NTC424F	190.00	SNTP424FD	SNTC424FD	211.00
28	100	W41	NTP428F	NTC428F	205.00	SNTP428FD	SNTC428FD	226.00
32	200	W44	NTP432F	NTC432F	274.00	SNTP432FD	SNTC432FD	295.00
36	200	W50	NTP436F	NTC436F	290.00	SNTP436FD	SNTC436FD	311.00
40	200	W53	NTP440F	NTC440F	305.00	SNTP440FD	SNTC440FD	326.00

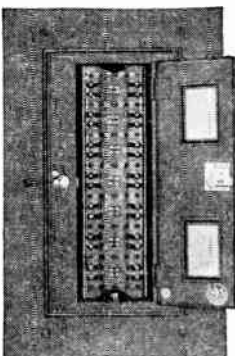
*For Modified Superba Type with door-in-door front (shown at lower left) add suffix letter "D" and use the price of the corresponding Standard Superba Type Panel.



Modified Superba, with Single Door Front



Standard Superba, with Doors over Fuses—Single Door Front



Modified Superba, with Door-in-Door Front

Bull Dog Superba Lighting Panelboards

CABINET. Box, Code Gage Galvanized Steel—20 Inches Wide, 5½ Inches Deep, 4-Inch Gutters.
 Height in Inches Is Indicated by Numerals in Box Numbers.
 Front, Code Thickness Steel, Black Finish—Flush Spring Locks.

Modified Type. Has the improved features of the Superba design, but is furnished without separate doors over fuses.

Standard Type. Equipped with separate doors over the fuses of each branch circuit, interlocked with the toggle switches for safety.

Numbers and prices include complete panel (less fuses) and cabinet.

Flush fronts will be furnished unless surface type is specified on order.

Double Fusing—2/2 Wire

MAINS. 2-Wire 125/250 Volts.

BRANCHES. 2-Wire, 30-Ampere Double Pole Toggle Switch and Fuse.

Plug Fuse Type, 125 Volts; Cartridge Fuse Type, 250 Volts.

Mains: Lugs Only

No. of Circuits	Main Amp.	Box No.	*Modified Superba Type One Door Construction			Standard Superba Type Individual Doors over Fuses		
			Plug Fuse No.	Cartridge Fuse No.	Each	Plug Fuse No.	Cartridge Fuse No.	Each
4	60	W17	TP204L	TC204L	\$73.00	STP204LD	STC204LD	\$94.00
6	100	W20	TP206L	TC206L	86.00	STP206LD	STC206LD	107.00
8	100	W23	TP208L	TC208L	99.00	STP208LD	STC208LD	120.00
10	100	W26	TP210L	TC210L	112.00	STP210LD	STC210LD	133.00
12	200	W29	TP212L	TC212L	125.00	STP212LD	STC212LD	146.00
14	200	W32	TP214L	TC214L	138.00	STP214LD	STC214LD	159.00
16	200	W35	TP216L	TC216L	151.00	STP216LD	STC216LD	172.00
18	200	W38	TP218L	TC218L	164.00	STP218LD	STC218LD	185.00
20	200	W41	TP220L	TC220L	177.00	STP220LD	STC220LD	198.00

Mains: SAFtoFUSE

4	60	W26	TP204F	TC204F	\$95.00	STP204FD	STC204FD	\$116.00
6	100	W29	TP206F	TC206F	129.00	STP206FD	STC206FD	149.00
8	100	W32	TP208F	TC208F	142.00	STP208FD	STC208FD	162.00
10	100	W35	TP210F	TC210F	155.00	STP210FD	STC210FD	175.00
12	200	W44	TP212F	TC212F	221.00	STP212FD	STC212FD	242.00
14	200	W47	TP214F	TC214F	234.00	STP214FD	STC214FD	255.00
16	200	W50	TP216F	TC216F	247.00	STP216FD	STC216FD	268.00
18	200	W53	TP218F	TC218F	260.00	STP218FD	STC218FD	281.00
20	200	W56	TP220F	TC220F	273.00	STP220FD	STC220FD	294.00

Double Fusing—3/2 Wire

MAINS. 3-Wire, 125/250 Volts.

BRANCHES. 2-Wire, 125-Volt, 30-Ampere Double Pole Toggle Switch and Fuse.

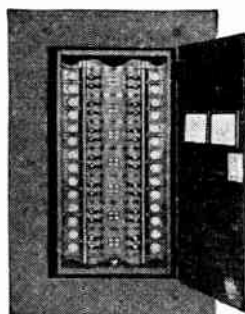
Mains: Lugs Only

No. of Circuits	Main Amp.	Box No.	*Modified Superba Type One Door Construction			Standard Superba Type Individual Doors over Fuses		
			Plug Fuse No.	Cartridge Fuse No.	Each	Plug Fuse No.	Cartridge Fuse No.	Each
4	30	W17	TP304L	TC304L	\$79.00	STP304LD	STC304LD	\$100.00
6	60	W20	TP306L	TC306L	92.00	STP306LD	STC306LD	113.00
8	60	W23	TP308L	TC308L	105.00	STP308LD	STC308LD	126.00
10	60	W26	TP310L	TC310L	118.00	STP310LD	STC310LD	139.00
12	60	W29	TP312L	TC312L	131.00	STP312LD	STC312LD	152.00
14	100	W32	TP314L	TC314L	144.00	STP314LD	STC314LD	165.00
16	100	W35	TP316L	TC316L	157.00	STP316LD	STC316LD	178.00
18	100	W38	TP318L	TC318L	170.00	STP318LD	STC318LD	191.00
20	100	W41	TP320L	TC320L	183.00	STP320LD	STC320LD	204.00

Mains: SAFtoFUSE, Solid Neutral

4	30	W26	TP304F	TC304F	\$94.00	STP304FD	STC304FD	\$114.00
6	60	W29	TP306F	TC306F	107.00	STP306FD	STC306FD	127.00
8	60	W32	TP308F	TC308F	120.00	STP308FD	STC308FD	140.00
10	60	W35	TP310F	TC310F	133.00	STP310FD	STC310FD	153.00
12	60	W38	TP312F	TC312F	146.00	STP312FD	STC312FD	166.00
14	100	W41	TP314F	TC314F	173.00	STP314FD	STC314FD	194.00
16	100	W44	TP316F	TC316F	186.00	STP316FD	STC316FD	207.00
18	100	W47	TP318F	TC318F	199.00	STP318FD	STC318FD	220.00
20	100	W50	TP320F	TC320F	212.00	STP320FD	STC320FD	233.00

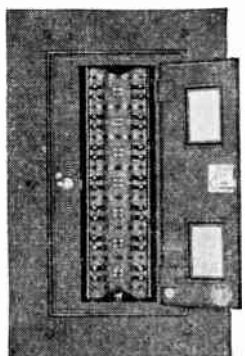
*For Modified Superba Type with door-in-door front (shown at lower left) add suffix letter "D" and use the price of the corresponding Standard Superba Type Panel.



Modified Superba, with Single Door Front



Standard Superba, with Doors over Fuses—Single Door Front



Modified Superba, with Door-in-Door Front

Bull Dog Circuit Master Panelboards
Narrow Column Type
For A.C. Only

Standard Panel Sizes

Circuit Master column type panels consist of three standard sizes—a maximum 16 circuit size (4 to 16 circuits inclusive), a maximum 24 circuit size (18 to 24 circuits inclusive), and a maximum 32 circuit size (26 to 32 circuits inclusive).

When less than the maximum number of circuits is specified, the unused circuit space is covered with filler plates.

Wireway extension, auxiliary extension, and pull box are optional with this line, as conduits can be run direct to panel if desired.

Determining Wireway Heights

1. Use height from floor to top of panelboard (A + B) as base.
2. Add height of standard wireway extension (66 inches) when ceiling or truss height does not exceed 12 feet.
3. When ceiling or truss height is 14 feet, add 24-inch auxiliary extension (D) to standard 66-inch extension.
4. When ceiling or truss height is 16 feet, add 48-inch auxiliary extension (D) to standard 66-inch extension.
5. When ceiling or truss height falls between 12 feet and 14 feet or 14 feet and 16 feet, the installer merely cuts from a 24-inch or 48-inch (D) auxiliary extension (sleeve end only) the surplus not required.

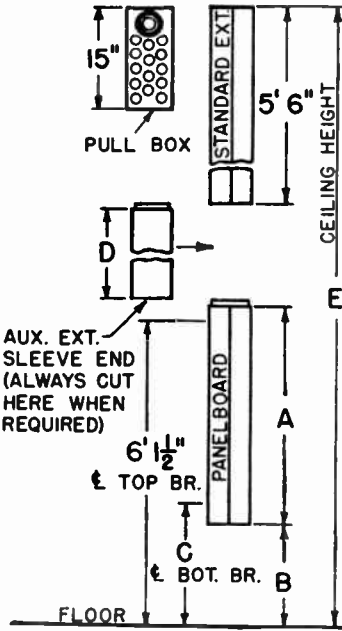


Table 1

CIRCUITS	A	B	C	D	E
16	2' 4" 6"	4' 9" 1/2"	2'	12'	
24	2' 8"	3' 10"	4' 1" 1/2"	AND	14'
32	3' 4"	3' 2"	3' 5" 1/2"	4'	16'

Standard Extensions

Panelboards are usually combined with wireway extensions and pull boxes designed to extend up columns.

Such combinations permit free wiring space in the panel, obviate the use of conduits, and lend a streamlined appearance to the finished job.

Standard extensions are 66 inches in length.

One end of the extension is provided with a sleeve that fits snugly over a collar provided at the panelboard top. The opposite end of the extension is closed.

A large rectangular hole near the top of the extension matches with a similar hole cut in the back of the pull box to complete the wireway.

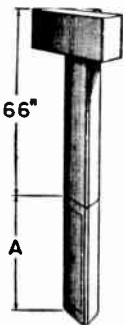


Fig. 1

Auxiliary Extensions

Auxiliary extensions are short pieces designed to fit between the panelboard (A) and the standard 66-inch extensions where required.

They are available in 24-inch and 48-inch sizes (D).

Each is provided with a sleeve on one end and a collar on the other.

The 24-inch and 48-inch sizes will permit extensions to 14-foot or 16-foot ceiling or truss heights.

For intermediate heights between 12 feet and 14 feet, and 14 feet and 16 feet, the sleeve end only of the auxiliary extensions may be cut down by the customer to the required size.

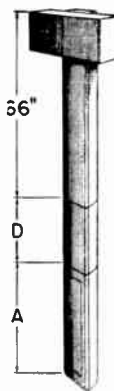


Fig. 2

Panelboards Only

In the very few instances where extensions and pull boxes are not required, the panelboard includes 16 inches extra space for housing of the neutral strap.

The 16-inches is merely a dimension factor and not a price factor because the price of the panelboard, as listed under its number, includes a neutral located in the 16-inch space or in the pull box.

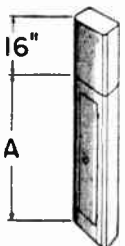


Fig. 3

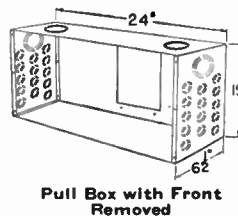
Pull Boxes

Dimensions are standard (other sizes made to order). Boxes can be furnished with or without conduit knockouts.

Box steel, 14 gage, is used.

The front and ends are flanged and removable, and the ends are interchangeable and reversible for knockout convenience.

The finish is black lacquer.



Continued

Bull Dog Circuit Master Panelboards

Narrow Column Type

For A.C. Only

Concluded

Mains: 3 Wire, 115-230 Volts, Solid Neutral.
3 Phase 4 Wire, 120-208 Volts, Solid Neutral

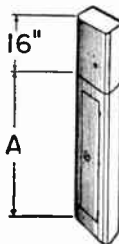
Branches: 2 Wire, 15 Amperes, 115 Volts, Single Pole, Solid Neutral

Cabinets are code gage steel, surface type with hinged fronts. Dimensions: 8½ inches wide, by 6 inches deep (O.D.). Height in inches is indicated by numerals in box numbers shown in Table 1A.

The boxes (back section of cabinet) are shipped with main wire grips and branch circuit wiring retainers in place, so that wires can be pulled through ready for connection to panel assembly (interior) later.

Neutral is located in pull box, but where no pull box is ordered, neutral is mounted in panel (Fig. 1A, Table 1A). No deduction from panel price, or no addition to pull box price, is made for furnishing neutral in pull box instead of in panel.

Table 1A—Panel and Cabinet Complete with Neutral in 16-Inch End Section

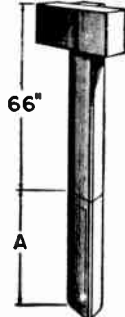


No. Circuits	Single Phase 3 Wire					3 Phase 4 Wire					Approx.	
	Mains Amp.	No.	Each	Box No.	Neutral End Sect. Ht., 16 In.	Mains Amp.	No.	Each	Box No.	Neutral End Sect. Ht., 16 In.	Front No.	Wt., Lb.
6	50	NCRB06-3L	\$82.00	CB24	CNE16	50	NCRB06-4L	\$88.00	CB241	CNE16	CC24	50
8	50	NCRB08-3L	94.00	CB24	CNE16	50	NCRB08-4L	100.00	CB241	CNE16	CC24	53
10	50	NCRB10-3L	105.00	CB24	CNE16	50	NCRB10-4L	112.00	CB241	CNE16	CC24	54
12	100	NCRB12-3L	117.00	CB24	CNE16	50	NCRB12-4L	123.00	CB241	CNE16	CC24	55
14	100	NCRB14-3L	129.00	CB24	CNE16	50	NCRB14-4L	135.00	CB241	CNE16	CC24	56
16	100	NCRB16-3L	140.00	CB24	CNE16	100	NCRB16-4L	147.00	CB241	CNE16	CC24	57
18	100	NCRB18-3L	152.00	CB32	CNE32	100	NCRB18-4L	159.00	CB321	CNE32	CC32	60
20	100	NCRB20-3L	164.00	CB32	CNE32	100	NCRB20-4L	170.00	CB321	CNE32	CC32	61
22	200	NCRB22-3L	175.00	CB322	CNE322	100	NCRB22-4L	182.00	CB321	CNE32	CC32	62
24	200	NCRB24-3L	187.00	CB322	CNE322	100	NCRB24-4L	194.00	CB321	CNE32	CC32	63
26	200	NCRB26-3L	199.00	CB402	CNE322	100	NCRB26-4L	205.00	CB401	CNE32	CC40	67
28	200	NCRB28-3L	211.00	CB402	CNE322	100	NCRB28-4L	217.00	CB401	CNE32	CC40	68
30	200	NCRB30-3L	222.00	CB402	CNE322	100	NCRB30-4L	229.00	CB401	CNE32	CC40	69
32	200	NCRB32-3L	234.00	CB402	CNE322	200	NCRB32-4L	240.00	CB4012	CNE322	CC40	70

Table 2A—Panel and Cabinet with 66-Inch Extension (No. NCX66) and Pull Box

With Neutral Bar (No. NCB1524 or NCB1524-1)

In This Assembly the 16-Inch Neutral End Section (Fig. 1A) is Omitted



No. Circuits	Single Phase 3 Wire			3 Phase 4 Wire			Total Height Inches	Approx. Weight Pounds
	Mains Amp.	No.	Each	Mains Amp.	No.	Each		
6	50	NCRB06-3LXB	\$130.00	50	NCRB06-4LXB	\$136.00	90	100
8	50	NCRB08-3LXB	142.00	50	NCRB08-4LXB	148.00	90	103
10	50	NCRB10-3LXB	153.00	50	NCRB10-4LXB	160.00	90	104
12	100	NCRB12-3LXB	165.00	50	NCRB12-4LXB	171.00	90	105
14	100	NCRB14-3LXB	177.00	50	NCRB14-4LXB	183.00	90	106
16	100	NCRB16-3LXB	188.00	100	NCRB16-4LXB	195.00	90	107
18	100	NCRB18-3LXB	200.00	100	NCRB18-4LXB	207.00	98	110
20	100	NCRB20-3LXB	212.00	100	NCRB20-4LXB	218.00	98	111
22	200	NCRB22-3LXB	223.00	100	NCRB22-4LXB	230.00	98	112
24	200	NCRB24-3LXB	235.00	100	NCRB24-4LXB	242.00	98	113
26	200	NCRB26-3LXB	247.00	100	NCRB26-4LXB	253.00	106	117
28	200	NCRB28-3LXB	259.00	100	NCRB28-4LXB	265.00	106	118
30	200	NCRB30-3LXB	270.00	100	NCRB30-4LXB	277.00	106	119
32	200	NCRB32-3LXB	282.00	200	NCRB32-4LXB	288.00	106	120

Wireway Extensions

No. NCX24 24-Inch Plain Extension (Fig. 2. Dimension D); Weight, 18 Pounds each \$22.00

No. NCX48 48-Inch Plain Extension (Fig. 2. Dimension D); Weight, 26 Pounds each 24.00

These plain extensions are used where ceiling height exceeds 12 feet. Add to prices of Table 2A.

No. NCX66 66-Inch Upper Extension with Opening for Pull Box; as Provided with and Included in Price of NCRB-LXB Assemblies Listed in Table 2A Above—For Ceiling Heights not Exceeding 12 Feet; Weight, 35 Pounds.....each \$29.00

Pull Box

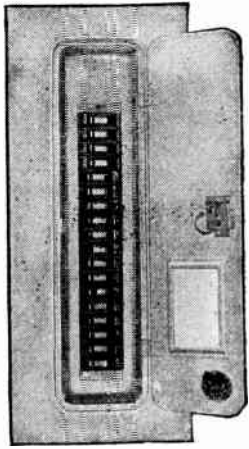
Dimensions: 15 inches high by 24 inches wide by 6½ inches deep.

Knockouts: Top—2 concentric knockouts for 2, 2½, and 3-inch conduit. Ends—1 concentric knockout for 2, 2½, and 3-inch conduit and 14 for ½, ¾, and 1-inch conduit. Front and Bottom—plain; no knockouts. Back—12x6-inch opening.

The pull box, including neutral bar, is supplied as provided with and included in price of NCRB-LXB assemblies listed in Table 2A above.

No. NCB1524 Pull Box—With 100 Ampere Neutral; Weight, 10 Pounds.....each \$19.00

No. NCB1524-1 Pull Box—With 200 Ampere Neutral; Weight, 10 Pounds.....each 19.00



Bull Dog Circuit Master Panelboards

For A.C. Only
Single Row Type

Listed by Underwriters' Laboratories

Mains: 3 Wire, 115-230 Volts, Solid Neutral

3 Phase 4 Wire, 120-208 Volts, Solid Neutral

Branches: 2 Wire, *15 Amperes, 115 Volts, Single Pole, Solid Neutral

CM Boxes are 10½ inches wide by 4¼ inches deep (I.D.) with 3-inch wiring gutters. X Boxes are 15½ by 4½ inches (I.D.), 4-inch wiring gutters. Height in inches is indicated by numerals in box number.

Fronts are of code thickness steel, black finish, with flush spring locks. Flush fronts are furnished unless surface type is ordered.

Numbers and prices include complete panel and cabinet.

Mains: Solderless Wire Grips

1 Phase 3 Wire Solid Neutral				3 Phase 4 Wire Solid Neutral				
No. Cir-cuits	Mains Amp.	No.	Each	Lox No.	Mains Amp.	No.	Each	Box No.
4	50	NR1B04-3L	\$65.00	CM15	50	NR1B06-4L	\$81.00	CM15
6	50	NR1B06-3L	74.00	CM15	50	NR1B08-4L	90.00	CM15
8	50	NR1B08-3L	83.00	CM15	50	NR1B10-4L	99.00	CM20
10	50	NR1B10-3L	92.00	CM20	50	NR1B12-4L	108.00	CM20
12	100	NR1B12-3L	101.00	CM20	50	NR1B14-4L	117.00	CM24
14	100	NR1B14-3L	110.00	CM24	100	NR1B16-4L	126.00	CM24
16	100	NR1B16-3L	120.00	CM24	100	NR1B18-4L	135.00	CM28
18	100	NR1B18-3L	129.00	CM28	100	NR1B20-4L	143.00	CM34
20	100	NR1B20-3L	138.00	CM34	100	NR1B22-4L	153.00	CM34
22	200	NR1B22-3L	147.00	X38	100	NR1B24-4L	162.00	CM34
24	200	NR1B24-3L	156.00	X38	100	NR1B26-4L	172.00	CM40
26	200	NR1B26-3L	165.00	X44	100	NR1B28-4L	181.00	CM40
28	200	NR1B28-3L	174.00	X44	100	NR1B30-4L	190.00	CM44
30	200	NR1B30-3L	183.00	X44	200	NR1B32-4L	199.00	X44
32	200	NR1B32-3L	192.00	X44				

Additions for Increased Mains. amp. 50-100
2 Ungrounded Poles..... \$13.00
3 Ungrounded Poles..... 13.00

When space only for future circuits is required, figure on basis of total number of circuits and deduct \$1.50 for each breaker pole omitted.

For panels having combination of 1 and 2 pole branches all fed from same bus and under one door, determine total number of poles in branches. Use price of a listed panel having equivalent number of 1 pole breakers and add \$1.50 for each 2 pole branch. All 2 pole branch breakers have separate trip.

Type NR1B panels may contain only a certain proportion of 2 pole circuits, as indicated below.

Total Cir-cuits	COMB. 1 Pole		COMB. 2 Pole		COMB. 3 Pole		COMB. 4 Pole		COMB. 5 Pole					
	Cir-cuits	Poles	Cir-cuits	Poles	Cir-cuits	Poles	Cir-cuits	Poles	Cir-cuits	Poles				
4	1	2	10	3	4	16	5	6	22	6	10	28	8	12
6	2	2	12	4	4	18	5	8	24	7	10	30	8	14
8	3	2	14	4	6	20	6	8	26	7	12	32	9	14

Box Knockouts—Conduit Sizes

Data subject to change if new standards are adopted.

Box No.	Both Ends of Box		Both Sides of Box		Back of Box (Top and Bottom)	
	One	One-1/2	One-1/2	One-1/2	One-1/2	One-1/2
CM15	Ten—1/2-3/4	One—1/2-3/4-1-1/4	Four—1/2-3/4	One—1/2-3/4-1-1/4	One—1/2-3/4-1-1/4	
CM20	Ten—1/2-3/4	One—1/2-3/4-1-1/4	Six—1/2-3/4	One—1/2-3/4-1-1/4	One—1/2-3/4-1-1/4	
CM24	Ten—1/2-3/4	One—1/2-3/4-1-1/4	Eight—1/2-3/4	One—1/2-3/4-1-1/4	One—1/2-3/4-1-1/4	
CM28	Ten—1/2-3/4	One—1/2-3/4-1-1/4	Eight—1/2-3/4			
CM34	Six—1/2					
CM40	Four—3/4		Eight—3/4			
CM44	One—1/2		Eight—1/2			

*20, 25, 35, or 50 Ampere single pole breakers can be supplied at same price except where additions must be made when increased mains are necessary.

Bull Dog Circuit Master Panelboards

For A.C. Only
Two Row Type

Listed by Underwriters' Laboratories

Mains: 3 Wire, 115-230 Volts, Solid Neutral
3 Phase 4 Wire, 120-208 Volts, Solid Neutral

Branches: 2 Wire, *15 Amperes, 115 Volts, Single Pole Solid Neutral

Boxes are code gage galvanized steel, with standard W Box knockouts; size, 20 inches wide x 5½ inches deep (I.D.), equipped with 4-inch wiring gutters. Height in inches is indicated by numerals in box numbers.

Fronts are of code thickness steel, black finish, with flush spring locks. Flush fronts are furnished unless surface type is ordered.

Numbers and prices include complete panel and cabinet.

Mains: Solderless Wire Grips

1 Phase 3 Wire Solid Neutral				3 Phase 4 Wire Solid Neutral						
No. Cir-cuits	Mains Amp.	No.	Each	Box No.	Mains Amp.	No.	Each	Box No.	Wt. Lb.	
4	50	NRB04-3L	\$70.00	W14	32	50	NRB06-4L	\$88.00	W17	39
6	50	NRB06-3L	82.00	W17	39	50	NRB08-4L	100.00	W17	40
8	50	NRB08-3L	94.00	W17	40	50	NRB10-4L	112.00	W17	41
10	50	NRB10-3L	105.00	W17	41	50	NRB12-4L	123.00	W20	48
12	100	NRB12-3L	117.00	W20	48	50	NRB14-4L	135.00	W20	49
14	100	NRB14-3L	129.00	W20	49	50	NRB16-4L	147.00	W20	50
16	100	NRB16-3L	140.00	W20	50	100	NRB18-4L	159.00	W23	56
18	100	NRB18-3L	152.00	W23	56	100	NRB20-4L	170.00	W23	57
20	100	NRB20-3L	164.00	W23	57	100	NRB22-4L	182.00	W23	58
22	200	NRB22-3L	175.00	W23	58	100	NRB24-4L	194.00	W26	66
24	200	NRB24-3L	187.00	W26	66	100	NRB26-4L	205.00	W26	67
26	200	NRB26-3L	199.00	W26	67	100	NRB28-4L	217.00	W26	68
28	200	NRB28-3L	211.00	W26	68	100	NRB30-4L	229.00	W29	75
30	200	NRB30-3L	222.00	W29	75	100	NRB32-4L	240.00	W29	76
32	200	NRB32-3L	234.00	W29	76	200	NRB34-4L	252.00	W32	82
34	200	NRB34-3L	246.00	W32	82	200	NRB36-4L	264.00	W32	83
36	200	NRB36-3L	257.00	W32	83	200	NRB38-4L	276.00	W35	90
38	200	NRB38-3L	269.00	W35	90	200	NRB40-4L	287.00	W35	91
40	200	NRB40-3L	281.00	W35	91	200	NRB42-4L	299.00	W35	92
42	200	NRB42-3L	292.00	W35	92					

Mains: Automatic Circuit Breaker

4	50	NRB04-3AB	\$84.00	W26	54	50	NRB06-4AB	110.00	W29	60
6	50	NRB06-3AB	96.00	W29	59	50	NRB08-4AB	122.00	W29	61
8	50	NRB08-3AB	108.00	W29	60	50	NRB10-4AB	134.00	W29	62
10	50	NRB10-3AB	120.00	W29	61	50	NRB12-4AB	146.00	W32	68
12	100	NRB12-3AB	157.00	W32	73	50	NRB14-4AB	157.00	W32	69
14	100	NRB14-3AB	169.00	W32	74	50	NRB16-4AB	170.00	W32	75
16	100	NRB16-3AB	181.00	W32	75	100	NRB18-4AB	199.00	W32	75
18	100	NRB18-3AB	192.00	W35	82	100	NRB20-4AB	211.00	W35	85
20	100	NRB20-3AB	204.00	W35	83	100	NRB22-4AB	222.00	W35	86
22	200	NRB22-3AB	317.00	W41	104	100	NRB24-4AB	234.00	W35	87
24	200	NRB24-3AB	329.00	W44	110	100	NRB26-4AB	246.00	W38	94
26	200	NRB26-3AB	341.00	W44	112	100	NRB28-4AB	257.00	W38	95
28	200	NRB28-3AB	352.00	W44	113	100	NRB30-4AB	269.00	W38	96
30	200	NRB30-3AB	364.00	W47	122	100	NRB32-4AB	281.00	W41	112
32	200	NRB32-3AB	376.00	W47	130	200	NRB34-4AB	415.00	W47	130
34	200	NRB34-3AB	387.00	W50	142	200	NRB36-4AB	426.00	W50	134
36	200	NRB36-3AB	399.00	W50	143	200	NRB38-4AB	438.00	W50	135
38	200	NRB38-3AB	411.00	W53	151	200	NRB40-4AB	450.00	W53	145
40	200	NRB40-3AB	422.00	W53	152	200	NRB42-4AB	461.00	W53	148
42	200	NRB42-3AB	434.00	W53	153	200		473.00	W53	150

Additions for Increased Mains. amp. 50-100 50-200 100-200

2 Ungrounded Poles—Lugs Only..... \$13.00 \$13.00 \$13.00
2 Pole Breaker..... 32.00 125.00 108.00
Add to Box Height..... inches 6 6
3 Ungrounded Poles—Lugs Only..... \$13.00 \$13.00 \$13.00
2 Pole Breaker..... 36.00 159.00 129.00
Add to Box Height..... inches 6 6

When space only for future circuits is required, figure on basis of total number of circuits and deduct \$1.00 for each breaker pole omitted.

For panels having combination of 1 and 2 pole branches all fed from same bus and under one door, determine total number of poles in branches. Use price of a listed panel having the equivalent number of 1 pole breakers and add \$1.00 for each 2 pole branch. All 2 pole branch breakers have separate trip. Main breakers (2 and 3 pole) have common trip.

FA Service Equipment

Pulfuzsw Type

BASES. Made of Sections of Moulded Material Assembled Directly into the Box for Surface Mounting; and Assembled onto a Mounting Back for Flush Mounting to Allow for Adjustments.

MAINS. Pulfuzsw Units, 30, 60 and 100-Ampere 2-Pole with Bonded Solid Neutral for Single Phase 120/240-Volt 3-Wire Service. Three-Pole with Solid Neutral for 120/208 4-Wire 3-Phase Service.

BOX. Code Thickness Galvanized Steel.

FRONT. Code Thickness Furniture Steel, Rust-Proof, and Pearl Gray Finish. Ring catch on Door.



No. SEPF332NF

Pulfuzswitch Units Only—With Solid Neutral

Service Switch Capacity Amperes	No. of Poles	INSIDE BOX DIMENSIONS INCHES			Standard Package	Approx. Wt., Lb. Std. Pkg.	Flush Mounting		Surface Mounting	
		Width	Height	Depth			No.	Each	No.	Each
30	2	4½	7	3	6	30	SEPF332NF	\$9.00	SEPF332NS	\$8.00
30	3	7½	8	3	6	45	SEPF333NF	12.00	SEPF333NS	11.00
60	2	7½	9	3½	6	50	SEPF632NF	11.00	SEPF632NS	10.00
60	3	7½	12	3½	4	45	SEPF633NF	14.00	SEPF633NS	13.00
100	2	9½	16½	4¾	2	40	SEPF1032NF	32.00	SEPF1032NS	31.00
100	3	12	16½	4¾	2	50	SEPF1033NF	44.00	SEPF1033NS	43.00



No. SEPF632NR

Raintite Units

Service Switch Capacity Amperes	No. of Poles	Width	Height	Depth	Std. Pkg.	Approx. Wt., Lb. Std. Pkg.	Flush Mounting No.	Each	Surface Mounting No.	Each
30	2	4½	7	3	7	50	.....	.....	SEPF332NR	\$13.50
30	3	4½	7	3	7	50	.....	.....	SEPF333NR	15.00
60	2	5	10	3½	7	56	.....	.....	SEPF632NR	13.50
60	3	6½	10	3½	7	56	.....	.....	SEPF633NR	16.50
100	2	7½	18	4¾	5	60	.....	.....	SEPF1032NR	39.50
100	3	10	18	4¾	5	60	.....	.....	SEPF1033NR	48.50

*Raintite units furnished standard with 1¼-inch hub in top only. For 1½-inch hub add \$1.50 to price.

Sequence: Meter—Switch—Fuse

Pulfuzsw Type

BASES. Made of Sections of Moulded Material Assembled on a Mounting Back.

MAINS. Pulfuzswitch Units, 60-Ampere 2-Pole 120/240-Volt, with Bonded Solid Neutral. Series and Parallel Connection for Main Feeder.

EXTENDED FEEDER. Two-Pole Pressure Connectors on Bus Bar Between Main Switch and Branch Sections, with Solid Neutral Connection.

BRANCHES. Single Pole Plug Fuse Connections for 15 (or 20) Amperes 120-Volt 2-Wire Solid Neutral Branches.

BOX. Code Thickness Galvanized Steel.

FRONT. Code Thickness Furniture Steel, Rust-Proof and Pearl Gray Finish. Flush or Surface Mounting. Ring Catch on Door.



No. SEPF63-4F

Main Connection 30 and 60-Ampere Pulfuzsw for Plug Fuse Branches and Extended Feeder Connection

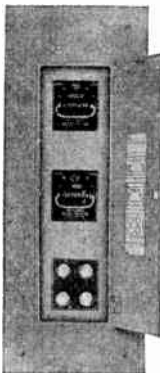
Service Switch Capacity Amperes	Extended Feeder	No. OF BRANCHES 15 Amp. 60 Amp.	INSIDE BOX DIMENSIONS, INCHES			Std. Pkg.	Wt., Lb. Std. Pkg.	Flush Mounting		Surface Mounting	
			Width	Height	Depth			No.	Each	No.	Each
60	1	4	7½	14	3½	4	65	SEPF63-4F	\$13.00	SEPF63-4S	\$12.00
60	1	6	7½	17	3½	4	70	SEPF63-6F	18.00	SEPF63-6S	17.00
60	1	8	7½	17	3½	3	55	SEPF63-8F	23.00	SEPF63-8S	22.00
60	1	10	7½	20	3½	4	45	SEPF63-10F	28.00	SEPF63-10S	27.00
60	1	12	7½	20	3½	2	50	SEPF63-12F	34.00	SEPF63-12S	33.00

Series Main Connection to 60-Ampere Pulfuzsw with Extended Feeder Connection and Plug Fuse Branches; and 1—60-Ampere 3-Wire, Branch for Range Subfeeder

60	1	4	1	7½	20	3½	3	60	SEPF63S-354F	\$17.00	SEPF63S-354S	\$16.00
60	1	6	1	7½	23	3½	2	50	SEPF63S-356F	20.00	SEPF63S-356S	19.00
60	1	8	1	7½	23	3½	2	50	SEPF63S-358F	25.00	SEPF63S-358S	24.00

100-Ampere Parallel Main Connection to 60-Ampere Pulfuzsw with Extended Feeder Connection to the Plug Fuse Branches; and 1—60-Ampere 3-Wire Branch for Range or Subfeeder

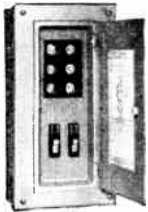
60	1	4	1	9	22	3½	3	56	SEPF63P-354F	\$18.00	SEPF63P-354S	\$17.00
60	1	6	1	9	24	3½	2	52	SEPF63P-356F	22.00	SEPF63P-356S	21.00
60	1	8	1	9	24	3½	2	52	SEPF63P-358F	26.00	SEPF63P-358S	25.00
60	1	10	1	9	26	3½	2	58	SEPF63P-3510F	32.00	SEPF63P-3510S	31.00



No. SEPF63P-354F

Type CBF FA Service Equipment

Sequence: Meter—Circuit Breaker



No. SE50B3-6S

BASES. Made of Sections of Moulded Material Assembled on a Mounting Back.

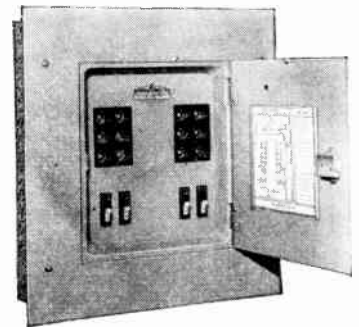
MAIN CONNECTIONS. For 2 or 3-Wire Single Phase with Bonded Solid Neutral Connector for Extended Feeder, and Branch Circuits.

MAIN CIRCUIT. Single Pole A.C. Type Circuit Breaker for Each Single Row of Plug Fuse Branches.

EXTENDED FEEDER CONNECTIONS. Pressure Connectors on Bus Bar, Between Main Circuit Breakers and Plug Fuse Sections.

LIGHTING BRANCHES. Single Pole Plug Fuse Branch Connections for 15 or 20-Ampere 120-Volt, 2-Wire Solid Neutral Circuits.

BOX. FRONT. Code Thickness Galvanized Steel. Code Thickness Furniture Steel with Dead Front. Bonderited and Pearl Gray Finish. Flush or Surface Mounting. Ring Catch on Door.



No. SE250B3-12F

Main Connection: 1—35-Ampere Single Pole Circuit Breaker

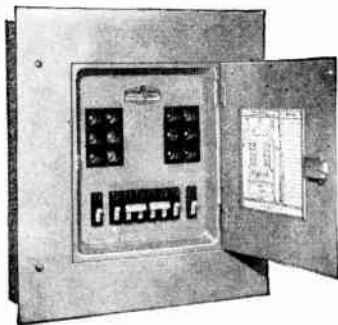
No. of 15 Amp. Branches	Main Circuit Breaker Amperes	Extended Feeder	INSIDE BOX DIMENSIONS, INCHES			Standard Package	Approx. Wt., Lb. Std. Pkg.	Flush Mounting		Surface Mounting	
			Width	Height	Depth			No.	Each	No.	Each
4	35	.	7½	14	3⅝	6	48	SE35B2-4F	\$12.00	SE35B2-4S	\$11.00

Main Connection: 2—50-Ampere Single Pole Circuit Breakers

4	50	1	7½	14	3⅝	4	44	SE50B3-4F	\$14.00	SE50B3-4S	\$13.00
6	50	1	7½	15½	3⅝	4	48	SE50B3-6F	16.00	SE50B3-6S	15.00
8	50	1	7½	17	3⅝	4	56	SE50B3-8F	20.00	SE50B3-8S	19.00
10	50	1	7½	20	3⅝	4	60	SE50B3-10F	22.00	SE50B3-10S	21.00

100-Ampere Main Connection in Parallel to Each 50-Ampere Single Pole Circuit Breaker Connecting Lighting Branches

8	50	1	19	21½	4¾	1	38	SE250B3-8F	\$50.00	SE250B3-8S	\$49.00
12	50	1	19	21½	4¾	1	40	SE250B3-12F	54.00	SE250B3-12S	53.00
16	50	1	19	24½	4¾	1	44	SE250B3-16F	58.00	SE250B3-16S	57.00
20	50	1	19	24½	4¾	1	48	SE250B3-20F	62.00	SE250B3-20S	61.00



No. SE250B3-235B12F

Sequence: Meter—Circuit Breaker

BASES. Made of Sections of Moulded Material Assembled on a Mounting Back.

MAIN CONNECTIONS. For 3-Wire Single Phase with Bonded Solid Neutral Connector for Line, Extended Feeder, Subfeeder and Branch Circuits.

EXTENDED FEEDER CONNECTIONS. Pressure Connectors on Bus Bar Between Main Circuit Breakers and Plug Fuse Sections.

SUBFEEDER CONNECTOR. 2 to 20 Branch Units, Furnished with a Pair of 35-Ampere Single Pole Type Circuit Breakers. When One or Two Subfeeder Connections are Furnished with 8 to 20 Branch Units, 35-Ampere 2-Pole Individual Trip Circuit Breakers with Red Trip Indicators are Furnished.

LIGHTING BRANCHES. Single Pole Plug Fuse Branch Connections for 15 or 20-Ampere, 120-Volt, 2-Wire Solid Neutral Circuits.

BOX. FRONT. Code Thickness Galvanized Steel. Code Thickness Furniture Steel with Dead Front. Bonderited and Pearl Gray Finish. Flush or Surface Mounting. Ring Catch on Door.

100-Ampere Main Connection in Parallel to Each 50-Ampere Single Pole Circuit Breaker Connected to the Lighting Branches, and 2 Single Pole A.C. Type Circuit Breakers for Subfeeder

No. of Branches	Main Circuit Breaker Amperes	Extended Feeder	INSIDE BOX DIMENSIONS, INCHES			Standard Package	Approx. Wt., Lb. Std. Pkg.	Flush Mounting		Surface Mounting		
			Width	Height	Depth			No.	Each	No.	Each	
4	1	50	1	9	18	3⅝	3	40	SE50B3-35B4F	\$24.00	SE50B3-35B4S	\$23.00
6	1	50	1	9	18	3⅝	3	45	SE50B3-35B6F	26.00	SE50B3-35B6S	25.00
8	1	50	1	9	20	3⅝	3	60	SE50B3-35B8F	28.00	SE50B3-35B8S	27.00
10	1	50	1	9	20	3⅝	2	44	SE50B3-35B10F	30.00	SE50B3-35B10S	29.00

100-Ampere Main Connection in Parallel to Each 50-Ampere Single Pole Circuit Breaker Connected to the Lighting Branches; and 1—35-Ampere 2-Pole Individual Trip Circuit Breaker for Subfeeder

8	1	50	1	19	21½	4¾	1	40	SE250B3-35B8F	\$58.00	SE250B3-35B8S	\$57.00
12	1	50	1	19	21½	4¾	1	40	SE250B3-35B12F	62.00	SE250B3-35B12S	61.00
16	1	50	1	19	24½	4¾	1	46	SE250B3-35B16F	66.00	SE250B3-35B16S	65.00
20	1	50	1	19	24½	4¾	1	50	SE250B3-35B20F	70.00	SE250B3-35B20S	69.00

100-Ampere Main Connection in Parallel to Each 50-Ampere Single Pole Circuit Breaker Connected to the Lighting Branches; and 2—35-Ampere 2-Pole Individual Trip Circuit Breaker for Subfeeders

8	2	50	1	19	21½	4¾	1	40	SE250B3-235B8F	\$66.00	SE250B3-235B8S	\$65.00
12	2	50	1	19	21½	4¾	1	40	SE250B3-235B12F	70.00	SE250B3-235B12S	69.00
16	2	50	1	19	24½	4¾	1	46	SE250B3-235B16F	74.00	SE250B3-235B16S	73.00
20	2	50	1	19	24½	4¾	1	50	SE250B3-235B20F	78.00	SE250B3-235B20S	77.00

FA Service Equipment MR Type—Main and Range Combination Sequence: Meter—Switch—Fuse



No. SEMR4-S60, Surface

Designed to meet modern requirements for homes having electric ranges, water heaters or other heavy capacity appliances. Small and compact, its specifications were dictated by Electrical Contractors and Wholesalers in conformity to the recommendations and requirements of Underwriters' Laboratories, Inc., and Utilities throughout the country.

Made in two capacities: In the 60-ampere main capacity Series type, the main Pulfuzswitch unit controls the four lighting branch circuits, sub-feed lugs, and the range unit.

In the 60 and 100-ampere main capacity Parallel type, the main Pulfuzswitch unit controls the lighting branch circuits and sub-feed lugs only; the range circuit is connected in parallel ahead of the main switch.

No.	60-Ampere Series Main Connection	Each	No.	60-Ampere Parallel Main Connections	Each
SEMR4-S60S (Surface)		\$12.00	SEMR4-P60S (Surface)		\$13.00
SEMR4-S60F (Flush)		13.00	SEMR4-P60F (Flush)		14.00
SEMR4-S60R (*Raintite)		19.50	SEMR4-P60R (*Raintite)		20.50
No.	100-Ampere Parallel Main Connection	Each			
SEMR4-P100S (Surface)		\$14.00			
SEMR4-P100F (Flush)		15.00			
SEMR4-P100R (*Raintite)		21.50			

*Raintite units are furnished standard with 1¼-inch hub in top only.
For 1½-inch hubs, add \$1.00 to prices.

FA Enclosed Cutouts and Panelboards For Residences and Small Installations One Fuse—Solid Neutral Safety Type

BASES. Made of Sections of Moulded Material.
MAIN CONNECTIONS. Lugs Only; 2-Wire 120-Volt and 3-Wire 120/240-Volt, with Insulated Solid Neutral Connection.
BRANCHES. Single Pole Plug Fuse Branches for 15-Ampere 120-Volt, 2-Wire Solid Neutral Circuits.
BOX. Code Thickness Galvanized Steel: 2 to 12 Branches 1½-Inch Gutters; 14 to 20 Branches 3-Inch Gutters Top and Bottom, 2½-Inch Gutters at Side.
FRONT. Code Thickness Furniture Steel, Rust-Proof, and Pearl Gray Finish. Flush and Surface Mounting. Ring Catch on Door.

Enclosed Cutouts 2-Wire Main Connection

No. of Branches	Main Bus Bar Amperes	INSIDE BOX DIMENSIONS, INCHES			Standard Package	Approx. Weight Pounds Standard Package	Flush Mounting No.	Surface Mounting No.	Each
		Width	Height	Depth					
2	30	4½	7	3	10	50	R2-2F	R2-2S	\$4.00
3	30	4½	7	3	10	50	R2-3F	R2-3S	4.50
2 or 3-Wire Main Connection									
4	30	4½	7	3	10	50	R23-4F	R23-4S	\$5.00
3-Wire Main Connection									
4	30	7½	8	3	10	50	R3-4F	R3-4S	\$6.00
6	42	7½	9½	3	6	48	R3-6F	R3-6S	8.00
8	60	7½	14	3	4	44	R3-8F	R3-8S	10.00
10	60	7½	15½	3	4	56	R3-10F	R3-10S	15.00
12	60	7½	17	3	4	68	R3-12F	R3-12S	20.00



No. R23-4F

Panelboards

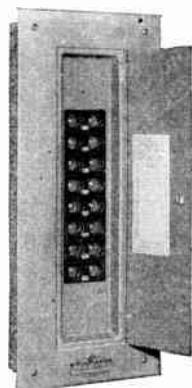
3-Wire Main Connection

No. of Branches	Main Bus Bar Amperes	INSIDE BOX DIMENSIONS, INCHES			Standard Package	Approx. Weight Pounds Standard Package	Flush Mounting No.	Surface Mounting No.	Each
		Width	Height	Depth					
14	100	9	22	3⅝	2	40	R3-14F	R3-14S	\$31.00
16	100	9	24	3⅝	2	46	R3-16F	R3-16S	33.00
18	100	9	26	3⅝	2	52	R3-18F	R3-18S	36.00
20	100	9	28	3⅝	2	58	R3-20F	R3-20S	38.00

NR3G Panelboards

Specifications as above except box has 3-inch gutters and door has catch lock.

4	60	12	13½	4	..	20	NR3G04F	NR3G04S	\$31.00
8	60	12	16½	4	..	25	NR3G08F	NR3G08S	36.00
12	60	12	19½	4	..	35	NR3G12F	NR3G12S	42.00
16	100	12	25½	4	..	45	NR3G16F	NR3G16S	47.00
20	100	12	28½	4	..	50	NR3G20F	NR3G20S	52.00

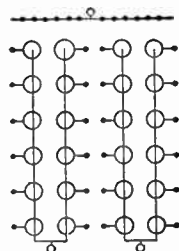


No. R3-16F

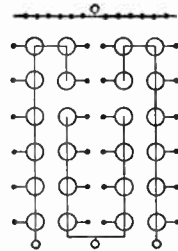
FA Safety Type Panelboards and Cabinets

Type N1P-3 and Type N1P-4—One Fuse

Type N1P-3

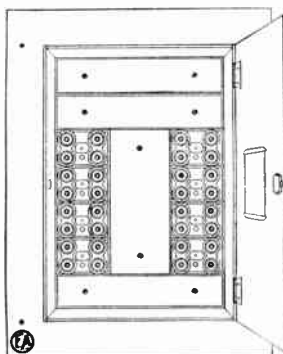


PANELBOARD. BRANCHES. Made of Sections of Moulded Material. 30 Amp., S.P., N.E.C. Plug Type Fuse Connections Only for 15 Amp., 125 V., 2-Wire, Solid Neutral Circuits.
MAINS. BOX. FRONT. Code Thickness Galvanized Steel, 4-Inch Gutters. Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.



Type N1P-4

PANELBOARD. BRANCHES. Made of Sections of Moulded Material. 30 Amp., S.P., N.E.C. Plug Type Fuse Connections Only for 15 Amp., 120 V., 2-Wire, Solid Neutral Circuits.
MAINS. BOX. FRONT. Code Thickness Galvanized Steel, 4-Inch Gutters. Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.



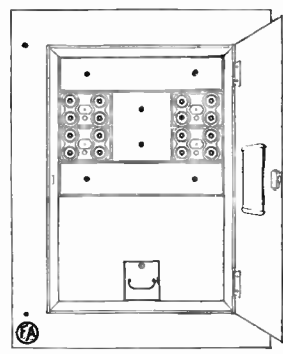
Type N1P-3L and Type N1P-4L

Type N1P-3 Main Cable Lugs Only—Solid Neutral

No. Branches	Main Bus Bar Amperes	INSIDE DIMENSIONS AND MARKING OF BOX			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
8	60	19	18 ¹ / ₂	4 ³ / ₄	65	N1P08-3L06	\$62.00
16	100	19	21 ¹ / ₂	4 ³ / ₄	85	N1P16-3L10	78.00
24	200	19	27 ¹ / ₂	4 ³ / ₄	105	N1P24-3L20	94.00
32	200	19	33 ¹ / ₂	4 ³ / ₄	115	N1P32-3L20	109.00
40	200	19	36 ¹ / ₂	4 ³ / ₄	165	N1P40-3L20	125.00

Type N1P-4 Main Cable Lugs Only—Solid Neutral

No. Branches	Main Bus Bar Amperes	INSIDE DIMENSIONS AND MARKING OF BOX			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
8	60	19	18 ¹ / ₂	4 ³ / ₄	75	N1P08-4L06	\$69.00
16	60	19	24 ¹ / ₂	4 ³ / ₄	105	N1P16-4L06	74.00
24	100	19	27 ¹ / ₂	4 ³ / ₄	115	N1P24-4L10	100.00
32	200	19	30 ¹ / ₂	4 ³ / ₄	135	N1P32-4L20	116.00
40	200	19	36 ¹ / ₂	4 ³ / ₄	165	N1P40-4L20	131.00



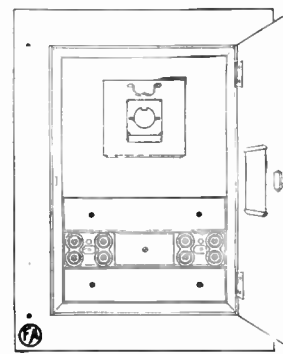
Type N1P-3PF and Type N1P-4PF

Type N1P-3 Pulfuzswitch Safety Type Main Disconnect—Solid Neutral

No. Branches	Main Bus Bar Amperes	INSIDE DIMENSIONS AND MARKING OF BOX			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
8	60	19	24 ¹ / ₂	4 ³ / ₄	90	N1P08-3PF06	\$72.00
16	60	19	33 ¹ / ₂	4 ³ / ₄	125	N1P16-3PF10	100.00

Type N1P-4 Pulfuzswitch Safety Type Main Disconnect—Solid Neutral

No. Branches	Main Bus Bar Amperes	INSIDE DIMENSIONS AND MARKING OF BOX			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
8	60	19	21 ¹ / ₂	4 ³ / ₄	90	N1P08-4PF06	\$83.00
16	60	19	27 ¹ / ₂	4 ³ / ₄	100	N1P16-4PF06	99.00
24	100	19	36 ¹ / ₂	4 ³ / ₄	125	N1P24-4PF06	133.00



Type N1P-3KSF and Type N1P-4KSF

Type N1P-4 Klampswfuz Safety Type Hinged Pull-Out Main Disconnect—Solid Neutral

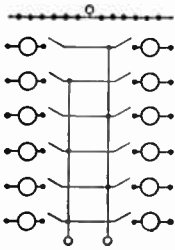
No. Branches	Main Bus Bar Amperes	INSIDE DIMENSIONS AND MARKING OF BOX			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
8	60	19	33 ¹ / ₂	4 ³ / ₄	115	N1P08-3KSF06	\$77.00
16	100	19	39 ¹ / ₂	4 ³ / ₄	155	N1P16-3KSF10	107.00
24	200	19	45 ¹ / ₂	7	205	N1P24-3KSF20	159.00
32	200	19	51 ¹ / ₂	7	215	N1P32-3KSF20	174.00
40	200	19	54 ¹ / ₂	7	225	N1P40-3KSF20	190.00

Type N1P-4 Klampswfuz Safety Type Hinged Pull-Out Main Disconnect—Solid Neutral

No. Branches	Main Bus Bar Amperes	INSIDE DIMENSIONS AND MARKING OF BOX			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
8	60	19	33 ¹ / ₂	4 ³ / ₄	115	N1P08-4KSF06	\$91.00
16	60	19	36 ¹ / ₂	4 ³ / ₄	140	N1P16-4KSF06	107.00
24	100	19	42 ¹ / ₂	4 ³ / ₄	165	N1P24-4KSF10	143.00
32	200	19	48 ¹ / ₂	7	215	N1P32-4KSF20	212.00
40	200	19	54 ¹ / ₂	7	225	N1P40-4KSF20	227.00

FA Safety Type Panelboards and Cabinets

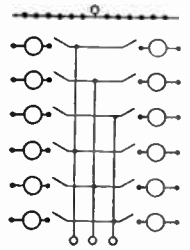
Type LNT1P-3 and Type LNT1P-4—Switch and One Fuse—One Door Construction



PANELBOARD. BRANCHES.
MAINS. BOX. FRONT.

PANELBOARD. BRANCHES.
MAINS. BOX. FRONT.

One Door Construction



One Door Construction

Type LNT1P-3

Made of Sections of Brown Bakelite.
 30 Amp., S.P. Tumbler Switches with N.E.C. Plug Type Fuse Connection for 15 Amp. 125 V., 2-Wire, Solid Neutral Circuits.
 3-Wire, 125-250 V., Solid Neutral.
 Code Thickness Galvanized Steel, 4-Inch Gutters.
 Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.

Type LNT1P-4

Made of Sections of Brown Bakelite.
 30 Amp., S.P. Tumbler Switches with N.E.C. Plug Type Fuse Connection for 15 Amp. 120 V., 2-Wire Solid Neutral Circuits.
 3-Phase, 4-Wire; 120-208 V., Solid Neutral.
 Code Thickness Galvanized Steel, 4-Inch Gutters.
 Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.

Type LNT1P-3 Main Cable Lugs Only—Solid Neutral

No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
4	30	19	18 $\frac{1}{2}$	4 $\frac{3}{4}$	37	LNT1P04-3L03	\$62.00
8	60	19	21 $\frac{1}{2}$	4 $\frac{3}{4}$	44	LNT1P08-3L06	78.00
12	60	19	24 $\frac{1}{2}$	4 $\frac{3}{4}$	51	LNT1P12-3L06	94.00
16	100	19	27 $\frac{1}{2}$	4 $\frac{3}{4}$	65	LNT1P16-3L10	109.00
20	100	19	30 $\frac{1}{2}$	4 $\frac{3}{4}$	72	LNT1P20-3L10	125.00
24	200	19	33 $\frac{1}{2}$	4 $\frac{3}{4}$	79	LNT1P24-3L20	140.00
28	200	19	39 $\frac{1}{2}$	4 $\frac{3}{4}$	94	LNT1P28-3L20	156.00
32	200	19	42 $\frac{1}{2}$	4 $\frac{3}{4}$	100	LNT1P32-3L20	172.00
36	200	19	45 $\frac{1}{2}$	4 $\frac{3}{4}$	170	LNT1P36-3L20	187.00
40	200	19	48 $\frac{1}{2}$	4 $\frac{3}{4}$	180	LNT1P40-3L20	203.00

Type LNT1P-4 Main Cable Lugs Only—Solid Neutral

8	60	19	21 $\frac{1}{2}$	4 $\frac{3}{4}$	50	LNT1P08-4L06	\$84.00
12	60	19	24 $\frac{1}{2}$	4 $\frac{3}{4}$	57	LNT1P12-4L06	100.00
16	60	19	27 $\frac{1}{2}$	4 $\frac{3}{4}$	65	LNT1P16-4L06	116.00
20	100	19	30 $\frac{1}{2}$	4 $\frac{3}{4}$	72	LNT1P20-4L10	131.00
24	100	19	33 $\frac{1}{2}$	4 $\frac{3}{4}$	79	LNT1P24-4L10	147.00
28	100	19	39 $\frac{1}{2}$	4 $\frac{3}{4}$	94	LNT1P28-4L10	162.00
32	200	19	45 $\frac{1}{2}$	4 $\frac{3}{4}$	100	LNT1P32-4L20	178.00
36	200	19	48 $\frac{1}{2}$	4 $\frac{3}{4}$	170	LNT1P36-4L20	194.00
40	200	19	51 $\frac{1}{2}$	4 $\frac{3}{4}$	180	LNT1P40-4L20	209.00

Type LNT1P-3 Pulfusswitch Safety Type Main Disconnect—Solid Neutral

4	30	19	21 $\frac{1}{2}$	4 $\frac{3}{4}$	70	LNT1P04-3PF03	\$72.00
8	60	19	24 $\frac{1}{2}$	4 $\frac{3}{4}$	80	LNT1P08-3PF06	87.00
12	60	19	27 $\frac{1}{2}$	4 $\frac{3}{4}$	90	LNT1P12-3PF06	103.00
16	100	19	36 $\frac{1}{2}$	4 $\frac{3}{4}$	115	LNT1P16-3PF10	131.00
20	100	19	39 $\frac{1}{2}$	4 $\frac{3}{4}$	125	LNT1P20-3PF10	146.00

Type LNT1P-4 Pulfusswitch Safety Type Main Disconnect—Solid Neutral

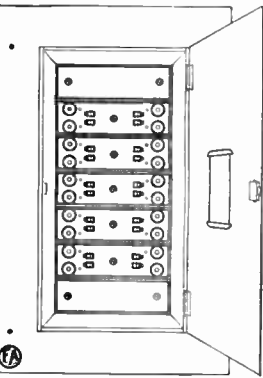
8	60	19	21 $\frac{1}{2}$	4 $\frac{3}{4}$	80	LNT1P08-4PF06	\$99.00
12	60	19	27 $\frac{1}{2}$	4 $\frac{3}{4}$	90	LNT1P12-4PF06	114.00
16	60	19	30 $\frac{1}{2}$	4 $\frac{3}{4}$	100	LNT1P16-4PF06	130.00
20	100	19	39 $\frac{1}{2}$	4 $\frac{3}{4}$	125	LNT1P20-4PF10	164.00
24	100	19	42 $\frac{1}{2}$	4 $\frac{3}{4}$	145	LNT1P24-4PF10	180.00
28	100	19	48 $\frac{1}{2}$	4 $\frac{3}{4}$	160	LNT1P28-4PF10	195.00

Type LNT1P-3 Klampswafuz Safety Type Hinged Pull-Out Main Disconnect—Solid Neutral

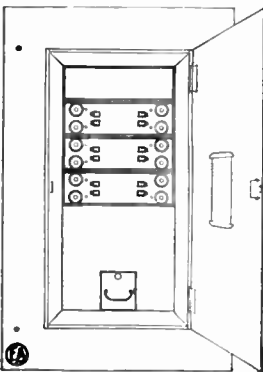
4	30	19	30 $\frac{1}{2}$	4 $\frac{3}{4}$	93	LNT1P04-3KSF03	\$77.00
8	60	19	33 $\frac{1}{2}$	4 $\frac{3}{4}$	103	LNT1P08-3KSF06	92.00
12	60	19	36 $\frac{1}{2}$	4 $\frac{3}{4}$	113	LNT1P12-3KSF06	108.00
16	100	19	42 $\frac{1}{2}$	4 $\frac{3}{4}$	160	LNT1P16-3KSF10	138.00
20	100	19	45 $\frac{1}{2}$	4 $\frac{3}{4}$	172	LNT1P20-3KSF10	153.00
24	200	19	51 $\frac{1}{2}$	7	245	LNT1P24-3KSF20	205.00
28	200	19	57 $\frac{1}{2}$	7	255	LNT1P28-3KSF20	221.00
32	200	19	60 $\frac{1}{2}$	7	270	LNT1P32-3KSF20	237.00
36	200	19	63 $\frac{1}{2}$	7	283	LNT1P36-3KSF20	252.00
40	200	19	66 $\frac{1}{2}$	7	297	LNT1P40-3KSF20	268.00

Type LNT1P-4 Klampswafuz Safety Type Hinged Pull-Out Main Disconnect—Solid Neutral

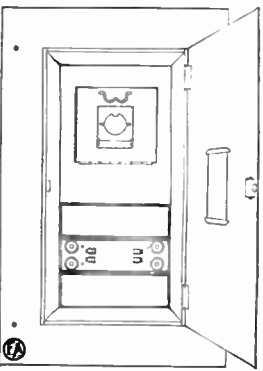
8	60	19	33 $\frac{1}{2}$	4 $\frac{3}{4}$	103	LNT1P08-4KSF06	\$107.00
12	60	19	36 $\frac{1}{2}$	4 $\frac{3}{4}$	113	LNT1P12-4KSF06	122.00
16	60	19	39 $\frac{1}{2}$	4 $\frac{3}{4}$	125	LNT1P16-4KSF06	138.00
20	100	19	45 $\frac{1}{2}$	4 $\frac{3}{4}$	172	LNT1P20-4KSF10	174.00
24	100	19	48 $\frac{1}{2}$	4 $\frac{3}{4}$	180	LNT1P24-4KSF10	190.00
28	100	19	54 $\frac{1}{2}$	4 $\frac{3}{4}$	195	LNT1P28-4KSF10	205.00
32	200	19	60 $\frac{1}{2}$	7	270	LNT1P32-4KSF20	274.00
36	200	19	63 $\frac{1}{2}$	7	283	LNT1P36-4KSF20	290.00
40	200	19	66 $\frac{1}{2}$	7	297	LNT1P40-4KSF20	305.00



Type LNT1P-3L and Type LNT1P-4L



Type LNT1P-3PF and Type LNT1P-4PF

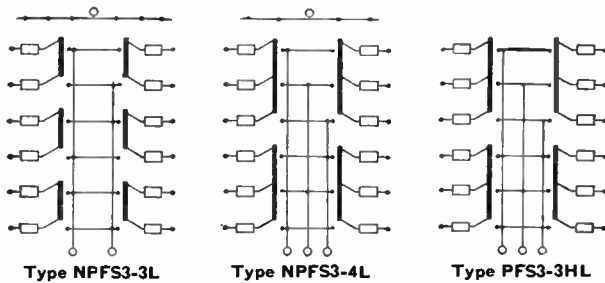


Type LNT1P-3KSF and Type LNT1P-4KSF

NOTE: For door-in-door front add "D" to number and \$21 to prices.

FA Safety Type PFS3-L Pulfuzswitch Panelboards and Cabinets

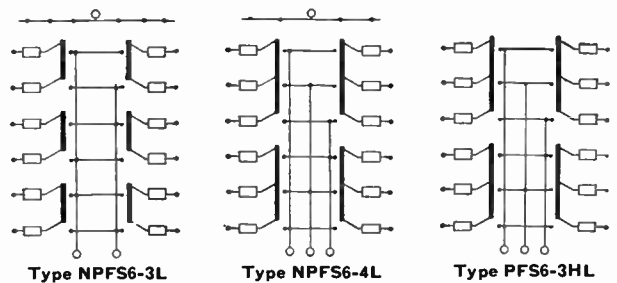
Distribution Type



PANELBOARD. Made of Sections of Brown Bakelite.
BRANCHES. 30 Amp., 250-Volt Pulfuzswitch Units with N.E.C. Cartridge Type Fuse Connections.
MAINS. Cable Lugs Only.
BOX. Code Thickness Galvanized Steel, 4-Inch Gutters for 200-Amp. Mains or Less; 6-Inch for 400-Amp. Mains.
FRONT. Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Surface Mounting unless Flush is Ordered.

FA Safety Type PFS6-L Pulfuzswitch Panelboards and Cabinets

Convertible Distribution Type



PANELBOARD. Made of Sections of Brown Bakelite.
BRANCHES. 60 Amp., 250-Volt Pulfuzswitch Units with N.E.C. Cartridge Type Fuse Connections.
MAINS. Cable Lugs Only.
BOX. Code Thickness Galvanized Steel, 4-Inch Gutters for 200-Amp. Mains or Less; 6-Inch for 400-Amp. Mains; 8-Inch for 600-Amp. Mains.
FRONT. Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Surface Mounting unless Flush is Ordered.

***Type NPFS3-3L 125/250-Volt, 3-Wire, Solid Neutral Mains and Branches**

		INSIDE BOX DIMEN. (AND MARKING, IN.)			Approx. Wt. Lb.	Single Branch	
No. Branches	Main Bus Bar Amperes	Width	Ht.	Depth		No.	Each
4	100	12	19 1/2	4	35	NPFS304-3L10	\$109.00
5	100	12	22 1/2	4	40	NPFS305-3L10	122.00
6	200	12	25 1/2	4	45	NPFS306-3L20	135.00
7	200	12	28 1/2	4	50	NPFS307-3L20	148.00
Double Branch							
8	200	19	27 1/2	4 3/4	70	NPFS308-3L20	\$161.00
10	200	19	33 1/2	4 3/4	80	NPFS310-3L20	187.00
12	400	24 1/2	36 1/2	6	100	NPFS312-3L40	231.00
14	400	24 1/2	39 1/2	6	115	NPFS314-3L40	267.00
16	400	24 1/2	42 1/2	6	130	NPFS316-3L40	283.00

Type NPFS3-4L 120/208-Volt, 3-Phase, 4-Wire, Solid Neutral Mains and Branches

		INSIDE BOX DIMEN. (AND MARKING, IN.)			Approx. Wt. Lb.	Single Branch	
No. Branches	Main Bus Bar Amperes	Width	Ht.	Depth		No.	Each
4	100	12	25 1/2	4	45	NPFS304-4L10	\$129.00
5	100	12	28 1/2	4	50	NPFS305-4L10	147.00
6	200	12	33 1/2	4	55	NPFS306-4L20	165.00
7	200	12	37 1/2	4	65	NPFS307-4L20	183.00
Double Branch							
8	200	19	30 1/2	4 3/4	90	NPFS308-4L20	\$201.00
10	200	19	36 1/2	4 3/4	100	NPFS310-4L20	237.00
12	400	26	44	6	135	NPFS312-4L40	291.00
14	400	26	47	6	145	NPFS314-4L40	327.00
16	400	26	50	6	155	NPFS316-4L40	363.00

Type PFS3-3HL 230-Volt, 3-Phase, 3-Wire Mains and Branches

		INSIDE BOX DIMEN. (AND MARKING, IN.)			Approx. Wt. Lb.	Single Branch	
No. Branches	Main Bus Bar Amperes	Width	Ht.	Depth		No.	Each
4	60	12	22 1/2	4	40	PFS304-3IHL06	\$111.00
5	100	12	25 1/2	4	45	PFS305-3IHL10	129.00
6	100	12	31 1/2	4	55	PFS306-3IHL10	147.00
7	100	12	34 1/2	4	60	PFS307-3IHL10	165.00
Double Branch							
8	100	19	30 1/2	4 3/4	80	PFS308-3IHL10	\$183.00
10	200	19	36 1/2	4 3/4	90	PFS310-3IHL20	219.00
12	200	19	39 1/2	4 3/4	100	PFS312-3IHL20	255.00
14	200	19	42 1/2	4 3/4	115	PFS314-3IHL20	291.00
16	200	19	45 1/2	4 3/4	125	PFS316-3IHL20	327.00

*Can also be used for 250-volt, 3-phase mains and branches with one phase grounded.

***Type NPFS6-3L 125/250-Volt, 3-Wire Solid Neutral Mains and Branches**

		INSIDE BOX DIMEN. (AND MARKING, IN.)			Approx. Wt. Lb.	Single Branch	
No. Branches	Main Bus Bar Amperes	Width	Ht.	Depth		No.	Each
4	200	12	25 1/2	4	40	NPFS604-3L20	\$119.00
5	200	12	28 1/2	4	45	NPFS605-3L20	135.00
6	400	15 1/2	36	5	85	NPFS606-3L40	168.00
7	400	15 1/2	39	5	95	NPFS607-3L40	183.00
Double Branch							
8	400	27 1/2	36	6	115	NPFS608-3L40	\$199.00
10	600	31 1/2	43	7 3/4	135	NPFS610-3L60	266.00
12	600	31 1/2	46	7 3/4	150	NPFS612-3L60	297.00
14	600	31 1/2	49	7 3/4	165	NPFS614-3L60	328.00
16	600	31 1/2	52	7 3/4	180	NPFS616-3L60	259.00

Type NPFS6-4L 120/208-Volt, 3-Phase, 4-Wire, Solid Neutral Mains and Branches

		INSIDE BOX DIMEN. (AND MARKING, IN.)			Approx. Wt. Lb.	Single Branch	
No. Branches	Main Bus Bar Amperes	Width	Ht.	Depth		No.	Each
4	200	12	31 1/2	4	50	NPFS604-4L20	\$145.00
5	200	12	34 1/2	4	60	NPFS605-4L20	167.00
6	400	15 1/2	45	5	80	NPFS606-4L40	207.00
7	400	15 1/2	51	5	90	NPFS607-4L40	229.00
Double Branch							
8	400	29 1/2	42	6	130	NPFS608-4L40	\$251.00
10	600	34 1/2	49 1/2	7 3/4	150	NPFS610-4L60	331.00
12	600	34 1/2	55 1/2	7 3/4	165	NPFS612-4L60	375.00
14	600	34 1/2	58 1/2	7 3/4	175	NPFS614-4L60	419.00
16	600	34 1/2	64	7 3/4	190	NPFS616-4L60	463.00

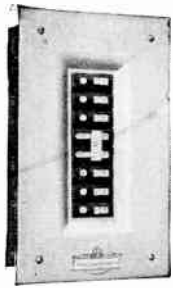
Type PFS6-3HL 230-Volt, 3-Phase, 3-Wire Mains and Branches

		INSIDE BOX DIMEN. (AND MARKING, IN.)			Approx. Wt. Lb.	Single Branch	
No. Branches	Main Bus Bar Amperes	Width	Ht.	Depth		No.	Each
4	100	12	28 1/2	4	50	PFS604-3IHL10	\$127.00
5	100	12	31 1/2	4	55	PFS605-3IHL10	149.00
6	200	12	40 1/2	4	65	PFS606-3IHL20	171.00
7	200	12	43 1/2	4	75	PFS607-3IHL20	193.00
Double Branch							
8	200	19	34 1/2	4 3/4	90	PFS608-3IHL20	\$215.00
10	200	19	37 1/2	4 3/4	100	PFS610-3IHL20	259.00
12	200	19	43 1/2	4 3/4	115	PFS612-3IHL20	303.00
14	400	29 1/2	53	6	170	PFS614-3IHL40	347.00
16	400	27	59	6	185	PFS616-3IHL40	391.00

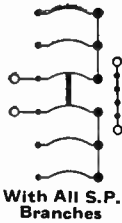
*Can also be used for 250-volt, 3-phase mains and branches with one phase grounded.

For 30-ampere circuits on Type NPFS-3L, deduct \$2.50 each; for Types NPFS-4L and PFS-3IHL, deduct \$4.00 each.

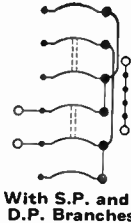
FA Service Equipment Type A.C. Circuit Breakers



No. LC60-3B5F



With All S.P. Branches



With S.P. and 1 D.P. Branches

BASE. Made of Sections of Moulded Material.
MAINS. Type A.C. 120 Volt Main Breaker, with Grounded Solid Neutral. S.P. for 2-Wire, 115 Volt A.C. and Double Pole, Individual Trip, for 3-Wire 115-230 Volt, A.C. Feeder Systems.
BRANCHES. Type A.C. 120 Volt Circuit Breakers. 15 Ampere S.P. for 2-Wire Solid Neutral Circuits and 35 Ampere D.P., Individual Trip, for 3-Wire Solid Neutral Circuits.
BOX. Code Thickness Galvanized Steel.
COVER. Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting, F, unless Surface Mounting, S, is Ordered.

2-Wire, 120 Volt, A.C., Grounded Solid Neutral Feeder With Main Breakers

No. of Branches		To-amp. S.P.	35 Amp. D.P.	Mains Amp.	INSIDE BOX DIMEN., IN.			Approx. Wt. Lb.	No.	Each
15	35				Width	Ht.	Depth			
2	2	..	35	7 1/2	9	3 1/2	8	LC20-2B3F	\$15.60	
3	3	..	35	7 1/2	9	3 1/2	8	LC30-2B3F	15.60	
4	4	..	35	7 1/2	11	3 1/2	10	LC40-2B3F	16.90	

3-Wire, 120-240 V. A.C. Grounded Solid Neutral Feeder With Main Breakers

No. of Branches		To-amp. S.P.	35 Amp. D.P.	Mains Amp.	INSIDE BOX DIMEN., IN.			Approx. Wt. Lb.	No.	Each
15	35				Width	Ht.	Depth			
2	1	1	35	7 1/2	11	3 1/2	10	LC11-3B3F	\$18.20	
..	2	50	7 1/2	11	3 1/2	10	LC02-3B5F	19.50		
3	3	..	35	7 1/2	11	3 1/2	10	LC30-3B3F	16.90	
..	2	1	50	7 1/2	11	3 1/2	10	LC21-3B5F	19.50	
..	1	2	50	7 1/2	13	3 1/2	12	LC12-3B5F	20.80	
4	4	..	35	7 1/2	11	3 1/2	10	LC40-3B3F	18.20	
..	3	1	50	7 1/2	13	3 1/2	12	LC31-3B5F	20.80	
5	5	..	50	7 1/2	13	3 1/2	12	LC50-3B5F	19.50	
..	4	1	50	7 1/2	13	3 1/2	12	LC41-3B5F	22.10	
6	6	..	50	7 1/2	13	3 1/2	12	LC60-3B5F	22.10	
8	8	..	50	7 1/2	15	3 1/2	14	LC80-3B5F	44.20	

*Change F to S for surface mounting.

All s.p. branches will be furnished with 15-ampere, calibration breakers and all d.p. branches will be furnished with 35-ampere, calibration, individual trip breakers, unless order calls for other capacities (20, 25, or 35-ampere, s.p. instead of 15-ampere and 15, 20, 25, or 50-ampere, d.p. instead of 35 ampere) in which case no extra charge will be made.

Main breaker capacity limited to 50 ampere maximum.

Service Equipment with Type A.C. Circuit Breakers and Bonded Solid Neutral

(Box and Cover Specifications Above)

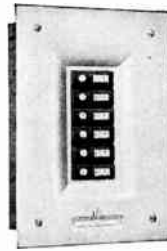
BRANCHES		To-amp. S.P.	35 Amp. D.P.	Mains Amp.	INSIDE BOX DIMEN., IN.			Approx. Wt. Lb.	No.	Each
Total					Width	Ht.	Depth			
1	15 Amp., S. P..	4 1/2	7	3	5	LC10-15F	\$9.00			
2	15 Amp., S. P..	4 1/2	7	3	5	LC20-15F	11.00			
1	15 Amp., D. P., Ind. Trip.	4 1/2	7	3	5	LC01-15F	11.50			
3	15 Amp., S. P..	4 1/2	7	3	6	LC30-15F	13.00			

Deduct 40 cents if neutral omitted on 1 and 2-circuit.

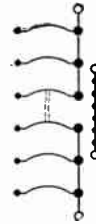
Deduct 80 cents if neutral omitted on 3 and 4-circuit.

Circuit breakers for 20 and 25 amp. furnished at same price; 35 and 50 amp. breakers, in 7 1/2 x 7 x 3 1/2-inch box.

FA Service Equipment Type A.C. Circuit Breakers



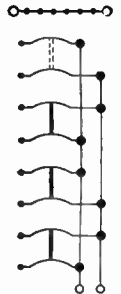
No. SE60-3L7F



With All S.P. or S.P. and 1 D.P. Branch



With S.P. and 2 D.P. Branches



With S.P. and 3 or More D.P. or All D.P. Branches

BASE. Made of sections of molded material.
MAINS. Lugs Only, with Solid Neutral Bonded to Mounting Back. For 2-Wire, 115 V., A.C. and 3-Wire, 115-230 V., A.C. Feeder Systems.
BRANCHES. Type A.C. 120 V. Circuit Breakers. 15 Amp. S.P. for 2-Wire Solid Neutral Circuits and 35 Amp. D.P., Individual Trip, for 3-Wire Solid Neutral Circuits.
BOX. Code Thickness Galvanized Steel.
COVER. Code Thickness Furniture Steel. Rust-Proof and Pearl Grey Finish. Flush Mounting, F, unless Surface Mounting, S, is Ordered.

BASE. Made of sections of molded material.
MAINS. Lugs Only, with Solid Neutral Bonded to Mounting Back. For 2-Wire, 115 V., A.C. and 3-Wire, 115-230 V., A.C. Feeder Systems.
BRANCHES. Type A.C. 120 V. Circuit Breakers. 15 Amp. S.P. for 2-Wire Solid Neutral Circuits and 35 Amp. D.P., Individual Trip, for 3-Wire Solid Neutral Circuits.
BOX. Code Thickness Galvanized Steel.
COVER. Code Thickness Furniture Steel. Rust-Proof and Pearl Grey Finish. Flush Mounting, F, unless Surface Mounting, S, is Ordered.

2-Wire 115 V., A.C., Solid Neutral Feeder Main Lugs

No. of Branches		To-amp. S.P.	35 Amp. D.P.	Mains Amp.	INSIDE BOX DIMEN., IN.			Approx. Wt. Lb.	*No.	Each
15	35				Width	Ht.	Depth			
2	2	..	35	7 1/2	7	3 1/2	6	SE20-2L3F	\$7.00	
3	3	..	35	7 1/2	9	3 1/2	8	SE30-2L3F	9.00	
4	4	..	35	7 1/2	9	3 1/2	8	SE40-2L3F	11.00	

3-Wire 115-230 V., A.C. Solid Neutral Feeder Main Lugs

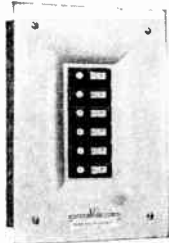
No. of Branches		To-amp. S.P.	35 Amp. D.P.	Mains Amp.	INSIDE BOX DIMEN., IN.			Approx. Wt. Lb.	*No.	Each
15	35				Width	Ht.	Depth			
2	2	..	70	7 1/2	7	3 1/2	6	SE20-3L7F	\$8.00	
..	1	1	70	7 1/2	9	3 1/2	8	SE11-3L7F	10.00	
..	2	70	7 1/2	9	3 1/2	8	SE02-3L7F	13.00		
3	3	..	70	7 1/2	9	3 1/2	8	SE30-3L7F	9.00	
..	2	1	70	7 1/2	9	3 1/2	8	SE21-3L7F	12.00	
..	1	2	70	7 1/2	11	3 1/2	10	SE12-3L7F	15.50	
..	3	70	9	16	3 1/2	12	SE03-3L7F	22.00		
4	4	..	70	7 1/2	9	3 1/2	8	SE40-3L7F	11.00	
..	3	1	70	7 1/2	11	3 1/2	10	SE31-3L7F	14.00	
..	2	2	70	7 1/2	11	3 1/2	10	SE22-3L7F	17.50	
..	1	3	70	9	18	3 1/2	14	SE13-3L7F	24.00	
..	..	4	70	9	18	3 1/2	14	SE04-3L7F	27.00	
5	5	..	70	7 1/2	11	3 1/2	10	SE50-3L7F	13.50	
..	4	1	70	7 1/2	11	3 1/2	10	SE41-3L7F	16.00	
..	3	2	70	7 1/2	13	3 1/2	12	SE32-3L7F	19.50	
..	2	3	70	9	18	3 1/2	14	SE23-3L7F	26.00	
..	1	4	100	9	20	3 1/2	18	SE14-3L10F	29.50	
..	..	5	100	9	20	3 1/2	18	SE05-3L10F	32.50	
6	6	..	70	7 1/2	11	3 1/2	10	SE60-3L7F	15.50	
..	5	1	70	7 1/2	13	3 1/2	12	SE51-3L7F	18.50	
..	4	2	70	7 1/2	13	3 1/2	12	SE42-3L7F	21.50	
..	3	3	100	9	20	3 1/2	18	SE33-3L10F	28.00	
..	2	4	100	9	20	3 1/2	18	SE24-3L10F	32.00	
..	1	5	100	9	22	3 1/2	24	SE15-3L10F	34.50	
..	..	6	100	9	22	3 1/2	24	SE06-3L10F	37.50	

*Change F to S for surface mounting.

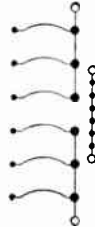
All s.p. branches will be furnished with 15-amp., calibration breakers and all d.p. branches will be furnished with 35 amp., calibration, individual trip breakers, unless order calls for other capacities (20, 25, or 35-amp., s.p. instead of 15 amp. and 15, 20, 25, or 50-amp., d.p. instead of 35 amp.) in which case no extra charge will be made, unless increased capacity main bus bar (100 amp., maximum) is required.

FA Circuit Breaker Panelboards

Type A.C. Load Centers



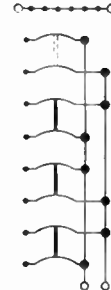
No. LC060-3L7F



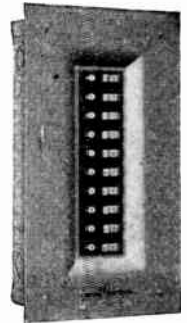
With All S.P. or S.P. and 1 D.P. Branch



With S.P. and 2 D.P. Branches



With S.P. and 3 or More D.P. or All D.P. Branches



No. LC100-3L7F

- BASE.** Made of Sections of Moulded Material.
- MAINS.** Lugs Only, with Insulated, groundable Solid Neutral.
- BRANCHES.** Type A.C. 120 Volt Circuit Breakers. 15 Ampere, S.P. for 2-Wire Solid Neutral Circuits and 35 Amperes, D.P. Individual Trip, for 3-Wire Solid Neutral Circuits.
- BOX.** Code Thickness B Galvanized Steel.
- COVER.** Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting, F, unless Surface Mounting, S, Is Ordered.

2-Wire 120 Volt, A.C. Solid Neutral Feeder
With Main Lugs

No. of BRANCHES				INSIDE BOX DIMEN., IN.			Approx. Wt. Lb.	No.	Each
To- tal	15 Amp. S.P.	35 Amp. D.P.	Mains Amp.	Width	Ht.	Depth			
2	2	..	35	7 1/2	7	3 1/2	6	LC'020-2L3F	\$12.00
3	3	..	35	7 1/2	9	3 1/2	8	LC'030-2L3F	15.60
4	4	..	35	7 1/2	9	3 1/2	8	LC'040-2L3F	15.60

3-Wire, 120-230 Volt, A.C. Solid Neutral Feeder
With Main Lugs

No. of BRANCHES				INSIDE BOX DIMEN., IN.			Approx. Wt. Lb.	No.	Each
To- tal	15 Amp. S.P.	35 Amp. D.P.	Mains Amp.	Width	Ht.	Depth			
7	7	..	70	7 1/2	13	3 1/2	12	LC'070-3L7F	\$19.50
6	6	1	70	7 1/2	13	3 1/2	12	LC'061-3L7F	22.10
5	2	100	9	20	3 1/2	18	LC'052-3L10F	44.20	
4	3	100	9	20	3 1/2	18	LC'043-3L10F	45.50	
..	7	100	9	24	3 1/2	22	LC'007-3L10F	55.90	
8	8	..	70	7 1/2	13	3 1/2	12	LC'080-3L7F	22.10
7	7	1	100	9	20	3 1/2	18	LC'071-3L10F	44.20
6	2	100	9	20	3 1/2	18	LC'062-3L10F	45.50	
5	3	100	9	22	3 1/2	20	LC'053-3L10F	47.40	
4	4	100	9	22	3 1/2	20	LC'044-3L10F	50.70	
..	8	100	9	26	3 1/2	25	LC'008-3L20F	59.80	
10	10	..	100	9	18	3 1/2	16	LC'100-3L10F	45.50
8	8	2	100	9	20	3 1/2	22	LC'082-3L10F	50.70
6	4	100	9	24	3 1/2	22	LC'064-3L10F	55.90	
12	12	..	100	9	20	3 1/2	18	LC'120-3L10F	50.70
10	10	2	100	9	24	3 1/2	20	LC'102-3L10F	55.90
8	4	100	9	26	3 1/2	25	LC'084-3L10F	58.50	
14	14	..	100	9	22	3 1/2	20	LC'140-3L10F	55.90
12	12	2	100	9	24	3 1/2	22	LC'122-2L10F	58.50
16	16	..	100	9	24	3 1/2	22	LC'160-3L10F	58.50

3-Wire, 115-230 Volt, A.C. Solid Neutral Feeder
With Main Lugs

No. of BRANCHES				INSIDE BOX DIMEN., IN.			Approx. Wt. Lb.	No.	Each
To- tal	15 Amp. S.P.	35 Amp. D.P.	Mains Amp.	Width	Ht.	Depth			
2	2	..	70	7 1/2	7	3 1/2	6	LC'020-3L7F	\$13.00
1	1	1	70	7 1/2	9	3 1/2	8	LC'011-3L7F	15.60
..	2	70	7 1/2	9	3 1/2	8	LC'002-3L7F	15.60	
3	3	..	70	7 1/2	9	3 1/2	8	LC'030-3L7F	15.60
2	2	1	70	7 1/2	9	3 1/2	8	LC'021-3L7F	15.60
1	1	2	70	7 1/2	11	3 1/2	10	LC'012-3L7F	18.20
..	3	70	9	16	3 1/2	12	LC'003-3L7F	19.50	
4	4	..	70	7 1/2	9	3 1/2	8	LC'040-3L7F	15.60
3	3	1	70	7 1/2	11	3 1/2	10	LC'031-3L7F	16.90
2	2	2	70	7 1/2	11	3 1/2	10	LC'022-3L7F	19.50
1	1	3	70	9	18	3 1/2	14	LC'013-3L7F	20.80
..	4	70	9	18	3 1/2	14	LC'004-3L7F	23.40	
5	5	..	70	7 1/2	11	3 1/2	10	LC'050-3L7F	16.90
4	4	1	70	7 1/2	11	3 1/2	10	LC'041-3L7F	18.20
3	3	2	70	7 1/2	13	3 1/2	12	LC'032-3L7F	20.80
2	2	3	70	9	18	3 1/2	14	LC'023-3L7F	22.10
..	5	100	9	20	3 1/2	18	LC'005-3L10F	46.80	
6	6	..	70	7 1/2	11	3 1/2	10	LC'060-3L7F	18.20
5	5	1	70	7 1/2	13	3 1/2	12	LC'051-3L7F	19.50
4	4	2	70	7 1/2	13	3 1/2	12	LC'042-3L7F	22.10
3	3	3	100	9	20	3 1/2	18	LC'033-3L10F	44.20
2	2	4	100	9	20	3 1/2	18	LC'024-3L10F	45.50
..	6	100	9	22	3 1/2	20	LC'006-3L10F	50.70	

4-Wire, 120-208 Volt, A.C. Solid Neutral Feeder
With Main Lugs

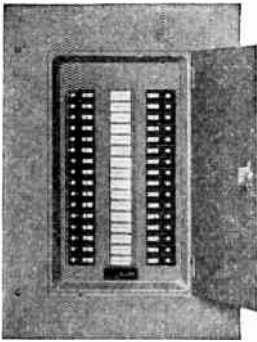
No. of BRANCHES				INSIDE BOX DIMEN., IN.			Approx. Wt. Lb.	No.	Each
To- tal	15 Amp. S.P.	35 Amp. D.P.	Mains Amp.	Width	Ht.	Depth			
6	6	..	70	7 1/2	13	3 1/2	12	LC'060-4L7F	\$41.60
9	9	..	70	7 1/2	15	3 1/2	16	LC'090-4L7F	47.40
10	10	..	70	9	20	3 1/2	16	LC'100-4L7F	50.70
12	12	..	70	9	20	3 1/2	18	LC'120-4L7F	53.30
15	15	..	70	9	24	3 1/2	20	LC'150-4L7F	58.50
16	16	..	70	9	24	3 1/2	22	LC'160-4L7F	97.90

All items are listed as standard by Underwriters' Laboratories as panelboards suitable for use as service equipment.

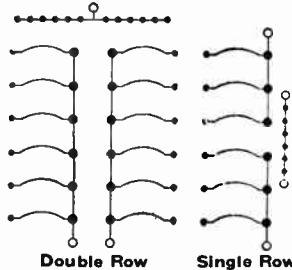
All single pole branches will be furnished with 15 ampere, calibration breakers and all double pole branches will be furnished with 35 ampere, calibration, individual trip breakers, unless order calls for other capacities (20, 25, or 35 ampere, single pole instead of 15 ampere and 15, 20, 25, or 50 ampere, double pole instead of 35 ampere) in which case no extra charge will be made, unless increased capacity main bus bar (100 ampere, maximum) is required.

FA Safety Type NAC1B-3 Circuit Breaker Panelboards and Cabinets

Type A.C. One Pole Breaker—Solid Neutral



Type NAC1B-3L



Double Row

Single Row

BASE. Made of Sections of Moulded Material.
MAINS. 3-Wire, 115-230 Volt, Solid Neutral, for A.C. Feeder Systems Only.
BRANCHES. *15-Amp., 120 Volt, S.P., Type A.C. Thermag Circuit Breaker for 115 Volt, 2-Wire Solid Neutral Circuits.
BOX. Code Thickness Galvanized Steel. Gutters as Noted.
FRONT. Code Thickness Furniture Steel. Rust-Proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.

Main Cable Lugs Only—Solid Neutral

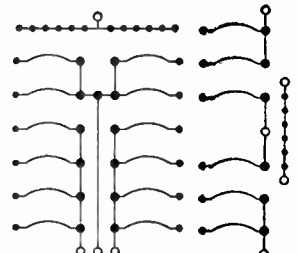
No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
4	70	12	12 1/2	4	26	NAC1B04-3L07	\$65.00
6	70	12	14 1/2	4	30	NAC1B06-3L07	74.00
8	70	12	16 1/2	4	34	NAC1B08-3L07	83.00
10	70	12	18 1/2	4	38	NAC1B10-3L07	92.00
†12	100	12	20 1/2	4	45	NAC1B12-3L10	101.00
†14	100	12	22 1/2	4	50	NAC1B14-3L10	110.00
†16	100	12	24 1/2	4	55	NAC1B16-3L10	120.00
†18	100	12	26 1/2	4	60	NAC1B18-3L10	129.00
Double Row—4-Inch Gutters							
†12	100	19	18 1/2	4 3/4	58	NAC1B12-3L10	\$101.00
†14	100	19	18 1/2	4 3/4	59	NAC1B14-3L10	111.00
†16	100	19	21 1/2	4 3/4	67	NAC1B16-3L10	120.00
†18	100	19	21 1/2	4 3/4	68	NAC1B18-3L10	129.00
20	100	19	21 1/2	4 3/4	69	NAC1B20-3L10	138.00
22	200	19	24 1/2	4 3/4	76	NAC1B22-3L20	147.00
24	200	19	24 1/2	4 3/4	77	NAC1B24-3L20	156.00
26	200	19	27 1/2	4 3/4	85	NAC1B26-3L20	165.00
28	200	19	30 1/2	4 3/4	86	NAC1B28-3L20	174.00
30	200	19	30 1/2	4 3/4	94	NAC1B30-3L20	183.00
32	200	19	30 1/2	4 3/4	95	NAC1B32-3L20	192.00
34	200	19	33 1/2	4 3/4	98	NAC1B34-3L20	202.00
36	200	19	33 1/2	4 3/4	103	NAC1B36-3L20	211.00
38	200	19	33 1/2	4 3/4	104	NAC1B38-3L20	220.00
40	200	19	36 1/2	4 3/4	105	NAC1B40-3L20	229.00

FA Safety Type NAC1B-4 Circuit Breaker Panelboards and Cabinets

Type A.C. One Pole Breaker—Solid Neutral



Type NAC1B-4AB



Double Row

Single Row

BASE. Made of Sections of Moulded Material.
MAINS. 4-Wire, 3-Phase, 120-208 V., Solid Neutral.
BRANCHES. *15 Amp., 120 V., S.P., Type A.C. Thermag Circuit Breaker for 120 V., 2-Wire, Solid Neutral Circuits.
BOX. Code Thickness Galvanized Steel. Gutters as Noted.
FRONT. Code Thickness Furniture Steel. Rust-Proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.

Main Cable Lugs Only—Solid Neutral

No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
6	70	12	16 1/2	4	30	NAC1B06-4L07	\$81.00
9	70	12	20 1/2	4	34	NAC1B09-4L07	96.00
†12	70	12	22 1/2	4	45	NAC1B12-4L07	108.00
†14	70	12	24 1/2	4	50	NAC1B14-4L07	117.00
†16	100	12	26 1/2	4	55	NAC1B16-4L10	126.00
Double Row—4-Inch Gutters							
†12	70	19	18 1/2	4 3/4	58	NAC1B12-4L07	\$108.00
†14	70	19	18 1/2	4 3/4	59	NAC1B14-4L07	117.00
†16	100	19	21 1/2	4 3/4	67	NAC1B16-4L10	126.00
18	100	19	21 1/2	4 3/4	68	NAC1B18-4L10	135.00
20	100	19	21 1/2	4 3/4	69	NAC1B20-4L10	143.00
22	100	19	24 1/2	4 3/4	76	NAC1B22-4L10	153.00
24	100	19	24 1/2	4 3/4	77	NAC1B24-4L10	162.00
26	100	19	27 1/2	4 3/4	85	NAC1B26-4L10	172.00
28	100	19	30 1/2	4 3/4	86	NAC1B28-4L10	181.00
30	100	19	30 1/2	4 3/4	94	NAC1B30-4L10	190.00
32	200	19	30 1/2	4 3/4	95	NAC1B32-4L20	199.00
34	200	19	33 1/2	4 3/4	98	NAC1B34-4L20	208.00
36	200	19	33 1/2	4 3/4	103	NAC1B36-4L20	217.00
38	200	19	33 1/2	4 3/4	104	NAC1B38-4L20	226.00
40	200	19	36 1/2	4 3/4	105	NAC1B40-4L20	235.00

Main Automatic Circuit Breaker—Solid Neutral

No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
4	50	12	14 1/2	4	30	NAC1B04-3AB05	\$79.00
6	50	12	16 1/2	4	34	NAC1B06-3AB05	88.00
8	50	12	18 1/2	4	38	NAC1B08-3AB05	98.00
10	50	12	20 1/2	4	42	NAC1B10-3AB05	107.00
Double Row—4-Inch Gutters							
12	100	19	30 1/2	5 1/2	85	NAC1B12-3AB10	\$142.00
14	100	19	33 1/2	5 1/2	96	NAC1B14-3AB10	151.00
16	100	19	33 1/2	5 1/2	96	NAC1B16-3AB10	160.00
18	100	19	33 1/2	5 1/2	96	NAC1B18-3AB10	169.00
20	100	19	36 1/2	5 1/2	103	NAC1B20-3AB10	178.00
22	200	19	42 1/2	7	155	NAC1B22-3AB20	289.00
24	200	19	42 1/2	7	155	NAC1B24-3AB20	298.00
26	200	19	45 1/2	7	162	NAC1B26-3AB20	307.00
28	200	19	48 1/2	7	170	NAC1B28-3AB20	316.00
30	200	19	48 1/2	7	170	NAC1B30-3AB20	325.00
32	200	19	48 1/2	7	170	NAC1B32-3AB20	334.00
34	200	19	51 1/2	7	177	NAC1B34-3AB20	343.00
36	200	19	51 1/2	7	177	NAC1B36-3AB20	352.00
38	200	19	51 1/2	7	177	NAC1B38-3AB20	361.00
40	200	19	54 1/2	7	185	NAC1B40-3AB20	371.00

*Prices are based on 15-amp. s.p. breakers; 20, 25, 35, and 50-amp. s.p. breakers supplied at same prices except when increased capacity bus bars are required.

†Furnished in single row type, unless two-row is specified.
For each d.p. breaker substituted for not more than two pair of s.p. breakers, add \$1.00 each. D.p. breakers have individual trip.

Main Automatic Circuit Breaker—Solid Neutral

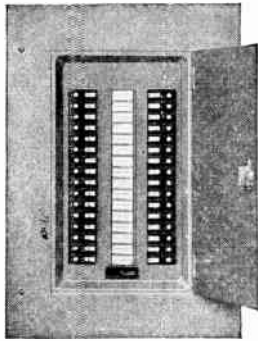
No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
4	50	19	24 1/2	4 3/4	30	NAC1B04-4AB05	\$94.00
6	50	19	24 1/2	4 3/4	34	NAC1B06-4AB05	103.00
8	50	19	27 1/2	4 3/4	38	NAC1B08-4AB05	112.00
10	50	19	27 1/2	4 3/4	42	NAC1B10-4AB05	121.00
12	50	19	27 1/2	4 3/4	85	NAC1B12-4AB05	130.00
14	50	19	30 1/2	4 3/4	94	NAC1B14-4AB05	139.00
16	100	19	36 1/2	5 1/2	103	NAC1B16-4AB10	178.00
18	100	19	36 1/2	5 1/2	103	NAC1B18-4AB10	187.00
20	100	19	39 1/2	5 1/2	110	NAC1B20-4AB10	196.00
22	100	19	39 1/2	5 1/2	110	NAC1B22-4AB10	205.00
24	100	19	39 1/2	5 1/2	110	NAC1B24-4AB10	215.00
26	100	19	42 1/2	5 1/2	117	NAC1B26-4AB10	224.00
28	100	19	45 1/2	5 1/2	125	NAC1B28-4AB10	234.00
30	100	19	45 1/2	5 1/2	125	NAC1B30-4AB10	242.00
32	200	19	51 1/2	7	177	NAC1B32-4AB20	373.00
34	200	19	54 1/2	7	185	NAC1B34-4AB20	382.00
36	200	19	54 1/2	7	185	NAC1B36-4AB20	391.00
38	200	19	54 1/2	7	185	NAC1B38-4AB20	400.00
40	200	19	57 1/2	7	190	NAC1B40-4AB20	410.00

*Prices are based on 15-amp. s.p. breakers; 20, 25, 35, and 50-amp. s.p. breakers supplied at same prices except when increased capacity bus bars are required.

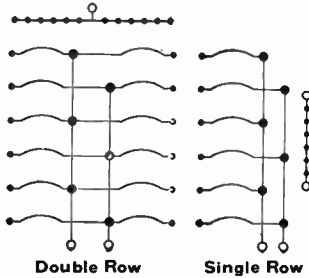
†Furnished in single row type, unless two-row is specified.
For each d.p. breaker substituted for not more than two pair of s.p. breakers, add \$1.00 each. D.p. breakers have individual trip.

FA Safety Type NAC12B-3 Circuit Breaker Panelboards and Cabinets

Type A.C. One and Two Pole Breaker—Solid Neutral



Type NAC12B-3L



Double Row

Single Row

BASE. Made of Sections of Moulded Material.
MAINS. 3-Wire, 115-230 V., Solid Neutral; for A.C. Feeder Systems Only.
BRANCHES. *15 Amp., 120-V., S.P., Type A.C. Thermag Circuit Breaker for 115-V., 2-Wire Solid Neutral Circuits. Main Bus Bar Connections Permit Adjacent Pairs of Circuit Breakers to be Used for 3-Wire, Solid Neutral Circuits.
BOX. Code Thickness Galvanized Steel. Gutters as Noted.
FRONT. Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.

Main Cable Lugs Only—Solid Neutral

Single Row—3-Inch Gutters

No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.	Approx. Wt. Lb.	No.	Each
		Width Ht. Depth			
4	70	12 14 1/2 4	26	NAC12B04-3L07	\$70.00
6	70	12 16 1/2 4	30	NAC12B06-3L07	82.00
8	70	12 18 1/2 4	34	NAC12B08-3L07	94.00
10	70	12 20 1/2 4	38	NAC12B10-3L07	105.00
†12	100	12 22 1/2 4	45	NAC12B12-3L10	117.00
†14	100	12 24 1/2 4	50	NAC12B14-3L10	129.00
†16	100	12 26 1/2 4	55	NAC12B16-3L10	140.00

Double Row—4-Inch Gutters

†12	100	19 18 1/2 4 3/4	58	NAC12B12-3L10	\$117.00
†14	100	19 18 1/2 4 3/4	59	NAC12B14-3L10	129.00
†16	100	19 21 1/2 4 3/4	67	NAC12B16-3L10	140.00
18	100	19 21 1/2 4 3/4	68	NAC12B18-3L10	152.00
20	100	19 21 1/2 4 3/4	69	NAC12B20-3L10	164.00
22	200	19 24 1/2 4 3/4	76	NAC12B22-3L20	175.00
24	200	19 24 1/2 4 3/4	77	NAC12B24-3L20	187.00
26	200	19 27 1/2 4 3/4	85	NAC12B26-3L20	199.00
28	200	19 30 1/2 4 3/4	86	NAC12B28-3L20	211.00
30	200	19 30 1/2 4 3/4	94	NAC12B30-3L20	222.00
32	200	19 30 1/2 4 3/4	95	NAC12B32-3L20	234.00
34	200	19 33 1/2 4 3/4	98	NAC12B34-3L20	246.00
36	200	19 33 1/2 4 3/4	103	NAC12B36-3L20	257.00
38	200	19 33 1/2 4 3/4	104	NAC12B38-3L20	269.00
40	200	19 36 1/2 4 3/4	105	NAC12B40-3L20	281.00

Main Automatic Circuit Breaker—Solid Neutral

Double Row—4-Inch Gutters

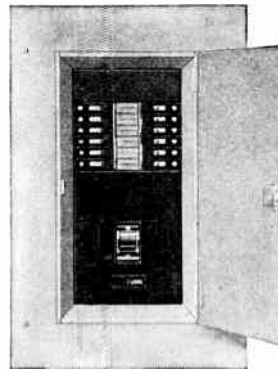
4	50	19 21 1/2 4 3/4	30	NAC12B04-3AB05	\$84.00
6	50	19 21 1/2 4 3/4	34	NAC12B06-3AB05	96.00
8	50	19 21 1/2 4 3/4	38	NAC12B08-3AB05	108.00
10	50	19 24 1/2 4 3/4	42	NAC12B10-3AB05	120.00
12	100	19 30 1/2 5 1/2	85	NAC12B12-3AB10	157.00
14	100	19 30 1/2 5 1/2	96	NAC12B14-3AB10	169.00
16	100	19 33 1/2 5 1/2	96	NAC12B16-3AB10	181.00
18	100	19 33 1/2 5 1/2	96	NAC12B18-3AB10	192.00
20	100	19 33 1/2 5 1/2	103	NAC12B20-3AB10	204.00
22	200	19 42 1/2 7 1/2	155	NAC12B22-3AB20	317.00
24	200	19 42 1/2 7 1/2	155	NAC12B24-3AB20	329.00
26	200	19 45 1/2 7 1/2	162	NAC12B26-3AB20	341.00
28	200	19 48 1/2 7 1/2	170	NAC12B28-3AB20	352.00
30	200	19 48 1/2 7 1/2	170	NAC12B30-3AB20	364.00
32	200	19 48 1/2 7 1/2	170	NAC12B32-3AB20	376.00
34	200	19 51 1/2 7 1/2	177	NAC12B34-3AB20	387.00
36	200	19 51 1/2 7 1/2	177	NAC12B36-3AB20	399.00
38	200	19 51 1/2 7 1/2	177	NAC12B38-3AB20	411.00
40	200	19 54 1/2 7 1/2	185	NAC12B40-3AB20	422.00

*Prices are based on 15-amp. s.p. breakers; 20, 25, 35, and 50-amp. s.p. breakers supplied at same prices except when increased capacity bus bars are required.

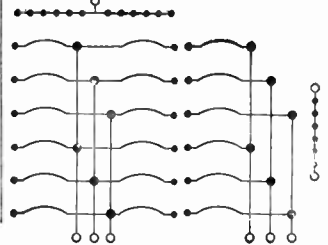
†Furnished in single row type, unless two row is specified.
 For each d.p. breaker substituted for a pair of s.p. breakers, add \$1.00 each. d.p. breakers have individual trip.

FA Safety Type NAC12B-4 Circuit Breaker Panelboards and Cabinets

Type A.C. One and Two Pole Breaker—Solid Neutral



Type NAC12B-4AB



Double Row

Single Row

BASE. Made of Sections of Moulded Material.
MAINS. 4-Wire, 3-Phase, 120-208 V., Solid Neutral.
BRANCHES. *15 Amp., 120 V., S.P., Type A.C. Thermag Circuit Breaker for 120 V., 2-Wire, Solid Neutral Circuits. Main Bus Bar Connections Permit Adjacent Pairs of Circuit Breakers to be Used for 3-Wire, Solid Neutral Circuits.
BOX. Code Thickness Galvanized Steel. Gutters as Noted.
FRONT. Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.

Main Cable Lugs Only—Solid Neutral

Single Row—3-Inch Gutters

No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.	Approx. Wt. Lb.	No.	Each
		Width Ht. Depth			
6	70	12 16 1/2 4	30	NAC12B06-4L07	\$88.00
9	70	12 20 1/2 4	34	NAC12B09-4L07	107.00
†12	70	12 22 1/2 4	45	NAC12B12-4L07	123.00
†14	70	12 24 1/2 4	50	NAC12B14-4L07	135.00
†16	100	12 26 1/2 4	55	NAC12B16-4L10	147.00

Double Row—4-Inch Gutters

†12	70	19 18 1/2 4 3/4	58	NAC12B12-4L07	\$124.00
†14	70	19 21 1/2 4 3/4	59	NAC12B14-4L07	135.00
†16	100	19 21 1/2 4 3/4	67	NAC12B16-4L10	147.00
18	100	19 21 1/2 4 3/4	68	NAC12B18-4L10	159.00
20	100	19 24 1/2 4 3/4	69	NAC12B20-4L10	170.00
22	100	19 24 1/2 4 3/4	76	NAC12B22-4L10	182.00
24	100	19 24 1/2 4 3/4	77	NAC12B24-4L10	194.00
26	100	19 30 1/2 4 3/4	85	NAC12B26-4L10	205.00
28	100	19 30 1/2 4 3/4	86	NAC12B28-4L10	217.00
30	100	19 30 1/2 4 3/4	94	NAC12B30-4L10	229.00
32	200	19 33 1/2 4 3/4	95	NAC12B32-4L20	240.00
34	200	19 33 1/2 4 3/4	98	NAC12B34-4L20	252.00
36	200	19 33 1/2 4 3/4	103	NAC12B36-4L20	264.00
38	200	19 36 1/2 4 3/4	104	NAC12B38-4L20	276.00
40	200	19 36 1/2 4 3/4	105	NAC12B40-4L20	287.00

Main Circuit Breaker—Solid Neutral

Double Row—4-Inch Gutters

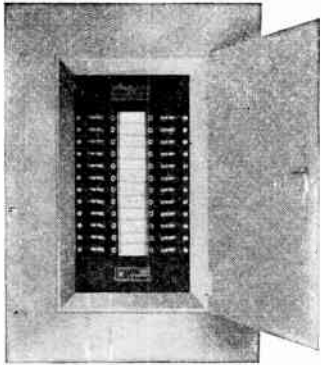
6	50	19 24 1/2 4 3/4	34	NAC12B06-4AB05	\$110.00
8	50	19 24 1/2 4 3/4	38	NAC12B08-4AB05	122.00
10	50	19 27 1/2 4 3/4	42	NAC12B10-4AB05	134.00
12	50	19 27 1/2 4 3/4	85	NAC12B12-4AB05	146.00
14	50	19 27 1/2 4 3/4	94	NAC12B14-4AB05	157.00
16	100	19 33 1/2 5 1/2	103	NAC12B16-4AB10	199.00
18	100	19 33 1/2 5 1/2	103	NAC12B18-4AB10	211.00
20	100	19 33 1/2 5 1/2	110	NAC12B20-4AB10	222.00
22	100	19 36 1/2 5 1/2	110	NAC12B22-4AB10	234.00
24	100	19 36 1/2 5 1/2	110	NAC12B24-4AB10	246.00
26	100	19 39 1/2 5 1/2	117	NAC12B26-4AB10	257.00
28	100	19 42 1/2 5 1/2	125	NAC12B28-4AB10	269.00
30	100	19 42 1/2 5 1/2	125	NAC12B30-4AB10	281.00
32	200	19 48 1/2 7 1/2	177	NAC12B32-4AB20	415.00
34	200	19 51 1/2 7 1/2	185	NAC12B34-4AB20	426.00
36	200	19 51 1/2 7 1/2	185	NAC12B36-4AB20	438.00
38	200	19 51 1/2 7 1/2	185	NAC12B38-4AB20	450.00
40	200	19 54 1/2 7 1/2	190	NAC12B40-4AB20	461.00

*Prices are based on 15-amp. s.p. breakers; 20, 25, 35, and 50-amp. s.p. breakers supplied at same prices except when increased capacity bus bars are required.

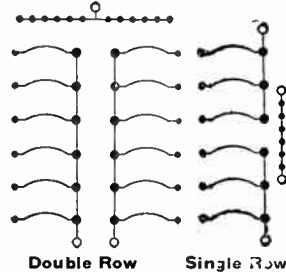
†Furnished in single row type, unless two row is specified.
 For each d.p. breaker substituted for a pair of s.p. breakers, add \$1.00 each. D.p. breakers have individual trip.

FA Safety Type NA1B-3 Circuit Breaker Panelboards and Cabinets

One Pole Breaker—Solid Neutral

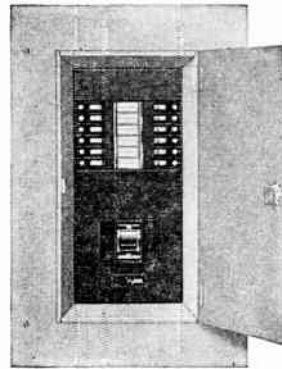


Type NA1B-3L

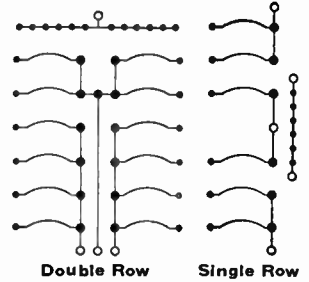


FA Safety Type NA1B-4 Circuit Breaker Panelboards and Cabinets

One Pole Breaker—Solid Neutral



Type NA1B-4AB



PANELBOARD. Made of Sections of Moulded Material. *15 Amp., 125 V., S.P. Dubtrak Type Thermal Circuit Breakers for 125 V., 2-Wire, Solid Neutral Circuits.
MAINS. BOX. FRONT. 3-Wire, 125-250 V., Solid Neutral. Code Thickness Galvanized Steel, Gutters as Noted. Code Thickness Furniture Steel, Rust-Proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.

PANELBOARD. Made of Sections of Moulded Material. *15 Amp., 125 V., S.P. Dubtrak Type Thermal Circuit Breakers for 120 V., 2-Wire, Solid Neutral Circuits.
MAINS. BOX. FRONT. 3-Phase, 4-Wire; 120-208 V., Solid Neutral. Code Thickness Galvanized Steel, Gutters as Noted. Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting unless Surface is Ordered.

Main Cable Lugs Only—Solid Neutral Single Row—3-Inch Gutters

No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.	Approx. Wt. Lb.	No.	Each
		Width Ht. Depth			
4	50	12 12 1 1/2	26	NA1B04-3L05	\$81.00
6	50	12 14 1 1/2	30	NA1B06-3L05	97.00
8	50	12 16 1 1/2	31	NA1B08-3L05	114.00
10	50	12 18 1 1/2	38	NA1B10-3L05	131.00
Double Row—4-Inch Gutters					
12	100	19 21 1 1/2 4 3/4	58	NA1B12-3L10	\$148.00
14	100	19 21 1 1/2 4 3/4	59	NA1B14-3L10	165.00
16	100	19 24 1 1/2 4 3/4	67	NA1B16-3L10	182.00
18	100	19 24 1 1/2 4 3/4	68	NA1B18-3L10	199.00
20	100	19 24 1 1/2 4 3/4	69	NA1B20-3L10	216.00
22	200	19 27 1 1/2 4 3/4	76	NA1B22-3L20	233.00
24	200	19 27 1 1/2 4 3/4	77	NA1B24-3L20	250.00
26	200	19 30 1 1/2 4 3/4	85	NA1B26-3L20	266.00
28	200	19 30 1 1/2 4 3/4	86	NA1B28-3L20	283.00
30	200	19 33 1 1/2 4 3/4	94	NA1B30-3L20	300.00
32	200	19 33 1 1/2 4 3/4	95	NA1B32-3L20	317.00
34	200	19 33 1 1/2 4 3/4	98	NA1B34-3L20	334.00
36	200	19 36 1 1/2 4 3/4	103	NA1B36-3L20	351.00
38	200	19 36 1 1/2 4 3/4	104	NA1B38-3L20	368.00
40	200	19 36 1 1/2 4 3/4	105	NA1B40-3L20	385.00

Main Cable Lugs Only—Solid Neutral Single Row—3-Inch Gutters

No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.	Approx. Wt. Lb.	No.	Each
		Width Ht. Depth			
6	50	12 16 1 1/2 4	35	NA1B06-4L05	\$104.00
9	50	12 19 1 1/2 4	40	NA1B09-4L05	130.00
Double Row—4-Inch Gutters					
12	50	19 21 1 1/2 4 3/4	58	NA1B12-4L05	\$155.00
14	50	19 24 1 1/2 4 3/4	67	NA1B14-4L05	172.00
16	100	19 24 1 1/2 4 3/4	68	NA1B16-4L10	188.00
18	100	19 24 1 1/2 4 3/4	69	NA1B18-4L10	205.00
20	100	19 27 1 1/2 4 3/4	76	NA1B20-4L10	222.00
22	100	19 27 1 1/2 4 3/4	77	NA1B22-4L10	239.00
24	100	19 27 1 1/2 4 3/4	78	NA1B24-4L10	256.00
26	100	19 30 1 1/2 4 3/4	85	NA1B26-4L10	273.00
28	100	19 33 1 1/2 4 3/4	94	NA1B28-4L10	290.00
30	100	19 33 1 1/2 4 3/4	95	NA1B30-4L10	307.00
32	200	23 1 1/2 33 1 1/2 4 3/4	96	NA1B32-4L20	324.00
34	200	23 1 1/2 36 1 1/2 4 3/4	103	NA1B34-4L20	341.00
36	200	23 1 1/2 36 1 1/2 4 3/4	104	NA1B36-4L20	357.00
38	200	23 1 1/2 36 1 1/2 4 3/4	105	NA1B38-4L20	374.00
40	200	23 1 1/2 39 1 1/2 4 3/4	111	NA1B40-4L20	391.00
42	200	23 1 1/2 39 1 1/2 4 3/4	112	NA1B42-4L20	408.00

Main Automatic Circuit Breaker—Solid Neutral

Single Row—3-Inch Gutters					
No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.	Approx. Wt. Lb.	No.	Each
		Width Ht. Depth			
4	50	12 14 1 1/2 4	30	NA1B04-3AB05	\$95.00
6	50	12 16 1 1/2 4	34	NA1B06-3AB05	112.00
8	50	12 18 1 1/2 4	38	NA1B08-3AB05	129.00
10	50	12 20 1 1/2 4	42	NA1B10-3AB05	146.00
Double Row—4-Inch Gutters					
12	100	19 30 1 1/2 5 1/2	85	NA1B12-3AB10	\$188.00
14	100	19 33 1 1/2 5 1/2	94	NA1B14-3AB10	205.00
16	100	19 33 1 1/2 5 1/2	95	NA1B16-3AB10	222.00
18	100	19 33 1 1/2 5 1/2	96	NA1B18-3AB10	239.00
20	100	19 36 1 1/2 5 1/2	103	NA1B20-3AB10	256.00
22	200	19 42 1 1/2 7	155	NA1B22-3AB20	374.00
24	200	19 42 1 1/2 7	155	NA1B24-3AB20	391.00
26	200	19 45 1 1/2 7	162	NA1B26-3AB20	408.00
28	200	19 48 1 1/2 7	169	NA1B28-3AB20	425.00
30	200	19 48 1 1/2 7	169	NA1B30-3AB20	442.00
32	200	19 48 1 1/2 7	169	NA1B32-3AB20	459.00
34	200	19 51 1 1/2 7	175	NA1B34-3AB20	476.00
36	200	19 51 1 1/2 7	176	NA1B36-3AB20	493.00
38	200	19 51 1 1/2 7	177	NA1B38-3AB20	510.00
40	200	19 54 1 1/2 7	190	NA1B40-3AB20	526.00

Main Automatic Circuit Breaker—Solid Neutral

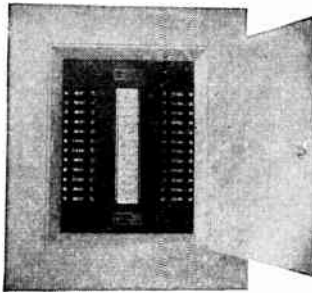
Double Row—4-Inch Gutters					
No. Branches	Main Bus Bar Amperes	INSIDE BOX DIMEN. AND MARKING, IN.	Approx. Wt. Lb.	No.	Each
		Width Ht. Depth			
4	50	19 24 1 1/2 4 3/4	67	NA1B04-4AB05	\$109.00
6	50	19 24 1 1/2 4 3/4	68	NA1B06-4AB05	126.00
8	50	19 27 1 1/2 4 3/4	76	NA1B08-4AB05	143.00
10	50	19 27 1 1/2 4 3/4	77	NA1B10-4AB05	160.00
12	50	19 27 1 1/2 4 3/4	78	NA1B12-4AB05	177.00
14	50	19 30 1 1/2 4 3/4	85	NA1B14-4AB05	194.00
16	100	19 36 1 1/2 5 1/2	110	NA1B16-4AB10	240.00
18	100	19 36 1 1/2 5 1/2	112	NA1B18-4AB10	257.00
20	100	19 39 1 1/2 5 1/2	122	NA1B20-4AB10	274.00
22	100	19 39 1 1/2 5 1/2	123	NA1B22-4AB10	291.00
24	100	19 39 1 1/2 5 1/2	124	NA1B24-4AB10	308.00
26	100	19 42 1 1/2 5 1/2	133	NA1B26-4AB10	325.00
28	100	19 45 1 1/2 5 1/2	142	NA1B28-4AB10	342.00
30	100	19 45 1 1/2 5 1/2	143	NA1B30-4AB10	359.00
32	200	23 1 1/2 51 1 1/2 7	183	NA1B32-4AB20	498.00
34	200	23 1 1/2 54 1 1/2 7	190	NA1B34-4AB20	515.00
36	200	23 1 1/2 54 1 1/2 7	190	NA1B36-4AB20	532.00
38	200	23 1 1/2 54 1 1/2 7	190	NA1B38-4AB20	549.00
40	200	23 1 1/2 57 1 1/2 7	200	NA1B40-4AB20	565.00
42	200	23 1 1/2 57 1 1/2 7	200	NA1B42-4AB20	582.00

*Prices are based on 15-amp. breakers, 20 and 25-amp. breakers supplied at same prices except when increased capacity bus bars are required; 35 and 50-amp. breakers, \$1.50 extra per circuit plus extra list for increased main if required.

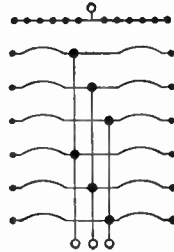
*Prices are based on 15-amp. breakers, 20 and 25-amp. breakers supplied at same prices except when increased capacity bus bars are required; 35 and 50-amp. breakers, \$1.50 extra per circuit plus extra list for increasing mains, if required.

FA Safety Type NA1BS-4 Circuit Breaker Panelboards and Cabinets

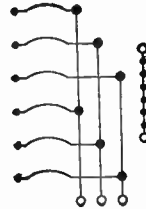
One Pole Breaker—Connected A-B-C Sequence



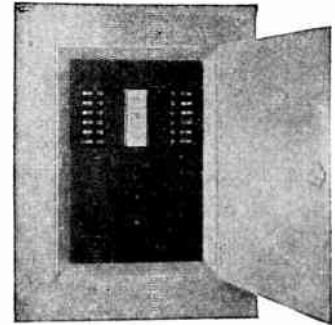
Type NA1BS-4L



Double Row



Single Row



Type NA1BS-4AB

PANELBOARD. Made of Sections of Moulded Material.
BRANCHES. *15 Amp., 125 V. S.P., Dublbrak Type Thermal Circuit Breakers for 120 V., 2-Wire, Solid Neutral Circuits. Connected A-B-C sequence.
MAINS. 3-Phase, 4-Wire, 120-208 V., Solid Neutral. "Sequence Bussing".
BOX. Code Thickness Galvanized Steel, Gutters, as noted.
FRONT. Code Thickness Furniture Steel. Rust-proof and Pearl Grey Finish. Flush Mounting unless Surface Is Ordered.

It is standard practice to assemble 3-phase, 4-wire lighting and appliance branch circuit panelboards so that all branch circuits on each phase are grouped together.

Ordinarily this scheme of connection meets all requirements, and since it is possible to make panelboards of this type somewhat narrower, a saving of space is effected. When panelboards are mounted on columns in industrial plants, the matter of additional width might be objectionable.

However, specifications occasionally specify the adjacent circuit branches to be connected in the sequence of phase A, B, and C, repeating this connection all the way from the top to the bottom of the panelboard.

The cost of the A, B, C, sequence arrangement is slightly higher than that of the group-phase arrangement, because a wider box is required and branch circuits require copper connecting straps between the main bus bar and circuit branches.

Main Cable Lugs Only—Solid Neutral

Main Automatic Circuit Breaker—Solid Neutral

Single Row—3-Inch Gutters

Double Row—4-Inch Gutters

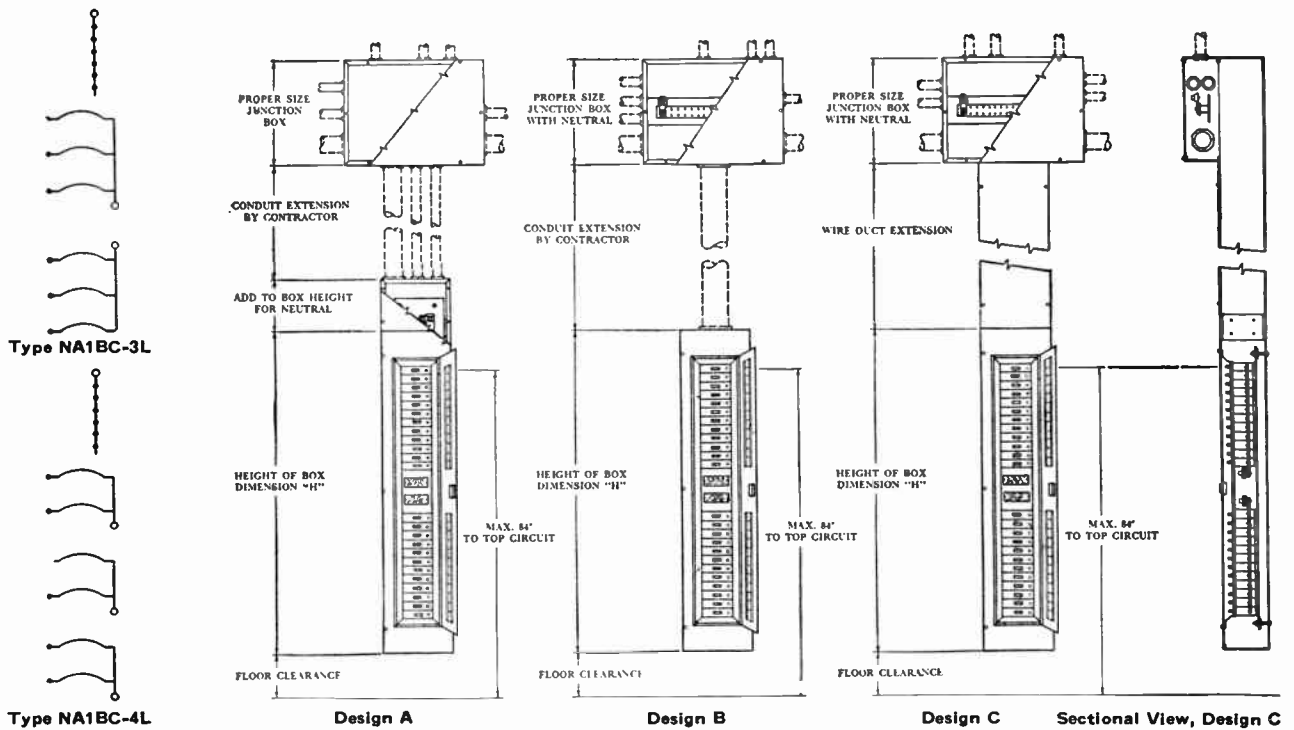
No. Branches	Main Bus Bar Amps.	INSIDE BOX DIMEN. (AND MARKINGS, IN.)			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
6	50	12	16½	4	70	NA1BS06-4L050	\$112.00
9	50	12	19½	4	71	NA1BS09-4L050	140.00
Double Row—4-Inch Gutters							
12	50	23½	21½	4¾	72	NA1BS12-4L05	168.00
14	50	23½	24½	4¾	85	NA1BS14-4L05	185.00
16	100	23½	24½	4¾	86	NA1BS16-4L10	203.00
18	100	23½	24½	4¾	87	NA1BS18-4L10	220.00
20	100	23½	27½	4¾	96	NA1BS20-4L10	239.00
22	100	23½	27½	4¾	97	NA1BS22-4L10	257.00
24	100	23½	27½	4¾	98	NA1BS24-4L10	276.00
26	100	23½	30½	4¾	107	NA1BS26-4L10	293.00
28	100	23½	30½	4¾	108	NA1BS28-4L10	309.00
30	100	23½	30½	4¾	109	NA1BS30-4L10	326.00
32	200	23½	33½	4¾	120	NA1BS32-4L20	343.00
34	200	23½	36½	4¾	130	NA1BS34-4L20	360.00
36	200	23½	36½	4¾	132	NA1BS36-4L20	377.00
38	200	23½	36½	4¾	133	NA1BS38-4L20	394.00
40	200	23½	39½	4¾	142	NA1BS40-4L20	413.00
42	200	23½	39½	4¾	143	NA1BS42-4L20	432.00

No. Branches	Main Bus Bar Amps.	INSIDE BOX DIMEN. (AND MARKING, IN.)			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
4	50	23½	21½	4¾	70	NA1BS04-4AB05	\$118.00
6	50	23½	21½	4¾	71	NA1BS06-4AB05	135.00
8	50	23½	24½	4¾	80	NA1BS08-4AB05	152.00
10	50	23½	24½	4¾	81	NA1BS10-4AB05	169.00
12	50	23½	24½	4¾	82	NA1BS12-4AB05	190.00
14	50	23½	27½	4¾	90	NA1BS14-4AB05	208.00
16	100	23½	33½	5½	110	NA1BS16-4AB10	255.00
18	100	23½	33½	5½	111	NA1BS18-4AB10	273.00
20	100	23½	36½	5½	120	NA1BS20-4AB10	291.00
22	100	23½	36½	5½	121	NA1BS22-4AB10	309.00
24	100	23½	36½	5½	122	NA1BS24-4AB10	328.00
26	100	23½	39½	5½	130	NA1BS26-4AB10	345.00
28	100	23½	39½	5½	131	NA1BS28-4AB10	361.00
30	100	23½	39½	5½	132	NA1BS30-4AB10	378.00
32	200	23½	48½	7	175	NA1BS32-4AB20	517.00
34	200	23½	51½	7	182	NA1BS34-4AB20	534.00
36	200	23½	51½	7	182	NA1BS36-4AB20	551.00
38	200	23½	51½	7	182	NA1BS38-4AB20	568.00
40	200	23½	54½	7	190	NA1BS40-4AB20	588.00
42	200	23½	54½	7	190	NA1BS42-4AB20	606.00

*Prices are based on 15-amp. breakers, 20 and 25-amp. breakers supplied at same prices except when increased capacity bus bars are required; 35 and 50-amp. breakers, \$1.50 extra per circuit, plus extra list for increased main, if required.

FA Industrial Column Type NA1BC Circuit Breaker Panelboards and Cabinets

One Pole Breaker



- PANELBOARD.** Made of Sections of Moulded Material.
- BRANCHES.** *15 Amp., 125 V. S.P. Dablbrak Type Thermal Circuit Breakers for 115 or 120 V., 2-Wire, Solid Neutral Circuits.
- MAINS.** Lugs Only with Solid Neutral. For 3-Wire, 115-230 V., or 4-Wire, 3 Ph., Solid Neutral Type for Surface Mounting Only.
- BOX.** Code Thickness Galvanized Steel with Side and Rear Gutters. Pearl Gray Finish. Flanged Door Feeder Systems.
- JUNCTION BOX.** Code Thickness Galvanized Steel. Neutral Plate Included. Size and Design as Shown Above.

Designed to be mounted between the flanges of a 10-inch H column; it may also be used to advantage in any other location where the available space will not accommodate a standard width panelboard.

Design A has the neutral plate located in an extension of the panelboard box. This extension has a removable screw cover which is separate from the panelboard front. A junction box for mounting on the ceiling directly above the panelboard location is furnished at extra cost.

Design B is the same as Design A, except that the neutral plate is mounted in the junction box on the ceiling. In both

designs, A and B, the contractor must furnish one or more riser conduits between the junction box and the panelboard.

Design C is similar to Design B, except that the connection between the junction box and the panelboard box is made by means of a wire duct instead of riser conduits.

Wire and cable duct is furnished extra as follows:

		36 to 76 Inches				
Length	In.	36	46	56	66	76
Each		\$23.00	25.00	26.00	29.00	30.00
		86 to 126 Inches				
Length	In.	86	96	106	116	126
Each		\$33.00	36.00	39.00	42.00	47.00

3-Wire—125/250 V., Solid Neutral

No. Branches	Main Bus Bar Amperes	OUTSIDE BOX DIMEN. AND MARKING, IN.			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
4	50	8	28	5	40	NA1BC04-3L05	\$81.00
6	50	8	28	5	40	NA1BC06-3L05	98.00
8	50	8	28	5	45	NA1BC08-3L05	114.00
10	50	8	28	5	45	NA1BC10-3L05	131.00
12	100	8	28	5	45	NA1BC12-3L10	148.00
14	100	8	32	5	50	NA1BC14-3L10	165.00
16	100	8	32	5	50	NA1BC16-3L10	182.00
18	100	8	36	5	55	NA1BC18-3L10	199.00
20	100	8	36	5	55	NA1BC20-3L10	216.00
22	200	8	40	5	65	NA1BC22-3L20	233.00
24	200	8	40	5	65	NA1BC24-3L20	250.00

3-Phase—4-Wire—120/208 V., Solid Neutral

No. Branches	Main Bus Bar Amperes	OUTSIDE BOX DIMEN. AND MARKING, IN.			Approx. Wt. Lb.	No.	Each
		Width	Ht.	Depth			
6	50	8	30	5	50	NA1BC06-4L05	\$104.00
9	50	8	30	5	50	NA1BC09-4L05	130.00
12	50	8	30	5	50	NA1BC12-4L05	155.00
15	50	8	36	5	55	NA1BC15-4L05	181.00
18	50	8	36	5	55	NA1BC18-4L05	205.00
21	100	8	42	5	65	NA1BC21-4L10	231.00
24	100	8	42	5	65	NA1BC24-4L10	256.00
27	100	8	48	5	75	NA1BC27-4L10	282.00
30	100	8	48	5	75	NA1BC30-4L10	307.00

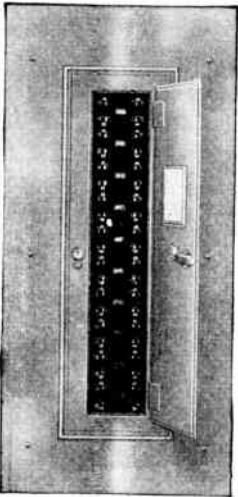
*Prices are based on 15-amp. breakers, 20 and 25-amp. breakers supplied at same prices except when increased capacity bus bars are required; 35 and 50-amp. breakers, \$1.50 extra per circuit, plus extra list for increased main.

†Junction Box, 18 inches wide, 12 inches high, 5 inches deep, add \$20. to prices.

‡When Design A is specified add to box height as follows: 4 to 24 branches, 6 inches; 26 to 30 branches, 10 inches. No additional charge.

Trumbull Unit Lighting Panelboards

125 Volts, 125-250 Volts A.C. or D.C.,
and 250 Volts A.C.



A unit lighting panelboard of the sectional type, which is an essential part of the interior distribution system, provides for multiple grouping of many small circuits or branches; facilitates their control and allows for convenient renewal of protective devices.

This type of panelboard is available in two types: Standard, with 20-inch width box, and the narrow type panel with a 12½-inch width box. The latter is particularly suitable for mounting in areas limited or restricted.

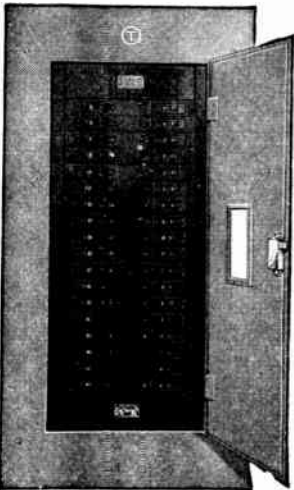
APPLICATION.—A unit lighting panelboard is designed for low voltage lighting distribution, 125 volts d.c., 125-250 volts a.c. or d.c. and 250 volts a.c. where the capacity in all branch circuits does not exceed 30 amperes.

CONSTRUCTION.—This panel is constructed of standardized parts, thereby providing additional features of flexibility and interchangeability.

Dead front type, consisting of an assembly of moulded bakelite sections, each containing a maximum of four tumbler switches, with fuses of the plug or cartridge type. Tumbler switches are available in both single and double pole, having a rating of 30 amperes, 250 volts. Panel is furnished complete with box and trim of code gage sheet steel.

Trumbull Circuit Breaker Lighting Panelboards

125 Volts D.C., 125-250 Volts
or 250 Volts A.C.



A circuit breaker lighting panelboard is particularly adaptable when automatic overload protection and flexibility are important factors of the installation.

This type of panelboard incorporates the Type AT Circuit Breaker with improved electrical and mechanical features.

APPLICATION.—This panelboard is designed for low voltage, branch circuit lighting and power distribution, 125 volts d.c., 125-250 volts or 250 volts a.c. where the capacity of any branch circuit does not exceed 50 amperes, although one subfeed up to 225 amperes can be furnished.

CONSTRUCTION.—Breakers are assembled on a heavy black enamel steel back plate, to accommodate the mounting of either 1, 2 or 3-pole breakers of 15, 20, 25, 35 or 50-ampere rating. This provides a feature of interchangeability which may be desirable at some later date to accommodate changes within the electrical wiring system.

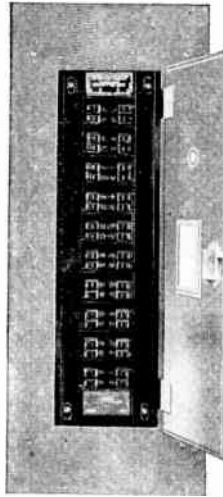
Breakers are calibrated and sealed at the factory to prevent unauthorized tampering or changes.

Panelboard boxes are 4½ inches deep, with the exception of where main breakers are of 100 or 225 amperes, frame size, which require a box 5¾ inches deep.

This panelboard is also available in the narrow type construction for use in areas where space may be a limiting factor.

Trumbull Multi-Breaker Lighting Panelboards

115-230 Volts A.C.



This type of panelboard is particularly suitable for restricted space, usually encountered in modern homes, stores and office buildings.

APPLICATION.—Designed for 120-240 volts a.c.

Branch circuit breakers are available in 15, 20, 25, 35 and 50-ampere, single and double-pole.

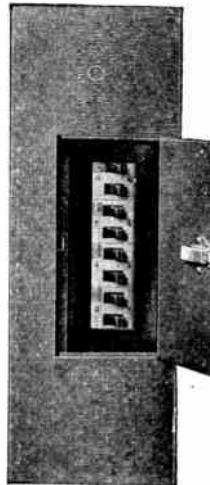
CONSTRUCTION.—Panel is assembled with molded unit blocks, each of which houses a number of unit pole breakers. The entire unit is rivet sealed with metal cover at the factory to prevent unauthorized changes.

Available with two types of breakers: one, utilizing the Type MB breaker, which can house as many as four single pole units in one block, and the other the Type M breaker, which houses two single pole units in one block.

The latter is particularly advantageous where added flexibility may be desired.

Trumbull Column Type Lighting Panelboards

Single-Phase, 115-230 Volts A.C., 3-Phase,
4-Wire 115-208 Volts A.C.



A new type of panelboard, which has been particularly designed for use in factory buildings where it may be desirable to assemble panelboards in the web of I columns.

APPLICATION.—Available for single-phase, 120-240 volts a.c., 3-phase, 4-wire 120-208 volts a.c. with branch circuits ranging from 15 to 50 amperes inclusive, single and double pole.

CONSTRUCTION.—This type of panelboard incorporates the use of Type M breaker, consisting of 2 unit pole breakers, assembled in a moulded unit block and rivet sealed to prevent any tampering. This panel is furnished in a 7¼-inch wide box designed for an 8-inch beam.

Boxes furnished with blank ends unless knockout information accompanies order. Fronts are furnished for flush or surface mounting; specify when ordering.

Lighting Panelboards (except Column Type) furnished with Dual Purpose Front; suitable for either flush or surface mounting. Standard drilling furnished on all Lighting Panelboard Boxes unless otherwise specified on order.

Write for complete information regarding additions for special features.

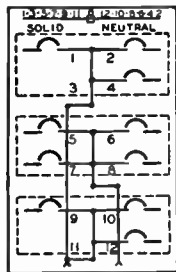
Type NM1B Trumbull Compact Multi-Breaker Panelboards

3-Wire Mains, 120-240 Volts, A.C.; 2-Wire Branches, 120 Volts, A.C.

15-Ampere, Single-Pole Type MB Multi-Breaker in One Leg; Solid Neutral Bar in Other Leg

Schedule L

For Panels having all double-pole breakers or combinations of single and double poles, convert to total number of single poles and obtain price of panel, then add \$1.00 for each double-pole substituted for two single poles.



These panels may contain from 2 to 18 double circuits. No panel may contain more than four poles of 35 or 50-ampere capacity which might be in the form of two double-pole 35 or 50-ampere circuits, four 35 or 50-ampere single pole circuits, one 35 or 50-ampere double-pole circuit or two 35 or 50-ampere single pole circuits. For panelboards involving more 35 or 50-ampere poles refer to Type NMM.

Standard drilling furnished on all lighting panelboard boxes unless otherwise specified on order. Blank box ends will be furnished on all special panelboard boxes unless drilling accompanies order.

Solderless lugs furnished in standard mains.

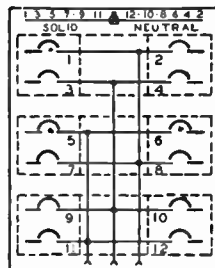
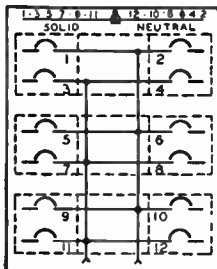
No. S.P. Cir.	Cap. Mains Amp.	Mains with Lugs Only		Mains with Circuit Breaker			
		No.	Each	No.	Each	Box No.	
4	50	NM1B04-3L	\$50.	MB-18	NM1B04-3AB	\$61.	MB-27
6	50	NM1B06-3L	57.	MB-18	NM1B06-3AB	68.	MB-27
8	50	NM1B08-3L	64.	MB-18	NM1B08-3AB	75.	MB-27
10	50	NM1B10-3L	71.	MB-21	NM1B10-3AB	82.	MB-27
12	100	NM1B12-3L	78.	MB-24	NM1B12-3AB	109.	MB-30
14	100	NM1B14-3L	85.	MB-24	NM1B14-3AB	116.	MB-30
16	100	NM1B16-3L	92.	MB-24	NM1B16-3AB	123.	MB-30
18	100	NM1B18-3L	99.	MB-27	NM1B18-3AB	130.	MB-36
20	100	NM1B20-3L	106.	MB-27	NM1B20-3AB	137.	MB-36
22	200	NM1B22-3L	113.	MB-27	NM1B22-3AB	222.	MB-51
24	200	NM1B24-3L	120.	MB-27	NM1B24-3AB	229.	MB-51
26	200	NM1B26-3L	127.	MB-30	NM1B26-3AB	236.	MB-51
28	200	NM1B28-3L	134.	MB-30	NM1B28-3AB	243.	MB-51
30	200	NM1B30-3L	141.	MB-33	NM1B30-3AB	250.	MB-54
32	200	NM1B32-3L	148.	MB-33	NM1B32-3AB	257.	MB-54
34	200	NM1B34-3L	155.	MB-36	NM1B34-3AB	264.	MB-57
36	200	NM1B36-3L	162.	MB-36	NM1B36-3AB	271.	MB-57
38	200	NM1B38-3L	169.	MB-39	NM1B38-3AB	278.	MB-60
40	200	NM1B40-3L	176.	MB-39	NM1B40-3AB	285.	MB-60
42	200	NM1B42-3L	183.	MB-42	NM1B42-3AB	292.	MB-63

Type NMM Trumbull Multi-Breaker Panelboards

15-Ampere, Single-Pole Type M Multi-Breaker in One Leg; Solid Neutral Bar in Other Leg

3-Wire Mains, 120-240 Volts
2-Wire Branches, 120 Volts

4-Wire Mains, 3-Phase, 120-208 Volts
2-Wire Branches, 120 Volts



No. S.P. Cir.	Cap. Mains Amp.	Mains with Lugs Only		Mains with Circuit Breaker			No. S.P. Cir.	Cap. Mains Amp.	Mains with Lugs Only		Mains with Circuit Breaker				
		No.	Each	No.	Each	Box No.			No.	Each	No.	Each	Box No.		
4	50	NMM04-3L	\$54.	51200	NMM04-3AB	\$65.	51202	6	50	NMM06-4L	\$68.	51201	NMM06-4AB	\$85.	51203
6	50	NMM06-3L	63.	51201	NMM06-3AB	74.	51203	8	50	NMM08-4L	77.	51201	NMM08-4AB	94.	51203
8	50	NMM08-3L	72.	51201	NMM08-3AB	83.	51203	10	50	NMM10-4L	86.	51201	NMM10-4AB	103.	51203
10	50	NMM10-3L	81.	51201	NMM10-3AB	92.	51203	12	50	NMM12-4L	95.	51201	NMM12-4AB	112.	51203
12	100	NMM12-3L	90.	51201	NMM12-3AB	121.	51203	14	50	NMM14-4L	104.	51202	NMM14-4AB	121.	51204
14	100	NMM14-3L	99.	51202	NMM14-3AB	130.	51204	16	100	NMM16-4L	113.	51202	NMM16-4AB	153.	51204
16	100	NMM16-3L	108.	51202	NMM16-3AB	139.	51204	18	100	NMM18-4L	122.	51203	NMM18-4AB	162.	51205
18	100	NMM18-3L	117.	51203	NMM18-3AB	148.	51205	20	100	NMM20-4L	131.	51203	NMM20-4AB	171.	51205
20	100	NMM20-3L	126.	51203	NMM20-3AB	157.	51205	22	100	NMM22-4L	140.	51203	NMM22-4AB	180.	51205
22	200	NMM22-3L	135.	51203	NMM22-3AB	244.	61209	24	100	NMM24-4L	149.	51203	NMM24-4AB	189.	51205
24	200	NMM24-3L	144.	51203	NMM24-3AB	253.	61209	26	100	NMM26-4L	158.	51204	NMM26-4AB	198.	51206
26	200	NMM26-3L	153.	51204	NMM26-3AB	262.	61209	28	100	NMM28-4L	167.	51204	NMM28-4AB	207.	51206
28	200	NMM28-3L	162.	51204	NMM28-3AB	271.	61209	30	100	NMM30-4L	176.	51205	NMM30-4AB	216.	51207
30	200	NMM30-3L	171.	51205	NMM30-3AB	280.	61210	32	200	NMM32-4L	185.	51205	NMM32-4AB	319.	61210
32	200	NMM32-3L	180.	51205	NMM32-3AB	289.	61210	34	200	NMM34-4L	194.	51205	NMM34-4AB	328.	61211
34	200	NMM34-3L	189.	51205	NMM34-3AB	298.	61211	36	200	NMM36-4L	203.	51205	NMM36-4AB	337.	61211
36	200	NMM36-3L	198.	51205	NMM36-3AB	307.	61211	38	200	NMM38-4L	212.	51206	NMM38-4AB	346.	61211
38	200	NMM38-3L	207.	51206	NMM38-3AB	316.	61211	40	200	NMM40-4L	221.	51206	NMM40-4AB	355.	61211
40	200	NMM40-3L	216.	51206	NMM40-3AB	325.	61211	42	200	NMM42-4L	230.	51207	NMM42-4AB	364.	61212
42	200	NMM42-3L	225.	51207	NMM42-3AB	334.	61212								

Prices shown are for 15, 20, 25, 35 and 50-ampere rating. For each double-pole breaker when substituted for two single-poles, add \$1.00.

Universal fronts. Standard drilling furnished on all lighting panelboard boxes unless otherwise specified on order. Blank box ends will be furnished on all special panelboard boxes unless drilling accompanies order.

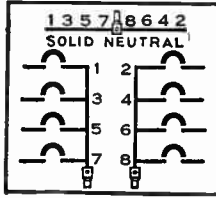
Solderless lugs furnished in standard mains.

Type NAB Trumbull Circuit Breaker Panelboards

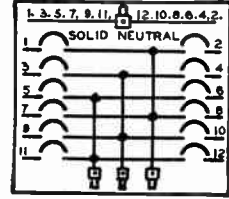
15-Ampere, Single-Pole Type AT Breaker in One Leg; Solid Neutral Bar in Other Leg

Schedule L-3

**3-Wire Mains, 115-230 Volts
2-Wire Branches, 115 Volts**



**4-Wire Mains, 3-Phase, 120-208 Volts
2-Wire Branches, 115 Volts**



No. Mains Cirs.	Cap. Mains Amp.	Mains with Lugs Only		Mains with Circuit Breaker	
		No.	Each	No.	Each
4	50	NAB304L	\$62.	NAB304AB	\$73.
6	50	NAB306L	75.	NAB306AB	86.
8	50	NAB308L	88.	NAB308AB	99.
10	50	NAB310L	101.	NAB310AB	112.
12	100	NAB312L	114.	NAB312AB	145.
14	100	NAB314L	127.	NAB314AB	158.
16	100	NAB316L	140.	NAB316AB	171.
18	100	NAB318L	153.	NAB318AB	194.
20	100	NAB320L	166.	NAB320AB	197.
22	200	NAB322L	179.	NAB322AB	288.
24	200	NAB324L	192.	NAB324AB	301.
26	200	NAB326L	205.	NAB326AB	314.
28	200	NAB328L	218.	NAB328AB	327.
30	200	NAB330L	231.	NAB330AB	340.
32	200	NAB332L	244.	NAB332AB	353.
34	200	NAB334L	257.	NAB334AB	366.
36	200	NAB336L	270.	NAB336AB	379.
38	200	NAB338L	283.	NAB338AB	392.
40	200	NAB340L	296.	NAB340AB	405.
42	200	NAB342L	309.	NAB342AB	418.

No. Mains Cirs.	Cap. Mains Amp.	Mains with Lugs Only		Mains with Circuit Breaker	
		No.	Each	No.	Each
4	50	NAB404L	\$67.	NAB404AB	\$84.
6	50	NAB406L	80.	NAB406AB	97.
8	50	NAB408L	93.	NAB408AB	110.
10	50	NAB410L	106.	NAB410AB	123.
12	50	NAB412L	119.	NAB412AB	136.
14	50	NAB414L	132.	NAB414AB	149.
16	100	NAB416L	145.	NAB416AB	185.
18	100	NAB418L	158.	NAB418AB	198.
20	100	NAB420L	171.	NAB420AB	211.
22	100	NAB422L	184.	NAB422AB	224.
24	100	NAB424L	197.	NAB424AB	237.
26	100	NAB426L	210.	NAB426AB	250.
28	100	NAB428L	223.	NAB428AB	263.
30	100	NAB430L	236.	NAB430AB	276.
32	200	NAB432L	249.	NAB432AB	383.
34	200	NAB434L	262.	NAB434AB	396.
36	200	NAB436L	275.	NAB436AB	409.
38	200	NAB438L	288.	NAB438AB	422.
40	200	NAB440L	301.	NAB440AB	435.
42	200	NAB442L	314.	NAB442AB	448.

Prices are for 15-ampere breakers; 20 and 25-ampere breakers supplied at same price except increased mains should be added where necessary. For each 35 and 50 ampere breaker, add \$1.00 per single-pole.

Trumbull Circuit Breaker Panelboards

**Type ABH, for Lighting and Power Circuits
Up to 50 Amperes**

230 Volts, A.C. or 125-250 Volts, D.C., Maximum

Includes main lugs or main breakers (either 2 or 3 wires), top and bottom gutters with respective section of bus, box and front to circuit edges. Remaining equipment for complete panelboard included in branch circuit prices.

Type of Main	MAIN BUS CAPACITY, AMPERES			
	50	100	225	400
Lugs in Mains, 2-Pole.	\$30.	\$30.	\$30.	\$42.
Lugs in Mains, 3-Pole.	35.	35.	35.	47.
Main Breaker, 2-Pole..	41.	61.	139.	...
Main Breaker, 3-Pole..	52.	75.	169.	...

Branch Circuits

No. of Poles.....	Breaker			Space Only		
	1	2	3	1	2	3
15, 20, 25-Amp. each	\$6.50	.....	.....	\$3.00	.....	.....
35 and 50-Amp. each	7.50	.....	.....	3.00	.....	.....
15, 20, 25, 35, 50-Amps. each	.....	\$14.50	\$23.00	.....	\$4.00	\$5.00

Solid Neutral Bar

225 Amperes or Less.....	each	\$6.00
400 Amperes.....	each	18.00

Standard drilling furnished on all lighting panelboard boxes unless otherwise specified on order.

Blank box ends will be furnished on all special panelboard boxes unless drilling accompanies order.

Solderless lugs furnished in standard mains.

Trumbull Panelboard Box Sizes

No.	Price	Width	Height	Depth	51200 Series			61200 Series		
					No.	Price	Width	Height	Depth	No.	Price	Width	Height	Depth
51200	\$6.00	20	16 1/2	4 1/2	61200	\$6.00	20	16 1/2	5 3/4	
51201	6.50	20	19 1/2	4 1/2	61201	6.50	20	19 1/2	5 3/4	
51202	7.00	20	22 1/2	4 1/2	61202	7.00	20	22 1/2	5 3/4	
51203	8.00	20	25 1/2	4 1/2	61203	8.00	20	25 1/2	5 3/4	
51204	9.00	20	28 1/2	4 1/2	61204	9.00	20	28 1/2	5 3/4	
51205	10.00	20	31 1/2	4 1/2	61205	10.00	20	31 1/2	5 3/4	
51206	11.00	20	34 1/2	4 1/2	61206	11.00	20	34 1/2	5 3/4	
51207	12.00	20	37 1/2	4 1/2	61207	12.00	20	37 1/2	5 3/4	
51208	13.00	20	40 1/2	4 1/2	61208	13.00	20	40 1/2	5 3/4	
51209	15.00	20	43 1/2	4 1/2	61209	15.00	20	43 1/2	5 3/4	
51210	17.00	20	46 1/2	4 1/2	61210	17.00	20	46 1/2	5 3/4	
51211	19.00	20	49 1/2	4 1/2	61211	19.00	20	49 1/2	5 3/4	
51212	21.00	20	52 1/2	4 1/2	61212	21.00	20	52 1/2	5 3/4	
51213	24.00	20	55 1/2	4 1/2	61213	24.00	20	55 1/2	5 3/4	
51214	27.00	20	58 1/2	4 1/2	61214	27.00	20	58 1/2	5 3/4	
51215	32.00	20	61 1/2	4 1/2	61215	32.00	20	61 1/2	5 3/4	
51216	37.00	20	64 1/2	4 1/2	61216	37.00	20	64 1/2	5 3/4	
					MB Series					
					MB-18	\$4.50	15	18	4 1/2	
					MB-21	5.00	15	21	4 1/2	
					MB-24	5.50	15	24	4 1/2	
					MB-27	6.00	15	27	4 1/2	
					MB-30	6.50	15	30	4 1/2	
					MB-33	7.00	15	33	4 1/2	
					MB-36	7.50	15	36	4 1/2	
					MB-39	8.00	15	39	4 1/2	
					MB-42	9.00	15	42	4 1/2	
					MB-51	10.00	15	51	4 1/2	
					MB-54	10.50	15	54	4 1/2	
					MB-57	11.00	15	57	4 1/2	
					MB-60	11.50	15	60	4 1/2	
					MB-63	12.00	15	63	4 1/2	
					51251 Series					
51251	\$3.00	12 1/2	12	4 1/2						
51252	3.20	12 1/2	15	4 1/2						
51253	3.40	12 1/2	18	4 1/2						
51254	3.60	12 1/2	21	4 1/2						
51255	3.90	12 1/2	24	4 1/2						

Trumbull Switch and Fuse Lighting Panelboards

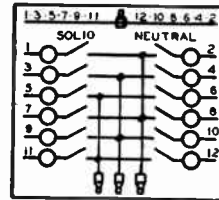
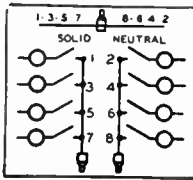
Standard Type

30-Ampere, Single-Pole Fused Tumbler Switch In One Leg; Solid Neutral In Other Leg

3-Wire Mains, 125-250 Volts
2-Wire Branches, 125 Volts

Schedule L

4-Wire Mains, 3-Phase, 125-250 Volts
2-Wire Branches, 125 Volts



Mains with Lugs Only
*Single Door

Mains with Lugs Only
*Single Door

No. Cir.	Cap. Mains Amp.	Box No.	Plug Fuses No.	Cart Fuses No.	Approx. Each	Ship. Wt. Lb.	No. Cir.	Cap. Mains Amp.	Box No.	Plug Fuses No.	Cart Fuses No.	Approx. Each	Ship. Wt. Lb.
4	60	51200	NTP304L	NTC304L	\$48.00	48	4	60	51200	NTP404L	NTC404L	\$53.00	48
8	60	41201	NTP308L	NTC308L	60.00	58	8	60	51201	NTP408L	NTC408L	65.00	58
12	60	51202	NTP312L	NTC312L	72.00	66	12	60	51202	NTP412L	NTC412L	77.00	66
16	100	51203	NTP316L	NTC316L	84.00	74	16	60	51203	NTP416L	NTC416L	89.00	74
20	100	51204	NTP320L	NTC320L	96.00	87	20	100	51204	NTP420L	NTC420L	101.00	87
24	200	51205	NTP324L	NTC324L	108.00	90	24	100	51205	NTP424L	NTC424L	113.00	90
28	200	51206	NTP328L	NTC328L	120.00	102	28	100	51206	NTP428L	NTC428L	125.00	102
32	200	51207	NTP332L	NTC332L	132.00	106	32	200	51207	NTP432L	NTC432L	137.00	106
36	200	51208	NTP336L	NTC336L	144.00	125	36	200	51208	NTP436L	NTC436L	149.00	125
40	200	51209	NTP340L	NTC340L	156.00	134	40	200	51209	NTP440L	NTC440L	161.00	134

Mains with Safety Fuse (Swing Wa)

Mains with Safety Fuse (Swing Wa)

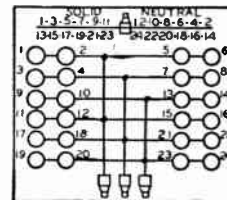
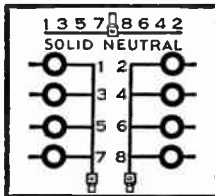
4	60	51203	NTP304SWF	NTC304SWF	\$59.00	67	4	60	51203	NTP404SWF	NTC404SWF	\$70.00	67
8	60	51204	NTP308SWF	NTC308SWF	71.00	77	8	60	51204	NTP408SWF	NTC408SWF	82.00	77
12	60	51205	NTP312SWF	NTC312SWF	83.00	82	12	60	51205	NTP412SWF	NTC412SWF	94.00	82
16	100	51206	NTP316SWF	NTC316SWF	106.00	87	16	60	51206	NTP416SWF	NTC416SWF	106.00	87
20	100	51207	NTP320SWF	NTC320SWF	118.00	97	20	100	51207	NTP420SWF	NTC420SWF	134.00	97
24	200	51209	NTP324SWF	NTC324SWF	158.00	107	24	100	51208	NTP424SWF	NTC424SWF	146.00	107
28	200	51210	NTP328SWF	NTC328SWF	170.00	117	28	100	51209	NTP428SWF	NTC428SWF	158.00	117
32	200	51211	NTP332SWF	NTC332SWF	182.00	143	32	200	51211	NTP432SWF	NTC432SWF	211.00	143
36	200	51212	NTP336SWF	NTC336SWF	194.00	153	36	200	51212	NTP436SWF	NTC436SWF	223.00	153
40	200	51213	NTP340SWF	NTC340SWF	206.00	163	40	200	51213	NTP440SWF	NTC440SWF	235.00	163

Plug Fuse Type

Single Plug Fuse in One Leg; Solid Neutral in Other Leg—Single Door Construction

3-Wire Mains, 125-250 Volts
2-Wire Branches, 125 Volts

4-Wire Mains, 3-Phase, 125-250 Volts
2-Wire Branches, 125 Volts



Mains with Lugs Only

Mains with Lugs Only

No.	Each	No. Cir.	Cap. Mains Amp.	Box No.	Approx. Ship. Wt. Lb.	No.	Each	No. Cir.	Cap. Mains Amp.	Box No.	Approx. Ship. Wt. Lb.
NP316L	\$60.00	16	100	51201	56	NP416L	\$65.00	16	60	51201	56
NP324L	72.00	24	200	51202	63	NP424L	77.00	24	100	51202	63
NP332L	96.00	32	200	51203	68	NP432L	89.00	32	200	51203	68
NP340L	96.00	40	200	51204	85	NP440L	101.00	40	200	51204	85

Mains with Safety Fuse (Swing Wa)

Mains with Safety Fuse (Swing Wa)

NP308SWF	\$59.00	8	60	51203	65	NP408SWF	\$70.00	8	60	51203	65
NP316SWF	82.00	16	100	51204	75	NP416SWF	82.00	16	60	51204	75
NP324SWF	122.00	24	200	51206	84	NP424SWF	110.00	24	100	51205	84
NP332SWF	134.00	32	200	51207	94	NP432SWF	163.00	32	200	51207	94
NP340SWF	146.00	40	200	51208	105	NP440SWF	175.00	40	200	51208	105

*For door-in-door, add \$16 to price, and add suffix D to number.

Numbers and price include combined panel, barriers, code gage steel cabinet and tumbler switches. Fuses not included.

Standard drilling furnished on all lighting panelboard boxes unless otherwise specified on order. Blank box ends will be furnished on all special panelboard boxes unless drilling accompanies order. Solderless lugs standard in the mains.

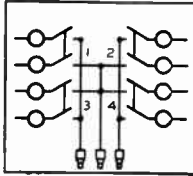
Trumbull Switch and Fuse Lighting Panelboards

Schedule L

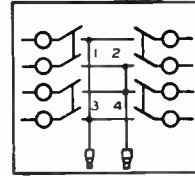
Standard Type

30-Ampere, Double-Pole Fused Tumbler Switches, No Neutral Bar

3-Wire Mains, 125-250 Volts
2-Wire Branches, 125 Volts



2-Wire Mains, 125 Volts
2-Wire Branches, 125 Volts



Mains with Lugs Only
*Single Door

Mains with Lugs Only
*Single Door

No. Cir.	Cap. Mains Amp.	Box No.	Plug Fuses No.	Cart Fuses No.	Each	No. Cir.	Cap. Mains Amp.	Box No.	Plug Fuses No.	Cart Fuses No.	Each
4	60	51201	TP304L	TC304L	\$61.00	4	60	51201	TP204L	TC204L	\$56.00
6	60	51202	TP306L	TC306L	71.00	6	100	51202	TP206L	TC206L	66.00
8	60	51203	TP308L	TC308L	81.00	8	100	51203	TP208L	TC208L	76.00
10	60	51204	TP310L	TC310L	91.00	10	100	51204	TP210L	TC210L	86.00
12	60	51205	TP312L	TC312L	101.00	12	200	51205	TP212L	TC212L	96.00
14	100	51206	TP314L	TC314L	111.00	14	200	51206	TP214L	TC214L	106.00
16	100	51207	TP316L	TC316L	121.00	16	200	51207	TP216L	TC216L	116.00
18	100	51208	TP318L	TC318L	131.00	18	200	51208	TP218L	TC218L	126.00
20	100	51209	TP320L	TC320L	141.00	20	200	51209	TP220L	TC220L	136.00

Mains with Safety Fuse (Swing-Wa)
*Single Door

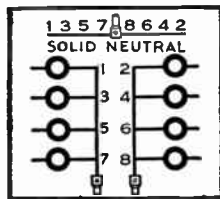
Mains with Safety Fuse (Swing Wa)
*Single Door

4	60	51204	TP304SWF	TC304SWF	\$72.00	4	60	51204	TP204SWF	TC204SWF	\$73.00
6	60	51205	TP306SWF	TC306SWF	82.00	6	100	51205	TP206SWF	TC206SWF	99.00
8	60	51206	TP308SWF	TC308SWF	92.00	8	100	51206	TP208SWF	TC208SWF	109.00
10	60	51207	TP310SWF	TC310SWF	102.00	10	100	51207	TP210SWF	TC210SWF	119.00
12	60	51208	TP312SWF	TC312SWF	112.00	12	200	51209	TP212SWF	TC212SWF	170.00
14	100	51209	TP314SWF	TC314SWF	133.00	14	200	51210	TP214SWF	TC214SWF	180.00
16	100	51210	TP316SWF	TC316SWF	143.00	16	200	51211	TP216SWF	TC216SWF	190.00
18	100	51211	TP318SWF	TC318SWF	153.00	18	200	51212	TP218SWF	TC218SWF	200.00
20	100	51212	TP320SWF	TC320SWF	163.00	20	200	51213	TP220SWF	TC220SWF	210.00

Narrow Plug Fuse Type

Single Fuse in One Leg; Solid Neutral in Other Leg

3-Wire Mains, 125-250 Volts; 2-Wire Branches, 125 Volts—Single Door Construction



Mains with Lugs Only

No.	NRP3G04	NRP3G08	NRP3G12	NRP3G16	NRP3G20
Each.....	.....	.....	.....	.....	.....
No. of Circuits.....	4	8	12	16	20
Capacity Mains..... amperes	60	60	60	100	100
Box No.....	51251	51252	51253	51254	51255

*For door-in-door, add \$16 to prices, and add suffix D to number.

Number and price includes combined panel, barriers, code gage steel cabinet and tumbler switches. Fuses not included in price.

Standard drilling furnished on all lighting panelboard boxes unless otherwise specified on order.

Blank box ends will be furnished on all special panelboard boxes unless drilling accompanies order. Solderless lugs standard in the mains.

Trumbull Lighting and Power Distribution Panels

Convertible Circuit Breakers—Converti-Fuse—Swing-Wa

600 Volts and Less, A.C. or D.C.

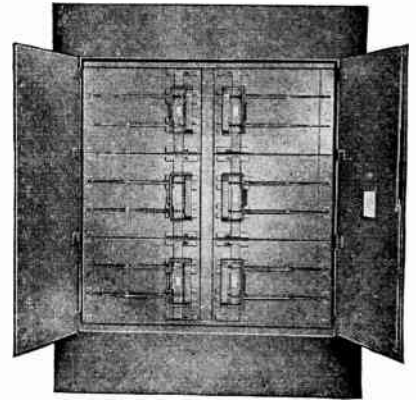
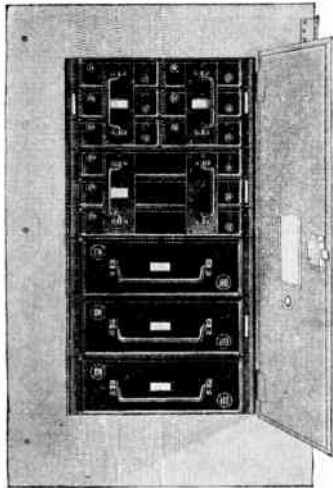
Single-Phase or D.C.—2 or 3-Wire

Service 3-Phase—3-Phase 3-Wire or 3-Phase 4-Wire

Schedule L

Converti-Fuse Panelboard. Designed for 600-volt service. Branch circuits are available in 1, 2, or 3-pole, from 30 to 400 amperes, inclusive. Consists of an assembly of unit bakelite sections mounted on a steel back plate, or channel iron construction depending on size of panel. Has dead front design, interchangeable individual base sections and removable caps, and solderless lugs in mains.

Swing-Wa Panelboard. Designed for 600 volts a.c. service. Branch circuits can be furnished in 2 or 3-pole, 30 to 400 amperes, inclusive. Individual units are enclosed in protective steel compartments and allow for the maximum of interchangeability, flexibility, and rearrangement of circuits. Furnished with an operating handle, full floating contacts, thermostatic contact reinforcements, and solderless lugs in mains.



Converti-Fuse

Table 1—Mains with Lugs Only

Swing-Wa

Largest Branch, Amperes 200 (225) and Less..... 400..... 600.....	Size of Mains, Amperes				
	200 (225)	400	600	800	1200
	\$40.00	\$50.00	\$70.00	\$90.00	\$125.00
		70.00	90.00	115.00	150.00
			110.00	150.00	190.00

Mains Other than Lugs. Select proper rating and add as branch circuit price, Tables 2B, 3B or 2C, 3C or 2S, 3S.

Convertible Circuit Breakers—Branch Circuits

Table 2B

250 Volts, A.C. Maximum—125/250 Volts, D.C.

Table 3B

600 V. A.C.—250 V. D.C. Maximum

Frame	TRIP RATING Amperes	Branch Circuit			Space Only			Branch Circuit		Space Only	
		Single-Pole Per Circuit	2-Pole Per Circuit	3-Pole Per Circuit	Single-Pole Per Circuit	2-Pole Per Circuit	3-Pole Per Circuit	2-Pole Per Circuit	3-Pole Per Circuit	2-Pole Per Circuit	3-Pole Per Circuit
50AT	15-20-25	\$9.00			\$4.00						
50AT	35-50	10.00			4.00						
100AT	15-20-25-35-50		\$19.00	\$27.00		\$5.00	\$7.00	\$34.00	\$43.00	\$5.00	\$7.00
100ATB	15-20-25-35-50		23.00	31.00		5.00	7.00				
100ATB	70-90-100		33.00	44.00		5.00	7.00	44.00	55.00	5.00	7.00
225AT	125-150-175-200-225		113.00	141.00		16.00	24.00	133.00	168.00	16.00	24.00
400AT	250-275-300-325-350-400		280.00	360.00		30.00	40.00	300.00	387.00	30.00	40.00
600AT	450-500-550-600		325.00	420.00		30.00	40.00	345.00	447.00	30.00	40.00

Table 2C

250 Volts Maximum

Table 3C

600 Volts Maximum

Ampere Capacity	*Double Branch			Space Only			*Double Branch			Space Only		
	Single-Pole Per Circuit	2-Pole Per Circuit	3-Pole Per Circuit	Single-Pole Per Circuit	2-Pole Per Circuit	3-Pole Per Circuit	Single-Pole Per Circuit	2-Pole Per Circuit	3-Pole Per Circuit	Single-Pole Per Circuit	2-Pole Per Circuit	3-Pole Per Circuit
30-30	†\$10.00	†\$10.00	†\$14.00	†\$4.00	†\$4.00	†\$4.00	\$18.00	\$22.00	\$26.00	\$4.00	\$4.00	\$4.00
60-60	† 10.00	† 12.00	† 17.00	† 4.00	† 6.00	† 8.00	18.00	22.00	26.00	4.00	6.00	8.00
100-100	† 11.00	† 21.00	† 31.00	† 4.00	† 6.00	† 8.00						
	Single Branch			Space Only			Single Branch			Space Only		
100	\$11.00	\$21.00	\$31.00	\$8.00	\$12.00	\$16.00	\$30.00	\$40.00	\$50.00	\$8.00	\$12.00	\$16.00
200	22.00	44.00	66.00	17.00	16.00	24.00	70.00	90.00	110.00	12.00	16.00	24.00
400	60.00	110.00	160.00	30.00	40.00	40.00	120.00	170.00	220.00	30.00	40.00	40.00

*Price is per circuit but must be priced in pairs. Circuits 30, 60, or 100 amperes can be assorted in pairs, with the largest unit governing the price. Applies to Tables 2C, 3C, 2S and 3S. †For 250-volt panel only with 30, 60, or 100-ampere main or branch circuits only, and main busses not over 600 amperes, deduct \$10.00 from prices.

Table 2S and 3S—Swing-Wa—Branch Circuits

For Swing-Wa construction, add 10 per cent to branch circuit Converti-Fuse prices in Tables 2C and 3C. Limited to 2 and 3-pole branch circuits only.

Table 4—Solid Neutral

Ampere Rating.....	200 (225)	400	600	800	1200
Each.....	\$14.00	\$18.00	\$25.00	\$33.00	\$42.00

Table 5—Double, Feed-Thru or Sub-Feed Lugs

No. of Bus Bars	Ampere Rating				
	200 (225) Each	400 Each	600 Each	800 Each	1200 Each
2	\$10.00	\$20.00	\$35.00	\$50.00	\$60.00
3	13.00	24.00	40.00	55.00	65.00

Blank Box Ends (removable) are furnished as standard unless knockout information accompanies order.

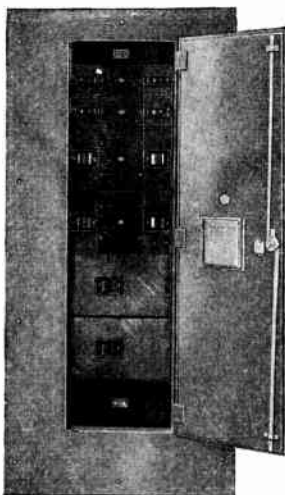
Panelboards furnished with dual purpose front, suitable

for either flush or surface mounting.

Solderless Lugs in main busses are standard. Furnished in branch circuits when requested at no additional charge.

Trumbull Circuit Breaker Distribution Power Panelboards

Schedule L



Used for automatic overload current protection for heavy duty light and power distribution. **Application.**—Available for 125-250 volts a.c. and d.c. systems and 600 volts a.c. Branch circuits are available from 15 to 600 amperes inclusive, 2 and 3-pole.

Construction.—Sectionalized type with breakers mounted on steel back plates, making it possible to provide space in the cabinet for future additional circuits, or to interchange circuits. The larger size circuit breakers above 50-ampere frame equipped with removable trips units, thus allowing in certain instances desirable changes in capacity without removing the unit itself. Because of standard breaker dimensions, it is also possible to interchange units of different poles or capacities. Solderless lugs standard in mains.

Note.—Panelboards furnished with dual purpose front, suitable for either flush or surface mounting. Boxes without knockouts unless arrangement specified on order. Base price includes main lugs (either single or 3-phase), top and bottom gutter, with respective sections of bus, box and front to circuit edge. Remaining equipment for complete panelboard included in circuit prices.

Main Breakers.—Figure same as branch circuit from circuit prices after adding base price considering main breaker as largest branch circuit. X=1 $\frac{3}{8}$ inches.

Dimensions	
Box Width.....	inches 28
Box Depth.....	inches 9 $\frac{1}{2}$
Gutter Width.....	inches 5

Trumbull Special Features

The following special features are available on all panelboards unless indicated otherwise:

*Increased Gage Over Standard, Maximum 10 Gage: Box Only or Front Only..... each	\$15.00	*Special Front or Door Arrangements: Non-Standard Door-In-Door with 1 Door Over Interior and Additional Door Exposing Wiring Gutter..... set	\$20.00
Box and Front..... per set	20.00	Double or Split Doors, One Above the Other..... each	20.00
*Increased Gutters Over Standard: For Each 12-In. Increase (or Fraction Thereof) in Length (Ends)..... each	20.00	One Front with Two Doors, in Place of 2 individual Fronts, to Cover 2 Boxes Side by Side..... each	20.00
†For Each 5-In. Increase (Or Fraction Thereof) in Width (Sides)..... each	20.00	*Finishes, Hot Dipped Galvanized: Box Only or Front Only, Up to 20x48 In.... each	50.00
†For Increased Depth Up to 8-In. Max. on Lighting Panels, or 14-In. Max. on Distribution Panels..... each	20.00	Box and Front, Up to 20x48 In..... per set	75.00
*Weatherproof Cabinets: †Single Door, Width Less Than 20 In..... each	45.00	Box Only or Front Only, Up to 30x48 In.... each	100.00
†Single Door, Width Over 20 In..... each	60.00	Box and Front, Up to 30x48 In..... per set	130.00
†Door Back of Door, Width less than 20 In. each	60.00	*Finishes, Cadmium Plated: Box Only or Front Only, Up to 20x48 In.... each	20.00
†Door Back of Door, Over 20 In..... each	90.00	Box and Front, Up to 20x48 In..... per set	35.00
*Dust-Resisting Cabinet, Felt or Rubber Gaskets for Door and Front Only: Boxes, Not over 20 In. Wide..... each	30.00	Box Only or Front Only, Up to 30x48 In.... each	45.00
Boxes, Over 20 In. Wide..... each	40.00	Box and Front, Up to 30x48 In..... per set	70.00
*Mounting Only any Standard Wall-Mounted Wiring Device (Pilot Lamps, Tumbler Switches) in Front of Box (Device Not Included): First Device..... each	10.00	*Special Paint (Special Paint is any Finish Except Aluminum, Black, Brown, Crystallac, Gray, Green, or Prime Coat): Box, Front, or Both..... each	30.00
Additional Devices..... each	5.00	*Galvanized Sheet Steel Front..... each	20.00
Mounting Only Instruments (Time Clocks, etc.) (Device not included): Drilling Only, No Increase in Box Size.....	20.00	*Glass Door Panel in Steel or Wood Frame. per door	45.00
		Directory, Special Frame..... each	3.00
		Directory, Glass..... No Extra Charge	
		Spring Door Hinges, Bommer, Brass or Iron..... per pair	4.00

*Deduct 25 per cent when individual order calls for duplicate cabinets with same special features, or when a quantity of ten or more assorted panelboards is involved.

†Not Applicable to column type.

Continued

Trumbull Special Features

Concluded

Special Locking Arrangements:

Vault Handle & 3-Point Catch, when Not Std. set.....	\$15.00
Extra Lock on Inner Door of Door-In-Door Panel.....	each 2.50
Special Locks (Corbin No. 2510-2520, Yale No. 511-511S).....	each 14.00
Special Locks (Corbin No. 2720, Yale No. R272, R274-5101S).....	each 7.00
Master Keying (Applies Only to Above Locks) Only with other Locks of Same Type Number.....	add per lock 1.00

Panelboard interiors and fronts to fit existing boxes. Panelboards furnished without boxes to take care of old installations. No credit will be allowed from price of complete panelboard for omitting box. Price of panel interior and special front will be price of complete standard panelboard having desired interior, providing existing box is same depth as Trumbull standard for the one being ordered. If existing box is shallower or deeper than Trumbull standard, extra charges are made as follows:

Panel Interior and Front to Fit Existing Box Which is Shallower.....	add to complete panel \$35.00
Panel Interior and Front to Fit Existing Box Which is Deeper.....	add to complete panel 10.00

Circuit Breakers In Mains—Column Type Panelboards Additions for Main Lugs

Ampere Capacity.....	50	100	200
2-Pole.....	\$15.00	\$33.00	\$118.00
3-Pole.....	23.00	44.00	Not Available

Remote Control Switches

Complete installation except push-button controls.

Ampere Capacity	Mech. Held		Elec. Held	
	2-Pole Each	3-Pole Each	2-Pole Each	3-Pole Each
\$30	\$71.00	\$85.00	Not Available	
30	121.00	139.00	\$87.00	\$95.00
60	145.00	169.00	115.00	130.00
75	169.00	193.00	Not Available	
100	189.00	213.00	139.00	163.00
150	277.00	311.00	227.00	273.00
200	328.00	375.00	247.00	302.00

Increased Main Bus Capacity—Lighting Types

Amps. to Amps.	No. of Poles	Lugs Only Each	Swing-Wa Each	Circuit Breaker Each
60 (or 50) 100	2	\$10.00	\$16.00	\$25.00
	3	10.00	21.00	28.00
60 (or 50) 200 (225)	2	10.00	44.00	96.00
	3	10.00	62.00	122.00
100 200 (225)	2	10.00	33.00	83.00
	3	10.00	46.00	99.00

Sub-Feeds—Lighting Panelboards—Limit, One Per Board

Amperes	Lugs Only		Swing-Wa		Circuit Brks.	
	2-Pole Each	3-Pole Each	2-Pole Each	3-Pole Each	2-Pole Each	3-Pole Each
50 or 60	\$6.00	\$6.00	\$15.00	\$22.00	\$15.00	\$23.00
100	6.00	6.00	24.00	36.00	33.00	44.00
200	6.00	6.00	55.00	83.00	118.00	141.00

†Split Bus and Meter Loop—Lighting Panelboards

Amperes	2 Hot Bus Bars Each		3 Hot Bus Bars Each	
200 and Below	\$15.00		\$20.00	

Split Bus and Meter Loop—Distribution Panelboards

225 and Below	\$25.00	\$30.00
400	30.00	35.00
600	35.00	40.00
800	50.00	55.00
1200	60.00	65.00

*Limited to lighting panelboards.

Copper Density, 800 Amperes per Square Inch:

Lighting Panelboards, Main Busses Only.....	each \$10.00
Distribution Panelboards, Main Busses Only.....	each 25.00
Cadmium or Silver Plated Connecting Straps and Bus Bars.....	per pole .60

Main Lugs, Location Top and Bottom.....no extra charge
Neutral Bar, Lighting Panelboards: Omission.....no credit
Non-Automatic Circuit Breakers:

Mains Only.....	Use automatic circuit breaker prices
Main or Sub-Feed Switch, Unfused.....	use fusible switch prices
For tumbler switch and fuse lighting panelboards requiring some fusible only branches, figure panelboards on basis of total number of branches, and for each fuse only branch. Deduct.....	each \$1.00
For Tumbler switch and fuse lighting panelboards requiring 3-way tumbler switches in panel. Add.....	pair \$25.00
For 2-phase, 5-wire, lugs only in mains, lighting panelboards, use price of single-phase, 3-wire panelboard with equivalent number of branches and add \$15.	
Handle Lock-Off.....	each \$1.00

Space for Future Circuits: Where space only is desired figure total number of branches, including spaces, and deduct as follows:

Type NTP or NTC, for 4 Single Poles (1 Unit).....	each \$6.00
Type TP or TC, for 2 Two-Poles (1 Unit).....	each 6.00
Type NM1B-NMM and NMMXX, for Each Space.....	1.00
Type NQ, for Each Space.....	2.00
Type NAB, for Each Space.....	3.00
Type NP or NRP.....	No Deduction

Multi-Breaker Units Only: Replacement and exchange; write for information and prices.

For 2/2-wire, 250-volt tumbler switch panelboards: use the same price as corresponding 125-volt panelboard.

For lighting panelboards having 3/3-wire, 125-250-volt solid neutral branches use list price of 2/2-wire, 250-volt panelboard and add for neutral bar..... \$6.00

For 3/2-wire, tumbler switch panelboards for use on 3/2-wire, 3-phase to single-phase, use price corresponding to TC3 panel for maximum 250-volt or TP3 for 125-volt service.

For lighting panelboards for use on 2-phase, 5-wire, 125-250-volt solid neutral service, use price of 3-wire single-phase, 125-250-volt solid neutral service panel of equivalent number of branches, and add..... \$15.00

For lighting panelboards of the NTP and NTC types, having combinations of single and double-pole branches, convert to total number of single poles and add \$1.50 for each double-pole substituted for each two single poles.

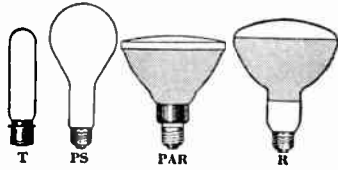
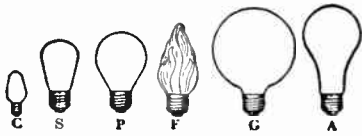
For circuit breaker panels having combination tumbler switched and some fusible only branches requiring only one door opening, prices should be determined by figuring the panel as occupying the same space as an equivalent panel with tumbler switches in all branches less a deduction of \$1.50 each for each single-pole or \$2.50 for each double-pole tumbler switch omitted.

Where number of circuits requires a box larger than standard, figure as two or more separate and distinct panels plus appropriate additions for special features. Panels can be furnished in one box or separate boxes. Add for sub-feed lugs for inter-connecting panels. Tie cables are not included. Where tie bus bars must be furnished, refer to your nearest supply house.

†Not available on NM1B.

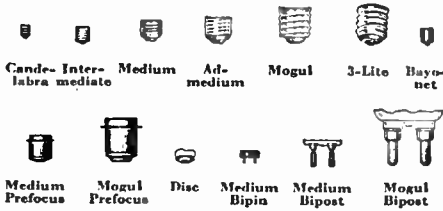
G-E Lamps

Bulb and Base Designations



FLUORESCENT

BASE DESIGNATIONS



How to Order Lamps

Lamps should be ordered by the lamp ordering abbreviations as listed. Each abbreviation is complete without any other specifications except that the correct voltage must be supplied. Abbreviations which are complete without voltage include the series lamps listed in lumens and amperes, fluorescent lamps, and

the lamp numbers for S (Sunlight) lamps, H (Mercury) lamps, glow lamps, miniature (auto, flashlight, etc.) lamps, photoflash, photoflood, and photographic enlarger lamps.

Orders for lamps not specifically listed will require the complete specifications, as follows:

Specification	Multiple Lamps	Series Lamps
Size	150 Watts	2500 Lumens
Volts or Amps	120 Volts	15 Amperes
Bulb	A-19, PS-30, G-25, etc.	PS-25 PS-40, etc.
Base	Med. Screw, Mogul Screw, Candelabra Screw, etc.	Daylight, etc.
Finish	Clear, Inside, Frosted, White Bowl,	Projection, Train, etc.
Service	Projection, Train, etc.	Street Lighting

Special Lamps

Any lamp requiring a change in construction from the standard, in voltage, bulb shape or finish, basing or special etching will take a special price, which may be obtained upon application. All orders for special lamps except special etching may be filled either short or in excess, within the limits of 10 per cent, except that on orders for ten lamps or less there will not be any shortage or excess. Orders for lamps with special etching may be filled either short or in excess by 5 per cent; on orders for less than forty lamps the shortage or excess may equal but not exceed two lamps.

Discount Schedule for Purchasers

A standard package of large lamps is defined as a package, as packed by manufacturer, of that standard package quantity designated for each lamp in the manufacturer's price schedule, and the lamps in such a standard package may not be of different specifications.

To Purchasers without Contract

Minimum list value for immediate delivery to one point.	Less than \$5.00	No discount
\$5.00	discount 20%	
\$15.00 or a Standard Package*	discount 25%	

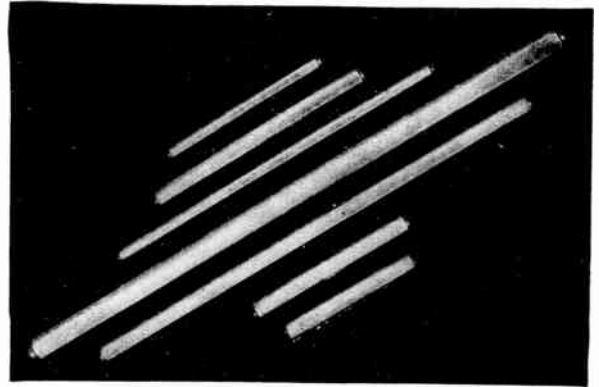
To Purchasers under Contract

Basis of Form E or CE or Contract	DISCOUNT, PER CENT		Basis of Form E or CE or Contract	DISCOUNT, PER CENT	
	More	Less than \$15.00		More	Less than \$15.00
\$300.00	26	21	\$20,000.00	35	30
600.00	28	23	35,000.00	36	31
1500.00	30	25	65,000.00	37	32
3500.00	32	27	100,000.00	38	33
7500.00	33	28	150,000.00	39	34
15000.00	34	29	200,000.00	40	35

*On a purchase of \$15 or more list value or on a purchase of less than \$15 list value which includes standard package. Discount is for immediate delivery to one point.

†On purchases of broken packages amounting to less than \$15 list value. Discount is for immediate delivery to one point.

G-E Fluorescent Lamps



Fluorescent lamps are for use only with specially designed auxiliary equipment to produce proper electrical values. Recommended for use only with equipment providing good power factor. This type of equipment assures maximum use from the wiring system. Certain counter balanced equipment provides good power factor with the added advantage of providing more constant light.

Miniature Bipin Base

*Rated Average Life—2500 Hours

Approx. Lamp Watts	BULB Length Inches	Size	Color	Lamp Ordering Abbrev.	Diam. Inches	Std. Pkg. Qty.	Each
6	9	T-5	4500 White	F 6T 5/45W	5/8	24	\$.75
6			Daylight	F 6T 5/D	5/8	24	.75
6			3500° White	F 6T 5/W	5/8	24	.75
8	12	T-5	4500 White	F 8T 5/45W	5/8	24	.85
8			Daylight	F 8T 5/D	5/8	24	.85
8			3500° White	F 8T 5/W	5/8	24	.85
13	21	T-5	4500 White	F13T 5/45W	5/8	24	.95

Medium Bipin Base

*Rated Average Life—2500 Hours

14	15	T-12	4500 White	F14T12/45W	1 1/2	24	\$.75
14			3500° White	F14T12/W	1 1/2	24	.75
\$15	18	T-8	4500 White	F15T8/45W	1	24	.62
15			Daylight	F15T 8/D	1	24	.62
15			3500° White	F15T 8/W	1	24	.62
15			Soft White	F15T 8/SW	1	24	.72
15	18	T-12	4500 White	F15T12/45W	1 1/2	24	.75
15			Daylight	F15T12/D	1 1/2	24	.75
15			3500° White	F15T12/W	1 1/2	24	.75
15			Soft White	F15T12/SW	1 1/2	24	.85
20	24	T-12	4500 White	F20T12/45W	1 1/2	24	.75
20			Daylight	F20T12/D	1 1/2	24	.75
20			3500° White	F20T12/W	1 1/2	24	.75
20			Soft White	F20T12/SW	1 1/2	24	.85
30	36	T-8	4500 White	F30T8/45W	1	24	.75
30			Daylight	F30T 8/D	1	24	.75
30			3500° White	F30T 8/W	1	24	.75
30			Soft White	F30T 8/SW	1	24	.85
*40	48	T-12	4500 White	F40T12/45W	1 1/2	24	1.00
40			Daylight	F40T12/D	1 1/2	24	1.00
40			3500° White	F40T12/W	1 1/2	24	1.00
40			Soft White	F40T12/SW	1 1/2	24	1.15
40			4500 White	F40T12/45W/IS/H1 1/2	1 1/2	24	1.20

Mogul Bipin Base

*Rated Average Life—3000 Hours

100	60	T-17	4500 White	F100T17/45W2 1/8	12	\$2.30
100			Daylight	F100T17/D	12	2.30
100			3500° White	F100T17/W	12	2.30
100			Soft White	F100T17/SW	12	2.50

*Life under specified test Conditions.

†For total, add auxiliary watts.

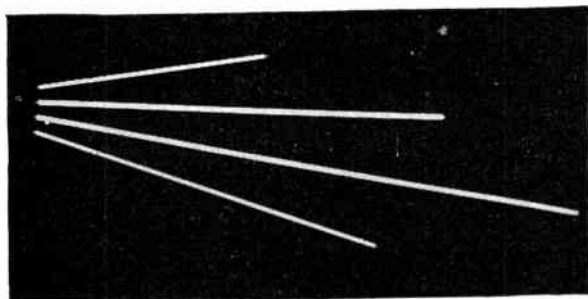
§Blue (F15T8/B), green (F15T8/G), and pink (F15T8/PK), 77 cents. Gold (F15T8/GO) and red (F15T8/R), 87 cents.

||Blue (F20T12/B), green (F20T12/G), pink (F20T12/PK), 90 cents. Gold (F20T12/GO) and red (F20T12/R), \$1.00.

¶Blue (F30T8/B), green (F30T8/G), and pink (F30T8/PK), 90 cents. Gold (F30T8/GO) and red (F30T8/R), \$1.00.

**Blue (F40T12/B), green (F40T12/G), pink (F40T12/PK), \$1.25. Gold (F40T12/GO) and red (F40T12/R), \$1.35.

G-E Slimline Fluorescent Lamps



G-E slimline fluorescent lamps are recommended for their decorative value as well as for lighting.

For store lighting, industrial lighting, showcases, and decoration as architectural elements.

Available in diameters of 3/4 or 1 inch; lamp lengths are 42, 64, 72, and 96 inches. Furnished for multiple operation.

When ordering, specify lamp ordering abbreviation.

Single Pin Base

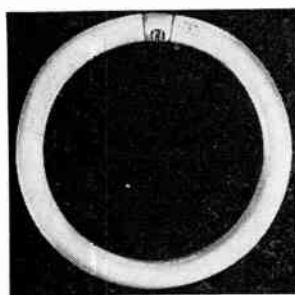
*Rated Average Life—2500 Hours

Approx. Lamp Watts	BULB		Color	Lamp Ordering Abbrev.	Std. Pkg. Qty.	Each
	Length Inches	Size				
16-25	42	T-6	4500 White	F42T6/45W	24	\$1.55
24-39	64	T-6	4500 White	F64T6/45W	24	1.75
22-38	72	T-8	4500 White	F72T8/45W	12	2.00
29-51	96	T-8	4500 White	F96T8/45W	12	2.70

*Life under specified test conditions.

G-E Circline Fluorescent Lamps

Used in commercial and industrial applications as well as in residential floor and table lamps. Color, 3500 white.



Has 4-pin base.
Rated average life under specified test conditions, 2500 hours.
Standard package, 12.

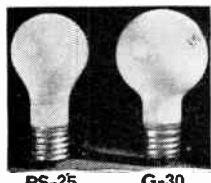
32 Watts—12-Inch Lamps
T-10 bulb. Lamp ordering abbreviation, FC12T10/W.
Each..... \$1.75

22 Watts—8 1/4-Inch Lamps
T-9 bulb. Lamp ordering abbreviation FC8T9/W.
Each..... \$1.70

A 16-inch diameter lamp is contemplated.

G-E Three-Lite Lamps

3-Contact
115, 120 and 125 Volts



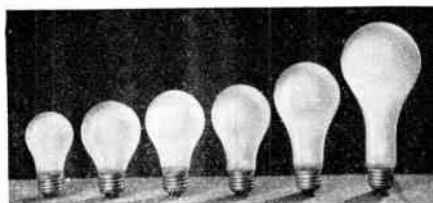
Has two separate filaments in a single bulb.
Burn base down.
Each filament of different wattage may be lighted separately or in combination with the other to produce three levels of illumination.

Mogul Screw Base

No. of Watts	Each	Bulb	Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
50-100-150	\$.44	PS-25, Inside Frosted...	50/150	60
100-200-300	.55	G-30, Inside Frosted		
		Indirect.....	100/300	60
Medium Screw Base				
30- 70-100	\$.27	A-21, Inside Frosted....	30/100	120
50-100-150	.33	PS-25, Inside Frosted...	50/150M	60

G-E General Lighting Service Lamps

115, 120 and 125 Volts



A-15 A-19 A-19 A-21 PS-25 PS-35

For ordinary use in homes, stores, offices, schools and factories. The light maintenance, particularly in the lamps of higher wattage, is best when lamps are burned vertically, base up.

Finishes: clear, inside frosted for diffusion; white bowl for open type equipment.

Medium Screw Base

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
15	.11	A-15, Inside Frosted.....	15A15	120
25	.11	A-19, Inside Frosted.....	25A	120
40	.11	A-19, Inside Frosted.....	40A	120
50	.11	A-19, Inside Frosted.....	50A	120
60	.11	A-19, Inside Frosted.....	60A	120
75	.15	A-21, Inside Frosted.....	75A	120
100	.15	A-21, Inside Frosted.....	100A	120
150	.20	PS-25, Inside Frosted.....	150	60
150	.20	PS-25, Clear.....	150/CL	60
150	.25	PS-25, Inside White Bowl....	150/WB	60
200	.27	PS-30, Clear.....	200	60
200	.27	PS-30, Inside Frosted.....	200/IF	60
200	.32	PS-30, Inside White Bowl....	200/WB	60
300	.40	PS-30, Clear (750 Hours)....	300M	60
300	.45	PS-30, Inside Frosted (750 Hrs.)	300M/IF	60

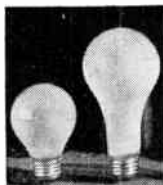
Mogul Screw Base

300	\$.65	PS-35, Clear (1000 Hours)....	300	24
300	.70	PS-35, Inside Frosted (1000 Hours).....	300/IF	24
300	.70	PS-35, Inside White Bowl (1000 Hours).....	300/WB	24
500	.95	PS-40, Clear.....	500	24
500	1.00	PS-40, Inside Frosted.....	500/IF	24
500	1.00	PS-40, Inside White Bowl....	500/WB	24
750	2.90	PS-52, Clear.....	750	6
750	3.05	PS-52, Inside Frosted.....	750/IF	6
1000	3.10	PS-52, Clear.....	1000	6
1000	3.30	PS-52, Inside Frosted.....	1000/IF	6
1500	4.75	PS-52, Clear.....	1500	6

G-E Vibration and Rough Service Lamps

Medium Screw Base

115, 120 and 125 Volts



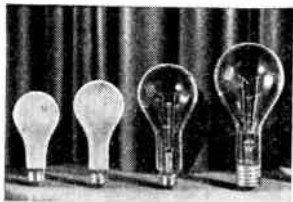
Rough service lamp withstands severe shock and bumps, as with extension cords.

Vibration service lamp designed to withstand high frequency vibration such as is produced by high-speed machinery.

Rough Service

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
50	\$.25	A-19, Inside Frosted.....	50A/RS	120
100	.35	A-23, Inside Frosted.....	100A/RS	120
Vibration Service				
50	\$.20	A-19, Inside Frosted.....	50A/VB	120
100	.35	A-23, Inside Frosted.....	100A23/28	120

G-E Daylight Lamps



A-23 PS-25 PS-30 PS-35

115, 120 and 125 Volts

Due to its blue color, this lamp emits a whiter light which is a partial step toward natural daylight.

Has many industrial and commercial applications.

Medium Screw Base

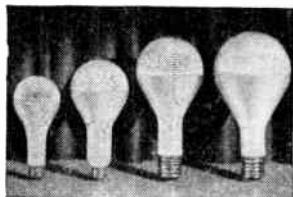
No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
10	\$.30	S-14, Clear	10S14/D	120
25	.30	A-19, Clear	25A/D	120
60	.25	A-19, Inside Frosted	60A/D	120
100	.25	A-23, Inside Frosted	100A/D	120
150	.40	PS-25, Clear	150/DCL	60
150	.45	PS-25, Inside Frosted	150/D	60
200	.70	PS-30, Clear	200/D	60
200	.75	PS-30, Inside Frosted	200/DIF	60

Mogul Screw Base

300	\$1.10	PS-35, Clear	300/D	24
500	1.85	PS-40, Clear	500/D	24

G-E Silvered Bowl Lamps

115, 120 and 125 Volts



PS-25 PS-30 PS-35 PS-40

For indirect lighting applications. The permanent coating of mirror silver on the bowl is a highly efficient reflecting surface, built right into the lamp itself. The silver is protected from peeling or tarnishing by coatings of copper and aluminum.

Medium Screw Base

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
60	\$.24	A-19, Inside Frosted	60A/SB	120
100	.28	A-23, Inside Frosted	100A/SB	120
*150	.45	PS-25, Inside Frosted	150/SB	60
*200	.67	PS-30, Inside Frosted	200/SBIF	60

Mogul Screw Base

*300	\$1.20	PS-35, Inside Frosted	300/SBIF	24
*500	1.70	PS-40, Inside Frosted	500/SBIF	24

*Should be used only in porcelain sockets and in fixtures so designed that the temperatures of the lamp and fixture do not exceed limits for satisfactory operation.

G-E Lumiline Lamps

Disc Base

115, 120 and 125 Volts

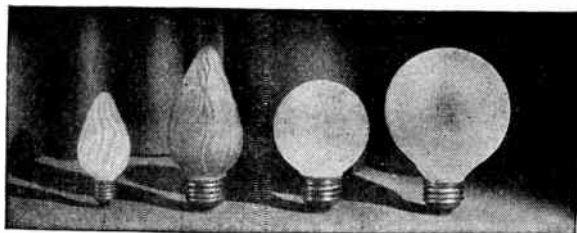


Provides continuous lines of clear or colored light of low brightness. Ideally suited to modern decorative concepts for built-in illumination or application decoration; for lighted displays, niches, mirrors, etc.

No. of Watts	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	Over-all Lgth. In.	No. in Std. Pkg.	Each
30	T-8, Clear	L30	17 ³ / ₄	24	\$.95
30	T-8, Inside Frosted	L30/IF	17 ³ / ₄	24	.95
30	T-8, White	L30/W	17 ³ / ₄	24	1.05
30	T-8, Straw	L30/ST	17 ³ / ₄	24	1.05
40	T-8, Clear	L40	11 ³ / ₄	24	.83
40	T-8, Inside Frosted	L40/IF	11 ³ / ₄	24	.83
40	T-8, White	L40/W	11 ³ / ₄	24	.93
40	T-8, Straw	L40/ST	11 ³ / ₄	24	.93
60	T-8, Clear	L60	17 ³ / ₄	24	.95
60	T-8, Inside Frosted	L60/IF	17 ³ / ₄	24	.95
60	T-8, White	L60/W	17 ³ / ₄	24	1.05
60	T-8, Straw	L60/ST	17 ³ / ₄	24	1.05

G-E Flame Shape and Round Bulb Lamps

Outside Coated
115, 120, and 125 Volts



F-10 F-15 G-18 1/2 G-25

Adapted to many decorative uses in homes, clubs, lobbies, and public buildings where the bulb shape is related to the artistic design of the luminaire.

Outside coated lamps are not recommended for outdoor use.

Candelabra Base

Watts	Each	Bulb and Finish	Lamp Ordering Abbrev. (Exc. Volts)	Std. Pkg.
15	\$.20	F-10*	15FC/*	60

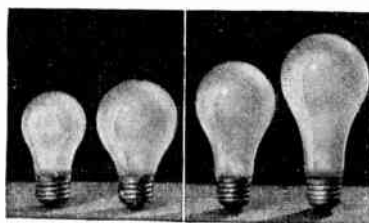
Medium Base

25	\$.16	F-15*	25F/*	120
25	.30	G-18 1/2, White	25G18 1/2/W	120
40	.35	G-25, White	40G/W	60

*Colors: flamentint (FT), white (W), ivory (V). Substitute color symbol in place of * in ordering abbreviation, thus, 15FC/V.

G-E Country Home Lamps

Medium Screw Base—30 Volts



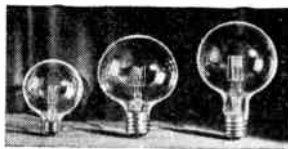
No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
15	\$.20	A-17, Inside Frosted	15A	120
25	.20	A-19, Inside Frosted	25A	120
50	.20	A-21, Inside Frosted	50A21	120
100	.33	A-23, Inside Frosted	100A	120

Designed for battery-generator sets as used on farms.

When ordering, specify Country Home.

G-E Floodlight and Spotlight Lamps

115, 120 and 125 Volts



G-30 G-40 G-40

Floodlight and spotlight lamps may be burned in any position from vertical base down to horizontal.

Floodlight Service

For use in floodlighting equipment designed to give a narrow beam of light which can be projected a relatively long distance.

Medium Screw Base

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	Light Center Length Inches	No. in Std. Pkg.
250	\$1.15	G-30, Clear	250G/FL	3	24

Mogul Screw Base

500	\$2.10	G-40, Clear	500G/FL	4 1/4	12
1000	5.00	G-40, Clear	1M/G40FL	5 1/4	12

Spotlight Service

A properly adjusted mirror adds up to 50 per cent to the light in the beam.

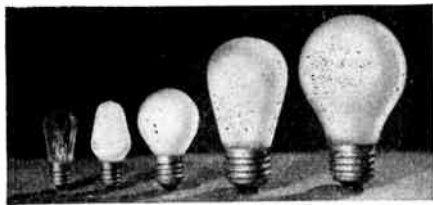
Medium Screw Base

100	\$.80	P-25, Clear	100P25SP	3	60
250	1.15	G-30, Clear	250G/SP	3	24
400	1.75	G-30, Clear	400G/SP	3	24

Mogul Screw Base

1000	\$5.00	G-40, Clear	1M/G40SP4 1/4	4 1/4	12
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G-E Display Lighting Lamps



115, 120 and 125 Volts

Inside colored lamps particularly adaptable to exposed lamp signs and colorful displays where lamps

themselves are visible and form display pattern.

Medium Screw Base Lamp

No. of Watts	Bulb	Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.	Each
7½	S-11, Outside Coated White.	7½S/W	120	\$.11
7½	S-11, Outside Coated Red.	7½S/R	120	.11
10	S-14, Clear.	10S14	120	.14
10	S-14, Inside Frosted.	10S14/IF	120	.14
10	S-14, Inside Colored.	10S14/	120	.19
†25	A-19, Inside Colored.	25A/†	120	.19
‡25	A-19, Outside Coated.	25A/‡	120	.16
§25	A-19, White.	25A/W	120	.16
60	A-19, White.	60A/W	120	.16

Candelabra Screw Base

6	S-6, Clear.	6S6	120	\$.16
†7	C-7, Clear.	7C7	120	.11

Intermediate Screw Base

10	S-11, Clear.	10S11N	120	\$.15
10	S-11, Inside Col. White.	10S11N/W	120	.20

*Furnished in red (R), blue (B), green (G), yellow (Y), amber-orange (AO). Substitute color symbol in place of * in ordering abbreviation, thus: 10S14/R.

†Furnished in 120 volts.

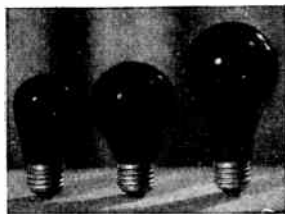
‡Furnished in red (R), blue (B), green (G), yellow (Y), amber-orange (AO), flamentint (FT), ivory (IV). Substitute color symbol in place of ‡ in abbreviation, thus: 25A/R.

§Furnished in red (OR), blue (OB), green (OG), amber-orange (OAO), flamentint (OFT), ivory (OIV). Substitute color symbol in place of § in abbreviation, thus: 25A/OR.

G-E Natural Colored Lamps

Medium Screw Base

115, 120 and 125 Volts



The four lamps in natural colored, clear glass bulbs cover a large percentage of present demands.

Prices are for the manufacturers standard colored glass only.

No. of Watts Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.	Each
10	S-14, Amber or Blue.	10S14/N*	120	
10	S-14, Green.	10S14/NG	120	
10	S-14, Ruby.	10S14/NR	120	
25	A-19, Amber or Blue.	25A/N*	120	
25	A-19, Green.	25A/NG	120	
25	A-19, Ruby.	25A/NR	120	
40	A-21, Amber or Blue.	40A/N*	120	
40	A-21, Green.	40A/NG	120	
40	A-21, Ruby.	40A/NR	120	
60	A-21, Amber or Blue.	60A21/N*	120	
60	A-21, Green.	60A21/NG	120	
60	A-21, Ruby.	60A21/NR	120	

Blue shade does not include daylight blue or photographic blue. Green comes in one shade only. Substitute color symbol in place of * in ordering abbreviation, thus: 10S14/NA.

Ruby and amber colors furnished in light shade. Dark shade, used in photographic work, can be furnished at same price.

G-E Tubular Bulb Lamps

115, 120, and 125 Volts



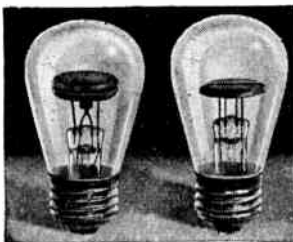
This low wattage tubular lamp is used for showcase lighting, in shallow-depth displays, and in small trough-like reflectors.

Intermediate Screw Base

No. of Watts Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
25	T-6½, Clear.	25T6½	60
Medium Screw Base			
25	T-10, Clear.	25T10	60
25	T-10, Inside Frosted.	25T10/IF	60
25	T-10, Reflector; Light Inside Frosted.	25T10/RFL	60
40	T-10, Reflector; Light Inside Frosted.	40T10/RFL	60
40	T-8, Clear.	40T8	24
40	T-10, Clear.	40T10	60

G-E Clear Neon Glow Lamps

105-125 Volts



NE-40 NE-34



NE-30 NE-45

Screw Base Lamps. Required series resistor mounted within base. See values marked IN in column, Series Resistance. Lamps may be applied to higher circuit voltages by use of suitable external resistors—information on request.

Bayonet Base Lamps. External means must be provided to limit current to normal amount. External resistors, to be supplied by users, should be of the values marked EX in column, Series Resistance, for rated volts.

Average useful life approximately 3000 hours except NE-2 which is in excess of 25,000 hours when operated with 200,000 ohms series resistance on 105-125 volts.

Packed 10 in unit package, except No. NE-2 which is packed 100 in unit package.

Watts (Nominal)	Bulb	Base	Order Designation	Maximum Overall Length Inches	APPROXIMATE			Each
					STARTING VOLTAGE A.C.D.C.	Series Resistance Ohms		
3	S-14	Medium Screw	NE-40	3⅝	60 85	2200 IN	\$.60	
3	S-14	Sk. D. C. Bay. Cand.	NE-42	3¾	60 85	2200 EX	.65	
2	S-14	Medium Screw	NE-34	3⅝	60 85	3500 IN	.50	
2	S-14	Sk. D. C. Bay. Cand.	NE-36	3¾	60 85	3500 EX	.55	
1	G-10	Medium Screw	NE-30	2⅞	60 85	4800 IN	.40	
1	G-10	D. C. Bay. Cand.	NE-32	2⅞	60 85	4800 EX	.45	
†1	G-10	Medium Screw	NE-56	2⅞	60 85	40500 IN	.40	
†½	T-4½	Cand. Screw	NE-58	1⅝	65 90	100000 IN	.40	
¼	T-4½	D. C. Bay. Cand.	NE-16	1½	||	30000 EX	.42	
¼	T-4½	Cand. Screw	NE-45	1⅝	65 90	30000 IN	.40	
¼	T-4½	D. C. Bay. Cand.	NE-48	1½	65 90	30000 EX	.35	
½	T-2	Unbased (Wire Term)	NE-2	1⅞	65 90	20000 EX	.08	
½	T-3¼	S. C. Bay. Min.	NE-51	1⅞	65 90	20000 EX	.10	
¼	T-4½	D. C. Bay. Cand.	NE-17	1½	55 70	30000 EX	.45	
¼	T-4½	Cand. Screw	NE-57	1⅝	55 70	30000 IN	.40	

Nos. NE-34 and NE-40 are supplied with red sprayed finish at additional charge of 5 cents each.

*Applies to new lamp. †210-250 volts.

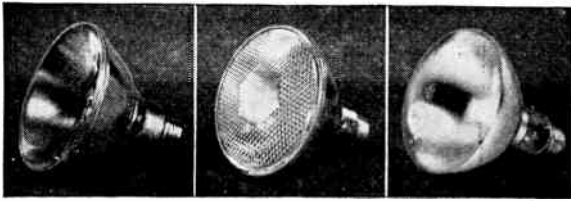
‡The 1⅞-inch dimension is for glass parts only; the lamp has wire terminals which extend 1⅞ inch.

||Designed for 67-87 volts, d.c. (D.C. operating voltage at 1.5 milliamperes, 53-65 volts).

*D.C. starting voltage is for lamps connected so that center electrode is negative.

G-E Projector and Reflector Lamps

115, 120 and 125 Volts



PAR-38, Projector Spot PAR-38, Projector Flood R-40, Reflector

The projector flood and spot lamps may be used indoors or outdoors, wherever reflectors must be free from the effects of weather, vapor, dust and deterioration. Made of hard glass.

The reflector flood and spot lamps provide a concentrated beam for feature store and window displays, or a spread beam for floodlighting interiors and operations. Not for outdoor use.

Projector Lamps

Spot Lamp—Medium Skirted Base

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
*150	\$1.55	PAR-38	150PAR/SP	12
Flood Lamp—Medium Skirted Base				
*150	\$1.55	PAR-38	150PAR/FL	12

Reflector Lamps

Spot Lamp—Medium Screw Base

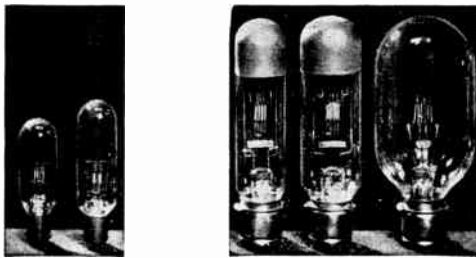
No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
†150	\$1.05	R-40, Light Inside Frosted.	150R/SP	24
*†300	1.55	R-40, Light Inside Frosted.	300R/SP	24
Flood Lamp—Medium Screw Base				
†150	\$1.05	R-40, Inside Frosted.	150R/FL	24
*†300	1.55	R-40, Inside Frosted.	300R/FL	24

*Should be burned only in porcelain sockets.

†May not give satisfactory performance if any accessory lighting equipment is attached to, or touches, glass bulb.

G-E Projection and Stereopticon Lamps

115, 120 and 125 Volts



T-8 T-8 T-10 T-12 T-20

Characterized by extreme concentration of light source.

Single Contact Bayonet Base

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	Rated Aver. Life Hours	Max. Overall Lgth. In.	Aver. Light Ctr. In.	No. in Std. Pkg.
100	\$.55	T-8, Clear	100T8/108SC	50	3 1/8	1 13/8	24
150	1.30	T-8, Clear	150T8/70	25	3 5/8	1 13/8	24

Medium Prefocus Base

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	Rated Aver. Life Hours	Max. Overall Lgth. In.	Aver. Light Ctr. In.	No. in Std. Pkg.
*300	2.70	T-10	300T10P	25	5 3/4	2 3/16	24
*500	3.50	T-10	500T10P	25	5 3/4	2 3/16	24
500	2.20	T-20, Clear	500T20P	50	5 3/4	2 3/16	6
*750	4.10	T-12	750T12P	25	5 3/4	2 3/16	24
*1000	6.00	T-12	1M/T12P	10	5 3/4	2 3/16	24

Mogul Prefocus Base

1000	\$4.75	T-20, Clear	1M/T20P	50	9 1/2	1 37/16	12
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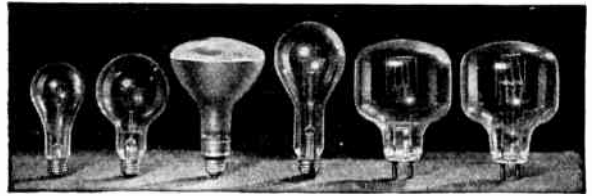
*Clear bulb with opaque end.

†Light center length is distance from center of light source to top of base pins.

‡Light center length is distance from center of light source to top of base fin.

G-E Infrared Industrial Lamps

115-125 Volts (Design Volts 115)



A-23 G-30 R-40 PS-30 T-40 T-40

For service other than illumination. Speeds up drying and surface heating processes, by radiation. Used in drying photographic prints, industrial and automotive finishes, food products, localized heating, surface moisture, motor and transformer windings, blueprints, pottery, etc.

Medium Base

For average installation of tunnel or gang set-up methods. Used in practically any commercial drying reflector.

Watts	Each	Bulb and Finish	Lamp Ordering Abbrev. (Ex. Volts)	Std. Pkg.
100	\$.45	A-23 Clear	100A23/50	120
250	1.00	G-30 Clear	250G30/34	60
250	.85	PS-30 Clear	250PS30/32	60

Medium Skirted Base

This reflector drying lamp fits into many specialty jobs not otherwise readily equipped.

125	\$.70	G-30 Clear	125G30	60
125	1.15	R-40 Light I.F.	125R40	24
250	.80	G-30 Clear	250G30	60
250	1.25	R-40 Light I.F.	250R40/4	24
375	1.50	R-40 Light I.F.	375R40	24

Medium Bipost Base

For use where higher heat densities are required or space is limited.

500	\$5.50	*T-40 Clear	500T40	12
1000	7.00	*T-40 Clear	1M/T40	12

With 6-Inch Pigtail Terminals Spot-Welded to Medium Bipost Base

1000	\$7.00	*T-40 Clear	1M/T40/3	12
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*Heat-resisting glass bulb.

G-E Reflector Infra-Red Heat Lamps

Medium Base

115-125 Volts (Design Volts 115)



R40/1 and R40/9 similar in construction. The R40/9 is less bright and easier on the eyes. The R40/10 has built-in red filter to further reduce brightness; is more rugged and has special glass providing protection against breakage by splashing water.

Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
250	\$1.10	R-40 Light Inside Frosted	250R40/1	24
250	1.70	R-40 Light Inside Frosted	250R40/9	24
250	2.95	R-40 Red Bowl	250R40/10	24

Schedule of discounts to purchasers without contract does not apply to this lamp. A discount of 25 per cent of list will be allowed on non-contract purchases of one or more standard packages of this lamp.

G-E Home Appliance Lamps

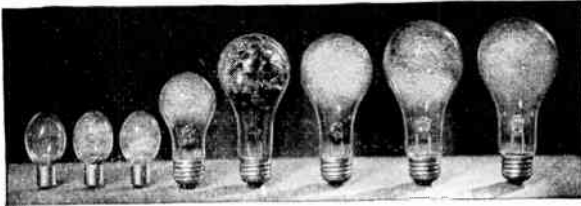
115, 120, and 125 Volts

Furnished with D.C. bayonet candelabra base. Standard package, 60.

When ordering, specify voltage.

No.	15T7DC	25T8DC
Each	\$.25	.25
Watts	15	25
Type Bulb	T-7 Clear	T-8 Clear

G-E Photoflash Lamps



SM 5 6 11 22B 22 31 50

No. SM Speed Midget Lamps

Has swift, low-intensity flash, for all-around near-distance pictures, in proper reflectors. Stops action on open flash about as effectively as a 1/200th second shutter setting.

Total light, 5,500 lumen seconds. For battery flashing only.

B-11 clear bulb, single contact bayonet base.
No. SM, Packed 8 in a carton, 120 in a case.....each \$.14

No. 5 Synchro-Press Lamps

For all-around flash pictures in proper reflectors. Split-second flash for synchronized use with between-the-lens shutters. For battery flashing only. Total light, 16,000 lumen seconds. B-11 clear bulb, single contact bayonet base.

No. 5, Packed 8 in a carton, 120 in a case.....each \$.14

No. 5B Synchro-Press Lamps

Same construction as No. 5, with blue filter coating for correct reproduction with daylight type color film. For daylight film without filter or to supplement daylight in outdoor color shots. For battery flashing only. Total light, 7,000 lumen seconds. B-11 blue bulb, single contact bayonet base.

No. 5B, Packed 8 in a carton, 120 in a case.....each \$.18

No. 6 Focal Plane Lamps

For use with most focal plane shutters. Same size, and uses same reflectors as No. 5. Flash on batteries only. Total light output, 15,000 lumen seconds. Bulb, B-11, clear.

No. 6, Packed 8 in a carton, 120 in a case.....each \$.16

No. 11 Synchro-Press Lamps

A small, general purpose lamp for open-flash shots, and for accurate synchronizers in press and amateur use, with between-the-lens shutters. For battery flashing only. Total light, 28,000 lumen seconds. A-15 clear bulb, medium screw base.

No. 11, Packed 8 in a carton, 120 in a case.....each \$.14

No. 22 Synchro-Press Lamps

For use with front-shutter cameras. Filled with shredded foil, which increases total light output, giving a broad peak to compensate for errors in synchronization. Operates on 3 to 125 volts. Total light 60,000 lumen seconds. A-19 clear bulb, medium screw base.

No. 22, Packed 6 in a carton, 120 in a case.....each \$.16

No. 22B Synchro-Press Lamps

Old No. 21B. For press use and between-the-lens shutter synchronizers. Has blue filter coating for correct rendition with outdoor type of film.

Voltages, from 3 to 125. Total light output, 26,000 lumen seconds. Bulb, A-19, clear.

No. 22B, Packed 6 in a carton, 120 in a case.....each \$.22

No. 31 Focal Plane Lamps

For high shutter speed synchronization with focal plane shutters for 4x5-inch negative size and less. Peak of illumination provides ample light on the subject during the full time the shutter is open. For battery flashing only.

Total light, 75,000 lumen seconds. A-21 clear bulb, medium screw base.

No. 31, Packed 6 in a carton, 60 in a case.....each \$.25

No. 50 Photoflash Lamps

For commercial photography, particularly color work. Contains shredded foil. Voltages, from 3 to 125. Total light output, 93,000 lumen seconds. Bulb, A-21, clear.

No. 50, Packed 6 in a carton, 60 in a case.....each \$.23

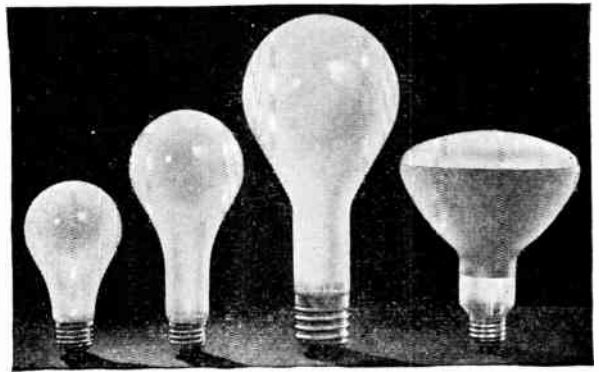
No. 50B Photoflash Lamps

Similar to No. 50 except that the blue filter coating is carefully matched to the color characteristics of daylight color emulsions. Has 30 millisecond peak, synchronizes at 1/25 second. Operates on 3 to 125 volts d.c. or a.c. Has medium screw base. Bulb, A-21.

No. 50B, Packed 6 in a carton, 60 in a case.....each \$.29

G-E Photoflood Lamps

115-120 Volts, A.C. or D.C.



No. 1 No. 2 No. 4 No. RFL2

Nos. 1 and B1 Lamps

Same size as a standard 60-watt lamp, drawing 250 watts at 115 volts (2.2 amperes), yet photographically equal to as much as 750 watts in standard lighting lamps.

As many as six of these lamps may be safely used on one regular house lighting circuit.

Rated life, 3 hours at 115 volts.

A-21 bulb, inside frosted, medium screw base.

Packed 6 in a carton, 60 in a case.

No. 1.....each \$.16

No. B1, Blue.....each \$.30

Nos. 2 and B2 Lamps

Same size as a standard 150-watt lighting lamp, drawing 500 watts at 115 volts (4.4 amperes), yet photographically equal to as much as 1500 watts in standard lighting lamps.

Three of these lamps may be safely used on one regular house lighting circuit. Rated life, 6 hours at 115 volts.

PS-25 bulb, inside frosted, medium screw base.

Packed 6 in a carton, 60 in a case.

No. 2.....each \$.30

No. B2, Blue.....each \$.60

Nos. 4 and B4 Lamps

Same size and shape as the regular 300-watt general service lamp with mogul screw base. Draws 1000 watts at 115 volts (8.7 amperes).

Twice as effective photographically as the regular 1000-watt lamp. Rated life, 10 hours at 115 volts.

PS-35 bulb, inside frosted, mogul screw base.

Packed 1 in a carton, 24 in a case.

No. 4.....each \$ 1.20

No. B4, Blue.....each \$ 1.75

No. RFL2 Lamps

Gives a smooth 60° controlled beam. Highly reflective inside surface of mirror aluminum in reflector-shaped bulb 5 inches in diameter, 6½ inches overall.

R-40 bulb, inside frosted, medium screw base.

Packed 1 in a carton, 24 in a case.

No. RFL2.....each \$.95

No. RSP2 Reflector Photospots

Identical in size, shape, wattage, life and color temperature with No. RFL2. Ideal for highlighting, backlighting and edgeling. Its light has been squeezed into a beam of approximately 20°—resulting in a punch of light more than seven times more powerful than that of No. RFL2.

R-40 bulb, inside frosted, medium screw base.

Packed 1 in a carton, 24 in a case.

No. RSP2.....each \$ 1.10

G-E Photographic Enlarger Lamps

115-125 Volts, A.C. or D.C.

Medium Screw Base

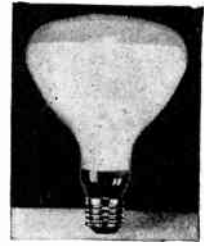
No.	Each	Watts	Bulb	Life Hrs.	Case Qty.	Car- ton Qty.
*111	\$.44	75	S-11, White.....	25	120	6
211	.33	75	A-21, White.....	100	60	6
212	.33	150	A-21, White.....	100	60	6
213	.33	250	A-21, White.....	3	60	6
302	1.00	500	PS-30, White.....	100	24	1

*Single contact bayonet base.

G-E Sunlight Lamps



S-1 S-4



RS

***No. S-4—Admedium Screw Base**

Emits characteristic blue-green light of mercury spectrum. Because of lower current requirements, 100 watts, it permits the use of smaller, lighter fixtures.

Has A-21, bulb, clear. Standard package, 6.

No. S-4.....each \$11.00

***No. S-1—Mogul Screw Base**

Has approximately the same ultraviolet potency as the No. S-4, but delivers a larger proportion of visible light and more infra-red energy or heat. Total input, 400 watts.

Has PS-22 inside frosted bulb. Standard package, 6.

No. S-1.....each \$4.75

No. RS—Medium Screw Base

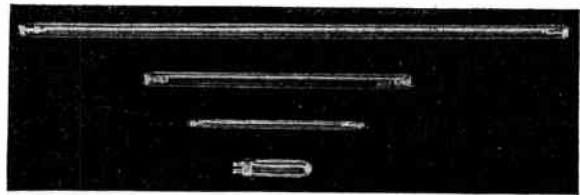
Has self-contained reflector and operates directly from 110-125 volt house current with no auxiliary ballast required. Total input, 275 watts.

Has R-40 inside frosted bulb. Standard package, 6.

No. RS.....each \$9.95

*Operate on a.c. only, with proper auxiliary equipment. Schedule of discounts to purchasers without contract does not apply to this lamp. A discount of 25 per cent of list will be allowed on non-contract purchases of one or more standard packages of this lamp.

G-E Germicidal Lamps



Short-wave ultraviolet energy, known as far ultraviolet, will kill air-borne bacteria, if the bacteria are exposed to a sufficient intensity for a long enough time.

The lamps listed, for small wattage consumption, produce potent ultraviolet, germ-killing radiation.

Should be used only in properly designed, correctly installed fixtures, to shield eyes and skin from direct exposure.

Medium Bipin Base

Watts	Each	Bulb (9741 Glass)	Ultra-violet Output Watts	Lamp Ordering Abbreviation	Std. Pkg.
15	\$4.50	T-8, Clear	2.9	G15T8	24
30	6.75	T-8, Clear	7.2	G30T8	24

Miniature Bipin Base

8	\$4.25	T-5, Clear	1.5	G8T5	24
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G-E White Night Light Lamps

Candelabra Screw Base
120 Volts

Designed for small plug-in receptacles to be used as night lights in homes. C-7 bulb. Packed 120 in a standard package.

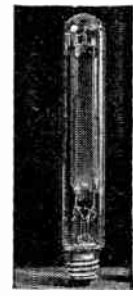
No. of Watts.....	7
Each.....	\$.13
Lamp Ordering Abbreviation (Except Volts).....	7C7/W

G-E H (Mercury) Lamps

G-E H lamps produce almost twice as many lumens per watt as incandescent lamps. Designed for use on standard lighting circuits with special auxiliary equipment designed to produce correct lamp starting and operating values.

When used in combination with equal lumens of incandescent light, objectives are seen in the approximate daylight colors. Several minutes are required for mercury lamps to come up to full brilliance.

Type H-1, 400 watts, consists of an interior arc tube, containing the electrodes and mercury, enclosed within an outer tubular bulb which makes the lamp less subject to the effects of surrounding temperature.



H-1



H-4

Type H-4, 100 watts, is sometimes referred to as a capillary lamp, because the arc discharge takes place within a small capsule-like tube of quartz. The outer bulb serves merely as a protective container.

Type H-9, 3000 watts, consists of a single tube 48 inches long. Its light output of 120,000 lumens is more than any other lamp used in industrial lighting. Particularly recommended for high ceiling interiors.

No.	Mogul Screw Base	Adm. Base	S.C. Term Base
No.	†A-H1	A-H4	A-H9
Each.....	\$10.50	11.50	48.00
*No. of Watts.....	400	100	3000
Outer Bulb, Clear.....	T-16	T-10	T-9½
Rated Average Lab. Life..... hours	†4000	†1000	†3060
No. in Standard Package.....	6	6	1

When No. A-H4 lamp is operated on direct current a polarity reversing switch should be installed to avoid the possibility of electrolysis in the lamps. *For total, add auxiliary watts. †Life under specified test conditions. ‡Burn within 10° of vertical base up.

G-E Mine Lamps

275 and 300 Volts

Has A-19 inside frosted bulb.



Watts	Each	Volts	Lamp Ordering Abbreviation (Exc. Volts)	Std. Pkg.
50	\$.27	275	50A19	120
50	.27	300	50A19	120

G-E High Voltage Lamps

230 and 250 Volts

Less rugged and less efficient than 110, 125-volt lamps, but available for use in the few locations where only the higher voltage is obtainable.

Medium Screw Base

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex-Volts)	No. in Std. Pkg.
25	\$.16	A-19, Inside Frosted.....	25A	120
50	.16	A-19, Inside Frosted.....	50A	120
100	.24	A-23, Inside Frosted.....	100A	120
200	.50	PS-30, Clear.....	200	60
200	.55	PS-30, Inside Frosted.....	200/IF	60

Mogul Screw Base

300	\$.85	PS-35, Clear.....	300	24
500	1.40	PS-40, Clear.....	500	12
750	3.50	PS-52, Clear.....	750	6
1000	3.75	PS-52, Clear.....	1000	6

G-E Traffic Signal Lamps

Medium Screw Base
115, 120 and 125 Volts

Has clear bulb, a short light center length, and produces enough light to make possible a signal indication of requisite brightness.

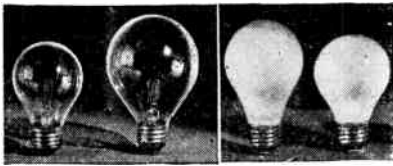


A-21

Watts	Each	Bulb	Ordering Abbrev.	Std. Pkg.
60	\$.25	A-21, Clear	60A21/T/S	120
67	.30	A-21, Clear	67A21/40	120

G-E Street Railway Lamps

Medium Screw Base



A-19 P-25 A-21 A-19

Headlighting 115, 120 and 125 Volts

For operation in series with four lamps of corresponding wattage and voltage used elsewhere in the car.

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
36	\$.55	A-19, Clear	36A/RYPH	120
56	.80	P-25, Clear	56P25	60
94	1.00	P-25, Clear	94P25	60

Car Lighting 5-In-Series—105, 110, 115, 120, 125 and 130 Volts

Operate on the trolley voltage and are used for general illumination, destination signs.

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
36	\$.18	A-21, Inside Frosted	36A/RYPH	120
56	.21	A-21, Inside Frosted	56A21	120
101	.40	A-23, Inside Frosted	101A23	120
201	.75	PS-30, Clear	201PS30	60
*301	1.30	PS-35, Clear	301PS35	24

Cutout Lamps—30 Volts

More efficient than the 5-In-Series lamps. Each lamp is equipped with an automatic short-circuiting element which cuts lamp out of circuit and prevents arcing when the lamp burns out.

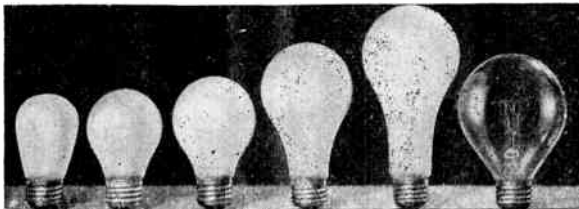
No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
†1.0	\$.30	A-19, Inside Frosted	1A/A19	120
†1.6	.35	A-21, Inside Frosted	1.6A/A21	120

*Mogul screw base.

†Amperes.

G-E Train and Locomotive Lamps

Medium Screw Base



S-14 A-17 A-19 A-21 A-23 P-25

Trainlighting. To insure satisfactory lamp performance voltage regulating devices should be adjusted to maintain rated lamp voltage at the socket. The 30 and 60-volt lamps recommended as being best adapted to average voltage conditions encountered in trainlighting service.

Locomotive Headlighting. When operated at the rated voltage, in suitable headlight equipment, this lamp gives satisfactory service. Bulb must be protected from water which might strike it while hot. The 250-watt lamp is designed for road locomotives; 100-watt for switching locomotives.

Locomotive Cab Lighting. Designed for all locomotive lighting except headlighting.

No. of Watts	Each	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
15	\$.20	A-17, Inside Frosted	15A	120
25	.20	A-19, Inside Frosted	25A	120
50	.20	A-21, Inside Frosted	50A21	120
100	.33	A-23, Inside Frosted	100A	120

Locomotive Headlight 32 Volts

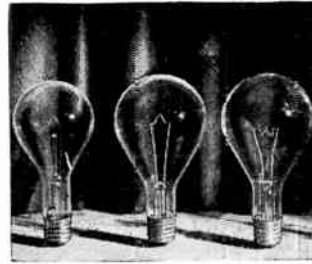
100	\$.90	A-21, Clear	100A21/3	120
250	1.40	P-25, Clear	250P25	60

Locomotive Cab 34 Volts

15	\$.20	S-14, Inside Frosted	15S14/1F	120
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G-E Street Series Lighting Lamps

Mogul Screw Base



PS-35 PS-40 6000 Lumens PS-40 10,000 and 15,000 Lumens

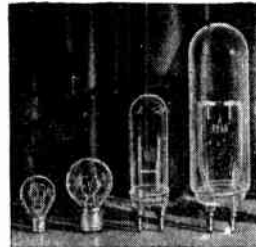
Designed to meet special requirements of street lighting service. Filaments are formed to produce a favorable light distribution. With operation at constant current, bulb blackening is compensated for by a slow increase in wattage and filament temperature.

No. of Amperes	Each	No. of Lumens	No. of Volts	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
6.6	\$.40	1000	9.4	PS-25, Clear	1M/66	60
6.6	.80	2500	21.7	PS-35, Clear	2500/66	24
6.6	.95	4000	31.9	PS-35, Clear	4M/66	24
6.6	1.35	6000	46.9	PS-40, Clear	6M/66	12
*15	1.05	4000	13.5	PS-35, Clear	4M/15BU	24
†15	1.05	4000	13.5	PS-35, Clear	4M/15BD	24
*20	1.45	6000	14.7	PS-40, Clear	6M/20BU	12
†20	1.45	6000	14.7	PS-40, Clear	6M/20BD	12
*20	1.85	10000	24.3	PS-40, Clear	10M/20BU	12
†20	1.85	10000	24.3	PS-40, Clear	10M/20BD	12
*20	2.55	15000	35.7	PS-40, Clear	15M/20BU	12
†20	2.55	15000	35.7	PS-40, Clear	15M/20BD	12

*For base up burning.

†For base down burning.

G-E Aviation Lamps



A-19 G-25 T-20 T-32

Effective functioning of aviation lighting equipment requires accurate positioning. Bipost and prefocus bases provide a high degree of accuracy.

Airport code beacons take the 500-watt PS-40 bulb general service lamp fitted with mogul prefocus base, while the air way code beacons use the 200-watt PS-30 bulb general service lamp with mogul prefocus base.

For airport boundary lights, 6.6-ampere series lamps are

widely used. The 50-watt and 100-watt general service lamps are employed in obstruction lights.

Aircraft Landing Lamps Medium Prefocus Base

No. of Watts	Each	No. of Volts	Bulb	Lamp Ordering Abbrev. (Ex. Volts)	No. in Std. Pkg.
240	\$.425	12	A-19, Clear	240A19	12
420	\$5.00	12	Mogul Prefocus Base G-25, Clear	420G25P	12

Airport Floodlight Lamps Mogul Bipost Base

1500	\$15.00	32	T-24, Clear	1500T24	12
3000	22.00	32	T-32, Clear	3M/T32	6

Airway and Airport Beacon Lamps Mogul Screw Base

500	\$.350	115, 120, 125	T-20, Clear	500T20/24	12
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Mogul Bipost Base

1000	\$.650	115, 120, 125	T-20, Clear	1M/T20BP	12
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Airport Floodlight and Motion Picture Lamps Mogul Bipost Base

Intended for use as floodlights for airports and for motion picture and color photography. Should be burned base down. Approximate mean color temperature is 3350° K.

Glass bulb is heat resisting.

5000	\$23.00	115, 120, 125	T-64, Clear	5M/T64/1	1
10000	65.00	115, 120, 125	G-96, Clear	10M/G96/2	1

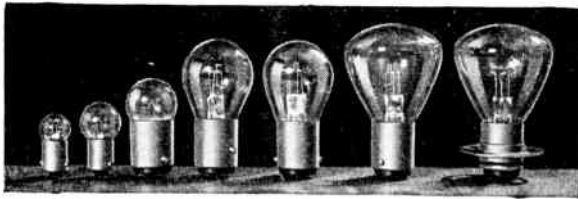


G-E Sealed Beam Lamps

Made of glass with a sealed beam.
Standard package, 8.

No.	Each	Description	Watts	Volts	Type Bulb
4030	\$1.30	Sealed Beam..	45-35	6-8	PAR-56
4430	1.70	Sealed Beam..	45-35	12-16	PAR-56
With 3 Contact Lugs					
4012	\$1.35	Clear Fog...	35	6-8	PAR-46
4012A	1.60	Amber Fog...	35	6-8	PAR-46
4015	1.35	Clear Fog...	35	6-8	PAR-36
4015A	1.60	Amber Fog...	35	6-8	PAR-36
4013	1.30	Tractor.....	25	6-8	PAR-46
4535	1.75	Spotlight.....	30	6-8	PAR-46

G-E Miniature Lamps



G-3½ G-4½ G-6 S-8 D.C. S-8 D.C. RP-11 RP-11
Index Bay Bayonet Prefocus

Unit package quantity consists of 10 lamps of the same lamp No.

6-8-Volt Automobile Service

Lamp No.	Each	Candle-power	Bulb	Base
51	\$.08	1	G-3½	Min. Bay.
55	.08	2	G-4½	Min. Bay.
63	.09	3	G-6	S.C. Bay.
64	.12	3	G-6	D.C. Bay.
81	.11	6	G-6	S.C. Bay.
82	.13	6	G-6	D.C. Bay.
87	.21	15	S-8	S.C. Bay.
88	.24	15	S-8	D.C. Bay.
1007	.34	32	RP-11	S.C. Prefoc.
1129	.23	21	S-8	S.C. Bay.
1130	.26	21	S-8	D.C. Bay.
1133	.25	32	RP-11	S.C. Bay.
1000	.27	32-32	RP-11	D.C. Bay.
1154	.29	21-3	S-8	D.C. Index.
1158	.26	21-3	S-8	D.C. Bay.
1323	.34	32	RP-11	S.C. Prefoc.
2330	.38	32-32	RP-11	D.C. Prefoc.
2331	.38	32-32	RP-11	D.C. Prefoc.

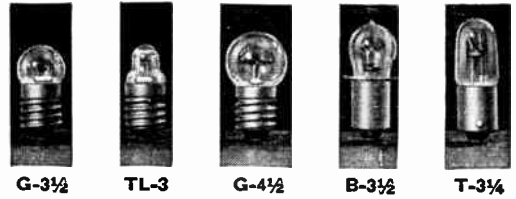
12-16-Volt Automobile Service

57	\$.15	1½ Nom.	G-4½	Min. Bay.
67	.13	3	G-6	S.C. Bay.
68	.13	3	G-6	D.C. Bay.
89	.15	6	G-6	S.C. Bay.
90	.15	6	G-6	D.C. Bay.
93	.25	15	S-8	S.C. Bay.
94	.25	15	S-8	D.C. Bay.
1016	.50	21-6	S-8	D.C. Index
1124	.41	32-32	RP-11	D.C. Bay.
1141	.27	21	S-8	S.C. Bay.
1142	.27	21	S-8	D.C. Bay.
1143	.33	32	RP-11	S.C. Bay.
1144	.33	32	RP-11	D.C. Bay.
1176	.44	21-6	S-8	D.C. Bay.
1327	.50	32	RP-11	S.C. Prefoc.
2336	.51	32-32	RP-11	D.C. Prefoc.

G-E Miniature Lamps

Unit package quantity, 10 lamps of the same lamp number

For Flashlights, Handlanterns, Bicycles and Miscellaneous Service



Miniature Screw Base

Lamp No.	Each	Bulb	Volts	Amps	Bead Color	No. Cells and Size
112	\$.09	TL-3	1.1	0.22	Pink	1-AA
131	.09	G-3½	1.3	0.10	White	1-D
222	.09	TL-3	2.2	0.25	White	2-A or AA
223	.09	FE-3¾	2.2	0.25	White	2-A or AA
233	.09	G-3½	2.3	0.27	Purple	2-C
248	.10	G-5½	2.4	0.80	Black	2-No. 6
35C	.10	G-5½	2.4	0.80	Black	2-No. 6
14	.09	G-3½	2.5	0.30	Blue	2-D
13	.09	G-3½	3.8	0.30	Green	3-D
502	.10	G-4½	5.0	0.15	Blue	4-F
605	.10	G-4½	6.0	0.50	Brown	5-D

Single Contact Miniature Flange Base

PR-4	.13	B-3½	2.3	0.27	Lt. Green	2-C
PR-2	.13	B-3½	2.4	0.50	Blue	2-D
PR-6	.13	B-3½	2.5	0.30	Brown	2-D
PR-3	.13	B-3½	3.6	0.50	Green	3-D
PR-7	.13	B-3½	3.8	0.30	Pink	3-D

For Toy Train Service—Miniature Screw Base

428	\$.10	G-4½	12	0.25	.....	.....
1446	.15	G-3½	12	0.20	.....	.....
1447	.20	G-3½	18	0.15	.....	.....
432	.10	G-4½	18	0.25	.....	.....

For Radio Panels, Indicators and Miscellaneous Service

Miniature Screw Base						
41	\$.09	T-3¼	2.5	0.50	White	.....
40	.09	T-3¼	6-8	0.15	Brown	.....
46	.09	T-3¼	6-8	0.25	Blue	.....
50	.10	G-3½	6-8	1cp	White	.....

Miniature Bayonet Base

1490	\$.11	T-3¼	3.2	0.16	White	.....
44	.09	T-3¼	6-8	0.25	Blue	.....
47	.09	T-3¼	6-8	0.15	Brown	.....
1458	.15	G-5	20	0.25	White	.....

Cell Designation	AA	A	C	D	F	No. 6
Diameter.....	inches ½	5/8	15/16	1¼	1¼	2½
Height.....	inches 1 7/8	1 7/8	1 3/16	2 1/4	3 1/16	6

McGill Crescent Coloring Fluid and Frosting

Used extensively during holiday seasons to color and frost lamps, by dipping, for temporary outdoor coloring schemes; not weatherproof. Recommended for lamps up to 60 watts.

Apply all tints and shades to lighted lamps; apply frosted white to unlighted lamps—then light and let dry.

Available in amber, red, blue, pink, ruby, green, canary, violet, purple and frosted white. When ordering, specify color.

Dipping cup is included.



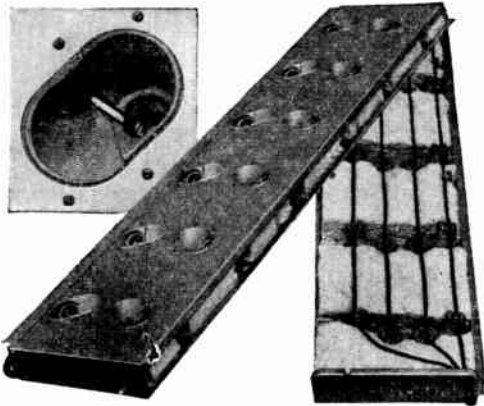
No.	Each	Size	Weight Pounds
2762	\$14.00	Gallon.....	22
2763	7.50	Half Gallon.....	18
2764	4.00	Quart.....	5
2765	2.00	Pint.....	3
2766	1.00	Half Pint.....	2

Trumbull Raymersion Prefabricated Infra-Red Ovens

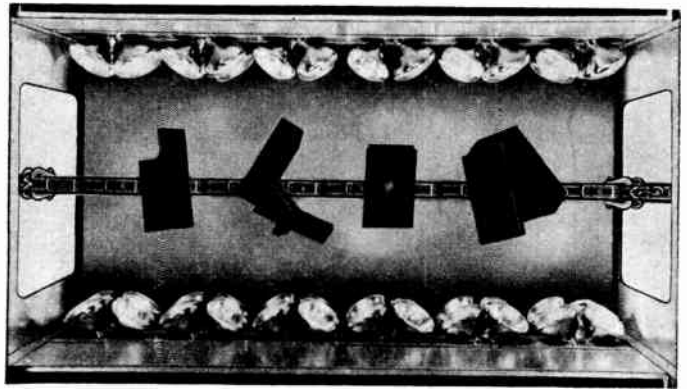
Service Temperatures Up to 600°F.



Showing Convenient Maintenance Access



Section Showing Heavy Duty Insulation. Note Unique Design of Lamp-Positioning Sockets



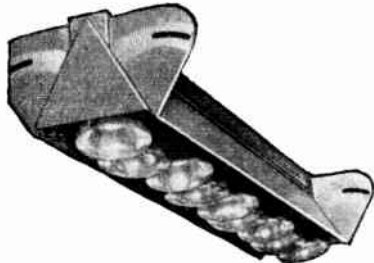
Product Fully and Uniformly Immersed in Infra-Red Radiation and Circulating Convection Heat

Raymersion Ovens provide a greater range of heating application because of their more uniform heat distribution, broad available range of controlled heating rates (properly adapted to each and every application) and the higher operating temperatures available.

Successful High Speed Raymersion Heating Applications. Baking synthetic enamel finishes (including gloss and wrinkle type) on fabricated steel products; preheating castings for impregnation and sealing; force drying lacquers on aluminum, steel, tern plate and wood products; baking insulating varnishes on armatures—motor and transformer windings; drying pottery, chinaware—glazes and porcelain coatings; expanding gears and bearings for shrink fitting; surface drying of clearing solutions and rust inhibitive coatings applied to metals; evaporating water, acetone and other chemical solvents; and drying adhesives—textile coatings—heating plastics—carbonizing wool.

Wil-Son Patent-Flex Infra-Red Ovens

Overall length, 48 inches. Width of each lamp row, 8½ inches. Lamp sockets per row, 9.



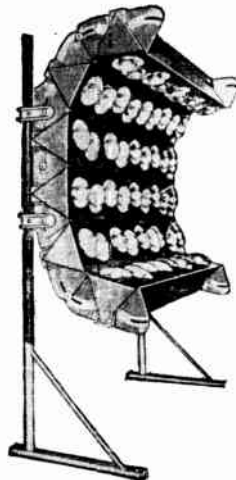
Individual Lamp Row Units

Individual Lamp Row Units. For special applications where no stands are required.

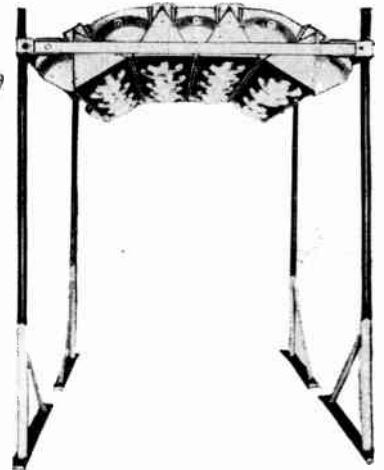
May be attached to all Wil-Son oven sections. Also used for increasing the number of lamp rows in old installations.

Medium Size Oven Sections. For side heating applications. Stand height, 60 inches. Length of screw down base, 24 inches. Total contour adjustment between each row, 56°.

Straddle Oven Sections. For up or down heating applications. Stand height, 60 inches. Length of screw down base, 24 inches (width of oven is made to fit job). Total contour adjustment between each lamp row, 56°.



Medium Size Oven Sections



Straddle Oven Sections

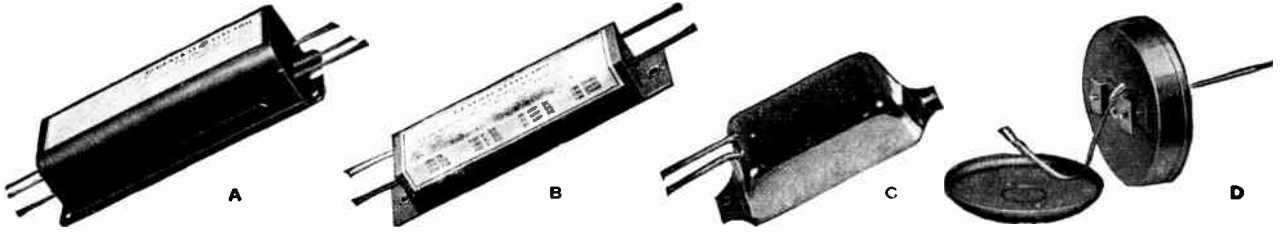
Individual Lamp Row Units			
Lamp Rows	No.	Each	Ship. Wt. Lb.
1	E-1-91	\$21.50	20
2	E-2-91	43.00	39
3	E-3-91	64.50	58
4	E-4-91	86.00	77
5	E-5-91	107.50	96
6	E-6-91	129.00	115
7	E-7-91	150.50	131
8	E-8-91	172.00	153
9	.....	.....	.....
10	.....	.....	.....

Medium Size Oven Sections			
No.	Each	Ship. Wt. Lb.	
.....
M-3-91	\$86.00	88	
M-4-91	108.00	107	
M-5-91	130.00	126	
M-6-91	154.00	150	
M-7-91	176.00	169	
M-8-91	198.00	188	
M-9-91	219.00	207	
M-10-91	241.00	226	

Straddle Oven Sections			
No.	Each	Ship. Wt. Lb.	
.....
S-3-91	\$105.00	99	
S-4-91	126.00	116	
S-5-91	149.00	135	
S-6-91	173.00	159	
S-7-91	195.00	178	
S-8-91	216.00	197	
S-9-91	238.00	216	
S-10-91	259.00	235	

G-E Ballasts for Fluorescent Lamps

*60-Cycle



Ballasts for Standard Fluorescent Lamps

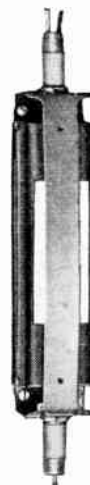
Lamp Rating Watts	Circuit Voltage	Approx. Power Factor	Case Type	Weight Pounds	Std. Pkg.	No.	Each
6	6	110-125	45 C	1	20	58G818	\$.90
8	8	110-125	45 C	1	20	58G649	.90
13	13	110-125	45 A	2 1/4	10	59G400	2.25
	13	110-125	95 A	3	10	59G403	3.75
14	14	110-125	44 C	3 3/4	20	58G862	.65
	14	110-125	85 A	1 1/2	10	58G864	2.75
15	2-14	110-125	44 C	1 1/2	10	58G914	1.20
	15	110-125	55 C	3 3/4	20	58G670	.65
15	15	110-125	90 A	1 3/4	10	58G640	2.75
	15	110-125	55 C	1 1/2	10	58G691	1.20
20	2-15	110-125	95 A	3 3/4	10	58G678	3.90
	20	110-125	55 C	3 3/4	20	58G671	.65
20	20	110-125	90 A	1 3/4	10	58G641	2.75
	2-20	110-125	55 C	1 1/2	10	58G692	1.20
20	2-20	110-125	95 A	3 3/4	10	58G679	3.90
	30	199-216	60 C	1 1/2	10	58G673	1.50
30	30	220-250	60 C	1 1/2	10	58G672	1.50
	30	110-125	90 A	3 3/4	10	58G644	4.25
30	30	199-216	90 A	2 1/2	10	58G643	3.40
	30	220-250	90 A	2 1/2	10	58G642	3.40
30	30	110-125	55 A	2 1/2	10	58G674	2.40
	2-30	110-125	95 A	7	10	58G980	5.30
30	2-30	199-216	95 A	7	10	58G981	5.30
	40	220-250	95 A	7	10	58G982	5.30
40	2-30	110-125	95 A	6	10	58G940	6.30
	40	199-216	95 A	5 1/2	10	58G941	6.30
40	40	220-250	95 A	6	10	58G942	6.30
	40	110-125	60 A	2 1/2	10	58G677	2.40
40	40	199-216	60 C	1 1/2	10	58G676	1.50
	40	220-250	60 C	1 1/2	10	58G675	1.50
40	40	110-125	95 A	3 3/4	10	58G647	4.25
	40	199-216	95 A	2 1/2	10	58G646	3.40
40	40	220-250	95 A	2 1/2	10	58G645	3.40
	40	†240-280	90 A	6	10	58G925	4.25
40	2-40	110-125	95 A	7	10	58G983	5.30
	2-40	199-216	95 A	7	10	58G984	5.30
40	2-40	220-250	95 A	7	10	58G985	5.30
	40	†240-280	95 A	7	10	58G922	5.30
40	2-40	110-125	95 A	6	10	58G943	6.30
	40	199-216	95 A	5 1/2	10	58G944	6.30
40	40	220-250	95 A	6	10	58G945	6.30
	40	110-125	95 A	11	4	59G276	9.00
40	3-40	199-216	95 A	9 3/4	4	59G277	8.25
	40	220-250	95 A	9 3/4	4	59G278	8.25
100	100	†240-280	95 A	10 1/4	4	58G996	9.00
	100	110-125	90 A	10 1/4	4	58G628	8.00
100	100	199-216	90 A	10 1/4	4	58G629	8.00
	100	220-250	90 A	10 1/4	4	58G630	8.00
100	100	†240-280	90 A	10 1/4	4	58G967	8.00
	100	110-125	95 A	14 1/2	4	58G696	12.00
100	2-100	199-216	95 A	14 1/2	4	58G697	12.00
	100	220-250	95 A	14 1/2	4	58G698	12.00
100	†240-280	95 A	15	4	58G923	12.00	

Ballasts for Slimline Fluorescent Lamps

110-125 Volts									
Lamp Size	Lamp Watts	Lamp Current	Approx. Power Factor	Case Type	Weight Pounds	Std. Pkg.	No.	Each	
42T6	16	0.1	45	B	6	10	59G501	\$4.50	
	16		95	B	6	10	59G533	6.75	
	2-16	0.2	95	B	7	10	59G565	7.75	
	25		32	B	7 1/2	10	59G505	5.00	
	25	0.2	95	B	9	4	59G537	8.00	
	2-25		95	B	8 3/4	4	59G569	9.00	
64T6	24	0.1	45	B	7	10	59G509	5.00	
	24		95	B	6	10	59G533	6.75	
	2-24	0.2	95	B	8 1/2	4	59G573	8.75	
	39		40	B	8 1/2	10	59G513	5.75	
	39	0.2	95	B	9	4	59G537	8.00	
	2-39		95	B	11	4	59G577	10.00	
72T8	22	0.1	45	B	7	10	59G509	5.00	
	22		95	B	6	10	59G533	6.75	
	2-22	0.2	95	B	8 1/2	4	59G573	8.75	
	38		40	B	8 1/2	10	59G513	5.75	
	38	0.2	95	B	9	4	59G537	8.00	
	2-38		95	B	11	4	59G577	10.00	
96T8	29	0.1	95	B	7	10	59G557	7.50	
	2-29		95	B	10	4	59G589	9.50	
	51	0.2	95	B	10	4	59G561	9.00	
	2-51		95	B	14	4	59G593	11.00	

Ballasts for Circline Fluorescent Lamps

110-125 Volts



Lamp Diam. In.	Lamp Watts	Approx. Power Factor	Case Type	Wt. Lb.	Std. Pkg.	No.	Each
12	32	50	D	4	10	59G420	\$3.25
12	32	50	E	3	10	59G440	2.75
12	32	90	D	6	10	59G425	6.00
12	2-32	95	D	7	10	59G424	7.50
12-8 1/4	32-22	95	D	6.5	10	59G429	7.00
§Adapter Mtg			E	12	50	59G441	.50
¶Junction Box			D	3	50	59G418	.20
8 1/4	22	50	C	1 1/4	20	59G419	.90
8 1/4	22	90	B	2	10	59G428	3.50

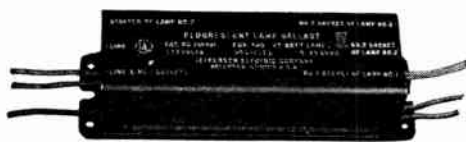
Tulamp Ballast for 40-Watt Instant-Starting Medium or Mogul Bipin-Base Lamp

Lamp Size	Lamp Watts	Circuit Voltage	Approx. Power Factor	Case Type	Weight Pounds	Std. Pkg.	No.	Each
48T12 40T17	2-40	110-125	95	A	12	4	58G373	\$10.00

*G-E ballasts for fluorescent lamps are also available for 50-cycle operation, though not regularly carried in stock. Special service ballasts for certain other frequencies are also obtainable. More complete information on ballasts will be found in Publication GEA-3293 and, on accessories, in Publication 57-312.
 †For Y-connected networks rated 254/440, 265/440, and 277/480 volts.

Ballasts are connected line to neutral. In no case use less than 250 volts.
 †Note that some ballasts may be used for two or more lamp sizes.
 §For use with No. 59G440 only.
 ¶For use with all ballasts of circular construction; includes bracket for mounting.

Jefferson Ballasts for Fluorescent Lamps



Hot Cathode Ballast with Ends Leads



Hot Cathode Ballast with End or Bottom Leads

Highest uniform quality, quiet operation, and long life.

Particularly suited to mounting on narrow wiring channels.

Two Lamp Ballasts—High Power Factor With Built-In Compensator

No.	Lamp Watts	Circuit Voltage	SIZE OVERALL, INCHES			Approx. Watts Loss	Approx. Power Factor Per Cent	Approx. Weight Pounds
			Height	Width	Length			
234-701	2-15	110-125	1 ⁵ / ₁₆	1 ⁷ / ₃₂	14 ¹ / ₂	8 to 9	95-100	3 ¹ / ₂
234-711	2-20	110-125	1 ⁵ / ₁₆	3 ³ / ₃₂	14 ¹ / ₂	10.0	95-100	3 ¹ / ₂
234-841	2-30	110-125	2 ³ / ₈	3 ³ / ₃₂	9 ⁷ / ₁₆	14.5	95-100	7 ¹ / ₄
234-843	2-30	220-250	2 ³ / ₈	3 ³ / ₃₂	9 ⁷ / ₁₆	12.5	95-100	6 ¹ / ₂
234-846	2-30	199-216	2 ³ / ₈	3 ³ / ₃₂	9 ⁷ / ₁₆	12.0	95-100	6 ¹ / ₂
234-881	2-40	110-125	2 ³ / ₈	3 ³ / ₃₂	9 ⁷ / ₁₆	17.5	95-100	7 ¹ / ₄
234-883	2-40	220-250	2 ³ / ₈	3 ³ / ₃₂	9 ⁷ / ₁₆	14.5	95-100	6 ¹ / ₂
234-886	2-40	199-216	2 ³ / ₈	3 ³ / ₃₂	9 ⁷ / ₁₆	13.5	95-100	6 ¹ / ₂
234-791	*2-100	110-125	2 ³ / ₈	3 ³ / ₃₂	19 ³ / ₁₆	35.0	95-100	15 ¹ / ₂
234-793	*2-100	220-250	2 ³ / ₈	3 ³ / ₃₂	19 ³ / ₁₆	35.0	95-100	15 ¹ / ₂
234-796	*2-100	199-216	2 ³ / ₈	3 ³ / ₃₂	19 ³ / ₁₆	35.0	95-100	15 ¹ / ₂

Two Lamp Ballasts—High Power Factor 2 1/2-Inch—Narrow Type With Built-In Compensator

234-441	2-30	110-125	1 ⁹ / ₁₆	2 ¹ / ₂	16 ⁷ / ₁₆	14.5	95-100	8
234-443	2-30	220-250	1 ⁹ / ₁₆	2 ¹ / ₂	16 ⁷ / ₁₆	12.5	95-100	7 ¹ / ₂
234-446	2-30	199-216	1 ⁹ / ₁₆	2 ¹ / ₂	16 ⁷ / ₁₆	12.0	95-100	7
234-481	2-40	110-125	1 ⁹ / ₁₆	2 ¹ / ₂	16 ⁷ / ₁₆	17.5	95-100	8
234-483	2-40	220-250	1 ⁹ / ₁₆	2 ¹ / ₂	16 ⁷ / ₁₆	14.5	95-100	7 ¹ / ₂
234-486	2-40	199-216	1 ⁹ / ₁₆	2 ¹ / ₂	16 ⁷ / ₁₆	13.4	95-100	7

Two Lamp Ballasts—Normal Power Factor

234-985	2-20	110-125	1 ⁵ / ₁₆	1 ¹³ / ₁₆	6 ¹ / ₂	10.0	55	1 ¹ / ₂
234-986	2-20	110-125	1 ⁵ / ₁₆	1 ¹³ / ₁₆	6 ¹ / ₂	10.0	55	1 ¹ / ₂

Single Lamp Ballasts—Normal Power Factor

234-501	15	110-125	1 ⁵ / ₁₆	1 ⁷ / ₃₂	4 ¹ / ₄	3.5 to 4.5	55	3 ³ / ₄
234-511	20	110-125	1 ⁵ / ₁₆	1 ⁷ / ₃₂	4 ¹ / ₄	4.5	65	3 ³ / ₄
234-541	30	110-125	1 ⁵ / ₁₆	1 ⁷ / ₃₂	10 ¹ / ₂	7.0	60	2 ³ / ₄
234-543	30	220-250	1 ⁵ / ₁₆	1 ⁷ / ₃₂	8	6.75	50	2 ¹ / ₄
234-546	30	199-216	1 ⁵ / ₁₆	1 ⁷ / ₃₂	8	6.25	55	2 ¹ / ₄
234-581	40	110-125	1 ⁵ / ₁₆	1 ⁷ / ₃₂	10 ¹ / ₂	8.75	65	2 ³ / ₄
234-583	40	220-250	1 ⁵ / ₁₆	1 ⁷ / ₃₂	8	10.0	55	2 ¹ / ₄
234-586	40	199-216	1 ⁵ / ₁₆	1 ⁷ / ₃₂	8	9.0	60	2 ¹ / ₄

Single Lamp Ballasts—High Power Factor

234-601	15	110-125	1 ⁵ / ₁₆	1 ⁷ / ₃₂	9	3.5 to 4.5	90-100	1 ¹ / ₂
234-611	20	110-125	1 ⁵ / ₁₆	1 ⁷ / ₃₂	9	4.5	90-100	1 ¹ / ₂
234-641	30	110-125	1 ⁵ / ₁₆	1 ⁷ / ₃₂	14 ¹ / ₂	7.0	90-100	3 ¹ / ₂
234-643	30	220-250	1 ⁵ / ₁₆	1 ⁷ / ₃₂	10 ⁵ / ₁₆	6.75	90-100	2 ¹ / ₂
234-646	30	199-216	1 ⁵ / ₁₆	1 ⁷ / ₃₂	10 ⁵ / ₁₆	6.25	90-100	2 ¹ / ₂
234-681	40	110-125	1 ⁵ / ₁₆	1 ⁷ / ₃₂	15 ¹ / ₂	8.75	90-100	3 ¹ / ₂
234-683	40	220-250	1 ⁵ / ₁₆	1 ⁷ / ₃₂	10 ⁵ / ₁₆	10.0	90-100	2 ¹ / ₂
234-686	40	199-216	1 ⁵ / ₁₆	1 ⁷ / ₃₂	10 ⁵ / ₁₆	9.0	90-100	2 ¹ / ₂
234-691	100	110-125	2 ³ / ₈	3 ³ / ₃₂	14 ⁵ / ₁₆	25.0	90-100	11
234-693	100	220-250	2 ³ / ₈	3 ³ / ₃₂	14 ⁵ / ₁₆	25.0	90-100	11
234-696	100	199-216	2 ³ / ₈	3 ³ / ₃₂	14 ⁵ / ₁₆	25.0	90-100	10 ¹ / ₂

Three Lamp Ballasts—High Power Factor

234-980	3-40	220-250	2 ³ / ₈	3 ³ / ₃₂	14 ⁵ / ₁₆	23.0	90-100	11
234-983	3-40	110-125	2 ³ / ₈	3 ³ / ₃₂	14 ⁵ / ₁₆	23.0	90-100	11

14-Watt Lamp Ballasts

Two Lamps in Series with One Ballast

234-989	14	110-125	2	2 ¹ / ₂	2 ¹ / ₄	3.5	55	1
234-990	14	110-125	2	2 ¹ / ₂	2 ¹ / ₄	3.5	55	1

*No compensator necessary for 100-watt ballasts.

Nos. 234-989 and 234-990 are identical except for mounting brackets.

No. 234-989 is equipped with hickey mounting bracket.

No. 234-990 has mounting ears on either side. Ballasts for 50 cycles can be supplied; prices on application.

G-E Fluorescent Starters
Two Contact-Glow-Switch Types



No. FS-2

Ruggedly built to withstand shock and breakage. Provides carefully timed starting which results in longer lamp life and more satisfactory operation of lamps.



No. FS-4

No.	Per 100	Description	Car-ton	Std. Pkg.
FS-2	\$30.00	For 15-Watt 18-Inch and 20-Watt 12-Inch Fluorescent Lamps.....	10	100
FS-4	30.00	For 30-Watt 36-Inch and 40-Watt 48-Inch Fluorescent Lamps.....	10	100
FS-5	40.00	For 6-Watt 9-Inch and 8-Watt 12-Inch Fluorescent Lamps.....	10	50
FS-6	80.00	For 100-Watt 60-Inch Fluorescent Lamps.....	10	50

Four-Contact—Thermal-Switch Types



No. FS-44

Provides starting at temperatures below 50°F. May also be used on d.c. circuits in conjunction with correct ballast, inductance unit, and proper series resistance.



No. FS-64

No.	Per 100	Description	Car-ton	Std. Pkg.
FS-44	\$80.00	For 40-Watt Fluorescent Lamps.....	10	50
FS-64	80.00	For 65 and 100-Watt Fluorescent Lamps.....	10	50

G-E Watch Dog Starters

Glow Switch Type—Manual Reset Button



No. FS-20



No. FS-30



No. FS-40



No. FS-100

A precision lamp starter and stopper. Protects lamp throughout its burning life to start it properly and, when lamp is about to die, cuts itself out of the circuit cutting off the current from the lamp. This prevents the lamp from blinking and prolongs the life of the ballast and the starter itself. Each time the unit is lighted it preheats the electrodes within a measured time preventing the electrodes from discharging more than the minimum amount of emission material required.

Under test conditions, the life of the starter is 25,000 hours, outlasts five ordinary starters.

Manual reset button pops up when starter cuts off on dead lamp; reset by pressing when new lamp is inserted, no cooling period is required.

Representative starter socket: Nos. 78X769 or 95X299; No. FS-100 for No. 95X180 representative starter socket.

Standard package, 100.

No.	With 2 Contact Base			With 4 Contact Base
	FS-20	FS-30	FS-40	
For Lamps..... watts	15, 20	30	40	100

G-E Fluorescent Lampholders

With Rotating Lock

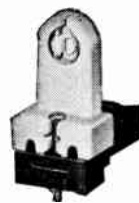
250 Volts—660 Watts



No. 78x354



No. 78x729



No. 95x291

Medium Bi-Pin Lampholders

Designed for 1-inch T-8 and 1½ T-12 fluorescent lamps for either flush or surface mounting.

Wiring is protected with plastic cover plate.

Lampholders are held to reflector or wiring channel with one screw and nut. Binding screws take conductors up to size 14 solid wire. Two of these devices are required for each lamp where a separate starter socket is used.

Conventional mounting requires one No. 78x354 or No. 78x491 and No. 78x729 or No. 78x736.

Rotating lock action permits easy installation of lamp and holds lamp securely in place.

Carton pack is furnished with 1-inch screw and nut.

No.	Per 100	Description	*Car-ton	Std. Pkg.
78x354	\$18.00	Black Plastic, For 40-Watt 48-Inch, 30-Watt 36-Inch 20-Watt 24 Inch, 15-Watt 18-Inch, and 14-Watt 15 Inch Fluorescent Lamps.....	10	100
78x491	19.80	White Plastic, Same as above....	10	100

Medium Bi-Pin Combination Lampholders

Designed for use with 1-inch T-8 and 1½-inch T-12 fluorescent lamps.

Rotating lock action provides easy insertion and removal of lamps and affords safe locking action.

Carton pack is furnished with 1½-inch mounting screw and nut.

No.	Per 100	Description	*Car-ton	Std. Pkg.
78x729	\$32.50	Black Plastic, for 40-Watt 48-Inch, 30-Watt 36-Inch, 20-Watt 24-Inch, and 15-Watt 18-Inch Fluorescent Lamps and FS-4, FS-30, or FS-40 Starters.....	10	100
78x736	34.30	White Plastic Lampholder, Black Plastic Starter Socket for Same Lamps and Starters as above....	10	100
95x291	34.30	White Plastic Lampholder, Black Plastic Reversed Starter Socket for Same Lamps and Starters as above.....	10	100

*Also available in bulk pack. Screws and nuts not furnished with bulk pack unless one of the following lengths is specified: length A, 1 inch; length B, ½ inch; length C, 1¼ inch.

G-E Medium Bi-Pin Fluorescent Lampholders

With Rotating Lock
250 Volts—660 Watts
Butt-On Types
For Surface Mounting



No. 95X311



No. 95X217

Designed for surface mounting.

Nos. 95X168 and 95X311 require No. 4-36 mounting screws. All others have clearance holes for No. 4 screws.

Screws are not furnished.

No.	Per 100	Description	Car-ton	Std. Pkg.
95X168	\$25.00	White Plastic, Threaded Mounting Inserts for 14 to 40-Watt T-8 and T-12 Fluorescent Lamps—Two 18-Inch No. 18 .025-Inch Fixture Wire Leads, Stranded; Stripped 1/2-Inch	10	100
95X311	22.40	Black Plastic, Same as above Except Leads are No. 18 AF Fixture Wire, One 8-Inch and One 36-Inch *Long; Stripped 1/2-Inch	10	100
95X217	24.20	White Plastic, Same as No. 95X168 Except has Eyelet Mounting Holes Instead of Threaded	10	100
95X312	22.40	Black Plastic, Same as No. 95X217	10	100

For Flush Mounting



No. 78X464

Designed for 1-inch T-8 fluorescent lamps for narrow channel wiring work, show-case lighting, and side wall fixtures. Wiring is protected with plastic cover plate. One screw mounting requires No. 6-32 screw. Screw is not furnished.

No.	Per 100	Description	Car-ton	Std. Pkg.
78X464	\$22.00	Black Plastic for 15-Watt, 18-Inch and 30-Watt, 36-Inch T-8 Fluorescent Lamps	10	100
78X492	24.20	White Plastic, Same as above	10	100



No. 95X178 Weatherproof Types

Designed for enclosed outdoor lighting equipment. Spring mounting bracket. Approved by Underwriters' Laboratories for enclosed outdoor applications such as theater marquees and display lighting. Two-hole mounting requires No. 6 screw.

Screws are not furnished.

No.	Per 100	Description	Car-ton	Std. Pkg.
97X178	\$66.00	For 14 to 40-Watt T-8 and T-12 Fluorescent Lamps—No. 18 2-Conductor 1/2-Inch POSJ Cord Lead, 10 Inches Long	10	100

*Can be furnished with two 18-inch leads in quantities of 1000 or more at no extra cost.

G-E Large Bi-Pin Fluorescent Lampholders

With Rotating Lock



No. 95X102



No. 95X153

No. 95X102 is designed for 2 1/8-inch T-17 fluorescent lamps for either flush or surface mounting. Flush mounting requires No. 6-32 screws; surface mounting, No. 6 screws (no screws are furnished). Wiring is protected with plastic cover plate. Two tapped holes are provided for holding a mounting bracket to channel or reflector. Binding screws take conductors up to size 14 solid wire. Rotating lock action permits easy installation and removal of lamps. Two of these devices are required for each lamp where a separate starter socket is used. Conventional mounting requires one No. 95X153 and one combination lampholder and starter socket. For 250 volts, 660 watts.

No. 95X153 is exactly the same as No. 95X102 except that it is designed for 600 volts, 660 watts.

No.	Per 100	Description	Car-ton	Std. Pkg.
95X102	\$37.80	White Plastic, with Bracket, for 65-Watt 36-Inch, and 100-Watt 60-Inch Fluorescent Lamps	10	50
95X153	36.90	White Plastic, without Bracket, for 65-Watt 36-Inch, and 100-Watt, 60-Inch Fluorescent Lamps	10	50

G-E Large Bi-Pin Combination Fluorescent Lampholders

With Rotating Lock

250 Volts—660 Watts



No. 95X123

Combination lampholder and 4-contact starter socket. Starter socket will accommodate both 2-contact and 4-contact starters.

Illustration shows standard combination of lampholder and starter socket. Also furnished with the starter socket assembled in the following positions: No. 95X206 with starter socket reversed; No. 95X186 with starter socket inverted.

Mounting holes require same size screws as No. 95X153 listed above.

No.	Per 100	Description	Car-ton	Std. Pkg.
95X123	\$65.10	White Plastic Lampholder with Bracket, Black Plastic Starter Socket, for 65-Watt 36-Inch and 100-Watt 60-Inch T-17 Fluorescent Lamps and FS-6, FS-64, FS-100, or FS-102 Starters	10	50
95X184	63.80	Same as above but without Bracket	10	50
95X186	65.10	White Plastic Lampholder with Bracket, Black Plastic Inverted Starter Socket for 65-Watt 36-Inch and 100-Watt 60-Inch T-17 Fluorescent Lamps and FS-6, FS-64, FS-100, or FS-102 Starters	10	50
95X188	63.80	Same as above but without Bracket	10	50
95X206	63.80	White Plastic Lampholder Without Bracket, Black Plastic Reversed Starter Socket, for 65-Watt 36-Inch and 100-Watt 60-Inch T-17 Fluorescent Lamps and FS-6, FS-64, FS-100, or FS-102 Starters	10	50

G-E Miniature Bi-Pin Fluorescent Lampholders

250 Volts—75 Watts



No. 78X715



No. 78X723



No. 95X432

Designed for flush mounting. No starter socket is needed as starter socket is integral part of ballast.

Nos. 78X715 and 78X723 should be purchased in pairs as one each is necessary for each individual lamp.

No. 95X432 is interchangeable at either end of the lamp.

Has one hole mounting and requires No. 6-32 screws. Screws are not furnished.

No.	Per 100	Description	Car-ton	Std. Pkg.
78X715	\$32.50	Black Plastic for Miniature 6 and 8-Watt T-5 Fluorescent Lamps.....	10	50
78X723	32.50	Same as above Except Mounting Bracket is Reversed.....	10	50
95X432	27.70	Black Plastic for Miniature 6 and 8-Watt T-5 Fluorescent Lamps, Two 6-Inch No. 18 AF Fixture Wire Leads.....	10	50

No. 95X276 G-E Miniature Bi-Pin Butt-On Type Fluorescent Lampholders

Designed for surface mounting. Leads are No. 18 stranded AF fixture wire, 6 inches long, one white and one black.



Uses No. 4 mounting screws. Screws are not furnished.

No.	Per 100	Description	Car-ton	Std. Pkg.
95X276	\$18.00	Black Plastic—Two 6-Inch Wire Leads, for Miniature 6 to 8-Watt T-5 Fluorescent Lamps....	10	100

G-E Manual Starter Switches

Designed for use with 20-watt T-12, 15-watt T-12 or T-8, 14-watt T-12, 8-watt T-5 and 6-watt T-5 fluorescent lamps.

May also be used with 14-watt T-12, operated two-in-series with a special filament lamp as ballast.

Single hole mounting, 1 3/32-inch hole.



95X266

No.	Per 100	Description	Car-ton	Std. Pkg.
95X266	\$71.50	Black plastic base, white plastic handle. For Two Lamps, six 6-inch No. 18 AF Fixture Wire Leads stripped 1/2-inch (2 Red, 2 Black, and 2 Blue).....	10	100
95X292	68.20	For One Lamp, four 6-inch No. 18 AF Fixture Wire Leads Stripped 1/2-Inch (2 Black, 2 Blue).....	10	100

G-E Medium Bi-Pin Fluorescent Lampholders

250 Volts—660 Watts
Ejector Types



No. 78X914



No. 78X915

Designed for 1-inch T-8 fluorescent lamps for narrow channel wiring work, show-case lighting, and side wall fixtures. Especially adaptable for use in show-case lighting equipment where reflector housings are close-fitting.

To be used in pairs requiring No. 6-36 screws.

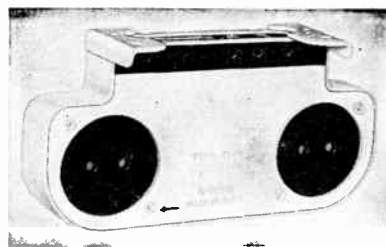
Screws are not furnished.

No.	Per 100	Description	Car-ton	Std. Pkg.
78X914		Black Plastic, Combination Lampholder and Starter Socket for 15 and 30-Watt Fluorescent Lamps and FS-2, FS-4, or FS-40 Starters.....	10	100
	\$48.40			
78X915		Black Plastic, Lampholder Only, Companion Device for above.....	10	100
	26.40			

*Underwriters' Laboratories have approved these devices for 600-volt, 660-watt service when used in instant-starting circuits.

†Also available in bulk pack. Screws and nuts not furnished with bulk pack unless one of the following lengths is specified: length A, 1 inch; length B, 1/2-inch; length C, 1/16-inch.

No. 95X498 G-E Twin Turret Lampholders



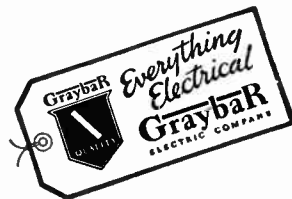
Designed for 40-watt fluorescent lamps. Made of sturdy metal and is available in white only. Accommodates either the FS 40 Watch Dog or the standard FS 4 starter.

May be mounted on any flat surface with two No. 8 mounting screws, preferably with lock washers under the screw heads.

Should be spaced 49 1/8 inches +0 - 1/16 inches apart measuring from the back of one turret to the back of the other.

Leads should be stripped and tinned, inserted through the entrance holes and secured by screws at top.

No.	95X498
Per 100.....	\$176.00
Carton.....	5
Standard Package.....	50



G-E Slimline Fluorescent Lampholders



No. 95X637, High Voltage End

No. 95X638, Low Voltage End

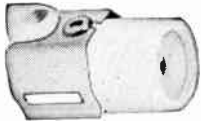
Medium single pin, white plastic type for 72 or 96-inch T-8 Slimline lamps; 42 or 64-inch T-6 Slimline lamps. Binding screws are located in base.

Has two-hole mounting to flat surface using No. 8 screws. Distance from lamp center to mounting surface (bottom of lampholder), $1\frac{1}{16}$ inches. May be spaced so that center of one lamp to center of next lamp measure 2 inches.

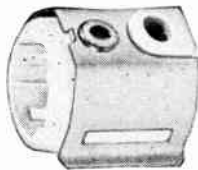
No.	Per 100	Description	Car-ton	Std. Pkg.
95X637	\$77.00	High Voltage End.....	10	100
95X638	77.00	Low Voltage End.....	10	100

G-E Slimline Fluorescent Lampholders

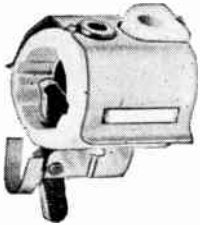
For Narrow-Channel Lighting



No. 95X671, High Voltage End With Bracket



No. 95X672, Low Voltage End With Bracket



No. 95X672, Low Voltage End With Bracket



No. 95X670, bracket Only

Designed for 42-inch and 64-inch T-6 Slimline fluorescent lamps. Particularly suited for narrow channel lighting.

Made of sturdy white plastic. Holds the lamps securely in position.

Has a single mounting hole which accommodates a No. 8 screw. Binding screws are conveniently located under the back cover.

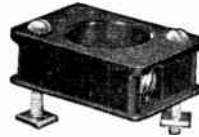
One No. 95X671 lampholder and one No. 95X672 or 95X683 lampholder make up a pair for one lamp. No. 95X672 is furnished with a trigger ejector for easy lamp removal or insertion even in extremely narrow channels.

No. 95X670 bracket is available for mounting to the reflector, and is made so that the lampholder can be snapped into the bracket after its assembly to the reflector. One bracket should be ordered for each lampholder.

No.	Per 100	Description	Car-ton	Std. Pkg.
95X671	\$70.40	Slimline Lampholder, High Voltage End.....	10	100
95X672	81.40	Slimline Lampholder, with Lamp Ejector, Low Voltage End.....	10	100
95X683	63.80	Slimline Lampholder, without Lamp Ejector, Low Voltage End.....	10	100
95X670	4.80	Separate Bracket Only.....	10	100

G-E Separate Starter Sockets

250 Volts—660 Watts



No. 78X769



No. 95X299

Designed for use where it is desired to locate the starter at a distance from the lampholder. Sockets are black plastic with reinforced plastic base.

For varying height of starter sockets, use spacer No. 78X770.

No. 95X299 is a companion device to Butt-On type lampholders.

No.	Per 100	Description	Car-ton	Std. Pkg.
78X769		Black Plastic for 2-Contact Starters. Fits FS-2, FS-4, FS-5, FS-30 and FS-40 Starters Only (*1-Inch Mounting Screws Furnished).....	10	100
	\$14.50			
95X299		Butt-On Type Black Plastic—Two 6-Inch No. 18 Stranded Type AF Fixture Wire Leads, Stripped $\frac{3}{4}$ -Inch, for 2-Contact Starters FS-2, FS-4, FS-5, FS-30, and FS-40 (Requires No. 4 Screws—Not Furnished)	10	100
	18.00			
78X770	1.10	Starter Socket Spacer.....	100	1000

No. 95X180 Separate Starter Sockets

250 Volts—660 Watts



Designed for use where it is desired to locate the starter at a distance from the lampholder.

Black plastic starter socket with reinforced plastic base.

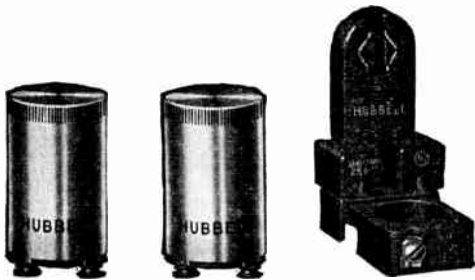
Furnished with $*1\frac{1}{16}$ -inch mounting screws.

No.	Per 100	Description	Car-ton	Std. Pkg.
95X180		Black Plastic for 4-Contact Starters FS-44, FS-64, and FS-100 and 2-Contact Starters FS-6 and FS-102.....	10	50
	\$26.80			

*Also available in bulk pack. Screws and nuts are not furnished with bulk pack unless one of the following lengths is specified: length A, 1 inch; length B, $\frac{1}{2}$ -inch; length C, $\frac{1}{16}$ -inch.

Hubbell Fluorescent Lamp Starters and Sockets

660 Watts, 250 Volts



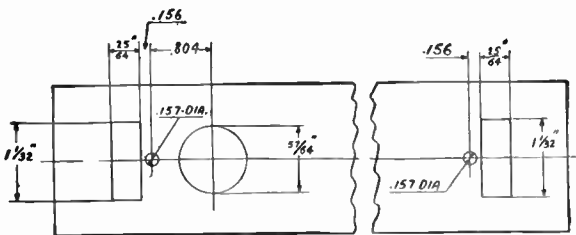
No. FS-2 Starter No. FS-4 Starter No. 2942

A new development makes the essential starting switch and condenser of a fluorescent lamp auxiliary replaceable. Heretofore, the switch and condenser, assembled with a choke coil, comprised a complete auxiliary unit.

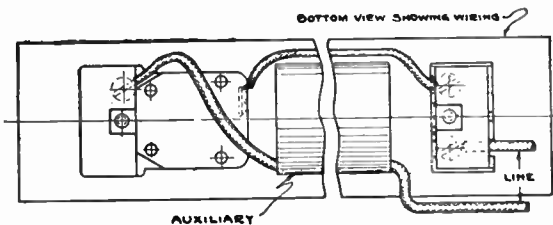
Now, the switch and condenser are mounted in a small aluminum container fitted with contacts. This unit, designated as a starter, fits into the socket of the lampholders. When mounted, the starter projects through a reflector or channel surface immediately below the lamp.

The starter is inserted and locked in contact by a slight turn in a clockwise direction. Reversing the procedure removes the starter.

Auxiliaries are required.



Suggested Mounting Dimensions



Wiring Diagram

Starters

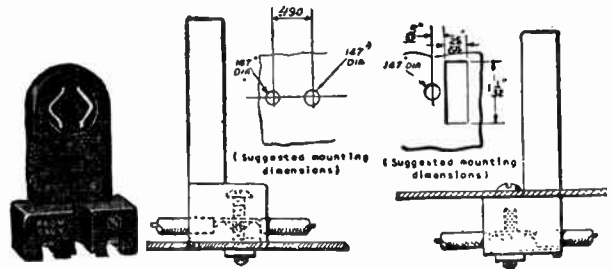
No.	Per 100	Description	Color	Car-ton	Std. Pkg.	Wt. Lb.
FS-2	\$30.00	For 15 or 20-Watt Lamps.	Aluminum	10	100	4
FS-4	30.00	For 30 or 40-Watt Lamps.	Aluminum	10	100	4

Lampholders and Starter Sockets

2942	\$32.50	Twist-Turn Contacting...	Black	10	100	10
2943	34.30	Twist-Turn Contacting...	*White	10	100	10

*Only the lampholder is white. Starter socket is black.

Hubbell Fluorescent Lampholders Twist Turn Contacting Flush or Surface Mounting 660 Watts, 250 Volts

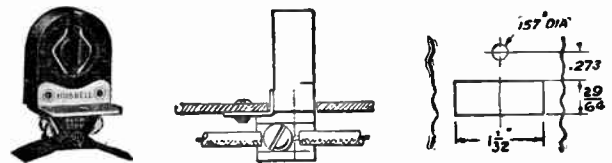


No. 2936 No. 2936, Surface Mounted No. 2936, Flush Mounted

Designed for 1 and 1 1/2-inch fluorescent lamps, and may be used for either flush or surface mounting. Wiring is protected with insulation cover plate. Lampholder is held to reflector or wiring channel with one screw and nut. Wiring grooves take conductors up to size 14, solid wire. Casing of lampholder is of molded black or white bakelite.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
2936	\$18.00	Black	10	100	6
2937	19.80	White	10	100	6

Flush Mounting—For Narrow Channel Wiring 660 Watts, 250 Volts



No. 2938 No. 2938, Mounting Method No. 2938, Mounting Dimensions

Designed for use exclusively with a 1-inch fluorescent lamp. Particularly suitable for narrow channel wiring work, showcase lighting and side-wall fixtures. Built for flush mounting. Wiring is protected with sheet insulation cover plate. One screw mounting provides easy and rapid assembly. Available in black or white bakelite.

No.	Per 100	Description	Car-ton	Std. Pkg.	Wt. Lb.
2938	\$22.00	Black	10	100	6
2939	24.20	White	10	100	6

Bryant Fluorescent Lamp Starters



No. FS2 and FS4 No. FS4-NA

For Standard Size Lamps

No.	Per 100	For Lamps Watts	Center	Std. Pkg.	Wt., Lb. Std. Pkg.
FS2	\$30.00	15 and 20	10	100	2
FS4	30.00	30 and 40	10	100	2

For Mogul Size Lamps

FS6	\$80.00	100	10	50	3
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No. FS5 for Midget Size Lamps

Sockets for No. FS5 starters are built into the ballast unit for these small lamps. For separate starter socket, use No. 4309.

FS5	\$40.00	4, 6, 8	10	50	2
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No-Blink Starters

Prevents annoying blinking and flickering of lamps when they have reached end of normal life.

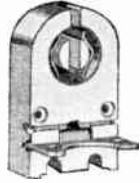
FS4-NA	\$72.00	40	10	100	3
FS6-NA	110.00	100	10	50	4

Bryant Fluorescent Lampholders and Starters

Listed by Underwriters' Laboratories, Inc.

Mogul Size

Packed 10 in a carton, 50 in a standard package.

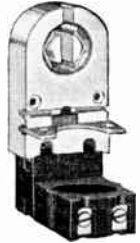


Lampholders
For 60-Inch, T-17, 100-Watt Lamps and
36-Inch, T-17, 65-Watt Lamps
660 Watts, 250 Volts
With Metal Bracket

No.	Per 100	Description	Wt., Lb. Std. Pkg.
4350-W	\$37.80	White.....	6

Without Metal Bracket

4351-W	\$36.90	White.....	6
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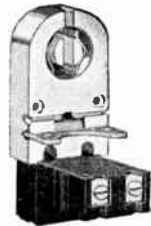
Lampholders with Starter Sockets

For 60-Inch, T-17, 100-Watt Lamps and
36-Inch, T-17, 65-Watt Lamps
660 Watts, 250 Volts
For 2 and 4-Pin Starters
With Metal Bracket

No.	Per 100	Description	Wt., Lb. Std. Pkg.
4367-W	\$65.10	White.....	10

Without Metal Bracket

4368-W	\$63.80	White.....	10
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Lampholders and Starter Sockets with Reverse Starter Mounting

For 60-Inch, T-17, 100-Watt Lamps and
36-Inch, T-17, 65-Watt Lamps
For 2 and 4-Pin Starters
With Metal Bracket

No.	Per 100	Description	Wt., Lb. Std. Pkg.
4364-W	\$65.10	White.....	10

Without Metal Bracket

4365-W	\$63.80	White.....	10
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Starter Sockets

For Separate or Remote Mounting
For 2-Pin Starters FS6
For 4-Pin Starters FS64
660 Watts, 250 Volts



No.	Per 100	Description	Wt., Lb. Std. Pkg.
4369	\$26.80	Black.....	4

Midget Size Lampholders

For 4-Watt, 6-Inch and
6-Watt, 9-Inch Lamps
75 Watts, 250 Volts

Packed 10 in a carton, 100 in a standard package.



No.	Per 100	Description	Wt., Lb. Std. Pkg.
4330	\$32.50	Black.....	2
4330-W	34.70	White.....	2

Bryant Fluorescent Lampholders and Starter Sockets

Standard Size

For T-8 and T-12, 15, 20, 30 and 40-Watt Lamps

Listed by Underwriters' Laboratories, Inc.

660 Watts, 250 Volts

Packed 10 in a carton, 100 in a standard package.

Lampholders

Twist Turn Contacting—Flush or Surface Mounting
For 1 and 1-1/2-Inch Lamps

No.	Per 100	Description	Wt., Lb. Std. Pkg.
4300	\$18.00	Black.....	6
4300-W	18.80	White.....	6



No. 4300



No. 4307



No. 4309



No. 4303



No. 4328

Lampholders With Starter Sockets

Twist Turn Contacting

No.	Per 100	Description	Wt., Lb. Std. Pkg.
4307	\$32.50	Black.....	10
*4307-W	34.30	White.....	10

*Lampholder only is white; starter socket is black.

Starter Sockets

Separate or Remote Mounting

No.	Per 100	Description	Wt., Lb. Std. Pkg.
4309	\$14.50	Black.....	5

Fixture Lampholders For 1-Inch Lamps Only

Straight Push Contacting
With Metal Bracket

No.	Per 100	Description	Wt., Lb. Std. Pkg.
4303	\$22.00	Black.....	6
4303-W	24.20	White.....	6

With Wire Leads—For 1 and 1 1/2-Inch Lamps

Twist Turn Contacting—Surface Mounting
With One 9-Inch and One 27-Inch Lead of
No. 18 Type CF Wire

No.	Per 100	Description	Wt., Lb. Std. Pkg.
4328	\$27.50	Black.....	5
4328-W	28.60	White.....	5

Bryant General Purpose Slimline Lampholders

For Single Pin Lamps



No. 4373-W

Accommodates T6 (3/4-inch diameter) and T8 (1-inch diameter) Slimline lamps. Binding screws are located in recessed base and covered by an insulating plate. Mounting holes for No. 8 screws on 1 1/4-inch centers.

No. 4373-W, 660 watts, 250 volts, is for low voltage primary and has two terminal connections. Arranged so that the primary circuit is not complete until the lamp pin is inserted, therefore the current in the high voltage circuit cannot flow to the No. 4374-W high voltage lamp holder until the lamp is in place.

No. 4374-W, 660 watts, 1000 volts, is for high voltage secondary and has single terminal connection. Spring supported contact provides push-pull principal of lamp insertion and removal.

Carton, 10. Standard package, 100.

No.	4373-W	4374-W
Per 100.....	\$77.00	77.00
Weight per Standard Package.....	pounds 22	22

H & H Fluorescent Lampholders and Starters

The starter switch and condenser are mounted in a small aluminum container fitted with contacts. This development makes the essential starting switch and condenser of a fluorescent lamp auxiliary easily replaceable.

The starter unit fits into the combination starter socket and lampholder. When mounted, the starter projects through the reflector or channel surface immediately below the lamp.

The starter unit is easily inserted and locked in contact by a short turn in a clockwise direction. If replacements are necessary reversing the process removes the starter.

A reactor is required when installed.

Starters



No. FS-2



No. 7019

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt. Lb.	Pkg.
FS-2	\$30.00	For 15 or 20 Watt Lamp...	10	50	1 1/2	
FS-4	30.00	For 30 or 40 Watt Lamp...	10	50	1 1/2	
FS4NA	72.00	.....			
FS-5	40.00	For 4 and 6 Watt Lamp...	10	50	1 1/2	
FS-6	80.00	For 100 Watt Lamp.....	10	50	1 1/2	
FS6NA	110.00	.....			
FS6NA4	110.00	.....			

Combination Starter Socket and No. 7013 Lampholder
660 Watts, 250 Volts

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt. Lb.	Pkg.
7019	\$32.50	Black.....	10	100	15	
7019-W	34.30	*White.....	10	100	15	

Starter Sockets



No. 7018



No. 7021

No.	Per 100	Description	Car- ton	Std. Pkg.	Wt. Lb.	Pkg.
7018	\$14.50	For Nos. 7013.....	10	100	9	
7021	14.50	For Flush or Surface Mounting	10	100	7	
7022	1.10	Spacer for No. 7021.....	100	1000	5	

Lampholders
660 Watts, 250 Volts



No. 7013

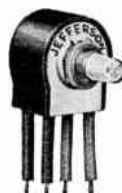


No. 7014

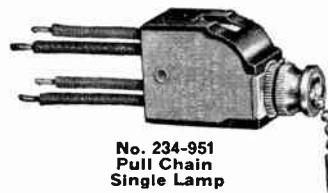
No.	Per 100	Description	Car- ton	Std. Pkg.	Wt. Lb.	Pkg.
7013	\$18.00	Black, Flush or Surface.....	10	100	9	
7013-W	19.80	White, Flush or Surface.....	10	100	9	
7014	22.00	Black, Flush.....	10	100	6	
7014-W	24.20	White, Flush.....	10	100	6	

*Starter socket is black.

Jefferson Fluorescent Lamp Switches



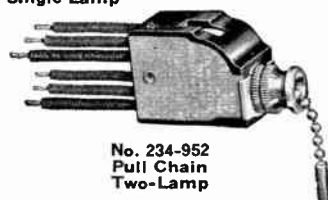
No. 234-699
Button
Single Lamp



No. 234-951
Pull Chain
Single Lamp



No. 234-698
Button
Two Lamp



No. 234-952
Pull Chain
Two-Lamp

Insures positive and quick operation of the lamp, serving as "starting" and "on and off" control. Made in single and two-lamp types, with pull chain or button control. Housed in bakelite with metal parts protected against corrosion, and

equipped with silver contacts.

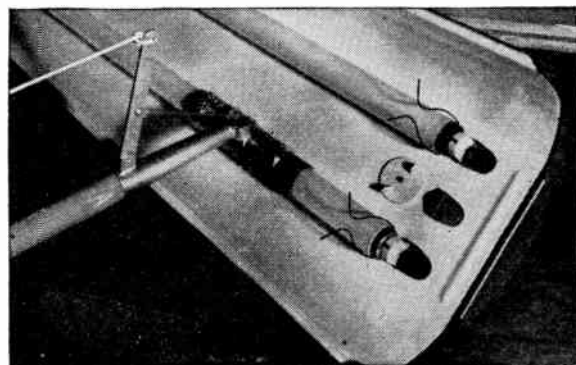
Single lamp switch is equipped with two sets of contacts, one of which acts as a conventional "off and on" switch, while the other momentarily connects the filament in series, as the switch knob in the manual type is turned clockwise or the chain of the pull type is operated.

Two-lamp switch controls three separate circuits; one for full "off and on" and two auxiliary sets of contacts for the starting filaments. Action and operation are identical to the single lamp type.

Packed 20 to the carton.

No.	No. of Lamps	AMPERES		Approximate Size Inches	Weight Ounces
		125 Volts	250 Volts		
234-699	1	1 1/2	1	1 3/8 x 1 1/8 x 1 1/16	1 3/4
234-698	2	3	1	1 3/4 x 1 1/8 x 1 1/16	2
234-951	1	1 1/2	1	1 7/8 x 1 x 1 1/16	2
234-952	2	3	1	1 7/8 x 1 1/8 x 1	2 1/2

Newman Safety Fluorescent Lamp Changer and Safety Clips

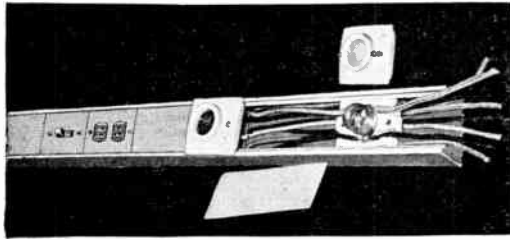


Open jaws to full extent by pulling down on cord. Place open jaws on lamp, release cord and spring automatically turns lamp 90°—then lamp may be lowered. To install new lamp, have pins in lamp line up with slots in sockets from position where operator stands on floor. Insert lamp in sockets and pull operating cord which turns lamp 90°. Continue pull on cord until jaws open—then tool may be removed from lamp. Lamps cannot fall out of socket when safety clip is used. Will fit any standard socket, only one second to install. Held by spring tension. This safety wire clip does not interfere in any way with changing lamps from the floor when using the lamp changer.

No.	Each	Description	No. in Carton	Weight Pounds
6	\$15.00	40-Watt Changer.....	1	3
7	20.00	100-Watt Changer.....	1	3 1/2
8	2.75	5-Foot Extension Handle.....	...	2
9	*10.00	40-Watt Safety Clip.....	100	1
11	*15.00	100-Watt Safety Clip.....	100	2

*Per 100.

CurtiStrip Wiring Channel and Raceway



Facilitates installation of all types of lighting equipment and offers the maximum in convenience and flexibility for carrying current. Fishing of wires is eliminated and outlets can be introduced at any point or transferred as required. Snap-in cover can be easily cut to any length and snapped into the lips of the channel. Channel may be cut to any length with a hacksaw, or the sections can be coupled together to form a continuous channel.

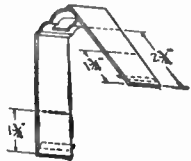
Satin Silvertone Finish Channel Only

No.	1-C	561	562	563	564	565	566	567	*767
Each	\$5.40	3.25	1.25	1.42	2.10	2.60	3.65	4.50	4.85
Length	10'	5'	18"	2'	3'	4'	6'	3'	8'

Plain Rust Resisting Finish Channel Only

No.	†1	1-A	1-B	581	591	593	596	597	598	599	*799
Each	\$4.75	3.40	1.50	2.25	.83	1.03	1.50	1.90	2.75	3.40	3.75
Length	10'	10'	10'	5'	18"	2'	3'	4'	6'	8'	8'

*With lip cut out. †With cover.



No. 129 Reflector Connector

Used with all type reflectors. Consists of a soft metal strap which fits over two adjoining sockets and is bent over reflector making a neat joint and preventing light leakage. Finished satin aluminum.

No. 129.....each \$2.25

Socket Reflector Supports



Furnished in pairs for 15, 20, 30 or 40-watt lamps.
No. 782, Plain Rust Resisting Finish.....per pair \$.40
No. 788, Fluracite Finish.....per pair .45

Reflector End Plates

Add rigidity and improve appearance of unit. Finished Satin Silvertone.
No. 502, Deep Type.....each \$1.02
No. 503, Shallow Type.....each .73
No. 504, Asymmetric (Right End).....each 1.08
No. 505, Asymmetric (Left End).....each 1.08

Fluracite Reflectors



Asymmetric Shallow Deep

Made of steel with white Fluracite finish.

No.	Each	Length Inches	Type	Distribution
245	\$2.10	18	Deep	Semi-Concentrating
246	2.50	24	Deep	Semi-Concentrating
247	3.25	36	Deep	Semi-Concentrating
248	4.00	48	Deep	Semi-Concentrating
249	1.85	18	Asymmetric	Directional
250	2.25	24	Asymmetric	Directional
251	2.90	36	Asymmetric	Directional
252	3.60	48	Asymmetric	Directional
256	1.65	18	Shallow	Distributing
257	1.90	24	Shallow	Distributing
258	2.85	36	Shallow	Distributing
259	3.25	48	Shallow	Distributing

Accessories



Nos. 5 and 5A

No. 5

Standard porcelain receptacle with shade holder groove for use with "X-Ray" reflectors having form B holders and for other standard shade holders.....each \$.50



No. 6

No. 5-A

Special porcelain socket (no shade holder groove) for use with "X-Ray" screw engaging holders.....each \$.67

No. 9

No. 6

End cap to close and finish end of Curti-strip. Provided with 7/8-inch knockout for 1/2-inch conduit (can be reamed to 3/4-inch for lead-in circuit).....each \$1.18

No. 12



No. 9

Strap for holding CurtiStrip against any flat surface. Overall spread, 3 7/8 inches. Holes on 3 5/8-inch centers.....each \$.15

No. 10

No. 12

Service box. Top removable. Has four 1 1/2-inch knockouts (bottom, end, and two sides) for 3/4-inch conduit. May be reamed up to 1 1/2 inches.....each \$2.00

No. 13

No. 13

Bracket to hang CurtiStrip on pipe or chain hanger. Height, top to bottom, 3 inches.....each \$.63

No. 16



No. 16

Coupling used for connecting two pieces of CurtiStrip. Does not reduce size of wireway or interfere with use of CurtiStrip sockets.....each \$.33

No. 19

No. 19

Nipple attachment (3/8-inch female thread) for supporting reflectors on nipple.....each \$.75

No. 19 and 19-BX

No. 19-BX

Attachment to connect 1/2-inch BX or Greenfield to CurtiStrip or for attaching socket with 1/2-inch female thread by using chase nipple.....each \$.58



No. 20

No. 20

Single receptacle plate. Takes all standard receptacles.....each \$.55



No. 21

No. 21

Switch plate. Takes standard toggle switch.....each \$.55



No. 23

No. 23

Duplex receptacle plate. Takes all standard receptacles.....each \$.55



No. 24

No. 24

Bracket assembly for mounting CurtiStrip out from transom bar or for suspending from ceiling. Includes 1 1/2x3-inch rectangular flange, 3/8-inch nipple, 6 1/4 inches long with two locknuts and No. 13 bracket...each \$1.50



No. 31

No. 31

Plain bushed end cap for flexible cord connection.....each \$.30



No. 46

No. 46

Extended end cap which extends 5/8-inch beyond end of channel permitting direct conduit connections.....each \$.30



No. 181

No. 181

Ballast holder strap. Two are needed for each ballast. Can also be used to clamp No. 16 coupling in CurtiStrip without screws.....each \$.22



No. 501

No. 501

Decorative end cap cast in modern design which gives a finished appearance to unit. Always used when unit is to be suspended with hangers having angle fittings...each \$.78

Curtis Fluorescent CurtiStrip Lighting Units

110-125 Volts A.C.

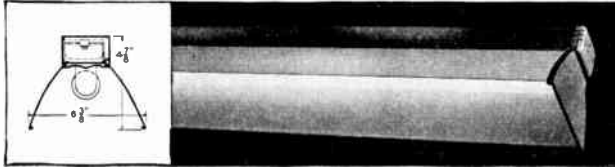
For commercial and industrial lighting as individual one-lamp units or as continuous strip lighting.

Wiring channel forms a rigid backbone for each fixture. Channel and ends finished in satin Silvertone. Steel reflectors finished in white Fluracite.

The following are continuous fixtures wired with high power factor ballasts.

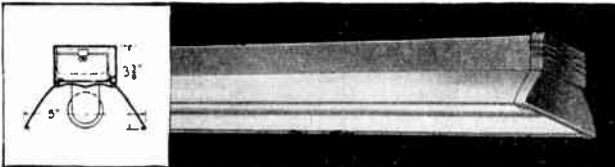
Prices do not include lamps.

Deep Reflector



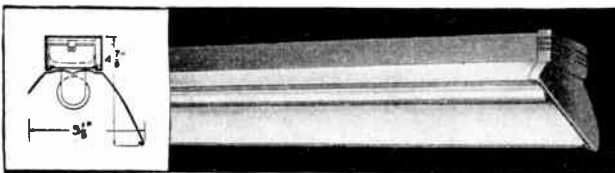
Length Feet	Decorative Type		Economy Type		Nominal Length	No. of Lamps	Lamp Watts
	No.	Each	No.	Each			
1 1/2	940-C1 1/2'	\$15.50	942-C1 1/2'	\$12.40	18"	1	15
2	940-C2'	16.25	942-C2'	13.00	2'	1	20
3	940-C3'	20.00	942-C3'	16.85	3'	1	30
4	940-C4'	20.90	942-C4'	17.50	4'	1	40
*	940-C*	.....	942-C*	.....	Cont.	2 or More	40
†2	940-CE2'	13.35	942-CE2'	12.85	2'	1	20

Shallow Reflector



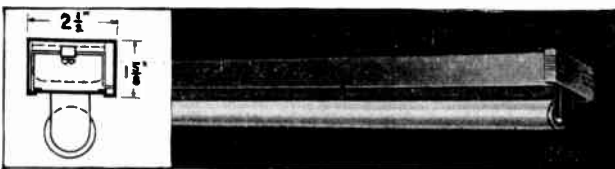
1 1/2	944-C1 1/2'	\$14.60	946-C1 1/2'	\$12.00	18"	1	15
2	944-C2'	15.15	946-C2'	12.50	2'	1	20
3	944-C3'	19.10	946-C3'	16.40	3'	1	30
4	944-C4'	19.65	946-C4'	16.75	4'	1	40
*	944-C*	.....	946-C*	.....	Cont.	2 or More	40
†2	944-CE2'	12.85	946-CE2'	12.25	2'	1	20

Asymmetric Reflector



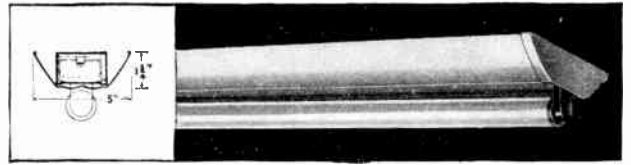
1 1/2	948-C1 1/2'	\$15.40	950-C1 1/2'	\$12.15	18"	1	15
2	948-C2'	16.15	950-C2'	12.85	2'	1	20
3	948-C3'	19.85	950-C3'	16.50	3'	1	30
4	948-C4'	20.60	950-C4'	17.00	4'	1	40
*	948-C*	.....	950-C*	.....	Cont.	2 or More	40
†2	948-CE2'	13.10	950-CE2'	12.60	2'	1	20

Reflectorless



1 1/2	954-C1 1/2'	\$11.10	956-C1 1/2'	\$9.90	18"	1	15
2	954-C2'	11.60	956-C2'	10.35	2'	1	20
3	954-C3'	14.40	956-C3'	13.00	3'	1	30
4	954-C4'	15.25	956-C4'	13.85	4'	1	40
*	954-C*	.....	956-C*	.....	Cont.	2 or More	40
†2	954-CE2'	10.65	956-CE2'	10.10	2'	1	20

Winged Back Reflector



Length Feet	Decorative Type		Nominal Length	No. of Lamps	Lamp Watts	Each
	No.	Each				
1 1/2	952-C1 1/2'	18"	1	15	\$12.90	
2	952-C2'	2'	1	20	13.40	
3	952-C3'	3'	1	30	17.35	
4	952-C4'	4'	1	40	17.85	
*	952-C*	Cont.	2 or More	40	.....
†2	952-CE2'	2'	1	20	12.60	

*Order by number, following by length of run required, in multiples of 4 feet only, such as; No. 940-C 12 feet.

†2-foot extension section only for use with continuous fixtures made up of 4-foot lengths.

‡Prices for longer runs of wired CurtiStrip on application.

Hangers and Fittings
No. 9 Straps



For holding CurtiStrip against any flat surface. May be used with fluorescent reflectors or complete units. Fits between the reflector and channel.

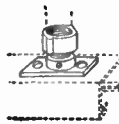
No. 9 each \$.15



No. 611 Hook Fitting

For chain suspension.

No. 611 each \$.45



No. 612 Reducer Fitting

For 1/2 or 3/8-inch iron pipe mounting to top or side of channel.

Furnished with two screws and nuts.

No. 612 each \$.17

Hangers

No. 613



For mounting to outlet box in ceiling for direct lighting only.

Use two hangers for each section of fluorescent CurtiStrip up to 10 feet.

Lower end bolts to back of channel.

Standard suspension is 40 inches to top of CurtiStrip.

May be cut to any shorter length without threading. If longer suspension is desired,

it can be supplied at slight additional cost. No. 614

No. 614—With Angle Fitting

For mounting to outlet box in ceiling for direct or indirect lighting. Suspension, 21 inches to top of CurtiStrip.

No. 613 each \$3.90

No. 614 each 3.40

Supports

No. 619



For mounting to outlet box in wall or other vertical surfaces. Connects to side of CurtiStrip channel.

Furnished with slip-ring style canopy.

One mounting bracket is recommended for each 18 or 24-inch section; two for longer sections.

No. 619 each \$2.50



Nos. 621 and 622

No. 621 is for mounting on top surface of wall case or other horizontal surfaces. Extension is adjustable.

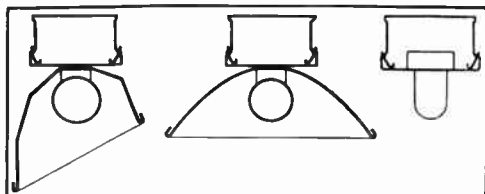
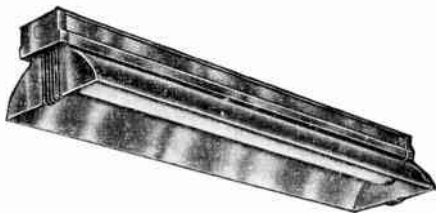
No. 622 is for mounting on top surface of wall case or other horizontal surfaces. Extension is adjustable without cutting pipe.

No. 621 each \$2.00

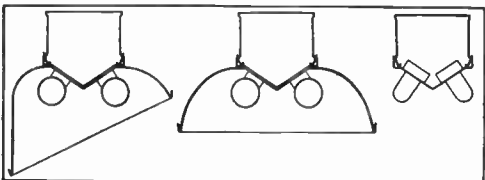
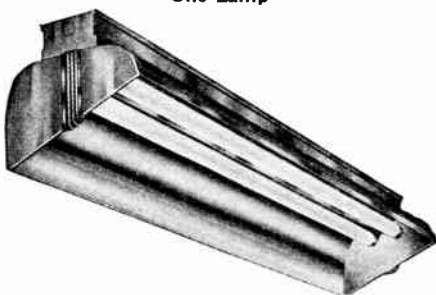
No. 622 each 2.50

Day-Brite Strip Lighting Units

One and Two-Lamp
For 15, 20, 30, and 40-Watt Fluorescent Lamps
110 Volts, 60 Cycles, A.C.



One-Lamp



Two-Lamp

Furnished wired with sockets, No-Blink starter, and high power factor ballast.

Channel, end caps, and reflector end plates are finished in baked aluminum gray enamel.

Channel cover is finished in baked super-white enamel.

Available without reflector as well as with porcelain enamel and specular Alzak reflector in both symmetric and asymmetric shapes.

Without Reflectors

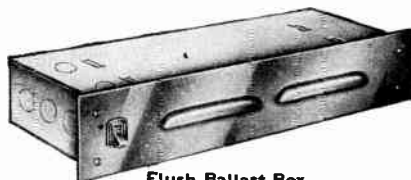
One-Lamp				Two-Lamp					
No.	Each	Height Inches	Width Inches	No.	Each	Height Inches	Width Inches	Lamp Watts	Length Inches
8940NB	\$14.20	3 1/4	3	4945NB	\$22.20	4 5/8	4 1/4	15	19 1/4
8941NB	14.55	3 1/4	3	4946NB	22.90	4 5/8	4 1/4	20	25 1/4
8942NB	19.10	3 1/4	3	4947NB	28.35	4 5/8	4 1/4	30	37 1/4
8943NB	19.90	3 1/4	3	4948NB	29.70	4 5/8	4 1/4	40	49 1/4
With Asymmetric Porcelain Reflectors and End Plates									
8960NB	\$18.50	6	4 1/2	4975NB	\$29.55	8 1/4	8 1/2	15	19 1/4
8961NB	19.35	6	4 1/2	4976NB	31.00	8 1/4	8 1/2	20	25 1/4
8962NB	24.30	6	4 1/2	4977NB	37.25	8 1/4	8 1/2	30	37 1/4
8963NB	26.50	6	4 1/2	4978NB	40.45	8 1/4	8 1/2	40	49 1/4
With Symmetric Porcelain Reflectors and End Plates									
8965NB	\$18.50	4	7	4985NB	\$29.55	6	10 1/2	15	19 1/4
8966NB	19.35	4	7	4986NB	31.00	6	10 1/2	20	25 1/4
8967NB	24.30	4	7	4987NB	37.25	6	10 1/2	30	37 1/4
8968NB	26.50	4	7	4988NB	40.45	6	10 1/2	40	49 1/4
With Asymmetric Alzak Reflectors and End Plates									
8950NB	\$19.35	6	4 1/2	4990NB	\$31.35	8 1/4	8 1/2	15	19 1/4
8951NB	20.60	6	4 1/2	4991NB	33.85	8 1/4	8 1/2	20	25 1/4
8952NB	26.35	6	4 1/2	4992NB	41.30	8 1/4	8 1/2	30	37 1/4
8953NB	28.95	6	4 1/2	4993NB	45.65	8 1/4	8 1/2	40	49 1/4
With Symmetric Alzak Reflectors and End Plates									
8965NB	\$19.35	4	7	4995NB	\$31.35	6	10 1/2	15	19 1/4
8966NB	20.60	4	7	4996NB	33.85	6	10 1/2	20	25 1/4
8967NB	26.35	4	7	4997NB	41.30	6	10 1/2	30	37 1/4
8968NB	28.95	4	7	4998NB	45.65	6	10 1/2	40	49 1/4

Day-Brite Showcase Lighting Fixtures

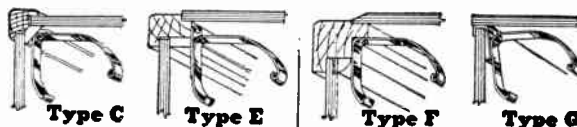
For Two 18 and 36-Inch T-8 Fluorescent Lamps
For 42 and 64-Inch Slimline Lamps
110 Volts, 60 Cycles, A.C.



Concealed Ballast Box



Flush Ballast Box



Hanging Clips

A continuous fixture for showcase lighting.

Complete fixture consists of a reflector trough and hanging clips with an elbow at one end for down tubing connections. Ballast is located in either concealed or flush type ballast boxes installed in base of case.

Style FY down tubing includes tubing and parts for electrical connection from fixture through front corner of case to ballast box.

Style FZ down tubing includes tubing and parts for electrical connection from fixture through back corner of case to ballast box.

Concealed ballast box is designed for installation under case. Flush mounting type box is designed for installation at base of case and has a face plate including a toggle switch control.

Hanging Clips are furnished with fixture. Specify type required when ordering. Type F hanging clip will be furnished unless otherwise specified.

Made of steel and are finished in satin nickel plate, or in any standard lacquer finish.

Reflector is finished in baked super-white enamel.

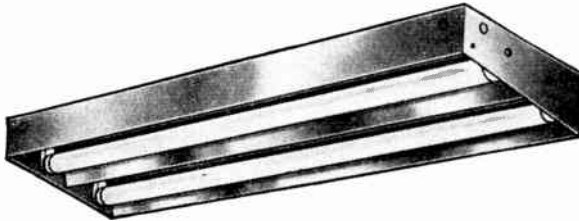
Plated Finish No.	Type	No. of Lamps	Size Lamp Inches	Fixture Length Inches
1610	Fluorescent	1	18	24 3/8 to 30
1611	Fluorescent	1	36	42 3/8 to 48
1612	Slimline	1	42	45 1/2 to 60
1613	Fluorescent	1	18 and 36	63 1/4 to 66
1614	Slimline	1	64	67 1/2 to 72
1615	Fluorescent	2	36	81 1/4 to 84
1616	Slimline	2	42	87 1/2 to 96
1617	Slimline	1	42 and 64	109 1/2 to 120
1618	Slimline	2	64	131 1/2 to 144

Prices on request.

Day-Brite Show Window Lighting Fixtures

For 20, 40, and 100-Watt Fluorescent Lamps

110 Volts, 60 Cycles, A.C.



Furnished wired and includes sockets, No-Blink starters, and high power factor ballast.

Reflector is designed for symmetric distributions.

Reflector is of specular alzak and is easily removed from housing for access to control equipment and for mounting operations.

Top of housing is provided with mounting holes and 1/2-inch knockouts for installation and line connections, and is finished in baked lustre aluminum enamel.

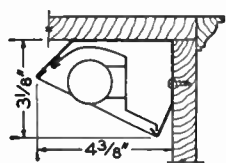
Ends, front, and back are provided with 1/2-inch knockouts for thru wiring so that these fixtures can be mounted end-to-end or parallel.

No.	Each	Lamp Watts	DIMENSIONS, INCHES		
			Length	Width	Depth
1216	\$33.75	20	21 1/4	12 3/4	5 1/2
1217	46.00	40	48 1/4	12 3/4	5 1/2
1218	80.60	100	60 1/4	16 3/4	5 1/2

Day-Brite Wallcase Lighting Units

For One 15, 20, 30 and 40-Watt Fluorescent Lamps

110 Volts, 60 Cycles, A.C.



For wallcases, island display cases, etc.

Furnished wired and includes sockets, No-Blink starter, and high power factor ballast.

Reflector is porcelain enameled steel.

Housing is finished in aluminum lacquer and has 1/2-inch knockout at each end for electrical connections.

A knockout is also supplied in the reflector for installation of toggle or levolver switch.

No.	Each	Lamp Watts	Length Inches
412NB	\$17.65	15	18 1/4
413NB	18.70	20	24 1/4
414NB	24.20	30	36 1/4
415NB	26.25	40	48 1/4

Levolver switch, wired, furnished at \$2.00 additional. Toggle switch, wired, furnished at \$1.60 additional.

Smithcraft Fluorescent Strips

For Single 20-Watt Lamp

For Single 40-Watt Lamp

110-125 Volts, 60-Cycles, A.C.

Approved by Underwriters' Laboratories, Inc.



For cove or ceiling lighting, kitchens, work rooms, etc. Die formed of heavy gage, cold rolled steel. Sockets and ballast are mounted on cover. The base has the Smithcraft rolled bead, which allows the cover to simply snap on and the two sections are securely locked together. The base has knockouts on top for various types of mounting; end knockouts for continuous installations. Completely wired ready to install with FS4 starters. All white finish with Supercoat baked enamel. Available with or without reflectors—for individual or continuous installation.

When ordering, specify catalog number and whether high power or low power ballasts are required.

Packed 4 in a carton. Prices do not include lamps.

No.	Each	Low Power Factor		High Power Factor		Lamp Size In.	Watts	DIMENSIONS INCHES		
		Shp. Wt. Lb.	Shp. Wt. Lb.	Length	Width			Ht.		
S1-40	\$10.55	9 1/2	10 3/4	48	40	49	27 1/8	1 3/4	1 3/4	1 3/4
S1-20	6.10	5 1/4	6	24	20	25	27 1/8	1 3/4	1 3/4	1 3/4
*RS1-40	12.45	13 1/4	14 1/2	48	40	49	6	3 3/4	3 3/4	3 3/4
*RS1-20	7.75	7	7 3/4	24	20	25	6	3 3/4	3 3/4	3 3/4

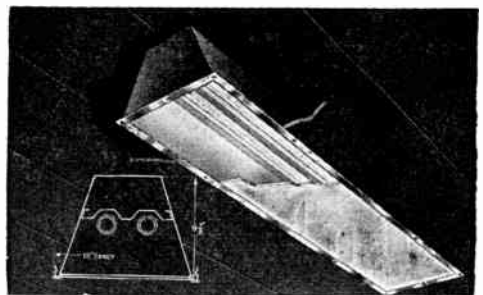
*With reflectors—symetric or asymmetric.

Leader Trofferlites

For One, Two, and Three 40-Watt 48-Inch Fluorescent Lamps

110 Volts—60 Cycles—A.C.

Approved by Underwriters' Laboratories, Inc.



Available in open type, with or without louvers, and closed type with piano-hinged, glass-panelled frames.

Available for instant-start operation in 3-40-watt only. Also available with 3 Holophone lens on special order.

E.T.L. approved.

T and TG Series

Dimensions: 48x12x3 3/8 inches.

No.	Each	Type	No. of Lamps	Shp. Wt. Lb.
T-140	\$24.07	Open	1	26
T-240	31.31	Open	2	30
T-340	42.27	Open	3	33
T-12	.62	*Baffle Louvers	..	..
TG-140	42.53	†Glass Enclosed	1	39
TG-240	49.60	†Glass Enclosed	2	44
TG-340	61.62	†Glass Enclosed	3	47

TW and TWG Series

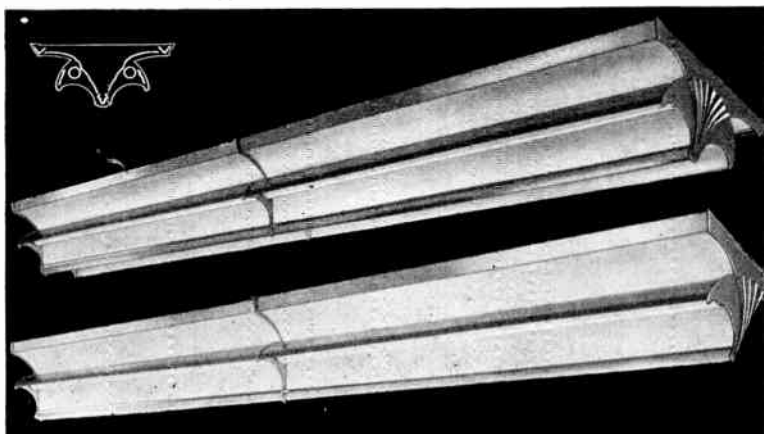
Dimensions: 48x24x3 3/8 inches.

No.	Each	Type	No. of Lamps	Shp. Wt. Lb.
TW-240	\$44.38	Open	2	48
TW-340	56.71	Open	3	66
TW-440	60.40	Open	4	78
TWG-240	67.38	†Glass Enclosed	2	63
TWG-340	79.71	†Glass Enclosed	3	81
TWG-440	83.42	†Glass Enclosed	4	98

*Three per 4-foot section. †With piano-hinged frame.

Curtis Standard Skylux Lighting Units

110-125 Volts A.C.
Approved by Underwriters' Laboratories



Has high power factor ballasts and FS-4 starters. Each basic unit is a complete luminaire. Can be used with one or more extension units to make a continuous run.

Moldings and end plates finished Satin Gray; reflector and lamp shield, Fluracite (white). Prices do not include lamps.

Twin Skylux

For Two 40-Watt (48-Inch) Lamps Per Section

For mounting on ceiling or suspension on hangers.
Total watts (including two-lamp ballast) per section, 95 watts. Can be wired for 220-250 volts a.c.

Furnished with coupling set for continuous run plus pair of end ornaments No. 6411. Overall height, $6\frac{7}{8}$ inches. Width $15\frac{3}{8}$ inches. Each extension section adds $48\frac{1}{4}$ inches to length. For suspension use No. 624, one-stem hanger or No. 6442, two-stem hanger.

No. 895-C, Basic Twin Skylux.....each \$33.35
*No. 896-C, Extension Twin Skylux.....each 32.35
*No. 896-C is regular extension for Twin Skylux. Two-foot extension for two 20-watt lamps is No. 882-C, at \$25.40.

Single Skylux

For One 40-Watt (48-Inch) Lamp Per Section

For mounting along the right angle juncture of the wall and ceiling or for mounting horizontally on the wall below the ceiling line. Extension section is furnished with coupling set but without end ornaments.

Total watts (including ballast). 51 watts on 110-125 volts a.c., single lamp ballast; or 48 watts with two-lamp ballast. Can be wired for 220-250 volts a.c.

Overall height, 7 inches. Width, $8\frac{1}{2}$ inches. Each basic section is $48\frac{7}{8}$ inches in length and each extension section used will add $48\frac{1}{4}$ inches to the total length.

No. 891-C, Basic Single Skylux.....each \$24.60
No. 892-C, Extension Single Skylux.....each 23.60

Curtis Single and Twin-Stem Hangers

For Standard Skylux Units

For use with Skylux units Nos. 895-C and 896-C only. Cannot be used with Single Skylux or "Low Brightness" Skylux.

Two No. 624 or one No. 6442 hangers required to hang individual unit.

Continuous runs require one more No. 624 single-stem hanger than the number of units in the run; if twin-stem hanger No. 6442 is to be used, one hanger is required for each section.

No. 624 Single-Stem

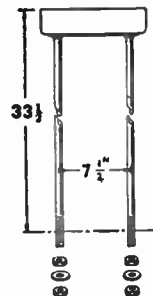
Single steel stem with a self-aligning canopy fitting, threaded lower end, lock nut, two heavy washers, and clamping nut.

No. 624.....each \$3.75
No. 6403, 12-Inch Extension.....each .72
No. 6404, 24-Inch Extension.....each 1.17

No. 6442 Twin-Stem

Two steel tube stems with $\frac{5}{8}$ -inch outside diameter finished Satin Gray. Heavy nuts and washers are provided for end of each stem. Stems threaded for attaching through knockouts in top.

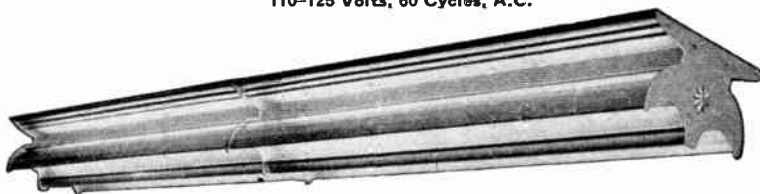
No. 6442.....each \$5.75
No. 6401, 12-Inch Extension.....each 1.42
No. 6402, 24-Inch Extension.....each 2.25



Curtis "Low Brightness" Skylux Lighting Units

For Two 40-Watt (48-Inch) Fluorescent Lamps

110-125 Volts, 60 Cycles, A.C.



For ceiling mounting in stores, offices, and other interiors. Has low brightness and a soft, silvery appearance when lighted.

Made of Alzak Aluminum with steel channel and ends.

Each luminaire is a complete unit in itself or may be used with other units to make up a continuous run.

Has high power factor ballast.

Total watts (including two-lamp ballasts) per section, $95\frac{1}{2}$ watts. Can be wired for other voltages.

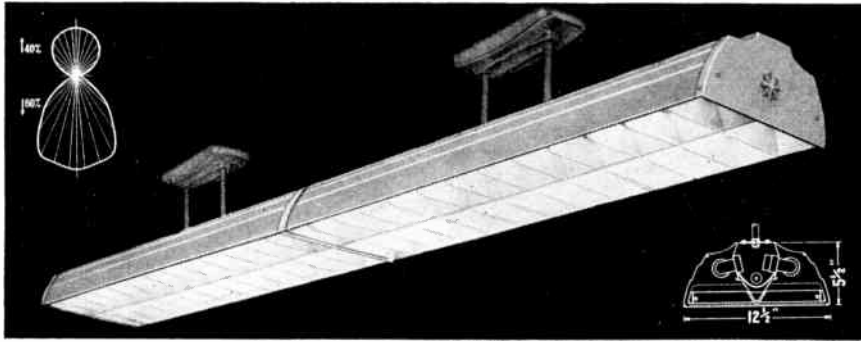
Furnished with coupling set and two end ornaments.

Finished in Alzak Aluminum with plastic star end ornaments.

Overall height, $6\frac{7}{8}$ inches. Width $11\frac{1}{2}$ inches. Individual section is $48\frac{3}{16}$ inches in length and each additional unit will add $48\frac{3}{16}$ inches to total length.

Prices upon Application

Curtis "Forty-Sixty" Luminaires
For Two 40-Watt Fluorescent Lamps
 110-125 or 220-250 Volts A.C.
 Approved by Underwriters' Laboratories



Designed for eye comfort. Used in offices, class rooms and drafting rooms.

The low brightness blends with the illuminated ceiling, producing a comfortable field of vision. High levels of illumination without distracting and harmful glare are readily attained.

Light Control. The ceiling is illuminated by an indirect component of approximately 40 per cent of the light output. The 60 per cent direct component is louvered to provide 35° crosswise and 25° lengthwise shielding.

Construction. Reflectors, louver fins, and canopy are made of aluminum. Wiring channel, ends, and hanger stems are made of steel. End ornament is made of plastic. Louver is hinged and will swing down for cleaning and relamping or for access to the wiring channel. Has no horizontal reflecting or diffusing surfaces to collect dust. Special 12-inch two-stem hanger permits easy installation. Other length hangers are available, prices on request.

Furnished with high power factor ballast and FS-4 starters. For two 40-watt lamps, total watts approximately 95.

Finished in satin aluminum. Alzak aluminum reflectors and louver fins. White Fluracite wiring channel and end plates. Ornamental star in Ivorytone.

Dimensions. Width, 12½ inches. Depth of body, 5½ inches. Length, 48¾ inches, including ornaments. Stem hanger suspension, 12 inches, ceiling to top of body.

Continuous Luminaires. For continuous fixture with single stem hangers located between sections and at the ends of the run, order one 4-foot basic unit and as many 4-foot extension sections as are needed to complete the run.

Basic unit is packed with two hangers for the ends; extension section with one hanger. Wire entrance can be made through any hanger. Allow 48¾ inches on centers for spotting hangers except at ends where 41¾ inches o.c. is allowed. If continuous fixtures are wanted with centrally located two-stem hangers, order the same unit as for individual mounting. Connectors are furnished with all units.

- No. 4060-C.** Two-stem unit. Wired for 110-125 volts.
Each, less Lamps..... **\$37.00**
- No. 4060-D.** Same as No. 4060-C but wired for 220-250 volts.
Each, less Lamps..... **\$37.00**
- No. 4060-CB.** Basic unit for two 40-watt lamps. For continuous fixtures with single-stem hangers. Wired 110-125 volts.
Each, less Lamps..... **\$38.40**
- No. 4060-DB.** Same as No. 4060-CB but wired 220-250 volts.
Each, less Lamps..... **\$38.40**
- No. 4060-CE.** Extension section for two 40-watt lamps. For continuous fixtures with single-stem hangers. Wired 110-125 volts.
Each, less Lamps..... **\$36.00**
- No. 4060-DE.** Same as No. 4060-CE but with 220-250 volts.
Each, less Lamps..... **\$36.00**

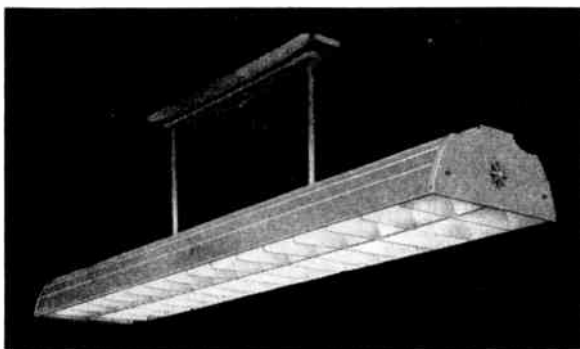
Coefficients of Utilization in Per Cent

Room Index	CEILING									
	75 PER CENT			50 PER CENT				30 PER CENT		
	50 Per Cent	30 Per Cent	10 Per Cent	50 Per Cent	30 Per Cent	10 Per Cent	30 Per Cent	10 Per Cent	30 Per Cent	10 Per Cent
J	30	27	26	28	26	25	24	23	23	23
I	36	34	33	33	32	31	30	28	28	28
II	40	38	36	36	35	33	33	32	32	32
G	43	41	39	40	37	36	35	34	34	34
F	46	43	41	41	39	38	37	35	35	35
E	49	47	45	44	42	41	39	38	38	38
D	52	49	47	46	45	43	41	40	40	40
C	54	51	49	47	46	44	42	41	41	41
B	56	53	52	50	48	47	43	42	42	42
A	57	55	53	51	49	48	45	43	43	43

For average conditions a maintenance factor of 75 per cent is suggested.

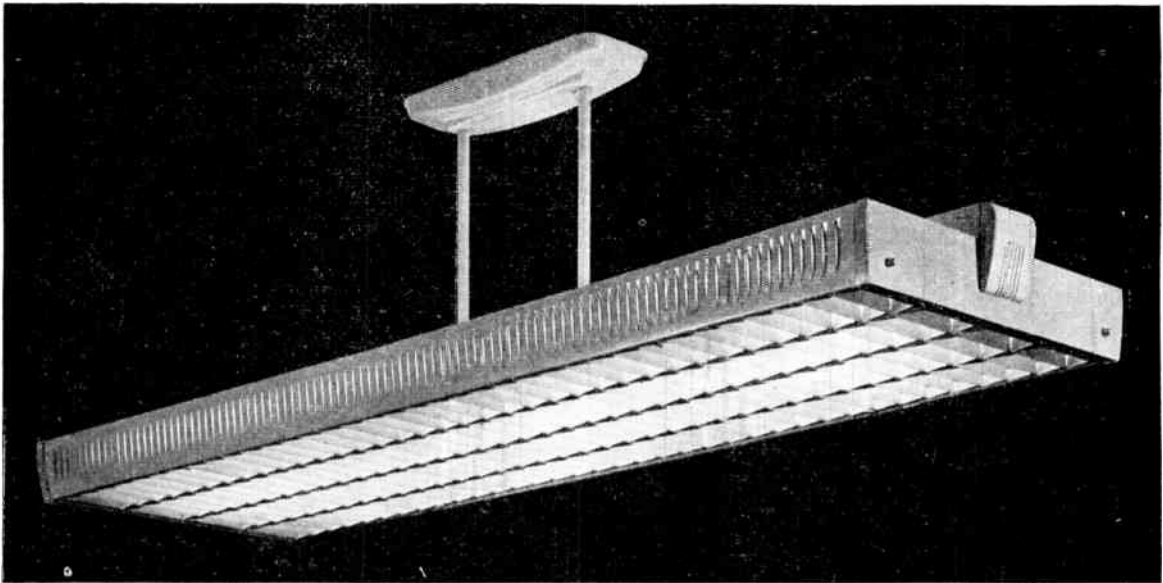
No. 4061-C
For Two 100-Watt Fluorescent Lamps

Same as No. 4060-C except that it is 60¾ inches long and arranged for use with two 100-watt lamps.
 Distribution is similar to that of the No. 4060-C.



- Can be used in continuous runs with single-stem hangers. Allow 60¾ inches on centers for spotting hanger except at ends of run where 56¾ inches is correct.
- No. 4061-C.** Two-stem unit. Wired for 110-125 volts.
Each, less Lamps..... **\$59.10**
- No. 4061-D.** Same as No. 4061-C but wired 220-250 volts.
Each, less Lamps..... **\$59.10**
- No. 4061-CB.** Basic units for continuous fixtures with single-stem hangers. Wired 110-125 volts.
Each, less Lamps..... **\$58.90**
- No. 4061-DB.** Same as No. 4061-CB but wired 220-250 volts.
Each, less Lamps..... **\$58.90**
- No. 4061-CE.** Extension section for continuous fixtures with single-stem hangers. Wired 110-125 volts.
Each, less Lamps..... **\$56.50**
- No. 4061-DE.** Same as No. 4061-CE but wired 220-250 volts.
Each, less Lamps..... **\$56.50**

No. 51 Curtis Anniversary Luminaires
For Four 40-Watt Fluorescent Lamps
An Exceptionally Shallow 4-Lamp All Metal Unit



Pendant luminaire of modern design for four 40-watt fluorescent lamps. The louvered bottom is hinged so that it may be opened from either side or completely removed. Lamps and starters may be changed from above without opening louver. Louver is finished white Fluracite and provides 30 degrees crosswise and lengthwise shielding of the lamps. The attractive dart pattern of the louver adds interest as well as being an integral part of the construction. The side panels are designed so that the lamps are louvered and reflected light is utilized to illuminate and create a decorative pattern. The end plates are finished a light gray with a plastic end ornament which adds to the functional design of the luminaire.

The Curtis "51" is of the general diffusing type with the top completely open to better utilize the light from the lamps for indirect lighting. The direct light is effectively

shielded and provides higher levels of illumination for merchandising. The illumination characteristics of the "51" gives it greater flexibility for application to a wide range of lighting installations. (Stores, public buildings, offices, etc.)

Installation on any type of ceiling is simplified by using Curtis hangers for either individual mounting or in continuous runs. Two-stem hangers and single-stem hangers are finished light gray, matching the end plate of the "51." Standard suspension is 12 inches from ceiling to top of body. Stems for 18, 24, 36 and 48-inch suspension are carried in stock.

DIMENSIONS: Width, 18 inches; length, including ornament, 51 $\frac{3}{8}$ inches; length, without ornament, 50 $\frac{1}{8}$ inches; overall depth, 4 $\frac{1}{2}$ inches; depth of body, 3 inches.

Net weight, 33 pounds.

- No. 51 C, With Twin Stem Hanger, Weight 32 Pounds.....each \$55.85
- No. 51 CB, With Two Single Stem Hangers, Weight 32 Pounds.....each 57.25
- No. 51 CE, With Single Stem Hanger and Coupling, Weight 31 Pounds.....each 54.85

Curtis Luminaires
For Four 40-Watt Fluorescent Lamps

110-125 Volts
 Approved by Underwriters' Laboratories

Used as an individual unit or in continuous runs for pendant or ceiling mounting.

Made of steel with crystal glass panels, lightly sanded, which can be removed for cleaning. Hinged louver gives access to lower lamps. Canopy conceals heavy supporting bridge. End ornaments are removable and knockouts in end plates permit continuous wiring. Allow 18 $\frac{5}{8}$ inches length per unit in spotting hangers.

Has high power factor ballasts and FS-4 starters. Total watts, approximately 191. Furnished with connectors. Finish is Satin Gray with white Fluracite louver.

Dimensions, 49 $\frac{1}{4}$ x14x6 $\frac{1}{8}$ inches.

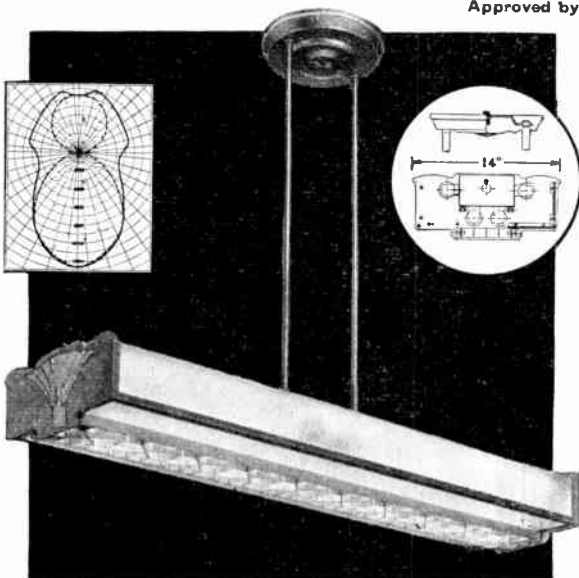
No. 1400 Starlux

- Suspension to top of body, 34 inches.
- No. 1400, less Lamps.....each \$52.50
- No. GX-207, Replacement Glass Panel.....each 1.00

No. 70610-XE

Similar to No. 1400 except equipped with upper reflector and ceiling moulding for ceiling mounting.

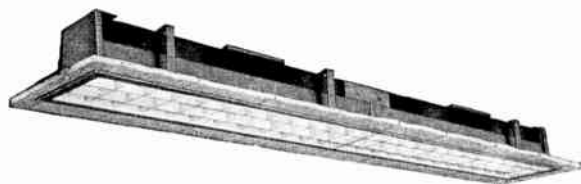
- DEPTH: 10 $\frac{1}{8}$ inches.
- No. 70610-XE, less Lamps.....each \$60.00
- No. GX-207, Replacement Glass Panel.....each 1.00



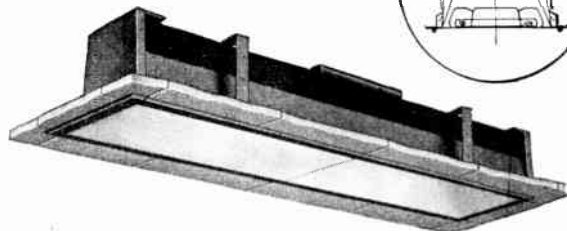
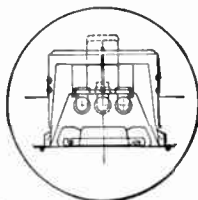
No. 1400 Starlux

Curtis Recessed Troffers

For Two or Three 40-Watt Fluorescent Lamps



With Louver



With Glass Bottom

Equipped with side and end flanges and are easy to install in any type acoustical ceiling including T-bar construction where the T-bar does not support the unit.

Louvers are of the swing down type and provide shielding 35 degrees crosswise and 25 degrees lengthwise.

Glass panels are of diffusing glass so arranged to slide over each other for maintenance. Panels can be quickly removed where desirable.

Wireway is suspended from U shape support brackets which are adjustable for thickness of framing and plaster or acoustical material. Reflectors are drawn up to wireway with wing nuts by means of long bolts. Sections can be wired together in lengths convenient for installation and installed as a unit. Generally, one wire entrance will be sufficient for the entire run.

Each unit is 48 inches in length and fits into a 12-inch slot in the ceiling. This permits alignment of reflectors with acoustical ceiling patterns.

Width at bottom, over flanges, 13 1/4 inches.

Space required for recessing: 9 1/4 inches for two-lamp unit; 10 1/2 inches for the three-lamp unit.

All units, basic and extension, are carton packed for easy storage.

Alzak Aluminum

With Aluminum Reflector and Louver—Alzak Aluminum Finish

No.	Each	Description	No. of Lamps	Lamp Watts
1712-C4'	\$46.35	Basic Unit	2	40
1712-CE4'	43.35	Extension	2	40
1713-C4'	53.50	Basic Unit	3	40
1713-CE4'	50.50	Extension	3	40

All-Steel

With Steel Reflector and Louver—White Fluracite Finish

No.	Each	Description	No. of Lamps	Lamp Watts
1722-C4'	\$36.85	Basic Unit	2	40
1722-CE4'	33.85	Extension	2	40
1723-C4'	44.00	Basic Unit	3	40
1723-CE4'	41.00	Extension	3	40

Glass Bottom

With Steel Reflector and Sliding Glass Panels—White Fluracite Finish

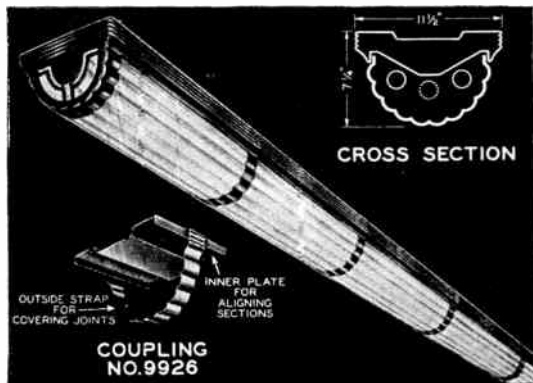
No.	Each	Description	No. of Lamps	Lamp Watts
1752-C4'	\$34.90	Basic Unit	2	40
1752-CE4'	31.90	Extension	2	40
1753-C4'	42.10	Basic Unit	3	40
1753-CE4'	39.10	Extension	3	40

Day-Brite Kingsway Commercial Lighting Fixtures

For Two and Three, 20 and 40-Watt Fluorescent Lamps

For Four and Six 40-Watt Fluorescent Lamps

110 Volts, 60 Cycles, A.C.



Designed for surface mounting only as single unit or continuous runs.

Furnished wired and includes sockets, No-Blink starters, and high power factor ballasts for 110-volt a.c. operation.

Ends are of die-cast aluminum with a satin finish.

Side rails and intermediate straps are of die-formed steel finished in baked lustre aluminum enamel.

Fluted glass cylinders are an exclusive Day-Brite design and are sufficiently opaque to eliminate glare and conceal interior part of fixture. Glass cylinders are available in 24-inch lengths and are easily removed by lifting up and sliding over.

Interior reflector is finished in baked super-white enamel.

Single units are listed below for two and three 20-watt lamps; two and three 40-watt lamps; and four and six 40-watt lamps. The four and six-lamp units are double lamp length.

Continuous fixtures are supplied in basic end sections for four and six 40-watt lamps and fill-in end sections for two and three 40-watt and two and three 20-watt lamps. Each of these end sections includes one end plate and can be used at either end of the installation. Intermediate sections are available for two, three, four, and six 40-watt lamps but do not include ends.

A complete installation includes two end sections and the required number of intermediate sections to make up the desired overall fixture length. Couplings are required at each section joint.

Lamps are not included.

Single Units

No.	Each	No. of Lamps	Lamp Watts	Length Inches
70221B	\$47.50	2	20	26 1/2
70232NB	56.75	3	20	26 1/2
70425NB	67.50	2	40	50 1/2
70436NB	78.50	3	40	50 1/2
70447NB	121.00	4	40	98 1/2
70468NB	139.50	6	40	98 1/2

Continuous End Sections

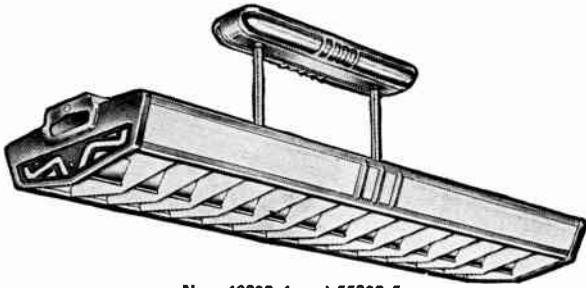
No.	Each	No. of Lamps	Lamp Watts	Length Inches
1-C-2NB	\$42.50	2	20	25 1/4
1-C-3NB	51.75	3	20	25 1/4
1-B-2NB	62.50	2	40	49 1/4
1-B-3NB	74.25	3	40	49 1/4
1-A-4NB	116.00	4	40	97 1/4
1-A-6NB	114.50	6	40	97 1/4

Continuous Intermediate Sections

No.	Each	No. of Lamps	Lamp Watts	Length Inches
2-B-2NB	\$57.50	2	40	48
2-B-3NB	69.25	3	40	48
2-A-4NB	111.00	4	40	96
2-A-6NB	129.50	6	40	96

Day-Brite Viz-Aid Commercial Lighting Units

For Two 40 and 100-Watt Fluorescent Lamps
110 Volts, 60 Cycles, A.C.



Nos. 46203-4 and 55203-5

For surface and suspension mounting.

Furnished wired with sockets, No-Blink type starters, and high power factor ballasts for 110-volt a.c. operation.

Steel chassis and snap-on wireway cover finished in baked super-white enamel. Steel enclosure frame and hangers finished in baked lustre aluminum enamel.

Side panels are ribbed, diffused glass.

Center V-shaped louver is finished in baked super-white enamel. Enclosure is attached to chassis by spring clips with service chains provided for maintenance operations.

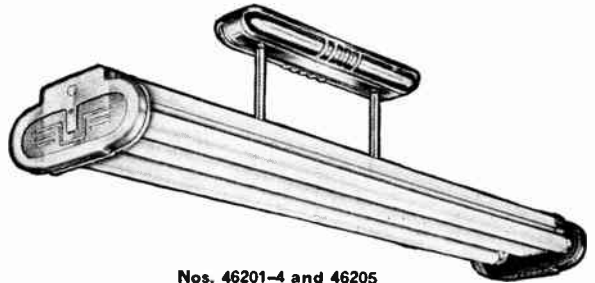
Lamps are not included.

No.	Each	Lamp Watts	DIMENSIONS, INCHES		
			Length	Width	Depth
46202-4	\$40.00	40	49	13	6 1/4
46203-4	44.80	40	49	13	*33 1/4
55202-5	73.00	100	61	16 1/4	8
55203-5	77.80	100	61	16 1/4	*35

*Hanger length, 27 inches.

Day-Brite Topnotch Commercial Lighting Units

For Two 40-Watt Fluorescent Lamps
110 Volts, 60 Cycles, A.C.



Nos. 46201-4 and 46205

Designed as a single unit for surface or suspension mounting. The 40-watt standard lamp fixture is furnished wired with sockets, No-Blink type starters and high power factor ballasts.

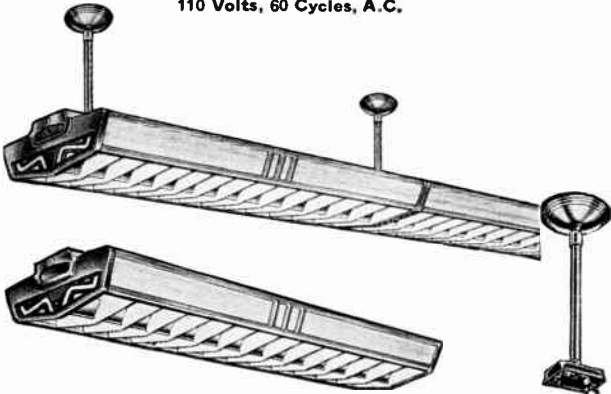
Steel chassis and snap-on wireway cover are finished in baked super-white enamel. Stamped ends and hangers are finished in baked lustre aluminum enamel.

No.	Each	DIMENSIONS, INCHES		
		Length	Width	Depth
46200-4	\$26.05	48 1/2	9 1/4	4 3/4
46201-4	31.55	48 1/2	9 1/4	*31 3/4

*Hanger length, 27 inches.

Day-Brite Viz-Aid Continuous Lighting Fixtures

For Two 40 and 100-Watt Fluorescent Lamps
110 Volts, 60 Cycles, A.C.



Designed for two-lamp surface or suspension type installations. Fixture of any desired length can be made up from parts listed below. Chassis is furnished wired with sockets, No-Blink type starters, and high power factor ballasts for 110-volt a.c. operation.

Basic assembly consists of standard chassis with surface mounting straps and a complete snap-on enclosure.

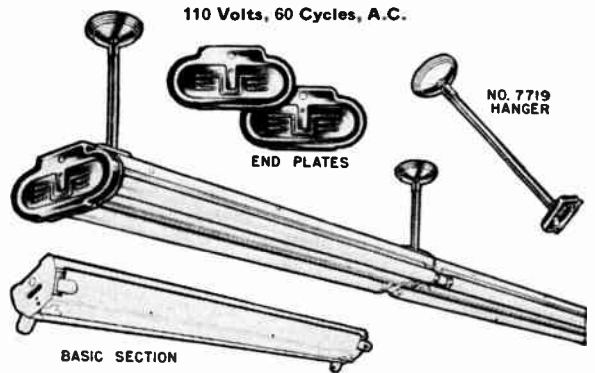
For surface type installation, order the required number of basic assemblies to make up complete fixture length. These are easily mounted and coupled by means of ceiling mounting straps.

For suspension type installation, order the required number of basic assemblies and figure one stem hanger for each assembly, plus one additional hanger to make up the number necessary for the entire run. The hangers are installed at the coupling points of the intermediate assemblies and at the ends of the end assemblies. These hangers have swivel fittings and an adjustable feature which allows over 1 inch of vertical adjustment.

No.	Each	Description	Length Inches
46202-4	\$42.90	40-Watt Basic Assembly	48 1/2
55202-5	76.20	100-Watt Basic Assembly	60 1/2
7719	4.15	Adjustable Hanger	28 1/2

Day-Brite Topnotch Continuous Lighting Fixtures

For Two 40-Watt Fluorescent Lamps
110 Volts, 60 Cycles, A.C.



END PLATES

NO. 7719 HANGER

BASIC SECTION

Designed as a continuous installation for surface or suspension mounting. Fixture of any desired length can be made up from the parts listed below. The 40-watt standard lamp chassis is furnished wired with sockets, No-Blink type starters, and high power factor ballasts.

For surface type installation, order the required number basic chassis and figure one stem hanger for each assembly, plus one additional hanger to make up the number necessary for the entire run. Hangers are installed at coupling points of the intermediate chassis and at the end of the end chassis, and have swivel fittings and an adjustable feature which allows over 1 inch of vertical adjustment. Add a pair of end plates and the installation is complete.

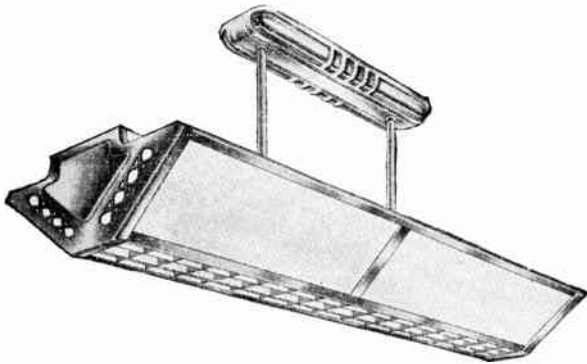
Lamps not included

No.	Each	Description	Length Inches
9987-4	\$24.80	Standard 40-Watt Lamp 40-Watt Chassis	48 1/2
Parts			
9997	\$1.25	Pair of End Plates	....
7719	4.15	Adjustable Hanger	28 1/2

Day-Brite Coronado Shielded Type Lighting Fixtures

For Four 40-Watt Fluorescent Lamps

110 Volts, 60 Cycles, A.C.



Designed for surface or suspension mounting using four fluorescent lamps. Furnished wired and includes sockets, No-Blink type starters, and high power factor ballasts. Steel louver and chassis are finished in baked lustre aluminum enamel.

Die-formed cut-out ends are backed with diffused plastic. Side panels are of ribbed, diffused glass. Enclosure is held in place by spring clip for easy installation and removal.

Service chains are provided for attachment to chassis so enclosure is supported in lowered position for maintenance operations. Hanger is furnished with swivel fittings and are finished in baked lustre aluminum enamel.

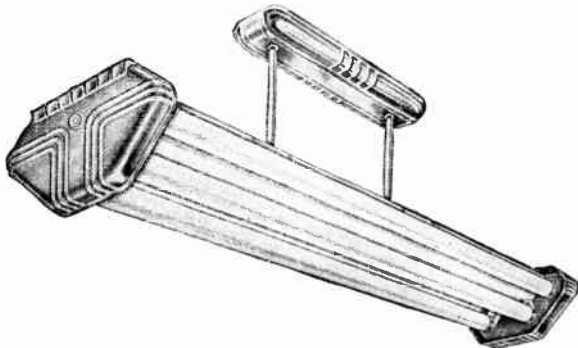
No.	Each	Type	DIMENSIONS, INCHES		
			Length	Width	Depth
46408-4	\$64.00	Surface	48 ³ / ₄	15	7
46409-4	69.50	Suspension	48 ³ / ₄	15	*34

*Hanger length, 27 inches.

Day-Brite Parkway Open Type Lighting Fixtures

For Four 40-Watt Fluorescent Lamps

110 Volts, 60 Cycles, A.C.



Designed for surface or suspension mounting using four fluorescent lamps.

Furnished wired and includes sockets, No-Blink type starters, and high power factor ballasts.

Chassis is steel and is finished in baked super-white enamel.

Die-formed steel ends are attractive and arranged to allow for relamping without being disturbed.

Hanger is fitted with swivel fittings and both hangers and ends are finished in baked lustre aluminum enamel.

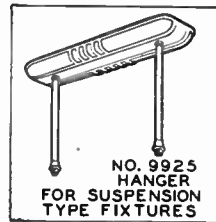
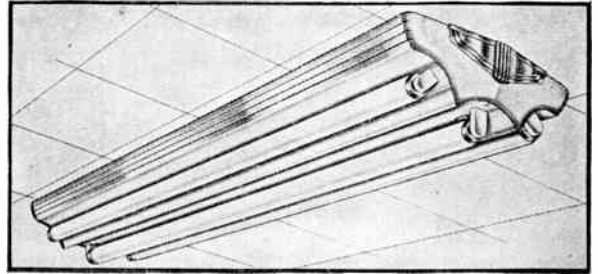
No.	Each	Type	DIMENSIONS, INCHES		
			Length	Width	Depth
46406-4	\$47.00	Surface	48 ³ / ₄	11	6 ¹ / ₄
46407-4	52.50	Suspension	48 ³ / ₄	11	*33 ¹ / ₄

*Hanger length, 27 inches.

Day-Brite Paralume Lighting Fixtures

For Two, Three, and Four 20 and 40-Watt Fluorescent Lamps

110 Volts, 60 Cycles, A.C.



Designed for surface or suspension mounting using two, three, or four lamps.

Furnished wired and includes sockets, No-Blink starters, and high power factor ballasts.

Body is finished in baked super-white enamel with die-cast ends in satin finish with polished ornament.

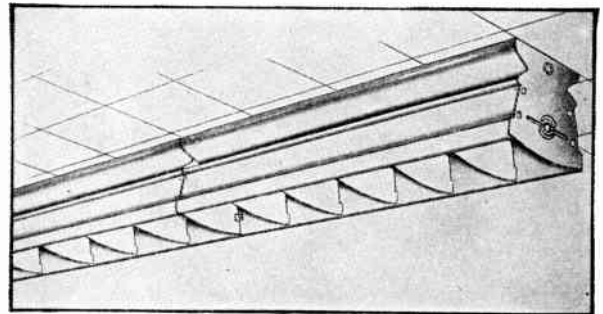
No.	Each	No. of Lamps	Lamp Watts	DIMENSIONS, INCHES		
				Length	Width	Depth
8224-4	\$27.00	2	20	28	9 ¹ / ₂	3 ¹ / ₂
8248-BN	33.50	2	40	52	9 ¹ / ₂	3 ¹ / ₂
8324-2	39.75	3	20	28	11 ¹ / ₂	4 ¹ / ₄
8348-BN	51.00	3	40	52	11 ¹ / ₂	4 ¹ / ₄
8424-2	47.75	4	20	28 ³ / ₄	13 ¹ / ₄	5 ¹ / ₂
8448-BN	59.25	4	40	52 ³ / ₄	13 ¹ / ₄	5 ¹ / ₂

For suspension type fixtures, No. 9925 hanger, finished in lustre aluminum, is added to units listed at \$5.50 additional.

Day-Brite Liteway Surface Type Troffers

For One or Two 40-Watt Fluorescent Lamps

110 Volts, 60 Cycle, A. C.



Designed for single unit or continuous runs using one or two fluorescent lamps.

Made of die-formed steel finished in baked super-white enamel.

Openings in side provide ceiling illumination, and removable louvers provide proper shielding.

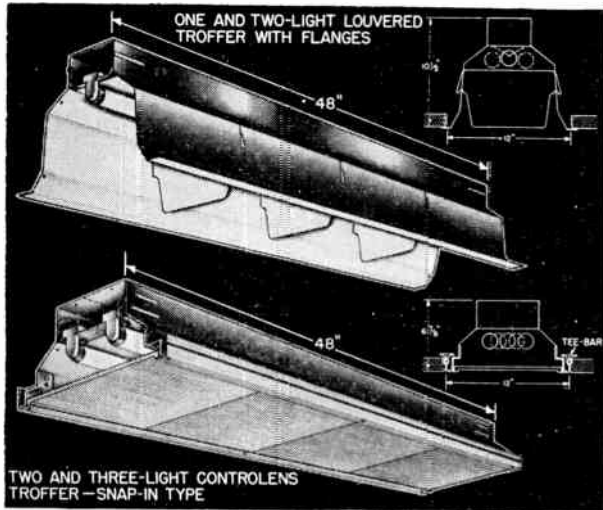
One-lamp fixtures (Nos. 45120-4 and 45122-4) can be installed in pairs for Tulamp ballast operation. No. 45120-4 is wired with Tulamp ballast and No. 45122-4 is supplied with sockets and starter only and is to be wired to No. 45120-4 on installation.

Furnished wired, except as noted above, and include sockets, No-Blink starters, and high power factor ballasts.

No.	Each	No. of Lamps	DIMENSIONS, INCHES		
			Length	Width	Depth
45120-4	*\$59.50	1	48 ³ / ₈	11 ⁵ / ₈	10 ¹ / ₄
45122-4	*59.50	1	48 ³ / ₈	11 ⁵ / ₈	10 ¹ / ₄
45124-4	34.75	1	48 ³ / ₈	11 ⁵ / ₈	10 ¹ / ₄
45220-4	43.10	2	48 ³ / ₈	11 ⁵ / ₈	10 ¹ / ₄

*Per pair.

Day-Brite Recessed Troffer Fixtures For Acoustical and Plaster Ceilings 110 Volts, 60 Cycles, A.C.



The complete line of Day-Brite Recessed Troffer fixtures includes both snap-in type, for use with Tee-Bar supported ceilings, and flange-type, for use with standard plaster and acoustical ceilings. Both are available with louver and with Holophane Controlens.

Made of heavy gage steel throughout.

Body is assembled of die-formed parts and the ends are provided with 1/2-inch knockouts for service connections.

Sockets and starter are supported on mounting straps allowing complete and easy removal of wireway cover for access to control equipment without disturbing fixture.

Interior, louver, and all exposed trim are finished in baked super-white enamel providing a diffused reflecting surface of high efficiency.

Furnished wired (through circuit wires not included) with sockets, No-Blink starters, and high power factor ballasts.

One-lamp fixtures can be furnished in pairs with alternate sections wired with Tulamp ballast for the most economical installation. When furnished in this manner, sockets, lamp starter, and Tulamp ballast is installed in one section with sockets and lamp starter only in the other. Connections between the two can be made on installation.

With Louvers For One and Two 40-Watt Fluorescent Lamps

Louver is designed to slide into position and requires no tools for installation or removal. Snap-in type fixtures are designed to snap into position and is supported by the same Tee-Bar that supports the acoustical ceiling.

With the flange-type fixtures, overhead suspension straps should be ordered. One suspension strap is recommended for each 4-foot section to be located approximately at coupling point, plus one additional strap for end section. Plaster frames are available on special order.

No.	Description	Each
One-Lamp Snap-In Type		
I-42180CO	Section Wired with Sockets, Starter, and One-Lamp Ballast	\$29.10
I-42181CO	Section Wired with Sockets and Starter Only	18.50
I-42182CO	Section Wired with Sockets, Starter, and Tulamp Ballast	31.40
9921X	Coupling Plate	1.70
9930	End Plate	1.30
One-Lamp Flange Type		
I-42190CO	Section Wired with Sockets, Starter, and One-Lamp Ballast	\$29.10
I-42191CO	Section Wired with Sockets and Starter Only	18.50
I-42192CO	Section Wired with Sockets, Starter, and Tulamp Ballast	31.40
9921X	Coupling Plate	1.70
9947	End Plate	1.80
9948	Suspension Strap	1.40
Two-Lamp Snap-In Type		
I-42280CO	Section Wired with Sockets, Starter, and Tulamp Ballast	\$33.90
9921X	Coupling Plate	1.70
9930	End Plate	1.30
Two-Lamp Flange-Type		
I-42290CO	Section Wired with Sockets, Starter, and Tulamp Ballast	\$33.90
9921X	Coupling Plate	1.70
9947	End Plate	1.80
9948	Suspension Strap	1.40

With Holophane Controlens For Two and Three 40-Watt Fluorescent Lamps

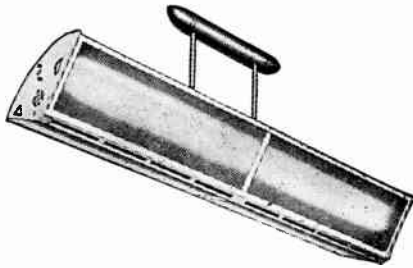
The Holophane Controlens Troffer is a shallower fixture than the louver type and is optically engineered to provide the utmost in output and controlled illumination.

The snap-in type fixture is snapped into position and is supported by the same Tee-Bar as the acoustical ceiling

material. The flange-type fixture has mounting holes along the side so that it can be fastened direct to a wood ground. Overhead suspension straps can also be used with this fixture, if desired. Plaster frames are available on special order.

Two-Lamp Flange-Type		
42250CO	Section Wired with Sockets, Starters, and Tulamp Ballast	\$54.50
7754	End Plate	1.15
7753	Coupling Plate	1.10
Two-Lamp Flange-Type		
42255CO	Section Wired with Sockets, Starter, and Tulamp Ballast	\$54.50
7755	Coupling Plate	1.20
7709	Suspension Strap	1.20
7749	End Plate	1.90
Three-Lamp Snap-In Type		
42350CO	Section Wired with Sockets, Starters, and Ballasts	\$67.75
7754	End Plate	1.15
7753	Coupling Plate	1.10
Three-Lamp Flange-Type		
42355CO	Section Wired with Sockets, Starters, and Ballasts	\$67.75
7755	Coupling Plate	1.20
7709	Suspension Strap	1.20
7749	End Plate	1.90

Leader Commercial Glass Enclosed Lighting Fixtures
For Two and Four 40-Watt Fluorescent Lamps
 110-125 Volts—60 Cycles—A.C.

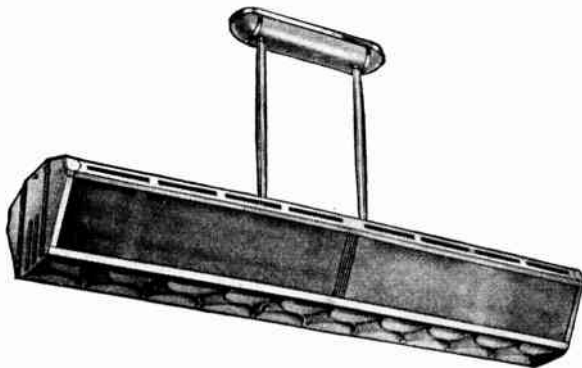


Designed for offices, schools and stores. Can be used in single or continuous run installations either mounted flush or hung from stems. Glass panels are treated for low surface brightness. Housing is made of 20-gage cold-rolled steel. Operates on 110-125 volts, 60 cycles a.c. Other voltages on request. Also available for instant start operation at additional cost.

Finished in satin aluminum. Reflector finished in white, high gloss, chip-proof enamel. **No. GL-240C** takes two 40-watt fluorescent lamps. Has UL and ETL approved high power factor ballasts and replaceable FS4 starters. Dimensions: length, 48³/₁₆ inches; width, 10¹/₂ inches; height, 7³/₈ inches. Shipping weight, 36 pounds.

No. GL-440C takes four 40-watt fluorescent lamps. Has UL and ETL approved high power factor ballast and replaceable FS4 starters. Dimensions: length, 48³/₁₆ inches; width, 13³/₈ inches; height, 7³/₄ inches. Shipping weight, 53 pounds. **No. GL-240C**.....each \$28.36
No. GL-440C.....each 55.46
 Stem and canopy assembly No. C-450, for pendent mounting, is furnished at additional cost.

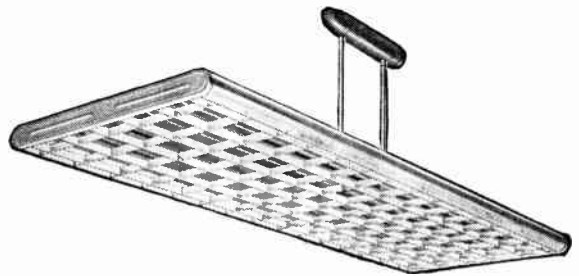
Leader Glass Enclosed Fluorescent Fixtures
For Four 40-Watt 48-Inch T-12 Fluorescent Lamps
 110-125 Volts—60 Cycles—A.C.



Designed for schools, offices, and institutions where the best possible light is necessary. Parabolic reflectors provide maximum light output. Louver design permits full downward light without side glare. Skytex ribbed glass provides greater diffusion of light, no glare, and adds to the beauty of the unit. Takes four 40-watt, 48-inch, fluorescent lamps. Has Underwriters' Laboratories and ETL approved high power factor ballasts and FS4 replaceable starters. Operates on 110-125 volts, 60 cycles a.c. Other voltages available upon request. Also available for instant start operation at additional cost. Finished in silver-gray enamel with stainless steel trim. Reflectors are chip-proof white enamel. Dimensions: length, 48¹/₄ inches; width, 12¹/₂ inches; height, 7¹/₂ inches. Shipping weight, 53 pounds.

No. G-440C.....each \$58.87
 Stem and canopy assembly No. C-450, for pendent mounting, furnished at additional cost. Various stem lengths will be furnished on special order.

Leader Officer-Deluxe Commercial Lighting Fixtures
For Two and Four 40-Watt 48-Inch T-12 Fluorescent Lamps
 110-125 Volts—60 Cycles—A.C.



For flush or suspended, single or continuous run installations. White high gloss louver diffuses natural light brightness without sacrificing light output. Louver is a hinged snap lock type to provide swift, simple servicing.

Molded plastic translucent side panels give light transmission without glare. Also available with solid steel panels on request. Operates on 110-125 volts, 60 cycles a.c. Other voltages and frequencies available on application. Also available for instant start operation at additional cost.

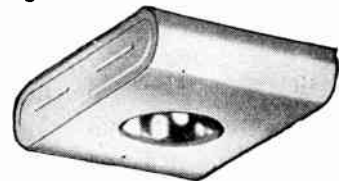
Wired units include sockets, type FS easily replaceable starters, and Underwriters' Laboratories and Electrical Testing Laboratories approved high power factor 2-lamp ballast.

No. VL-240 takes two 40-watt, 48-inch, T-12 fluorescent lamps. Dimensions: length, 49¹/₂ inches; width, 10³/₁₆ inches; height, 3¹/₁₆ inches. Packed in individual cartons. Shipping weight, 30 pounds.

No. VL-440 takes four 40-watt, 48-inch, T-12 fluorescent lamps. Dimensions: length 49¹/₂ inches; width, 16¹/₁₆ inches; height, 3¹/₁₆ inches. Packed in individual cartons. Shipping weight, 50 pounds. **No. VL-240C**.....each \$42.53
No. VL-440C.....each 70.26

Ceiling tracks supplied for ceiling mounting at no extra cost. Swivel hangers, stems, ceiling strap, and canopy furnished for pendent mounting at additional cost. Connecting bands furnished for continuous run installations at no extra charge.

Leader Adjustable Direclite Spotlight Attachment for Officer Units

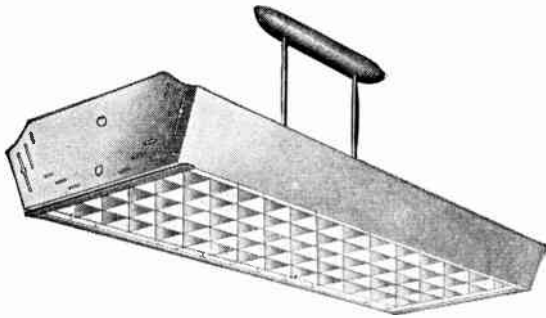


Used for a multitude of merchandise lighting purposes. Can be installed at the end of a single unit or between units in a series.

For either 2 or 4-lamp fixture. **For No. VL-240 Installations**
No. LS 60 takes P.A.R. 38 bulb; both ends open for continuous run.
No. LS 61 takes P.A.R. 38 bulb; one end open for single unit. Dimensions: length (side), 10¹/₈ inches; width (end), 10²/₁₆ inches; height, 6¹/₁₆ inches. **No. LS 60**.....each \$17.38
No. LS 61.....each 17.38

For No. VL-440 Installations
No. LS 70 takes P.A.R. 38 bulb; both ends open for continuous run.
No. LS 71 takes P.A.R. 38 bulb; one end open for single unit. Dimensions: length (side), 10¹/₈ inches; width (end), 16¹/₁₆ inches; height 6¹/₁₆ inches. **No. LS 70**.....each \$18.49
No. LS 71.....each 18.49
 Order couplers separately.

Leader URC Research Luminaires
For Four 40-Watt 48-Inch T-12 Fluorescent Lamps
 110-125 Volts—60 Cycles—A.C.



Designed to meet all better light, better sight requirements. Lends itself particularly to commercial installations. Can be hung individually or in continuous rows by pendant or ceiling mounting. Takes four 40-watt, 48-inch T-12 fluorescent lamps. Furnished with UL and ETL approved Tulamp ballasts and easily replaceable starter switches.

Available with or without louvers. Also available for instant start operation at additional cost.

End plates finished in silver gray enamel, channel in high reflecting chip-proof white enamel.

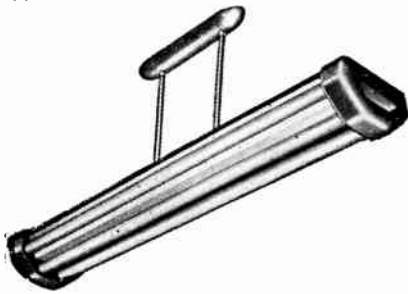
Both tracks A and B, for surface mounting, are furnished as standard equipment with each unit. Track A is used on single unit mounting. Track B is double type used when units are joined together end to end.

Dimensions: length 49³/₁₆ inches; width, 19¹/₁₆ inches; height, 7 inches.

No. LR-440C Shipping Weight, 78 Pounds. . . . each \$49.27
 No. LRL-440C, with Louvers, Shipping Weight, 74 Pounds. each 63.24

Stem and canopy assembly No. C-450 for pendant mounting is furnished at additional cost. Various stem lengths are available if specified.

Leader High Level Open Type Commercial Lighting Fixtures
For Two and Four 40-Watt 48-Inch Fluorescent Lamps
 110-125 Volts—60 Cycles—A.C.
 Approved by Underwriters' Laboratories, Inc.



Used in schools, stores, and offices. Designed for single or continuous run installation, either surface or pendant mounting. Durable steel construction. Top finished in satin aluminum enamel; reflectors are chip-proof white enamel.

Available for instant start operation at additional cost.

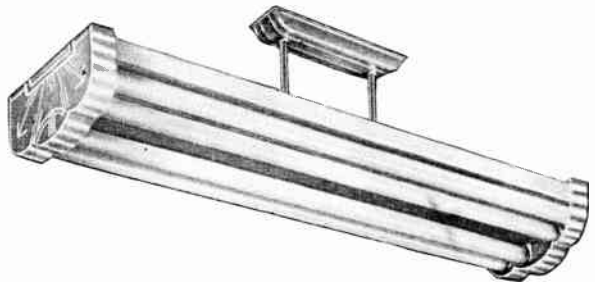
No. L-240C takes two 40-watt, 48-inch fluorescent lamps. E.T.L. approved high power factor ballast and FS4 replaceable starters. Operates on 110-125 volts, 60 cycle a.c. Other voltages available on request. Dimensions: 49x8x5 inches. Shipping weight, 19 pounds.

No. L-440C takes four 40-watt, 48-inch, fluorescent lamps. E.T.L. approved high power factor ballasts, and FS4 replaceable starters. Operates on 110-125 volts, 60 cycle a.c. Other voltages available on request. Dimensions: 49x9¹/₂x5¹/₂ inches. Shipping weight, 40 pounds.

No. L-240C. each \$24.36
 No. L-440C. each 42.84

Stem and canopy assembly No. C-450, for pendant mounting, is furnished at additional cost. Order connecting coupler separately for continuous run installations.

No. 3002 Mitchell Luminaires
For Four 40-Watt Fluorescent Lamps
 110-125 Volts, 60 Cycles A.C.
 Approved by Underwriters' Laboratories



Approved by Fleur-O-Lier and Electrical Testing Laboratories for surface or suspension mounting.

Stroboscopic corrected.

Power factor over 90 per cent.

Wireway channel and reflector are made of heavy gage steel.

Ends are translucent plastic.

Dimensions: length, 48 inches; width, 10 inches; height, 5³/₄ inches.

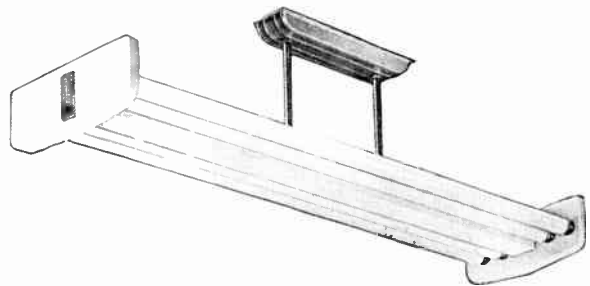
Finished in white baked enamel.

For suspension mounting, use canopy and stem set No. 032ST (stems, 36 inches long; ³/₈-inch iron pipe).

Suspension fixtures furnished at extra cost.

No. 3002. each \$39.25
 No. 032ST, Suspension Set. each 2.95

No. 2044 Mitchell Open Type Luminaires
For Four 40-Watt Fluorescent Lamps
 110-125 Volts, 60 Cycles A.C.
 Approved by Underwriters' Laboratories



Single Unit
 Suspension Mounted

Approved by Fleur-O-Lier and Electrical Testing Laboratories for general illumination.

May be surface mounted as single unit, or continuous row, or suspension mounted. Slides into place or metal tracks.

Stroboscopic corrected. Power factor over 90 per cent.

Has metal wireway channel. End plates finished in high satin aluminum.

Dimensions: length, 49 inches; width, 12³/₄ inches; height, 5¹/₂ inches.

For suspension mounting, use canopy and stem set No. 032ST (stems, 36 inches long; ³/₈-inch iron pipe).

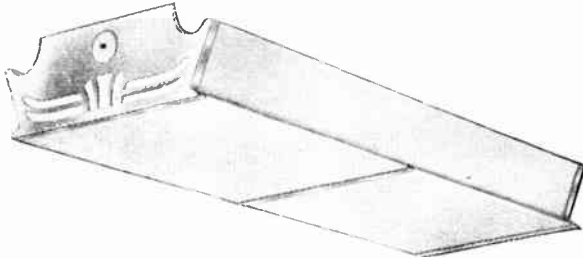
No. 2044. each \$42.40
 No. 032ST, Suspension Set. each 2.95

No. 2032 Mitchell U.R.C. Luminaires

For Four 40-Watt Fluorescent Lamps

110-125 Volts, 60 Cycles A.C.

Approved by Underwriters' Laboratories



Designed for mounting directly to the surface of the ceiling, either as an individual unit or end-to-end to form a continuous row. Also used for pendant hanging.

Has metal wireway channel and end plates are satin aluminum. Equipped with double-strength ribbed ceramic-coated glass side panels and prismatic ribbed glass bottom panels.

Installed on metal tracks.

Dimensions: length, 48³/₄ inches; width 19³/₄ inches; height, 7 inches.

Channel is finished in white baked enamel.

For suspension, use canopy and stem set No. 032ST, furnished at extra cost.

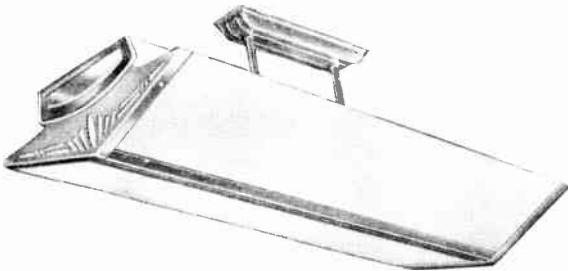
No. 2032	.....each	\$51.95
No. 032ST, Suspension Set	.....each	2.95

No. 3004 Mitchell Luminaires

For Four 40-Watt Fluorescent Lamps

110-125 Volts, 60 Cycles A.C.

Approved by Underwriters' Laboratories



**Single Unit
Suspension Mounted**

Approved by Fleur-O-Lier and Electrical Testing Laboratories for single unit suspension mounting or continuous row surface or suspension mounting.

Stroboscopic corrected. Power factor over 90 per cent.

Made of steel with prismatic ribbed glass panels and end plates of satin aluminum having luminous translucent effect.

Dimensions: length, 48 inches; width, 17¹/₂ inches; height, 6¹/₂ inches.

Wireway channel is finished in white baked enamel.

For suspension mounting, use canopy and stem set No. 032ST.

Suspension fixtures furnished at extra cost.

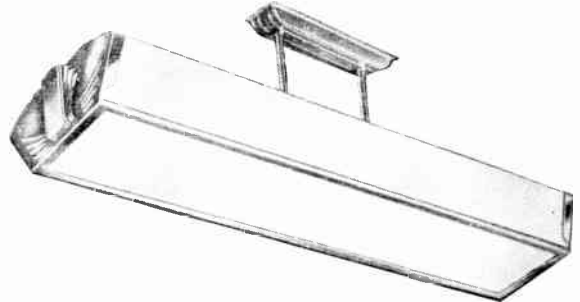
No. 3004	.....each	\$44.35
No. 032ST, Suspension Set	.....each	2.95

Nos. 3005 and 3007 Mitchell Luminaires

For Two and Four 40-Watt Fluorescent Lamps

110-125 Volts, 60 Cycle A.C.

Approved by Underwriters' Laboratories



**Single Unit
Suspension Mounted**

Approved by Fleur-O-Lier and Electrical Testing Laboratories for single unit suspension mounting or continuous row surface or suspension mounting.

Stroboscopic corrected. Power factor over 90 per cent.

Made of steel with double-strength ceramic treated side panel and prismatic ribbed glass bottom panel. End plates are of satin aluminum having luminous translucent effect.

No. 3005, for two 40-watt lamps. Dimensions: length, 48 inches; width, 12¹/₂ inches; height, 7¹/₈ inches.

No. 3007, for four 40-watt lamps. Dimensions: length, 48 inches; width, 17 inches; height, 7¹/₈ inches.

Metal parts finished in white baked enamel.

For suspension mounting, use canopy and stem set No. 032ST.

Suspension fixtures furnished at extra cost.

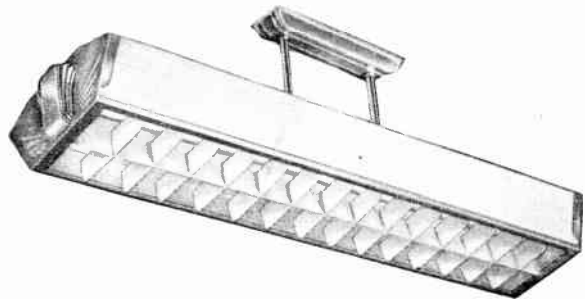
No. 3005	.....each	\$36.90
No. 3007	.....each	53.40
No. 032ST, Suspension Set	.....each	2.95

Mitchell Louvered Luminaires

For Two and Four 40-Watt Fluorescent Lamps

110-125 Volts, 60 Cycles A.C.

Approved by Underwriters' Laboratories



**Single Unit
Suspension Mounted**

Approved by Fleur-O-Lier and Electrical Testing Laboratories for individual suspension or continuous row surface mounting.

Stroboscopic tested. Power factor over 90 per cent.

Has full depth metal louvers, ceramic treated glass side panels, and satin aluminum end plates with luminous apertures. Made of steel.

No. 3009, for two 40-watt lamps. Dimensions: length, 48 inches; width, 12¹/₂ inches; height, 8¹/₄ inches.

No. 3011, for four 40-watt lamps. Dimensions: length, 48 inches; width, 17 inches; height, 8¹/₄ inches.

Finished in white baked enamel.

For suspension, use canopy and stem set No. 032ST.

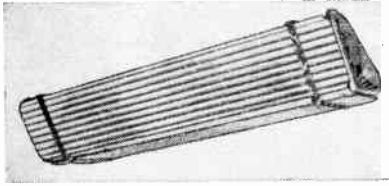
Suspension fixtures furnished at extra cost.

No. 3009, For 2 Lamps	.....each	\$39.95
No. 3011, For 4 Lamps	.....each	57.95

Litecontrol Lighting Units

F-70 Series

For Two and Four Fluorescent Lamps



Hinged-glass unit for offices, schools, stores, and all commercial applications.

For individual or continuous mounting; surface or pendant mounting.

For Two Fluorescent Lamps

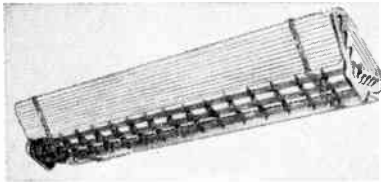
- No. F-72S, Surface.....each \$43.30
- No. F-72P, Pendant.....each 48.30
- No. F-72C, Continuous...each 39.60
- No. 72-3, End Cap for Continuous Runs. each 1.80

For Four Fluorescent Lamps

- No. F-74S, Surface.....each \$66.50
- No. F-74P, Pendant.....each 71.50
- No. F-74C, Continuous...each 62.50
- No. 74-3, End Cap for Continuous Runs. each 2.00

90 Series

For Four Fluorescent Lamps



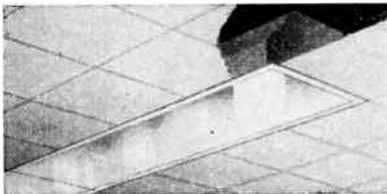
Combination hinged-glass sides and louvered bottom.

May be surface mounted, either as a single unit or in continuous runs, and pendant mounted.

- No. 94S, Surface.....each \$74.50
- No. 94P, Pendant.....each 79.50
- No. 94C, Continuous...each 68.90
- No. 94-3, End Cap for Continuous Runs. each 2.80

30 Series

For Two or Three Fluorescent Lamps



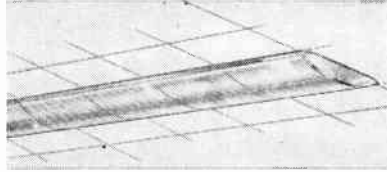
Completely recessed troffer type unit with Holophane Controlenses.

For continuous mounting where a 12-inch clear opening is available.

- No. 32C, Two-Lamp Continuous.....each \$56.30
- No. 33C, Three-Lamp Continuous.....each 70.00
- No. 32-3, End Cap for Continuous Runs. each 1.50

9000 Series

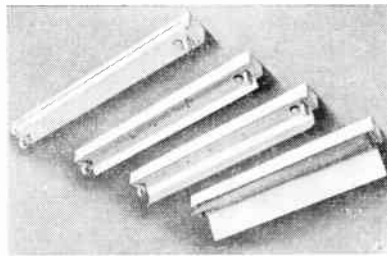
For Two or Three Fluorescent Lamps



Flush troffer type unit using Holophane curved Controlenses.

- No. 9052, Two-Lamp.....each \$71.30
- No. 9053, Three-Lamp...each 85.00
- No. 9052-3, End Cap.....each 4.50

Series 15 Strip Fixtures



Designed for single or continuous mounting.

Made in four types: plain channel; angle reflector; and deep and shallow trough reflectors.

Plain Channel

No.	Each	Length Inches
15-SC-24	\$12.80	26
15-SC-36	17.30	38
15-SC-48	18.00	50
15-SC-48D	28.80	98

Angle Reflector

No.	Each	Length Inches
15-SA-24	\$14.80	26
15-SA-36	19.80	38
15-SA-48	21.60	50
15-SA-48D	30.70	98

Shallow Trough

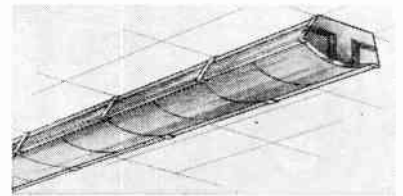
No.	Each	Length Inches
15-ST-24	\$12.80	26
15-ST-36	17.30	38
15-ST-48	18.00	50
15-ST-48D	28.80	98

Deep Trough

No.	Each	Length Inches
15-SDT-24	\$15.50	26
15-SDT-36	21.00	38
15-SDT-48	22.80	50
15-SDT-48D	32.30	98

9200 Series

For Two or Three Fluorescent Lamps



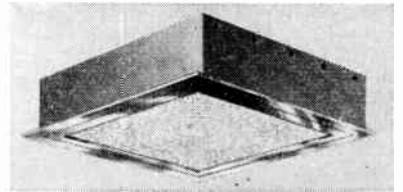
Surface type unit using Holophane curved Controlenses.

Side glass panels allow light on ceiling.

For single or continuous mounting.

- No. 9224, Two-Lamp.....each \$78.30
- No. 9234, Three-Lamp...each 92.00
- No. 9224-3, End Cap.....each 7.50

Incandescent Holophane Flush Lens Boxes



No.	Each	Max. Lamp Size Watts	ROUGHING BOX SIZE, INCHES	
			Square	Depth
6F-V10	\$20.00	100	8 ⁵ / ₈	7
6F-H10	17.90	100	8 ⁵ / ₈	4 ¹ / ₄
8F-V15	26.00	150	10 ⁵ / ₈	9 ¹ / ₄
*8F-V15S	30.00	150	10 ⁵ / ₈	9 ¹ / ₄
8F-H15	20.60	150	10 ⁵ / ₈	4 ¹ / ₂
12F-V30	32.80	300	14 ¹ / ₈	10 ⁷ / ₈
*12F-V30S	39.20	300	14 ¹ / ₈	10 ⁷ / ₈
12F-H30	28.00	300	14 ¹ / ₈	6 ⁵ / ₈

*Furnished with square reflector.

Exit Signs



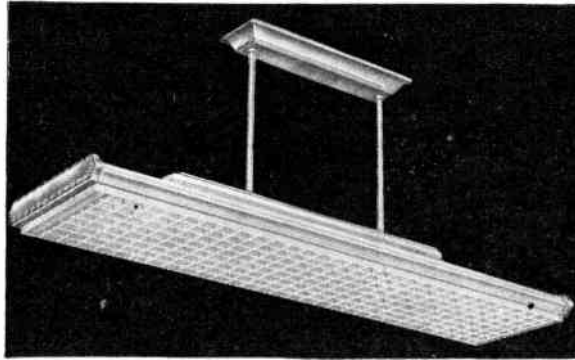
Cutout letters are 5 inches high backed with red glass.

Trim is hinged for easy relamping.

Trim and surface boxes furnished with baked statuary bronze finish.

- No. 5F, Flush Type.....each \$14.50
- No. 5E, Surface Type...each 15.80

No. 604 F.S. Silvrescent Fixtures
Suspension Type
For Four 40-Watt Fluorescent Lamps
 Approved by Underwriters' Laboratories



Used in executive and general offices, drafting rooms, stores, public buildings, banks, and hospitals as single unit or continuous runs.

Diamond reflector system assures high efficiency and minimum maintenance. The shallow body of the fixture is a little deeper than the lamps themselves.

Construction Features: Die-formed steel construction assures precision fit and permanent, trouble-free service. Special egg-crate type steel louver offers efficient shielding with minimum depth (only 1/2-inch deep). Shield snaps on and off. Four positive-action spring grips fasten to steel pins in body of fixtures. Furnished with "Holdsure" latch construction which permits lowering of shield for cleaning or relamping without the need for completely removing shield for these operations.

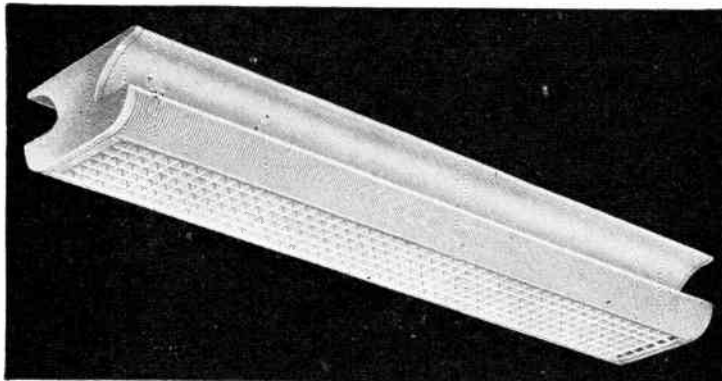
Light Output. Well-balanced direct and indirect components are delivered. Certified (E.T.L.) output: 86 per cent; with louver, 77 per cent.

Equipped with approved, high power factor ballasts. Sockets, starters, and starter sockets are Fleur-O-Lier approved.

Canopy, stems, end plates, diamond reflectors, and ballast housing are finished in white gloss Polymerin. Also available in cadmium plated finish at slightly higher cost.

No.	Each	No. of Lamps	Lamp Watts	DIMENSIONS, INCHES				Approx. Ship. Wt. Lb.
				Length	Width	Height	Depth	
604F.S.	\$81.40	4	40	49 1/2	13	26	2	42

Nos. 80 and 160 Silvrescent Fixtures
Ceiling Mounted
For Two and Four 40-Watt Fluorescent Lamps
 Approved by Underwriters' Laboratories



Used in executive and general offices, department stores, drafting rooms, public buildings, banks, schools, and hospitals as single unit or continuous runs.

No. 80 is a two-lamp unit and No. 160 is a four-lamp unit. Identical design makes them ideal companion pieces.

Construction Features. Made of heavy gage steel which prevents breakage and deterioration. No glass, plastic, or other breakable parts. Equipped with approved ballasts and accessories.

Design Features. Compact design results in a unit which is only 5 3/4 inches deep and 10 1/2 inches wide to accommodate either two or four 40-watt lamps. Effective side shielding at all normal viewing angles is accomplished by "Louveright" shielding with 50 per cent transmission. Egg-crate type steel shield, 6 inches wide with 1-inch square openings provides 45-degree shielding for the two middle lamps.

The shield is one piece, securely hinged, and is firmly fastened to the body by two "Holdsure" latches, permitting quick lowering of shield for easy access to starters and lamps.

Die-formed steel parts make for tight assembly and accurate alignment.

Finished in durable, easy to clean, white gloss Polymerin. Shield may be cleaned by occasional brushing.

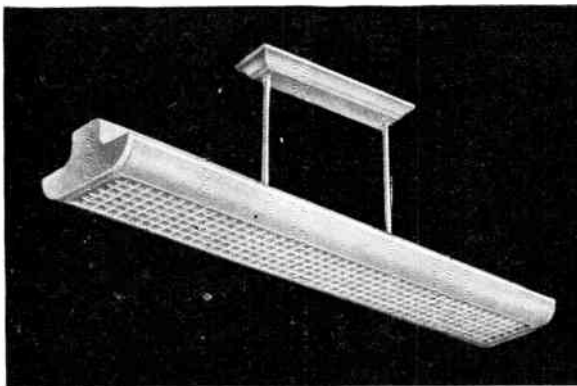
Furnished complete with shield.

No.	Each	No. of Lamps	Lamp Watts	DIMENSIONS, INCHES			Approx. Ship. Wt. Lb.
				Length	Width	Depth	
†*160	\$76.20	4	40	49	10 1/2	5 3/4	50
†160-E	76.20	4	40	49	10 1/2	5 3/4	50
80	64.70	2	40	49	10 1/2	5 3/4	45
80-E	64.70	2	40	49	10 1/2	5 3/4	45

*Also furnished as a 2-lamp unit. Specify No. 80 for double stem suspension and No. 80E for single stem suspension (for continuous mounting).

†Continuous run.

Nos. 30-S and 160-S Silvrescent Fixtures
Suspension Type
For Two and Four 40-Watt Fluorescent Lamps
 Approved by Underwriters' Laboratories



Used in executive and general offices, department stores, specialty shops, drafting rooms, public buildings, banks, schools, and hospitals as single unit or continuous runs.

Construction Features. Made of heavy gage steel which prevents breakage and deterioration. No glass, plastic, or other breakable parts; approved ballasts and accessories.

Design Features. Similar in appearance to Nos. 80 and 160. Compact design provides a unit which is only 5¾ inches deep and 10½ inches wide to accommodate either two or four 40-watt lamps. Effective side shielding at all normal viewing angles is accomplished by "Louverright" shielding with 50 per cent transmission. Egg-crate type steel shields, 6 inches wide

with 1-inch square openings, provide 45-degree shielding for the two middle lamps.

The shield is in one piece, securely hinged, and is firmly fastened to the body by two "Holdsure" latches, permitting quick lowering of shield for easy access to starters and lamps.

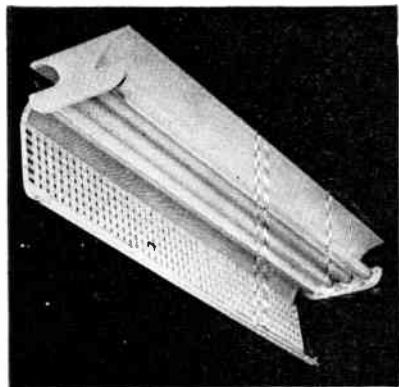
Die-formed steel parts make for tight assembly and accurate alignment. For continuous mounting, units are furnished with single stem support and a simple shallow canopy which is available in variable lengths. Standard length is 18 inches.

Finished in durable, easy to clean, white gloss Polymerin. Furnished complete with shield.

No.	Each	No. of Lamps	Lamp Watts	DIMENSIONS, INCHES				Type	Approx. Ship. Wt. Lb.
				Length	Width	*Height	Depth		
†160-S	\$81.90	4	40	49	10½	26	5¾	Double Stem	50
†160-SE	80.50	4	40	49	10½	26	5¾	Single Stem, Continuous	50
80-S	70.40	2	40	49	10½	26	5¾	Single Stem, Continuous	45
80-SE	69.00	2	40	49	10½	26	5¾	Single Stem, Continuous	45

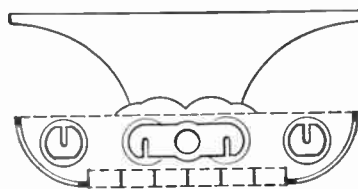
*To bottom of shield. †Also furnished as a 2-lamp unit. Specify No. 80-S for double stem suspension and No. 80-SE for single stem suspension (continuous mounting).

Applications of Silvrescent Fixtures



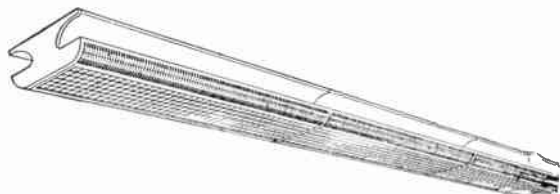
View of One-Piece Shield Showing Full Access to Lamps and Starters

The shield may be cleaned by an occasional brushing. Effective shielding of center lamps is accomplished by 1-inch square openings in louver. Outside lamps are well shielded by slotted metal "Louverright" shields.



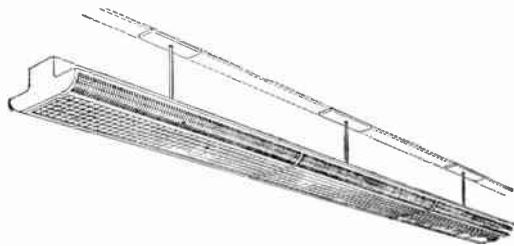
Cut-Away End View Showing Lamp Positions

In two-lamp models, the "Louverright" shields are evenly illuminated by light directed to them from the two centrally located lamps.



Continuous Mounting of Ceiling-Mounted Fixtures

Nos. 80 and 160 are butted together and furnished with a connecting strip to assure accurate alignment. Specify No. 80-E and 160-E.



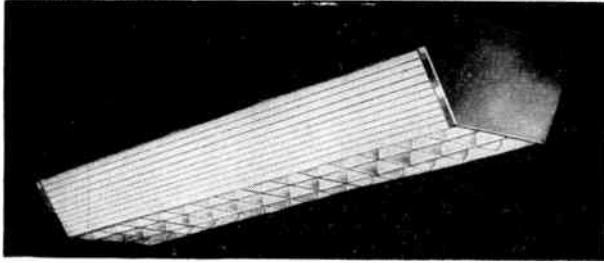
Continuous Mounting of Nos. 80-S and 160-S

Single stem support for each unit. Shallow ceiling canopy. Alignment of fixtures assured by connecting strip. Specify No. 80-SE and 160 SE.

Pittsburgh Permaflexor Presidential Series Fluorescent Luminaries and Troffers

For commercial, institutional, and industrial lighting purposes. The Wilson, Tyler, Jefferson, and Van Buren Models are surface mounted or suspension mounted with hanger No. AII-201, individually or in a continuous row.

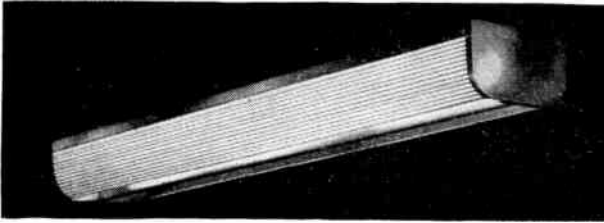
Wilson Model



Iridescent Linex Satinol glass side panels and fully-hinged egg-crate louver bottom assure well-shielded and efficient illumination as well as easy accessibility.

No.	Each	Lamps No. and Watts	Length Inches	Width Inches	Depth Inches	Shipping Weight Pounds
A-4240	\$51.08	2-40	48 ¹ / ₈	15 ⁷ / ₈	7 ³ / ₄	46
A-4340	63.58	3-40	48 ¹ / ₈	15 ⁷ / ₈	7 ³ / ₄	50
A-4440	66.20	4-40	48 ¹ / ₈	15 ⁷ / ₈	7 ³ / ₄	58

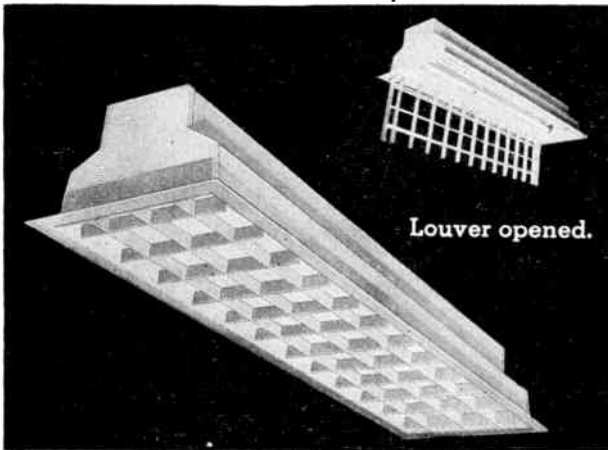
Jefferson Model



Has curved Skytex Satinol glass panels. Longitudinal baffles provide added shielding.

No.	Each	Lamps No. and Watts	Length Inches	Width Inches	Depth Inches	Shipping Weight Pounds
A-1240	\$44.43	2-40	48 ¹ / ₈	10 ⁷ / ₁₆	5 ⁷ / ₁₆	38
A-1340	59.20	3-40	48 ¹ / ₈	10 ⁷ / ₁₆	5 ⁷ / ₁₆	42
A-1440	69.50	4-40	48 ¹ / ₈	14	5 ⁷ / ₁₆	51

Recessed Tulamp



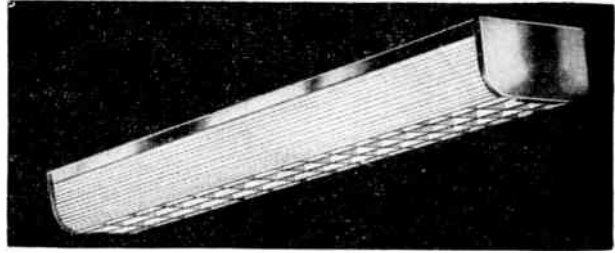
Louver opened.

Has housing with removable V-trough section containing knockouts to accommodate lamp-holders, starter sockets, and starting switches. V-trough section telescopes into the inverted housing and is held by clips. Exposed face of trough serves as part of reflector. Egg-crate louver, mounted flush, is designed to shield lamp and eliminate glare. Exposed metal trim and louver finished in white enamel. Wired complete, less starters. Plaster frames available.

No.	Each	Lamps No. and Watts	Overall Length Inches	Overall Width Inches	Ceiling Opening Inches	Depth Inches	Shipping Weight Pounds
RF-236-E	\$52.13	2-30	38	10 ³ / ₄	39 ¹ / ₂ x9	6	20
RF-248-E	55.55	2-40	50	10 ³ / ₄	48 ¹ / ₂ x9	6	28

All fluorescent units are furnished for operation on 110-125 volt, 60 cycle current, or 220-250 volt, 60 cycle; also available in 50 cycle at additional cost. May also be furnished with instant-start ballast at extra cost. No lamps provided.

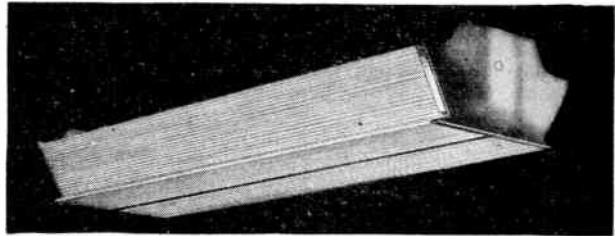
Tyler Model



Combines sound light engineering with functional design. Side panels are curved Skytex glass in Satinol finish. Bottom is egg-crate louver, hinged for easy maintenance.

No.	Each	Lamps No. and Watts	Length Inches	Width Inches	Depth Inches	Shipping Weight Pounds
A-7240	\$50.68	2-40	48 ¹ / ₈	10 ⁷ / ₁₆	5 ⁷ / ₁₆	39
A-7340	65.45	3-40	48 ¹ / ₈	10 ⁷ / ₁₆	5 ⁷ / ₁₆	43
A-7440	75.75	4-40	48 ¹ / ₈	14	5 ⁷ / ₁₆	52

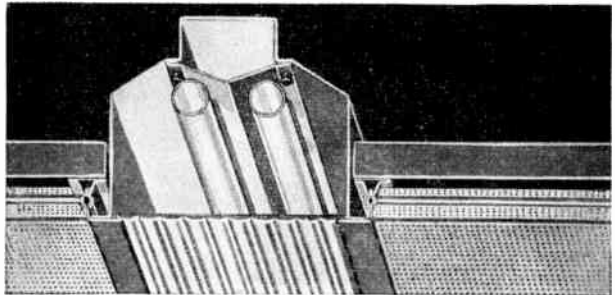
Van Buren Model



Has contrasting side panels of Skytex Satinol glass and Skytex clear glass bottom panels. Metal T-bar gives center support for bottom glass panels.

No.	Each	Lamps No. and Watts	Length Inches	Width Inches	Depth Inches	Shipping Weight Pounds
A-2240	\$41.58	2-40	48 ¹ / ₈	15 ⁷ / ₈	7 ³ / ₄	62
A-2340	52.68	3-40	48 ¹ / ₈	15 ⁷ / ₈	7 ³ / ₄	66
A-2440	55.82	4-40	48 ¹ / ₈	15 ⁷ / ₈	7 ³ / ₄	74

AF Series Fluorescent Troffers



Made to accommodate both a single row of 40-watt and two parallel rows of 40-watt fluorescent lamps.

Each troffer contains a removable inner section of wiring channel cover.

Flutex glass bottom panel conceals lamps, diffuses light, and reduces surface brightness. Glass rests in troffer frame and is easily removed by tilting.

Features a special snap-on frame designed for installation with acoustical ceiling sections of clip T-bar construction.

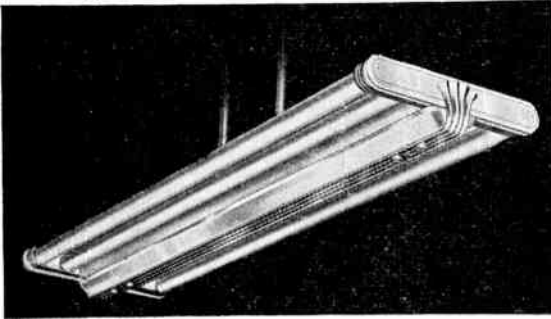
Finished in heat-resisting white enamel.

Both single and double row lamp series come in standard 4-foot lengths or any specified length: 12 inches wide, 8³/₄ inches deep.

PF Series are available for mounting in plaster, wood, or acoustical ceilings. Prices on request.

Smithcraft Standard Lighting Fixtures

For Four 40-Watt Fluorescent Lamps
110-125 Volts and 220-250 Volts, 60 Cycles, A.C.
Approved by Underwriters' Laboratories, Inc.



Designed for single unit or continuous runs using four fluorescent lamps.

Has an 85 per cent reflectivity.

Can be mounted directly on the outlet box without intervening space.

Side reflectors are parabolic, giving maximum down-lighting.

Ornamental socket shields also serve as lamp guards.

Completely wired with E.T.L. approved high power factor ballasts (Tulamp type), lamp sockets, and FS4 starters. FS40 No-blink starters are available at additional cost.

Furnished with all necessary fittings for continuous run installation at no extra charge.

Canopy (No. SS105) and two 30-inch stems, with non-turn stem lock, are available at extra cost.

Finished in white baked enamel and aluminum.

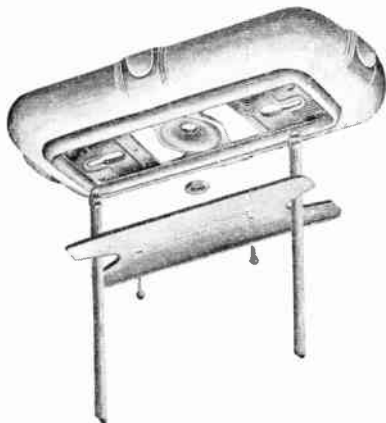
Packed 1 to a carton.

No.	Each	No. of Lamps	Watts	DIMENSIONS, INCHES			Ship. Wt. Lb.
				Length	Width	Depth	
SS4	\$42.65	4	40	49	14	3 1/4	25

If lightning-start ballasts are desired, prefix Q to number when ordering and add 3 pounds to weight.

Price does not include lamps.

Smithcraft Minute-Man Canopies



For hanging commercial lighting fixtures.
Eliminates fixture strap and provides greater safety and quicker installation of lighting fixtures.
Adapted for concealed or surface wired outlets.

Method of Installation

- Place the canopy over outlet box stud and tighten nut which locks canopy permanently into position.
- Take Smithcraft unit with non-turn stems and simply check into the keyholes. Then move stem to narrow end of slot. Fixture is now up and locked into place.
- Make wiring connections to outlet in the customary manner and finish off by applying the decorative cover plate with the two screws.

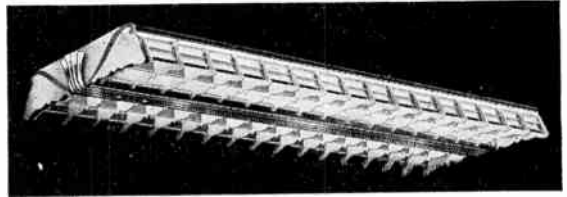
No. SS105, Canopy and Two 30-Inch Stems . . . each \$4.10

Smithcraft Dawn Lighting Fixtures

For Four 40-Watt Fluorescent Lamps

110-125 Volts and 220-250 Volts, 60 Cycles, A.C.

Approved by Underwriters' Laboratories, Inc.



Designed for single unit or continuous runs using four fluorescent lamps.

Reflector of V-type design gives 80 per cent downlight.

Louver is hinged in two sections, with 32 openings per section, and is easily removable.

Completely wired with E.T.L. approved high power factor ballasts (Tulamp type), lamp sockets, and FS4 starters. FS40 No-blink starters are available at additional cost.

Furnished with all necessary fittings for continuous run installation at no extra charge.

Canopy (No. SS105), and two 30-inch stems, with non-turn stem lock, are available at extra cost.

Finished in white baked enamel and aluminum.

Packed 1 to a carton.

No.	Each	No. of Lamps	Watts	DIMENSIONS, INCHES			Ship. Wt. Lb.
				Length	Width	Depth	
A-4	\$70.65	4	40	49 1/2	17 3/4	3 1/2	48

If lightning-start ballasts are desired, prefix Q to number when ordering and add 3 pounds to weight.

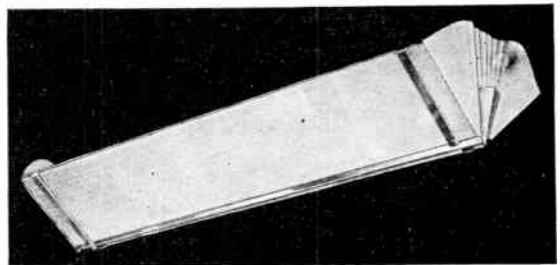
Price does not include lamps.

Smithcraft Vision Lighting Fixtures

For Two and Four 40-Watt Fluorescent Lamps

110-125 Volts and 220-250 Volts, 60 Cycles, A.C.

Approved by Underwriters' Laboratories, Inc.



Designed for single unit or continuous runs using two or four fluorescent lamps.

Diffused ribbed glass removes all glare.

A special metal T section between the glass panels acts as a lamp baffle and assures perfect alignment for continuous mounting.

Completely wired with E.T.L. approved high power factor ballasts (Tulamp type), lamp sockets, and FS4 starters. FS40 No-blink starters are available at additional cost.

Furnished with all necessary fittings for continuous run installation at no extra charge.

Canopy (No. SS105) and two 30-inch stems, with non-turn stem lock, are available at extra cost.

Finished in white baked enamel and aluminum.

Packed 1 to a carton.

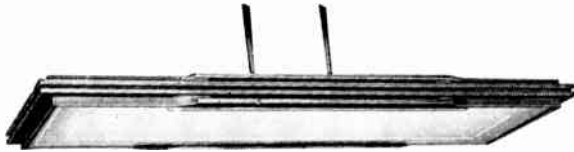
No.	Each	No. of Lamps	Watts	DIMENSIONS, INCHES			Ship. Wt. Lb.
				Length	Width	Depth	
V-2	\$38.65	2	40	48 1/4	14	8	48
V-4	\$6.65	4	40	48 1/4	14	8	58

If lightning-start ballasts are desired, prefix Q to number when ordering and add 3 pounds to weight.

Price does not include lamps.

Smithcraft Horizon Lighting Fixtures

For Four 40-Watt Fluorescent Lamps
 110-125 Volts and 220-250 Volts, 60 Cycles, A.C.
 Approved by Underwriters' Laboratories, Inc.



Frame is made of natural wood, finely lacquered and waxed to blend softly with the smart shop or wood-panelled office.

A sturdy steel top covers the fixture and provides a wiring channel and holder for pendant mounting.

Completely wired with E.T.L. approved high power factor ballasts (Tulamp type), lamp sockets, and FS4 starters. FS40 No-blink starters are available at additional cost.

Furnished with all necessary fittings for continuous run installation at no extra charge.

No. HG-4. Has crystal glass panel, sandblasted.

No. HE-4. Has steel egg-crate louver in one section with 279 openings.

Canopy (No. SS105) and two 30-inch stems, with non-turn stem lock, are available at extra cost.

Available with a closed top for complete downlighting or with two bands of perforated metal which provide 85 per cent downlighting with a spill of 15 per cent.

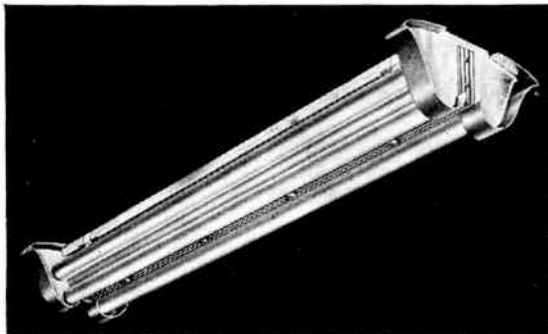
Wood finish: natural lacquered. Steel finish: white baked enamel. Packed 1 to a carton.

No.	Each	No. of Lamps	Watts	DIMENSIONS, INCHES			Ship. Wt. Lb.
				Length	Width	Depth	
HG-4	\$99.45	4	40	52 1/4	17 1/4	2 3/4	50
HE-4	99.45	4	40	52 1/4	17 1/4	2 3/4	50

Price does not include lamps.

Smithcraft Peerless Lighting Fixtures

For Two and Four 40-Watt Fluorescent Lamps
 110-125 Volts and 220-250 Volts, 60 Cycles, A.C.



A highly efficient open-type fixture that is designed for single unit or continuous runs using two or four fluorescent lamps.

Aluminum scroll ends provide a decorative effect and conceal the lamp holders. Also serve to conceal joining points on continuous run installation.

Completely wired with E.T.L. approved high power factor ballasts (Tulamp type), lamp sockets, and FS4 starters. FS40 No-blink starters are available at additional cost.

Furnished with all necessary fittings for continuous run installation at no extra charge.

Canopy (No. SS105) and two 30-inch stems, with non-turn stem lock, are available at extra cost.

Finished in white baked enamel and aluminum.

Packed 1 to a carton.

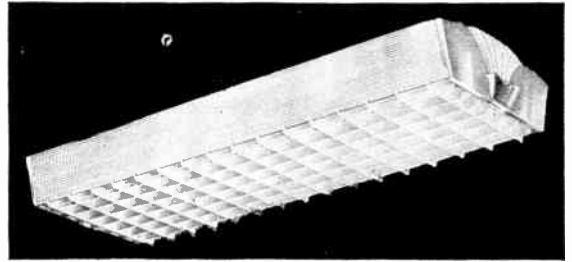
No.	Each	No. of Lamps	Watts	DIMENSIONS, INCHES			Ship. Wt. Lb.
				Length	Width	Depth	
T-2	\$27.37	2	40	50	12 3/8	6	27
T-4	43.55	4	40	50	12 3/8	6	35

If lightning-start ballasts are desired, prefix Q to number when ordering and add 3 pounds to weight.

Price does not include lamps.

Smithcraft Skylite Lighting Fixtures

For Four 40-Watt Fluorescent Lamps
 110-125 Volts and 220-250 Volts, 60 Cycles, A.C.
 Approved by Underwriters' Laboratories, Inc.



Used in schools, offices, stores, institutions, etc. Designed for single unit or continuous runs using four fluorescent lamps.

Side panels are of diffused glass.

Steel louver, 1 1/8-inch deep, (136 openings) is hinged and is held in place by thumb screws.

Completely wired with E.T.L. approved high power factor ballasts (Tulamp type), lamp sockets, and FS4 starters. FS40 No-blink starters are available at additional cost.

Furnished with all necessary fittings for continuous run installation at no extra charge.

Canopy (No. SS105) and two 30-inch stems, with non-turn stem lock, are available at extra cost.

Slip-on reflectors used to obtain 65 per cent downlight are available at extra cost.

Finished in baked white enamel and aluminum.

Packed 1 to a carton.

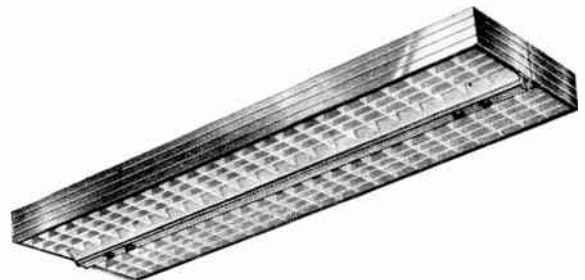
No.	Each	No. of Lamps	Watts	DIMENSIONS, INCHES			Ship. Wt. Lb.
				Length	Width	Depth	
YE-4	\$60.55	4	40	49	17	6 1/2	50

If lightning-start ballasts are desired, prefix Q to number when ordering and add 3 pounds to weight.

Price does not include lamps.

Smithcraft Louverlite Lighting Fixtures

For Four 40-Watt Fluorescent Lamps
 110-125 Volts and 220-250 Volts, 60 Cycles, A.C.
 Approved by Underwriters' Laboratories, Inc.



Used in drafting rooms, schools, offices, and, in general, wherever even, full, glare-free lighting is desired.

Designed for single unit or continuous runs using four fluorescent lamps.

Steel louver is hinged in two sections, 125 openings per section, and is held in place by spring catch.

Completely wired with E.T.L. approved high power factor ballasts (Tulamp type), lamp sockets, and FS4 starters. FS40 No-blink starters are available at additional cost.

Furnished with all necessary fittings for continuous run installation at no extra charge.

Canopy (No. SS105) and two 30-inch stems, with non-turn stem lock, are available at extra cost.

Finished in white baked enamel and aluminum.

Packed 1 to a carton.

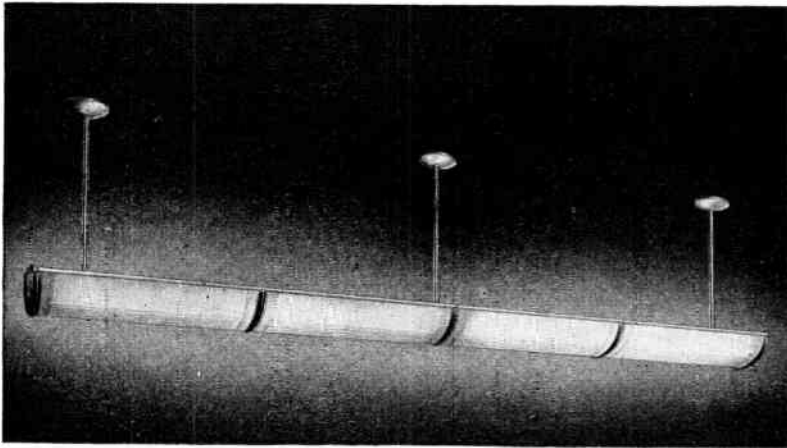
No.	Each	No. of Lamps	Watts	DIMENSIONS, INCHES			Ship. Wt. Lb.
				Length	Width	Depth	
O-4	\$75.09	4	40	51	16	2 7/8	43

If lightning-start ballasts are desired, prefix Q to number when ordering and add 3 pounds to weight.

Price does not include lamps.

Wakefield Star Luminous Indirect Luminaires

For Two 40-Watt Fluorescent Lamps



With No. 14, Single Stems

Modern artificial lighting strives for two objectives. First, an even distribution of light intensity all over the room, and, second, the elimination of spheres of brightness contrasted with intervening dark areas.

The newest approach to the twofold objective of artificial lighting efficiency is the Star, a luminous indirect lighting unit which utilizes a molded, translucent Plaskon reflector of such density that the lighted luminaire is of approximately the same brightness as the illuminated ceiling.

When Star units are used in continuous runs, spaced in accordance with Wakefield engineering specifications, an evenly lighted ceiling is achieved which provides the sky-like effect of evenly distributed light, with no deep shadows or contrasts and without distracting glare from the light source.

Each 4-foot Star section utilizes two 40-watt fluorescent lamps which are accessible from the top of the reflector.

The molded reflectors and end caps are made of Plaskon, a molding compound which has been in continued use by The F. W. Wakefield Brass Company for over ten years. These Plaskon parts are

light in weight, non-electrostatic, non-shatterable, uniform in appearance, and will not support combustion.

All visible metal parts are finished in satin aluminum.

The reflectors are held in place by illuminated satin aluminum supporting bands, and are easily slid in and out of place for maintenance purposes without dis-assembly of the unit.

The Star has been under development for over two years and incorporates all advances in contemporary engineering, lighting performance, and ease of maintenance.

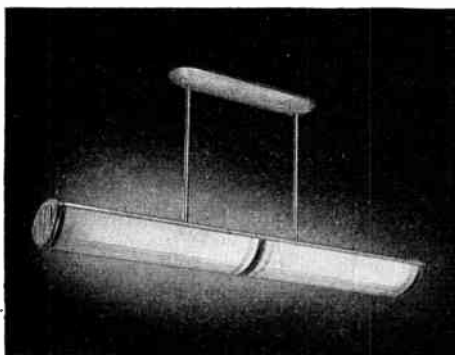
The Star achieves a lighting efficiency high above the standard.

Single Unit—Twin Stem Suspension

Small rooms and corridors can be adequately illuminated with a single unit.

The two stem unit is 4-foot in length and is identical with the 4-foot sections used in continuous runs except that the single unit installation is equipped with twin stem suspension.

The appearance of the single unit matches those units which are used in continuous runs in every other detail.



No. ST-248
With No. 12, Twin Stems

Body and Reflectors Only

No.	Each	Suspension Inches	Number of Lamps	Lamp Watts	Std. Pkg.	Wt. Lb.	Ship. Wt. Lb.
ST-248-B	\$42.00	4	2	40	1	14	17
Double Stem and Canopy Assembly							
12	\$5.74	20	..	..	1	2	3
Single Stem and Canopy Assembly							
14	\$2.50	20	..	..	1	1	2
End of Run Assembly (End Caps, Clamps, Etc.)							
15	\$10.24	..	..	..	1	1	2

Wakefield Grenadier Diffused Direct Lighting Fixtures

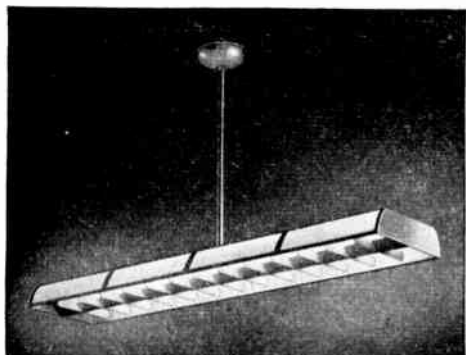
For Two 40-Watt Fluorescent Lamps

The Grenadier provides a type of direct-indirect lighting which is generally recognized to be highly efficient.

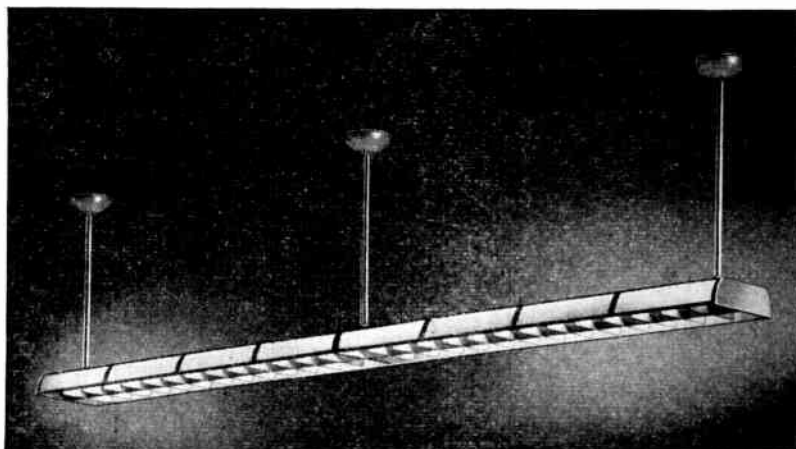
Diffusion is secured and the surface brightness of the lamp is masked with the use of a well designed louver. Further efficiency is provided by the design of the reflector.

All reflecting surfaces are turned downward so that they catch a minimum of dust. This feature results in lower maintenance cost because the unit requires less cleaning.

Suspension Type



No. PG-2488

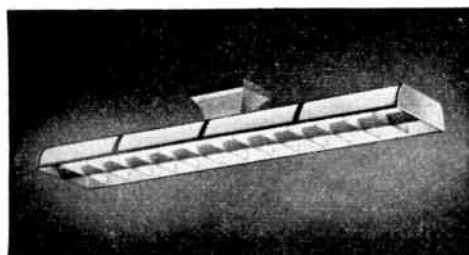


No. 2PG-2488

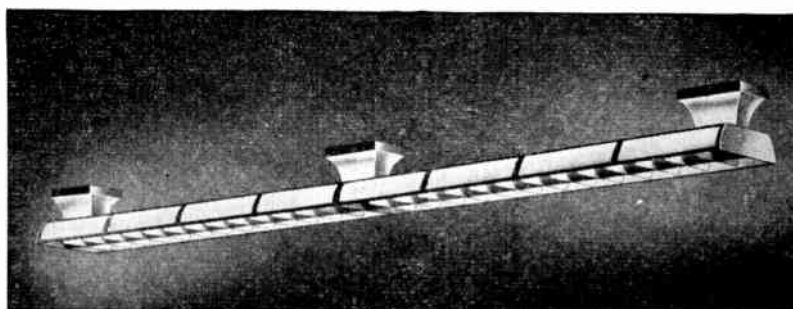
Two Grenadier models include the 4-foot suspension type and the 4-foot ceiling type. Both types are available for installation in continuous runs as they may be interconnected with standard parts from the factory or from stock.

The Grenadier is a well-shielded unit utilizing two 40-watt fluorescent lamps in each 4-foot section. All metal parts are finished in gray enamel. Side panels are translucent plastic which take on a warm ivory color when lamps are lighted.

Ceiling Mounting



No. PG-2483



No. 2PG-2483

For rooms with ceilings of low or medium heights, ceiling type Grenadier is recommended. Canopies are finished in gray enamel to match the other metal parts.

All Grenadiers have open top reflectors for lighting the ceiling area, and inverted reflectors for producing exceedingly high level illumination on working surfaces below.

Ceiling types, for continuous installation, are also available on order.

Lamps are easy to replace as they are accessible through the top of the reflector, without removing the louver.

No.	Each	Overall Suspension Inches	Number of Lamps per Section	Lamp Watts
PG-2488	\$38.12	24	2	40
2PG-2488	79.62	24	2	40
PG-2483	37.86	6 ³ / ₄	2	40
2PG-2483	77.84	6 ³ / ₄	2	40

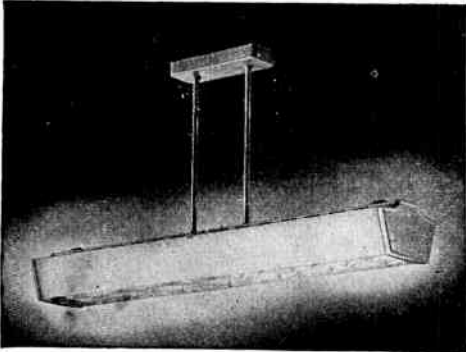
Description	Standard Package	Weight Pounds	Shipping Weight Pounds
Suspension Type	1	16	19
Suspension Type	1	35	40
Ceiling Type	1	16	19
Ceiling Type	1	35	40

Wakefield Beacon Model Diffused Direct Lighting Fixtures

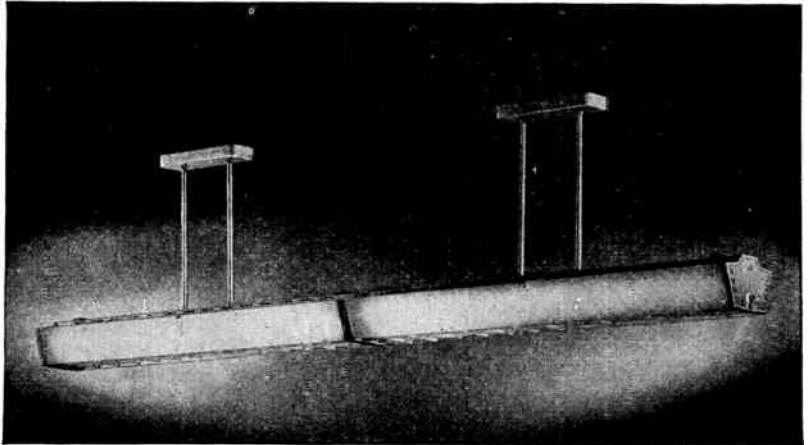
For Four 40-Watt Fluorescent Lamps

The proper utilization of fluorescent lamps provides for an excellent distribution of high level lighting. Great care must be given to the design of any fluorescent fixture in order that the lamps be sufficiently shielded to prevent eye fatigue as a result of surface brightness. On the other hand, the shielding must be so arranged that it does not seriously reduce the lighting efficiency.

Suspension Type



No. B-448-W



No. 2B-448-W

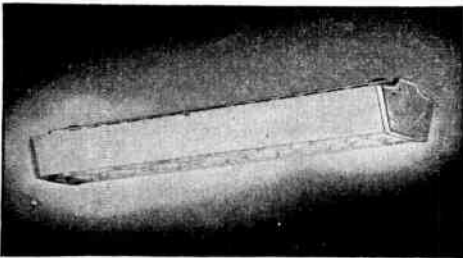
The Beacon is made in two models. These include the suspension type and the ceiling type. Both are available for installation in continuous runs as they may be interconnected as ordered from factory or stock.

The Beacon features pleasing appearance and a

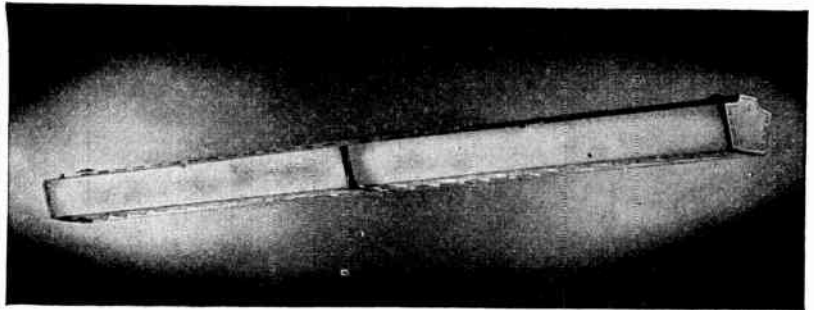
high light distributing efficiency. Attractive side panels of etched, ribbed glass and a louver of unusual beauty combine to create a pleasing harmony.

Four 40-watt lamps are adequately shielded to provide a soft, even distribution of light.

Ceiling Mounting



No. B-4483-W



No. 2-B-4483-W

Ceiling-mounted units are recommended for rooms with low or medium height ceilings.

Ceiling units can be utilized individually or in long continuous runs.

When units are to be interconnected, knockouts may be removed from end caps for wireway. Before deciding which type of Beacon to order for any installation, consult our lighting specialist in your territory.

The four-foot suspension type is excellent for lighting rooms of average size and blends with all tastefully decorated interiors. Twist-type sockets are provided so that lamps cannot become dislodged.

Wireway cover is held in place by four screws for easy accessibility.

Lamps can be replaced from top or bottom without removing glass panels.

Louver section may be removed when cleaning of unit becomes necessary.

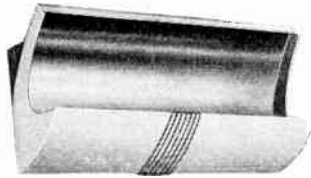
No.	Each	Overall Suspension Inches	Number of Lamps per Section	Lamp Watts	Description	Standard Package	Weight Pounds	Shipping Weight Pounds
B-4483-W	\$60.24	6 $\frac{1}{2}$	4	40	Ceiling Type	1	33	39
2B-4483-W	120.48	6 $\frac{1}{2}$	4	40	Ceiling Type	1	66	78
B-448-W	63.00	25	4	40	Suspension Type	1	36	42 $\frac{1}{2}$
2B-448-W	126.00	25	4	40	Suspension Type	1	72	85

Rad-i-Air Germicidal Equipment

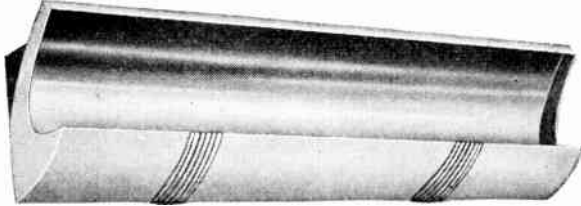
110-125 Volts, 60 Cycle, A.C.

U.R.C. Model Nos. 921-15 and 921-30—For Personal Protection

Approved by Underwriters' Laboratories



No. 921-15



No. 921-30

Designed by the Utilities Research Commission to sanitize the air in schools, stores, offices, hospitals, factories, and any other place where humans congregate indoors.

Made of heavy gage steel with bright chrome trim and Alzak aluminum reflectors.

Mounted horizontally flush to wall. May also be hung by stem suspension.

Has high power factor.

Furnished with 10-foot cord and plug. Knockouts are provided for mounting direct to electric outlet.

Finished in baked cream enamel.

No.	921-15	921-30
Each, less Lamps.....	\$18.00	\$27.00
Dimensions: Length.....inches	18 ³ / ₁₆	36 ³ / ₁₆
Width.....inches	5 ¹ / ₂	5 ¹ / ₂
Height.....inches	9 ¹ / ₁₆	9 ¹ / ₁₆
Watts.....	15	30
Shipping Weight.....pounds	11 ¹ / ₄	18 ³ / ₄

Accessories

No. 312, Canopy and Stem Set.....each \$ 90

All-Purpose Model Nos. 981-15 and 981-30—For Animal and Product Protection

Approved by Underwriters' Laboratories



No. 981-30

Exposed type to permit wide use of the maximum intensity of the germicidal lamp. Made of heavy gage metal with attractive end plates and Alzak aluminum reflectors.

Has Electrical Testing Laboratories approved ballast, starter, and sockets.

May be installed for either direct or indirect use.

Mounted horizontally or vertically; flush to ceiling or suspended by chains or stems.

Available in low or high power factor.

Furnished with knockouts on end plates for end-to-end continuous row mounting. Finished in baked white enamel.

Adjustable baffle sets, at extra cost, may be added to deflect or shield ultraviolet rays. Finished in dull black baked enamel.

	Low P.F.	High P.F.	Low P.F.	High P.F.
No.	981-15	981-15	981-30	981-30
Each, less Lamps.....	\$13.50	\$16.50	\$19.00	\$22.00
Dimensions: Length...in.	19 ¹ / ₁₆	19 ¹ / ₁₆	37 ¹ / ₁₆	37 ¹ / ₁₆
Width...in.	5 ¹ / ₄	5 ¹ / ₄	5 ¹ / ₄	5 ¹ / ₄
Height...in.	3 ³ / ₄	3 ³ / ₄	3 ³ / ₄	3 ³ / ₄
Watts.....	15	15	30	30
Shipping Weight...pounds	6	7 ¹ / ₂	12	13 ¹ / ₂

Accessories

No. AB-15, Baffle Set for No. 981-15, Shipping Weight, 1¹/₂ Pounds.....each \$1.50

No. AB-30, Baffle Set for No. 981-30, Shipping Weight, 2³/₄ Pounds.....each 2.75

No. CP-10, 10-Foot, 2-Conductor Cord and Plug, each .90

No. 302, Two 8-Foot Tenso Chains.....per pair .75

No. 312, Canopy and Stem Set.....per set .90

Bare Lamp Model No. 931-15—For Protection of Meat and Meat Products



Used in the walk-in meat box, meat storage locker plants, and similar locations to provide unobstructed ultraviolet irradiation in all directions for suppressing bacterial propagation and meat contamination.

Made of heavy gage metal. Has Electrical Testing Laboratories approved ballast, starter, and sockets.

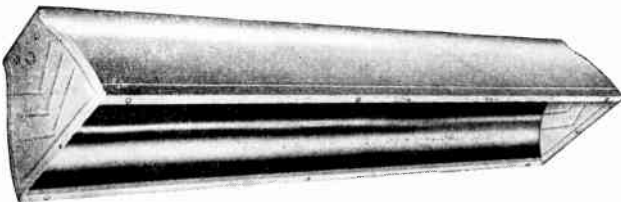
Available in low and high power factor.

Furnished with 10-foot 2-conductor cord and plug. Finished in baked white enamel. May be suspended vertically by built-in hook or mounted horizontally.

	Low P.F.	High P.F.	Low P.F.	High P.F.
No.	931-15	931-15	931-15	931-15
Each, less Lamps.....	\$10.00	\$13.00		
Dimensions: Length.....inches	29 ⁷ / ₈	29 ⁷ / ₈		
Width.....inches	3 ⁵ / ₁₆	3 ⁵ / ₁₆		
Height.....inches	2 ³ / ₁₆	2 ³ / ₁₆		
Watts.....	15	15		
Shipping Weight.....pounds	5 ¹ / ₂	7		

Conveyor Line Model Nos. 961-15 and 961-30—For Direct or Indirect Product Protection

Approved by Underwriters' Laboratories



No. 961-30

Designed to combine maximum intensity ultraviolet irradiation with louver control for direct or indirect activation. Made of heavy gage metal with attractive end plates, and Alzak aluminum reflectors. Has Electrical Testing Laboratories approved ballast, starter, and sockets.

All models available in other standard voltage, 60-cycle, at no additional cost. Specify voltage on order. Also available for 50-cycle operation, add \$2.20 to prices. Write for information on units operating on higher voltages or direct current.

Mounted singly or in continuous rows, flush or suspended by chains or stems. Available in low or high power factor. Finished in baked white enamel.

Louvers at additional cost. Black baked enamel finish.

	Low P.F.	High P.F.	Low P.F.	High P.F.
No.	961-15	961-15	961-30	961-30
Each, less Lamps.....	\$17.20	\$20.20	\$27.00	\$30.00
Dimensions: Length...in.	19 ⁵ / ₈	19 ⁵ / ₈	37 ⁵ / ₈	37 ⁵ / ₈
Width...in.	8 ⁷ / ₈	8 ⁷ / ₈	8 ⁷ / ₈	8 ⁷ / ₈
Height...in.	5 ³ / ₄	5 ³ / ₄	5 ³ / ₄	5 ³ / ₄
Watts.....	15	15	30	30
Shipping Weight...pounds	9 ¹ / ₄	10 ³ / ₄	16	17 ¹ / ₂

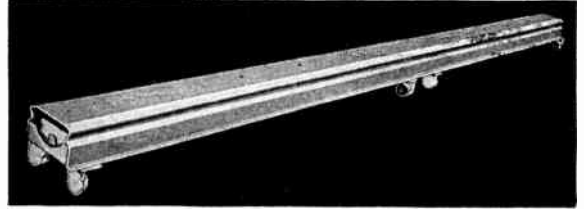
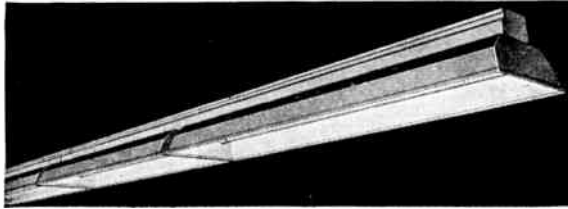
Accessories

No. AL-15, Louver for No. 961-15.....each \$5.50

No. AL-30, Louver for No. 961-30.....each 10.00

No. CP-10, 10-Foot Cord and Plug.....each .90

Benjamin RLM Lite-Line 40 Continuous Line Lighting Systems For Two and Three Fluorescent Lamps Sliding Hanger Type With Closed-End and Open-End Reflector 110-125 Volts, 60 Cycles 220-250 Volts, 60 Cycles



Features the double reflector channel unit which is made of heavy gage steel and is joined end to end to form a continuous line by the use of a rigid, steel coupling.

The single reflector steel channel is usually used to fill out at the ends of lines.

Ends of channel are closed by a steel cap.

A complete line of sliding hangers is available to meet every mounting condition.

Convenient 1/2 and 3/4-inch knockouts are also furnished in the top of the channel.

Springlox lamp holders hold the lamps securely and speed lamping and relamping.

Reflector is attached or removed by a quarter turn of two, hand-operated, adjustable Lok-Latch reflector fasteners. Channel is wired and has 6-inch leads.

Reflector is porcelain enameled steel with exterior finished gray and interior finished white.

Type E Wired Channel Sections for Two-Lamp Open-End and Closed-End 13 7/8-Inch Reflectors 5-Inch Lamp Spacing

Volts	Double Reflector Channels 104 7/8-Inch Length				Single Reflector Channels 50 7/8-Inch Length				Power Factor Per Cent
	No.	Each	No. of Lamps	Twin Ballasts	No.	Each	No. of Lamps	Twin Ballasts	
110-125	18854	\$36.00	4	2-2 Lamp	18454	\$17.50	2	1-2 Lamp	95
220-250	18856	36.00	4	2-2 Lamp	18456	17.50	2	1-2 Lamp	95
*110-125	18954	50.00	4	2-2 Lamp	18554	24.50	2	1-2 Lamp	95

Type E Wired Channel Sections for Three-Lamp Open-End and Closed-End 13 7/8-Inch Reflectors 5-Inch Lamp Spacing

110-125	18857	\$52.00	6	3-2 Lamp	18457	\$26.50	3	1-3 Lamp	95
220-250	18859	52.00	6	3-2 Lamp	18459	25.50	3	1-3 Lamp	95

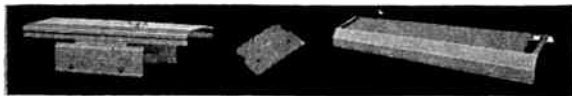
Type A Wired Channel Sections for Two-Lamp Open-End (Narrow) 11 1/2-Inch Width Reflectors 3 1/2-Inch Lamp Spacing

Volts	Double Reflector Channels 101 7/8-Inch Length				Single Reflector Channels 50 7/8-Inch Length				Power Factor Per Cent
	No.	Each	No. of Lamps	Twin Ballasts	No.	Each	No. of Lamps	Twin Ballasts	
110-125	18154	\$35.40	4	2-2 Lamp	18354	\$17.30	2	1-2 Lamp	95
220-250	18156	35.40	4	2-2 Lamp	18356	17.30	2	1-2 Lamp	95
*110-125	18254	49.40	4	2-2 Lamp	18654	24.30	2	1-2 Lamp	95

*Instant-starting type.

Equipped with standard ballasts and FS-4 starters. Non-Blinking starters are available, when specified, at additional cost.

RLM Reflectors, Channel and Suspension Fittings



No.	Description	Each
No. 18426	Coupling	
No. 18425	End Plate	
No. 8453	Open-End Reflector	
Reflectors		
£462	Type E Closed-End, Two and Three-Lamp, 13 7/8 Inches Wide	\$11.00
£453	Type E Open-End, Two and Three-Lamp, 13 7/8 Inches Wide	7.40
£452	Type A Open-End, Two-Lamp, 11 1/2 Inches Wide	7.00
£463	*Type A Closed-End and Shield, 13 7/8 Inches Wide	13.40
£446	*Type A Shield for Closed-End, 13 7/8 Inches Wide	2.40
Channel Fittings		
18425	End Cap for All Channels (Types A and E)	\$.40
18426	Type E 3 5/8-Inch Coupling for 13 7/8-Inch Wide Reflector	1.00
18436	Type A 5/8-Inch Coupling for 11 1/2-Inch Wide Reflector	.80
Suspension Fittings		
18438	Sliding Hanger Assembly for 3/8-Inch Diameter Twin Supporting Rods for Both Types A and E Systems	\$1.40
18440	Sliding Hanger Assembly for 1/2-Inch Conduit Suspension (Ceiling Strap No. 18441 not Included)	.60
18443	Sliding Hanger Assembly for 1/2-Inch Conduit Suspension; Ceiling Strap No. 18441 Included	1.00
18441	Offset Ceiling Strap with Center Hole for 1/2-Inch Conduit	.40
18450	Sliding Hanger Assembly for Chain Support	.50
18472	Sliding Hanger Assembly for Messenger Cable (Complete)	1.00
18471	Messenger Cable Hook Only; Used with No. 18472. (Can Also be Attached Directly to Knockouts in Channel)	.40
18430	Sliding Hanger Assembly with Hole for 3/8-Inch Rod (Ceiling Strap No. 18431 not Included)	.60
18439	Sliding Hanger Assembly for 3/8-Inch Single Rod or Ceiling Suspension with Ceiling Strap No. 18431	1.60
18431	†Offset Ceiling Strap with Center Hole for 3/8-Inch Rod Support or 5/16-Inch Bolt	.40
18432	†Flat Ceiling Strap with Center Hole for 3/8-Inch Rod Support or 5/16-Inch Bolt	.40

*Two-lamp only.

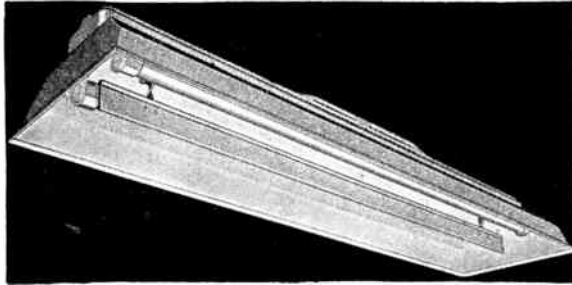
†Can be used independently as an additional means of

mounting where a non-sliding type suspension meets requirements.

Benjamin RLM Shield-Flo 40 Lighting Units

For Two 40-Watt Fluorescent Lamps

110-125 Volts, *60 Cycles, A.C.
220-250 Volts, *60 Cycles, A.C.



For industrial and commercial installations.

Identical to Stream-Flo 40 unit except that it has a longitudinal shield between the lamps which provides the same shielding angle on the far lamp as on the near lamp. Has a total overall shielding angle of 27°. Shield is removable from reflector.

Housing is made of steel, contains control equipment, and is provided with brackets for chain suspension. Also provided with ample 1/2 and 3/4-inch knockouts for conduit suspension.

Reflector is closed-end type made of enameling iron finished in porcelain enameled steel. Exterior finish is gray. Interior surfaces are white with a reflection factor of 79 per cent or more. Shield is made of white porcelain enamel steel.

Springlox safety lamp holder speeds lamping and relamping. Simply push one end of lamp into lamp holder and let the spring pressure push the other end into the facing lamp holder. Pressure of the lifetime spring securely locks lamp into position.

A quarter turn of the Lok-Latch reflector fastener quickly attaches or detaches reflector from housing. Lamp holders are spaced on 5-inch centers.

With Conventional Ballasts and Standard Starters

†Volts	Wired with 6-Inch Leads		Wired with 6-Foot Cord and Plug	
	No.	Each	2-Wire No.	3-Wire No.
110-125	41662	\$31.70	41662-C	41662-P \$33.20
220-250	41682	31.70	.....	41682-P 33.70

With Conventional Ballasts and Non-Blinking Starters

110-125	41662-W	\$32.90	41662-CW	\$34.40	41662-PW	\$34.90
220-250	41682-W	32.90	.....	.....	41682-PW	34.90

With Instant-Starting Ballasts—No Starters Needed

110-125	41762	\$38.70	41762-C	\$40.20	41762-P	\$40.70
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Shields Only

No. 8445, †Width, 13 1/8 Inches, Closed-End Refl. .ea. \$2.40
No. 8446, Width 11 1/2 Inches, Open-End Reflector. ea. 2.40

*50-cycle ballasts available when specified. Prices upon application.

†Units available on special order with 199 to 216-volt conventional type ballast at 220 to 250-volt conventional type ballast prices. Units with 240 to 280-volt conventional type ballasts are also available with prices furnished upon application.

‡Also fits twin-lamp, 13 1/8 inches width, open-end reflector, as supplied on Benjamin "Lite-Line 40" series.

Benjamin Type II-G Sealed-Flo 48 Dust Tight Lighting Units

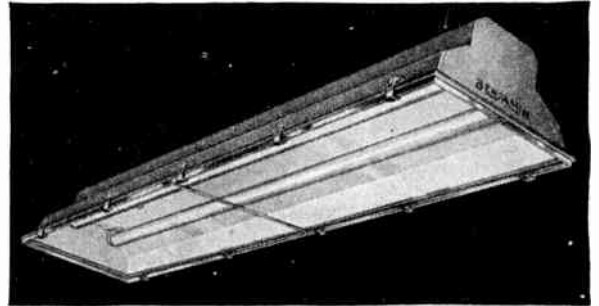
For Two and Three 40-Watt 48-Inch

Fluorescent Lamps

110-125 Volts, *60 Cycles, A.C.
220-250 Volts, *60 Cycles, A.C.

Listed by Underwriter's Laboratories, Inc.

For Class II, Groups F and G and Classes III and IV Hazardous Locations



For locations requiring dust or vapor-tight lighting equipment.

The bottom of the one-piece housing is securely sealed by a gasketed, double strength, grade A, clear glass cover, mounted in a metal frame.

Frame is hinged to the housing on one side and is held in contact on the opposite side by five, easily operated clamps.

Housing is porcelain enamel steel, finished in light gray, with a removable porcelain enameled steel plate on the top of which lamp holders and ballast equipment are mounted for easy wiring.

The under side of the plate and sides of housing form the porcelain enameled steel reflector.

Furnished with two cast iron suspension flanges with conduit stops, spaced on 36-inch centers, tapped 1/2-inch standard; 3/4-inch if specified.

Lamps not included.

For Two 40-Watt 48-Inch Fluorescent Lamps

Wired with 6-Inch Leads

With Conventional Ballasts and Standard Starters

†Volts	No.	Each	Length Inches	Width Inches	Height Inches
220-250	49382-CL	66.00	52 5/8	13 5/8	7 7/8

With Conventional Ballasts and Non-Blinking Starters

110-125	49362-CLW	\$61.20	52 5/8	13 5/8	7 7/8
220-250	49382-CLW	61.20	52 5/8	13 5/8	7 7/8

With Instant-Starting Ballasts—No Starters Needed

110-125	49392-CL	\$67.00	52 5/8	13 5/8	7 7/8
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For Three 40-Watt 48-Inch Fluorescent Lamps

Wired with 6-Inch Leads

With Conventional Ballasts and Standard Starters

†Volts	No.	Each	Length Inches	Width Inches	Height Inches
220-250	49383-CL	68.00	52 5/8	13 5/8	7 7/8

With Conventional Ballasts and Non-Blinking Starters

110-125	49363-CLW	\$70.80	52 5/8	13 5/8	7 7/8
220-250	49383-CLW	69.80	52 5/8	13 5/8	7 7/8

*Available with 50-cycle ballasts. Prices upon application.

†Furnished with 199-216-volt ballast at 220-250-volt prices upon order.

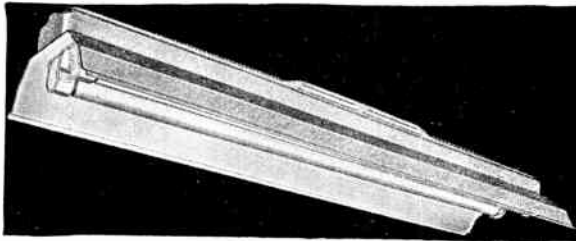
Available with heat and impact resisting tempered plate clear glass covers at \$20.90 additional. To order, drop CL suffix and substitute TP.

Benjamin Twin-Flo 40 and Triple-Flo 40 Lighting Units

For Two and Three T-12, 40-Watt 48-Inch Fluorescent Lamps

110-125 Volts, *60 Cycles, A.C.
220-250 Volts, *60 Cycles, A.C.

Listed by Underwriters' Laboratories, Inc.



For general and local lighting of industrial and commercial locations.

Housing is made of steel with brackets for chain suspension and ample 1/2 and 3/4-inch knockouts. Finished in gray enamel.

Reflector is open-end type made of enameling iron and finished in porcelain enameled steel. Exterior finish is gray; interior surfaces are white with a reflection factor of 79 per cent or more. Twin-lamp reflector is 50 3/4 inches in length and 11 1/2 inches in width. Triple-lamp reflector is 53 3/4 inches in length and 13 1/8 inches in width.

Springlox safety lamp holder speeds lamping and relamping. Simply push one end of lamp into lamp holder and let the spring pressure push the other end into the facing lamp holder. Pressure of the lifetime spring securely locks lamp into position.

A quarter turn of the Lok-Latch reflector fastener quickly attaches or detaches reflector from housing.

Twin-lamp unit has lamp holders spaced on 3 1/2-inch centers. Triple-lamp unit has the two outer lamps spaced on 5-inch centers.

Overall power factor of lamps and auxiliary equipment, 95 per cent.

Lamps are not included.

Twin-Flo 40

For Two T-12, 40-Watt 48-Inch Fluorescent Lamps With Conventional Ballasts and Standard Starters

†Volts	Wired with 6-Inch Leads		Wired with 6-Foot Cord and Plug	
	No.	Each	2-Wire	3-Wire
110-125	40162	\$24.70	40162-C	\$26.20
220-250	40182	24.70		40182-P

With Conventional Ballasts and Non-Blinking Starters				
110-125	40162-W	\$25.90	40162-CW	\$27.40
220-250	40182-W	25.90		40182-PW

With Instant-Starting Ballasts—No Starters Needed				
110-125	40262	\$31.70	40262-C	\$33.20
				40262-P

Triple-Flo 40

For Three T-12, 40-Watt 48-Inch Fluorescent Lamps With Conventional Ballasts and Standard Starters

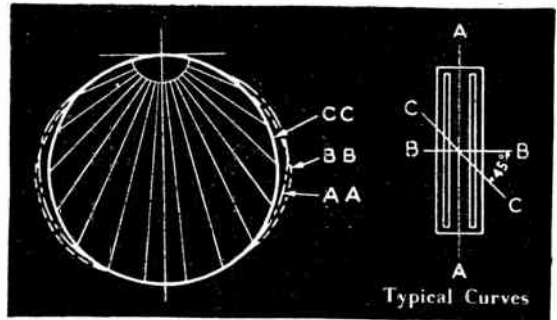
†Volts	Wired with 6-Inch Leads		Wired with 6-Foot Cord and Plug	
	No.	Each	2-Wire	3-Wire
110-125	40163	\$34.30	40163-C	\$35.80
220-250	40183	33.30		40183-P

With Conventional Ballasts and Non-Blinking Starters				
110-125	40163-W	\$36.10	40163-CW	\$37.60
220-250	40183-W	35.10		40183-PW

*50-cycle ballast furnished when specified. Prices upon application.

†Units available on special order with 199 to 216-volt conventional type ballast at 220 to 250-volt conventional type prices. Units with 240 to 280-volt conventional type ballasts are also available with prices furnished upon application.

Benjamin RLM Twin-Flo 40 and Triple-Flo 40 Fluorescent Lamp Units Lighting Data



Tables below show average illumination obtained with Twin-Flo and Triple-Flo Units, using 3500° white 40-watt, 48-inch, white fluorescent lamps; for daylight lamps, 1920 lumens, multiply values by .835. Values based on a minimum installation of 4 units and a maintenance factor of .75. Mounting heights are distance above floor; foot-candle values are on working plane, 30 inches above floor.

For Twin-Flo Units with Two White Fluorescent Lamps of 2300 Lumens Each

Approx. Spacing Feet	*Mounting Ht. Above Floor Ft.	Area per Unit Sq. Ft.	Room Conditions	†ROOM PROPORTIONS —AVERAGE FOOT-CANDLES—		
				Favorable	Average	Unfavorable
7 x 7	7 1/2 to 9 1/2	49	Very Light	49-53	45-48	32-36
			Fairly Light	48-49	39-45	26-32
			Fairly Dark	46-48	35-39	24-26
8 x 8	8 to 10 1/2	64	Very Light	37-39	34-37	24-27
			Fairly Light	36-37	31-34	19.7-24
			Fairly Dark	35-36	27-31	18.6-19.7
9 x 9	8 1/2 to 11 1/2	81	Very Light	30-32	26-30	19.0-22
			Fairly Light	28-30	24-26	15.3-19.0
			Fairly Dark	27-28	21-24	14.5-15.3
10 x 10	9 1/2 to 12 1/2	100	Very Light	24-25	22-24	15.3-17.6
			Fairly Light	23-24	19.3-22	12.7-15.3
			Fairly Dark	23-23	17.2-19.3	11.7-12.7
11 x 11	10 to 13 1/2	121	Very Light	19.9-21	18.0-19.6	12.7-14.6
			Fairly Light	19.4-19.9	16.0-18.0	10.5-12.7
			Fairly Dark	18.5-19.4	14.2-16.0	10.1-10.5
12 x 12	10 1/2 to 14 1/2	144	Very Light	16.8-17.7	15.1-16.5	10.9-12.6
			Fairly Light	15.2-16.8	13.4-15.1	9.6-10.9
			Fairly Dark	15.6-16.2	11.9-13.4	8.4-9.6

For Triple-Flo Units with Three White Fluorescent Lamps of 2300 Lumens Each

7 x 7	7 1/2 to 9 1/2	49	Very Light	67-71	60-65	45-53
			Fairly Light	66-67	54-60	39-45
			Fairly Dark	62-66	48-54	35-39
8 x 8	8 to 10 1/2	64	Very Light	51-55	47-49	35-39
			Fairly Light	50-51	42-47	30-35
			Fairly Dark	48-50	37-42	26-30
9 x 9	8 1/2 to 11 1/2	81	Very Light	41-43	37-39	27-32
			Fairly Light	39-41	33-37	24-27
			Fairly Dark	38-39	30-33	21-24
10 x 10	9 1/2 to 12 1/2	100	Very Light	33-35	30-32	22-25
			Fairly Light	32-33	26-30	19.2-22
			Fairly Dark	31-32	24-26	17.1-19.2
11 x 11	10 to 13 1/2	121	Very Light	27-28	24-26	18.4-21
			Fairly Light	26-27	22-24	15.9-18.4
			Fairly Dark	25-26	19.5-22	14.1-15.9
12 x 12	10 1/2 to 14 1/2	144	Very Light	23-24	21-22	15.4-17.7
			Fairly Light	22-23	18.4-21	13.4-15.4
			Fairly Dark	21-22	16.4-18.4	11.8-13.4
13 1/2 x 13 1/2	11 1/2 to 16	182	Very Light	18.1-19.2	16.3-17.4	12.0-14.0
			Fairly Light	17.6-18.1	14.6-16.3	10.5-12.0
			Fairly Dark	16.9-17.6	13.0-14.6	9.4-10.5
15 x 15	12 1/2 to 17 1/2	225	Very Light	14.7-15.6	13.3-14.1	9.9-11.5
			Fairly Light	14.2-14.7	11.8-13.3	8.5-9.9
			Fairly Dark	13.6-14.2	10.5-11.8	7.6-8.5

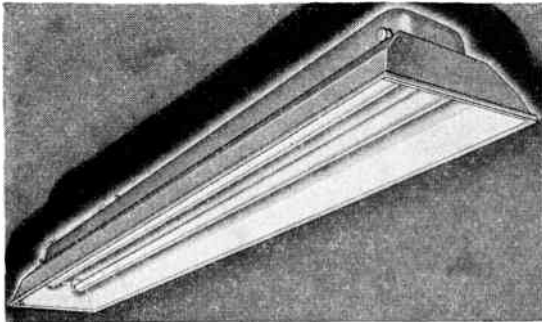
*Minimum heights shown are for spacing ratio of 1 1/2 to 1. The greater heights are for 1 to 1 spacing.

†Use Favorable for broad rooms where width is 4 times mounting height above floor. Use Average where room width is 2 times mounting height above floor. Use Unfavorable where width is equal to mounting height above floor.

‡Impractical; recommended that interior room conditions be improved or provision made for more frequent maintenance.

Benjamin RLM Stream-Flo 100 Lighting Units

For Two 60-Inch 100-Watt Fluorescent Lamps
 110-125 Volts, *60 Cycles, A.C.
 220-250 Volts, *60 Cycles, A.C.
 Listed by Underwriters' Laboratories, Inc.



No. 60762

Provides high level of illumination for industrial and commercial locations and for all other locations requiring higher mounting and wider spacing.

Reflector is of the closed-end type, without apertures, and has shielding angle of 14°. Easily installed. Reflector is quickly detachable from the housing by removal of lamps and a quarter turn of two Lok-Latch fasteners.

Reflector is made of porcelain enameled steel and is finished light gray outside, white inside.

Housing is finished in gray enamel.

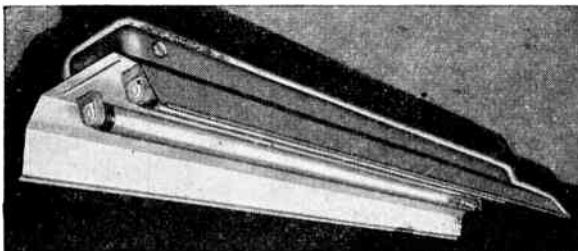
Furnished with two-lamp, 95-100 per cent power factor ballast. Chain brackets furnished for each end of housing.

Rigid conduit suspension is possible by using any of six 1/2-inch conduit size knockouts (two on 53 1/2-inch, two on 36-inch, and two on 19 1/2-inch centers) provided in the housing. Those on 19 1/2-inch centers fit the Benjamin twin stem canopy. Dimensions: Length, 65 3/4 inches; width, 16 inches; height, 8 1/2 inches.

†Volts	Wired with 6-Inch Leads		Wired with 6-Foot Cord and Plug		Wired with 3-Wire	
	No.	Each	2-Wire No.	Each	No.	Each
110-125	60762	\$52.00	60762-C	\$53.50	60762-P	\$54.00
220-250	60782	52.00	.....	.....	60782-P	54.00

Benjamin RLM Twin-Flo 100 Lighting Units

For Two 60-Inch 100-Watt Fluorescent Lamps
 110-125 Volts, *60 Cycles, A.C.
 220-250 Volts, *60 Cycles, A.C.
 Listed by Underwriters' Laboratories, Inc.



No. 60262

Use, performance, accessories and dimensions identical to Stream-Flo 100 unit.

†Volts	Wired With 6-Inch Leads		Wired with 6-Foot Cord and Plug		Wired with 3-Wire	
	No.	Each	2-Wire No.	Each	No.	Each
110-125	60262	\$46.00	60262-C	\$47.50	60262-P	\$48.00
220-250	60282	46.00	.....	.....	60282-P	48.00

*50-cycle ballast furnished when specified. Prices upon application.

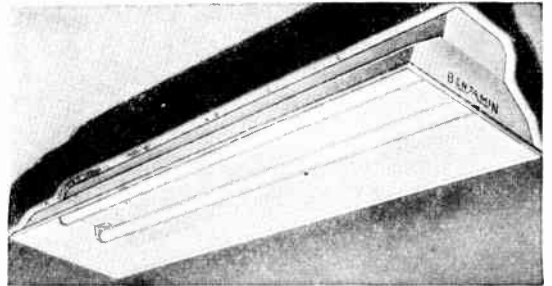
†Can be furnished with 199 to 216-volt ballast at 220 to 250-volt prices.

Standard type starters regularly furnished. Non-Blinking type starters available at \$.40 additional per lamp. Suffix W to number when ordering if Non-Blinking starter is desired.

Benjamin RLM Type TX-40 Lighting Units

For Two and Three 40-Watt 48-Inch Fluorescent Lamps

110-125 Volts, 60 Cycles, A.C.
 220-250 Volts, 60 Cycles, A.C.
 Listed by Underwriters' Laboratories, Inc.



Suitable for locations with humid and damp atmospheres which cause water to be condensed on top of fixture. Used in textile mills, paper mills, food plants, etc.

Power factor, 95 per cent.

Has a one-piece porcelain enameled steel housing which encloses the control equipment and forms the sides of the reflector.

Control equipment is mounted on a removable porcelain enamel steel plate, which, when placed in position becomes the top of the reflector.

Has two cast iron suspension flange assemblies with conduit stops, spaced on 36-inch centers; tapped 1/2-inch standard, 3/4-inch if specified. One is for conduit stem and the other is for wire entrance.

The outside of the reflector is finished in two coats of porcelain enamel which makes the unit resistant to rust from moisture.

Inner reflecting surface has a ground coat and two coats of white porcelain enamel with a reflection factor of 79 per cent.

For Two 40-Watt 48-Inch Fluorescent Lamps

Wired with 6-Inch Leads
 With Conventional Ballasts and Standard Starters

*Volts	No.	Each	Length Inches	Width Inches	Height Inches
110-125	49352	\$35.00	52 5/8	13 1/8	7 7/8
220-250	49394	35.00	52 5/8	13 1/8	7 7/8
With Conventional Ballasts and Non-Blinking Starters					
110-125	49352-W	\$36.20	52 5/8	13 1/8	7 7/8
220-250	49394-W	36.20	52 5/8	13 1/8	7 7/8
With Instant Starting Ballasts—No Starters Needed					
110-125	49398	\$42.00	52 5/8	13 1/8	7 7/8
220-250	.....	.....	.....	.....	.....

For Three 40-Watt 48-Inch Fluorescent Lamps

With Conventional Ballasts and Standard Starters

*Volts	No.	Each	Length Inches	Width Inches	Height Inches
110-125	49353	\$44.00	52 5/8	13 1/8	7 7/8
220-250	49395	43.00	52 5/8	13 1/8	7 7/8
With Conventional Ballasts and Non-Blinking Starters					
110-125	49353-W	\$45.80	52 5/8	13 1/8	7 7/8
220-250	49395-W	44.80	52 5/8	13 1/8	7 7/8

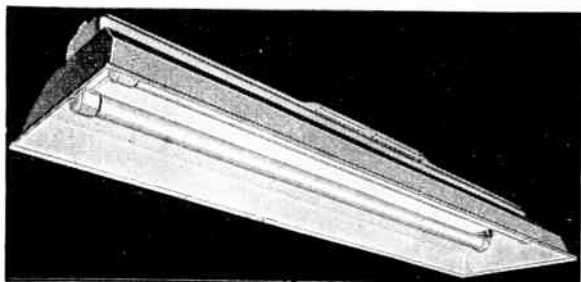
*Available with 199 to 216-volt ballast at 220 to 250-volt prices.

Benjamin RLM Stream-Flo 40 Lighting Units

For Two and Three T-12, 40-Watt 48-Inch Fluorescent Lamps

110-125 Volts, *60 Cycles, A.C.
220-250 Volts, *60 Cycles, A.C.

Listed by Underwriters' Laboratories, Inc.



For general and local lighting of industrial and commercial locations.

Housing is made of steel with brackets for chain suspension and ample 1/2 and 3/4-inch knockouts. Finished in gray enamel.

Reflector is closed-end type made of enameling iron finished in porcelain enameled steel. Exterior finish is gray. Interior surfaces are white with a reflection factor of 79 per cent or more. Dimensions: 53 3/4 inches in length; 13 1/8 inches in width.

Springlox safety lamp holder speeds lamping and relamping. Simply push one end of lamp into lamp holder and let the spring pressure push the other end into the facing lamp holder. Pressure of the lifetime spring securely locks lamp into position.

A quarter turn of the Lok-Latch reflector fastener quickly attaches or detaches reflector from housing.

Twin-lamp units have lamp holders spaced on 5-inch centers. Triple-lamp units have the two outer lamps spaced on 5-inch centers.

Overall power-factor of lamps and auxiliary equipment is 95 per cent.

Lamps are not included.

For Two T-12, 40-Watt 48-Inch Fluorescent Lamps

With Conventional Ballasts and Standard Starters

†Volts	Wired with 6-Inch Leads		Wired with 6-Foot Cord and Plug			
	No.	Each	2-Wire		3-Wire	
110-125	40662	\$29.30	40662-C	\$30.80	40662-P	\$31.30
220-250	40682	29.30			40682-P	31.30

With Conventional Ballasts and Non-Blinking Starters

110-125	40662-W	\$30.50	40662-CW	\$32.00	40662-PW	\$32.50
220-250	40682-W	30.50			40682-PW	32.50

With Instant-Starting Ballasts—No Starters Needed

110-125	40762	\$36.30	40762-C	\$37.80	40762-P	\$38.30
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For Three T-12, 40-Watt 48-Inch Fluorescent Lamps

With Conventional Ballasts and Standard Starters

†Volts	Wired with 6-Inch Leads		Wired with 6-Foot Cord and Plug			
	No.	Each	2-Wire		3-Wire	
110-125	40663	\$38.30	40663-C	\$39.80	40663-P	\$40.30
220-250	40683	37.30			40683-P	39.30

With Conventional Ballasts and Non-Blinking Starters

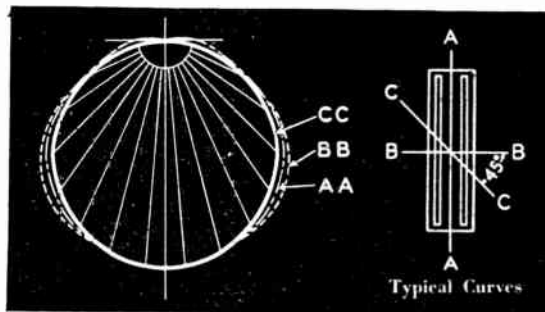
110-125	40663-W	\$41.60	40663-CW	\$40.10	40663-PW	\$42.10
220-250	40683-W	39.10			40683-PW	41.10

*50-cycle ballast units available when specified. Prices upon application.

†Units available on special order with 199 to 216-volt conventional type ballast at 220 to 250-volt conventional type ballast prices. Units with 240 to 280-volt conventional type ballasts are also available with prices furnished upon application.

Benjamin RLM Stream-Flo 40 Fluorescent Lamp Units

Lighting Data for Twin and Triple Lamp Units



Tables below show average illumination obtained with twin and triple lamp Stream-Flo 40 units, using 3500° white 10-watt, 48-inch, fluorescent lamps; for daylight lamps, 1920 lumens, multiply values by .835. Values based on minimum installation of 4 units and maintenance factor of .75. Mounting heights are distance above floor; foot-candle values are on working plane, 30 inches above floor.

For Units with Two White Fluorescent Lamps of 2300 Lumens Each

Approx. Spacing Feet	*Mounting Ht. Above Floor Ft.	Area per Unit Sq. Ft.	Room Conditions	†ROOM PROPORTIONS		
				Favorable	Average	Unfavorable
7x7	7 1/2 to 9 1/2	49	Very Light	49-53	45-48	32-36
			Fairly Light	48-49	39-45	26-32
			Fairly Dark	46-48	35-39	24-26
8x8	8 to 10 1/2	64	Very Light	37-39	34-37	24-27
			Fairly Light	36-37	31-34	19.7-24
			Fairly Dark	35-36	27-31	18.6-19.7
9x9	8 1/2 to 11 1/2	81	Very Light	30-32	26-30	19.0-22
			Fairly Light	28-30	24-26	15.3-19.0
			Fairly Dark	27-28	21-24	14.5-15.3
10x10	9 1/2 to 12 1/2	100	Very Light	24-25	22-24	15.3-17.6
			Fairly Light	23-24	19.3-22	12.7-15.3
			Fairly Dark	23-23	17.2-19.3	11.7-12.7
11x11	10 to 13 1/2	121	Very Light	19.9-21	18.0-19.6	12.7-14.6
			Fairly Light	19.4-19.9	16.0-18.0	10.5-12.7
			Fairly Dark	18.5-19.4	14.2-16.0	10.1-10.5
12x12	10 1/2 to 14 1/2	144	Very Light	16.8-17.7	15.1-16.5	10.9-12.6
			Fairly Light	16.2-16.8	13.4-15.1	9.6-10.9
			Fairly Dark	15.6-16.2	11.9-13.4	8.4-9.6

For Units with Three White Fluorescent Lamps of 2300 Lumens Each

7x7	7 1/2 to 9 1/2	49	Very Light	67-71	60-65	45-53
			Fairly Light	66-67	54-60	39-45
			Fairly Dark	62-66	48-54	35-39
8x8	8 to 10 1/2	64	Very Light	51-55	47-49	35-39
			Fairly Light	50-51	42-47	30-35
			Fairly Dark	48-50	37-42	26-30
9x9	8 1/2 to 11 1/2	81	Very Light	41-43	37-39	27-32
			Fairly Light	39-41	33-37	24-27
			Fairly Dark	38-39	30-33	21-24
10x10	9 1/2 to 12 1/2	100	Very Light	33-35	30-32	22-25
			Fairly Light	32-33	26-30	19.2-22
			Fairly Dark	31-32	24-26	17.1-19.2
11x11	10 to 13 1/2	121	Very Light	27-28	24-26	18.4-21
			Fairly Light	26-27	22-24	15.9-18.4
			Fairly Dark	25-26	19.5-22	14.1-15.9
12x12	10 1/2 to 14 1/2	144	Very Light	23-24	21-22	15.4-17.7
			Fairly Light	22-23	18.4-21	13.4-15.4
			Fairly Dark	21-22	16.4-18.4	11.8-13.4
13 1/2 x 13 1/2	11 1/2 to 16	182	Very Light	18.1-19.2	16.3-17.4	12.0-14.0
			Fairly Light	17.6-18.1	14.6-16.3	10.5-12.0
			Fairly Dark	16.9-17.6	13.0-14.6	9.4-10.5
15x15	12 1/2 to 17 1/2	225	Very Light	14.7-15.6	13.3-14.1	9.9-11.5
			Fairly Light	14.2-14.7	11.8-13.3	8.5-9.9
			Fairly Dark	13.6-14.2	10.5-11.8	7.6-8.5

*Minimum heights shown are for spacing ratio of 1 1/2 to 1. The greater heights are for 1 to 1 spacing.

†Use Favorable for broad rooms where width is 4 times mounting height above floor. Use Average where room width is 2 times mounting height above floor. Use Unfavorable where width is equal to mounting height above floor.

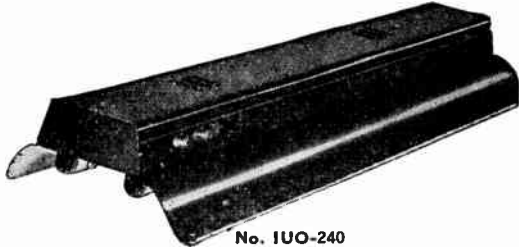
‡Impractical; recommended that interior room conditions be improved or provision made for more frequent maintenance.

Leader Stratoliner Industrial Lighting Fixtures

For Two and Three 40-Watt Fluorescent Lamps

110 Volts—60 Cycles—A.C.

Approved by Underwriters' Laboratories, Inc.



No. IUO-240

Meets industrial lighting demands. Hanging arrangement recruits direction of light where needed.

No. IUO-240 uses two 40-watt lamps. No. IUO-340 takes three 40-watt lamps. No. IUP-240 uses two 40-watt lamps and has closed end Porcelain reflectors. No. IUP-340 takes three 40-watt lamps and has closed end Porcelain reflectors.

E.T.L. approved ballasts, lampholders, and starters.

Available for instant-start operation for 2-40-watt only.

Housing and exterior finished gray baked synthetic enamel; white reflector surface. Dimensions: 51x13 $\frac{5}{8}$ x7 inches.

- No. IUOL-240, Shipping Weight, 30 Pounds...each **\$26.56**
- No. IUOL-340, Shipping Weight, 33 Pounds...each **36.16**
- No. IUP-240, Shipping Weight, 33 Pounds...each **31.71**
- No. IUP-340, Shipping Weight, 38 Pounds...each **41.89**

Leader Zephyrlite Industrial Lighting Fixtures

For Two and Three 40-Watt Fluorescent Lamps

120 Volts—60 Cycles—A.C.

Approved by Underwriters' Laboratories, Inc.



Open End Type

For installation in large or small industrial plants.

No. ZUO-240 takes two 40-watt, 48-inch fluorescent lamps. E.T.L. approved high power factor type ballast. Also available for instant-start operation at additional cost.

No. ZUO-340 identical in design and construction as No. ZUO-240 except for three 40-watt fluorescent lamps.

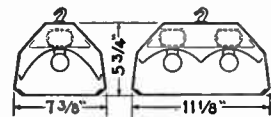
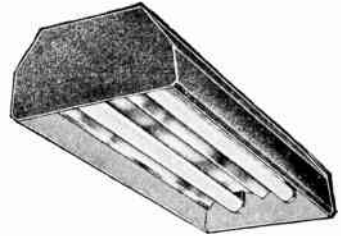
Dimensions: 51x13 $\frac{5}{8}$ x7 inches.

- No. ZUO-240, Enamel; Ship. Wt., 25 Pounds...each **\$25.24**
- No. ZUO-240, Porcelain; Ship. Wt., 26 Pounds each **26.40**
- No. ZUO-340, Enamel; Ship. Wt., 30 Pounds...each **34.16**
- No. ZUO-340, Porcelain; Ship. Wt., 31 Pounds each **35.60**

Day-Brite Inspection Lighting Fixtures

For One and Two; 15, 20, 30 and 40-Watt Fluorescent Lamps

110 Volts, 60 Cycles, A.C.



Designed for localized lighting where color-matching and daylight quality illumination is required.

Furnished wired and includes sockets, No-Blink type starters and high power factor ballasts for a.c. operation.

Body is made of steel and is finished in baked aluminum gray enamel and has a loop at each end of top for hanging.

Reflector is specular.

One-Lamp

No.	Each	Lamp Watts	Volts	Length Inches
1640NB	\$22.25	15	110	18 $\frac{1}{4}$
1641NB	23.65	20	110	24 $\frac{1}{4}$
1642NA	27.35	30	220	36 $\frac{1}{4}$
1642NB	29.35	30	110	36 $\frac{1}{4}$
1643NA	30.25	40	220	48 $\frac{1}{4}$
1643NB	32.35	40	110	48 $\frac{1}{4}$

Two-Lamp

1650NB	\$26.60	15	110	18 $\frac{1}{4}$
1651NB	28.30	20	110	24 $\frac{1}{4}$
1652NA	40.40	30	220	36 $\frac{1}{4}$
1652NB	40.40	30	110	36 $\frac{1}{4}$
1653NA	45.00	40	220	48 $\frac{1}{4}$
1653NB	45.00	40	110	48 $\frac{1}{4}$



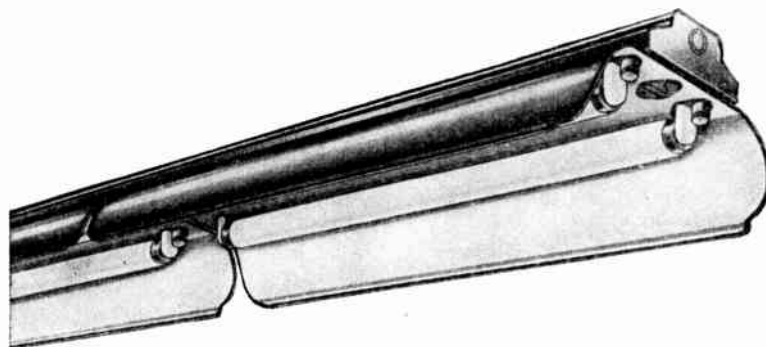
Day-Brite Day-Line Heavy Duty Continuous Industrial Lighting Fixtures

For Two and Three 40-Watt Fluorescent Lamps

For Two 100-Watt Fluorescent Lamps

With Removable Open-End Porcelain Enamelled Reflectors

110 Volts, 60 Cycles, A.C.



Continuous industrial fixtures in any length can be made up of the parts illustrated.

Designed for easy application of the various mounting methods shown below.

Furnished wired and include approved type high power factor ballasts, sockets, and No-Blink starters for 110-volt, 60-cycle, a.c. operation.

Channel is die-formed and is finished in baked aluminum gray enamel.

Reflector is open-end and is finished in vitreous porcelain enamel consisting of one ground coat and two white coats inside with one ground coat and one gray coat outside.

Reflection factor, 79 per cent or more.

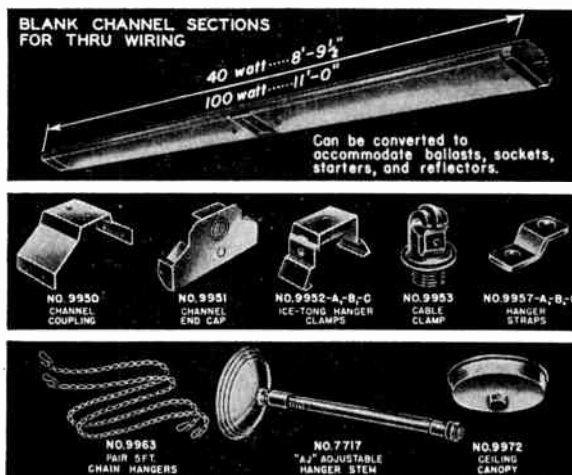
Lateral shielding angle meets RLM standards.

Reflectors are individually removable and are mounted to channel by two captive wing nuts which have a 2-inch diameter bearing surface assuring rigid, fool-proof fastening.

Removable Reflectors



Fittings and Parts



Basic Sections



No.	Each	No. of Lamps	Lamp Watts	Length Inches
41432-N	\$62.80	4	40	105 1/2
41632-N	84.20	6	40	105 1/2
51432-N	115.00	4	100	132

Fill-In Sections



41232-N	\$31.40	2	40	52 3/4
41332-N	42.10	3	40	52 3/4
51232-N	57.50	2	100	66

Alternate Reflector Sections



41233-N	\$41.30	2	40	105 1/2
41333-N	52.00	3	40	105 1/2
51233-N	70.00	2	100	132

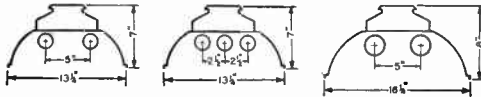
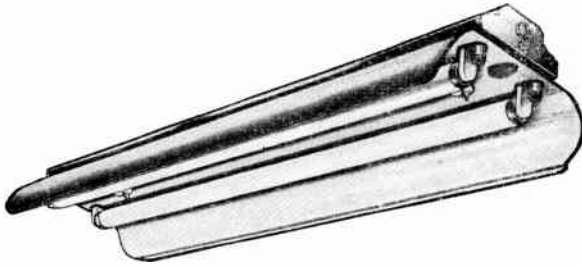
No. 7717, A-J Adjustable Hanger.....	each	\$3.40
No. 7724, Steel Louver, 40-Watt.....	each	9.25
No. 7725, Steel Louver, 100-Watt.....	each	12.20
No. 9950, Channel Coupling.....	each	.60
No. 9951, Channel End Cap.....	each	.50
No. 9952-A, Ice-Tong Hanger for 3/8-Inch Rod or Mounting Screw.....	each	1.00
No. 9952-B, Ice-Tong Hanger for 1/2-Inch Conduit Pipe Hangers.....	each	1.00
No. 9952-C, Ice-Tong Hanger for 3/8-Inch Iron Pipe Hangers.....	each	1.00
No. 9953, Cable Clamp.....	each	1.15
No. 9957-A, Hanger Strap for 3/8-Inch Mtg. Screw.....	ea.	.30
No. 9957-B, Hanger Strap for 1/2-Inch Conduit.....	ea.	.30
No. 9957-C, Hanger Strap for 3/8-Inch Iron Pipe.....	each	.30
No. 9963, 5-Foot Chains and S Hooks.....	per pair	.80
No. 9972, Ceiling Canopy (Slips 1/2-Inch Pipe).....	each	1.00
No. 40201, Blank Channel 105 1/2 Inches Long.....	each	12.00
No. 50201, Blank Channel 132 Inches Long.....	each	15.00

Day-Brite Heavy Duty Day-Line Industrial Lighting Units

For Two and Three 40-Watt Fluorescent Lamps

For Two 100-Watt Fluorescent Lamps

110 Volts, 60 Cycles, A.C.



A complete single fluorescent lighting unit.

Truss-like construction of the die-formed steel fixture hood provides increased strength that supports socket saddle and ballast, assuring rigid alignment of all parts.

Fixture hood is arranged for chain, pipe, or steel hangers. Cord outlets and knockouts are provided for electrical connections.

Furnished wired and includes approved high power factor ballast, sockets, and No-Blink type starters for 60-cycle a.c. operation. Instant-starting ballast can be furnished on special order for two-lamp, 40-watt, 110-volt fixture only

Sockets, lamp starters, and ballast are fastened in the hood, leaving the reflector free for complete removal for servicing and cleaning operations.

The reflector is fastened to the hood by two captive wing-nuts having a 2-inch diameter bearing surface.

The lamp starters are located behind the sockets and are easily replaced without disturbing the lamps.

Hood is finished in baked aluminum gray enamel.

Open end reflector is finished in vitreous porcelain enamel. Reflection factor, 79 per cent or more.

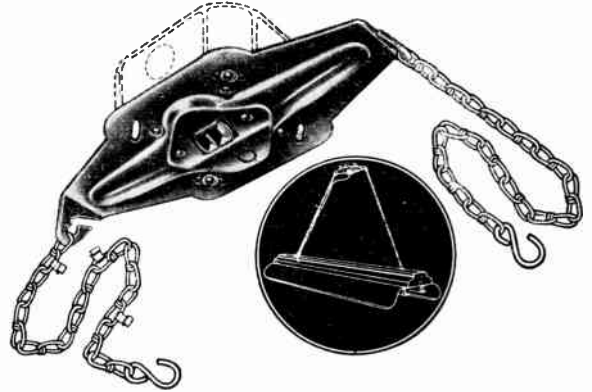
No.	Each	No. of Lamps	LAMPS		DIMENSIONS, INCHES		
			Watts	Volts	Length	Height	Width
40231NBW	\$32.40	2	40	110	52 3/4	7	13 1/4
40231NAW	32.40	2	40	220	52 3/4	7	13 1/4
40331NBW	43.10	3	40	110	52 3/4	7	13 1/4
40331NAW	43.10	3	40	220	52 3/4	7	13 1/4
50231NBW	58.50	2	100	110	66	8 1/8	16 1/4
50231NAW	58.50	2	100	220	66	8 1/8	16 1/4

For Levolver pull switch wired to fixture, add \$2.00. For 2-wire cord and plug No. 9973-2 add \$1.20. For 3-wire cord and plug No. 9973-3 add \$1.50.

No. 9988 Day-Brite Hydee Fixture Hangers

For All Chain Suspension Fixtures

Underwriters' Approved



A complete, self-contained fitting for speedy, inexpensive installation. Fastens to ears of 4 and 3 1/4-inch outlet box or open-type plaster ring. Includes receptacle for two-prong plug, knockout for switch, two 5-foot chains with S hooks and cord clips.

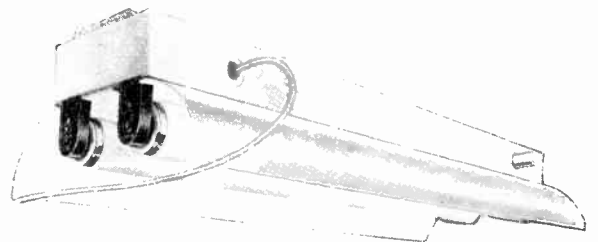
Width, 4 1/8 inches; length, 9 1/4 inches.

No. 9988..... each \$1.82

No. 2060 Mitchell Portable Industrial Lighting Fixtures

For Two 20-Watt Fluorescent Lamps

110-125 Volts, 60 Cycles A.C.



For high intensity, localized lighting of production, assembly, and inspection lines, over benches, machines, and tables. RLM approved for chain suspension, for rigid mounting or for continuous row mounting.

Reflector is made of Lumenite, a durable moisture-resistant composition. Wireway is made of steel with knockouts at both ends.

Has FS-2 starter mounted on side of wireway; ballasts; and sockets.

Furnished with 6-foot cord and plug. Knockouts are also provided for rigid (conduit) mounting, singly, in twin groups, or continuous rows. Chains of 8 feet in length are also available.

Dimensions: length, 24 inches; width, 9 1/2 inches; height, 4 1/2 inches.

Individually packed. Shipping weight, 8 pounds.

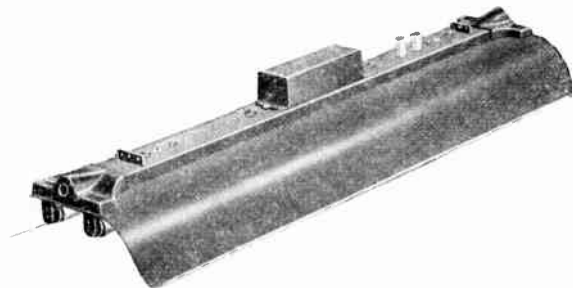
No. 2060..... each \$10.95

No. 2080-S Mitchell Industrial Lighting Fixtures

With Open-End Steel Reflector
For Two 40-Watt Fluorescent Lamps

110-125 Volts, 60 Cycle A.C.

Approved by Underwriters' Laboratories



Approved by Electrical Testing Laboratories for individual or continuous row lighting.

Operates at a low ambient temperature.

Stroboscopic corrected.

Power factor over 90 per cent.

Made of steel.

Has approved tulamp ballasts, starter, and sockets.

Dimensions: length, 48 inches; width, 13 $\frac{3}{4}$ inches; height, 7 $\frac{3}{8}$ inches.

Baked enamel finish.

Accessories for hanging at extra cost.

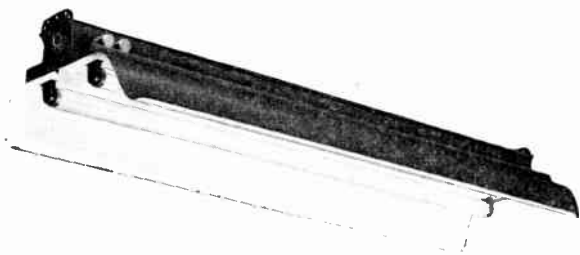
No. 2080-S each \$21.50

Mitchell Industrial Lighting Fixtures

For Two 40-Watt Fluorescent Lamps

110-125 Volts, 60 Cycles A.C.

Approved by Underwriters' Laboratories



Approved by Electrical Testing Laboratories.

Has tulamp ballast, sockets, and starters.

Stroboscopic tested.

Power factor over 90 per cent.

Wireway channel and reflector are made of steel.

Dimensions: length, 50 inches; width, 13 $\frac{3}{4}$ inches; height, 7 inches.

No. 2082 has baked enamel finish.

No. 2084 has porcelain enamel finish.

Accessories are available at extra cost.

No. 2082, Baked Enamel each \$22.95
No. 2084, Porcelain Enamel each 23.95

Mitchell Industrial Lighting Fixture Accessories

For Hanging or Mounting



No. 301



No. 313



No. 306 No. 311 No. 312



No. 302



No. 314



No. 315



No. 316



No. 317



No. 318

No. 301. Underwriters' Laboratories approved cord and plug set 6 $\frac{1}{2}$ inches in length with ground lead and bushing. each \$1.10

No. 313. Two-conductor cord and plug 5 $\frac{1}{2}$ inches in length with bushing. each .69

No. 302. Two 8-foot Tenso chains with S hooks (chains 7/0 Tenso, 175 pound torque). Used for suspension of lighting units. per pair .84

No. 306. Rod, 3 inches in length, $\frac{3}{8}$ -inch diameter, threaded both ends. Used with slide hanger clamp or rod suspension of lighting units. each .62

No. 311. Pull switch with pull chain for individual mounted lighting units. each 1.85

No. 312. Stem set (canopy and $\frac{3}{8}$ -inch iron pipe), which is mounted directly to wireway channel and secured with lock-nuts. per set 1.00

No. 314. Messenger cable hanger for messenger cable suspension that can be mounted with slide hanger clamp or directly to channel. each .44

No. 315. Slide hanger clamp with nut and bolt fits channel and anchors suspension device. each .80

No. 316. Channel coupler for open-end lighting units when mounting in continuous row. each .40

No. 317. Channel coupler for closed end lighting units when mounting in continuous row. each .84

No. 318. Aligner strap. each .44

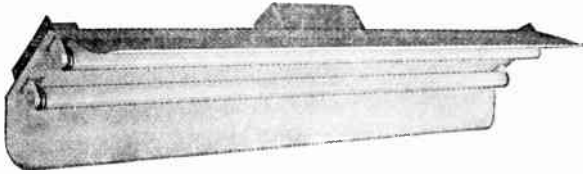
Smithcraft Economy Series Industrial Lighting Fixtures

For Two or Three 40-Watt Fluorescent Lamps

For Two 100-Watt Fluorescent Lamps

110-125 Volts or 220-250 Volts, 60 Cycles, A.C.

Approved by Underwriters' Laboratories, Inc.



Has minimum light output of 85 per cent.

Completely wired with E.T.L. approved high power factor ballasts, lamp sockets, and FS4 or FS64 starters.

Lead wires approximately 12 inches outside housing is standard.

Housing is die-formed, sturdy and light in weight.

Knockouts for rod or conduit suspension are on 24-inch centers.

Reflector is finished in baked white enamel inside, French gray outside.

No.	Each	No. of Lamps	Watts	DIMENSIONS, INCHES			Ship. Wt.
				Length	Width	Depth	
LS2-40	\$23.89	2	40	49½	13	5½	26
LS3-40	33.78	3	40	49½	13	5½	29
LS2-100	44.22	2	100	63	15	6¼	37

Double 40-watt fixtures available with lightning start ballasts. If desired add prefix Q to number when ordering and add 3 pounds to weight.

Smithcraft Individual Industrial Lighting Fixtures

For Two or Three 40-Watt Fluorescent Lamps

For Two 100-Watt Fluorescent Lamps

110-125 Volts or 220-250 Volts, 60 Cycles, A.C.

Approved by Underwriters' Laboratories, Inc.



Has minimum light output of 85 per cent.

Completely wired with E.T.L. approved high power factor ballasts, lamp sockets, and FS4 starters.

Lead wires approximately 12 inches outside housing is standard.

Girder-like housing, made of steel, provides for every hanging and mounting requirement.

Knockouts for rod or conduit suspension are on 24-inch centers.

Furnished with the single turn release, which consists of two wing nuts that release reflector while the captive hood bolts and chains suspend the reflector for easy servicing.

Reflector is finished in white baked enamel inside, French gray outside.

No.	Each	No. of Lamps	Watts	DIMENSIONS, INCHES			Ship. Wt.
				Length	Width	Depth	
HS2-40	\$25.89	2	40	49½	14	7	29
HS3-40	35.44	3	40	49½	14	7	32
HS2-100	47.78	2	100	62½	16½	8	40

Double 40-watt fixtures available with lightning start ballasts. If desired add prefix Q to number when ordering and add 3 pounds to weight.

Smithcraft Continuous Row Lighting Fixtures

For Two, Three, Four, and Six 40-Watt Fluorescent Lamps

For Two 100-Watt Fluorescent Lamps

110-125 Volts and 220-250 Volts, 60 Cycles, A.C.

Approved by Underwriters' Laboratories, Inc.



Has minimum light output of 85 per cent.

Completely wired with E.T.L. approved high power factor ballasts, lamp sockets, and FS4 starters.

Lead wires approximately 12 inches outside housing is standard. Girder-like housing, made of steel, provides for every hanging and mounting requirement.

Knockouts for rod or conduit suspension are on 24-inch centers. Reflector is finished in white baked enamel inside, French gray outside.

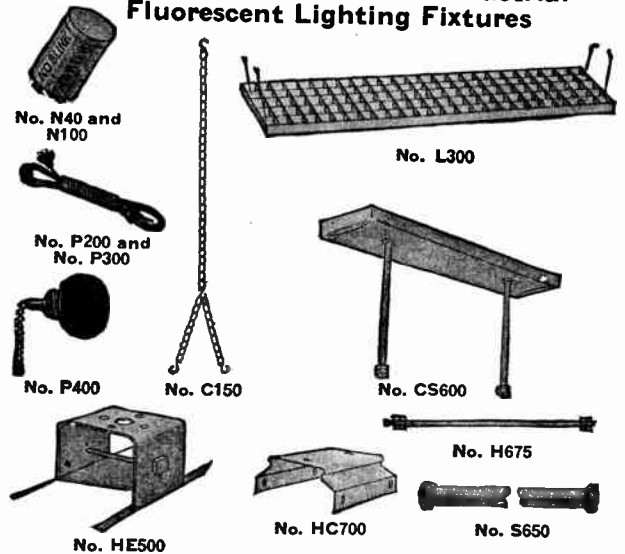
No.	Each	No. of Lamps	Watts	Length Inches	No. of Reflectors	Ship. Wt. Lb.
CHS3-42	71.67	6	40	99¼	2	70
*CAS2-41	37.33	2	40	99¼	1	45
*CAS3-41	47.77	3	40	99¼	1	50
Basic Sections						
CHS2-40F	\$27.67	2	40	49½	1	30
CHS3-40F	37.33	3	40	49½	1	35
CHS2-100F	50.33	2	100	62	1	50
Fill-In Sections						

*Consists of one blank section unwired and one reflector section wired.

Price does not include lamps. Prices include following installation accessories as required: No. HE500 Adjusta Slide Hanger Clamp; No. HE500M Adjusta Slide Hanger with Cable Clamp; No. HC700 Housing Coupling; No. E725 Housing End Clamp No. A750 Angle Chain Hanger.

Double 40-watt fixtures available with lightning start ballasts. If desired add prefix Q to number when ordering and add 3 pounds to weight.

Accessories for Smithcraft Industrial Fluorescent Lighting Fixtures



No.	Description	Each
N40	No-Blink Starters, FS40	\$.67
N100	No-Blink Starters, FS100	.44
C150	Tenso 4-Foot Chain Hanging Set with S Hooks	.71
P200	2-Conductor Cord Set Installed, Length 4 Feet	1.11
P300	3-Conductor Cord Set Installed, Length 4 Feet	1.33
L300	Steel Louver for Lamp Shielding	7.27
P400	Levolier Pull Switch Installed	1.67
CS600	Canopy and Stem Assembly Set	5.46
S650	Threaded ½-Inch Conduit Stems	1.21
H675	Hanger ⅝-In. Rod Assembly Threaded with Nuts	.67
HC700	Housing Couplings	.33
E725	Housing End Cap	.44
HE500	Adjusta Hanger	.44

Wheeler 7000 Heavy Duty Line RLM Fluorescent Units

With Porcelain Enamelled Steel Reflectors
Approved by Underwriters' Laboratories
Complete Single Length Fixtures



Two 40-Watt Open End Fixture

Wheeler 7000 line all steel fluorescent fixtures are designed and manufactured to conform with specifications and standards of RLM Standards Institute.

Features. Reflectors are demountable from wiring channels by a simple movement of the specially designed supporting plates. These plates are operated by loosening two thumb screws and sliding them towards center of reflectors.

Reflectors. Heavy gage, porcelain enameled, steel reflectors are available in either open end or closed end style. All reflecting surfaces white, and outside finish grey.

Wiring Channel. Steel wiring channel is rigidly constructed to totally enclose all operating equipment. The specially grooved channel formation permits the use of fully adjustable hanger suspension fittings which can be clamped in position at any point desired. Starter switches are located on the side of the channel. Channel is finished in grey paint to blend with reflectors.

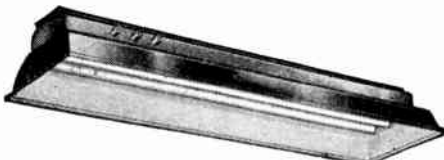
Suspension. Provisions are made in the specially grooved channel formation for chain suspension and the top of the channel is provided with 1/2-inch conduit size knockouts for conduit suspension. Knockouts on 40-watt units are spaced 24, 36 and 44 1/16-inches on centers. Holes to receive chain hangers are spaced 44 1/16-inches on centers. Knockouts on 100-watt units are spaced 24, 36 and 57 1/16-inches on centers.

Ballast Equipment. All fixtures are supplied with the latest type of high power factor ballast equipment, starter switches and are supplied wired.

Open End Type

Lamp Size	No. of Lamps	OVERALL DIMEN. INCHES			Approx. Ship. Wt., Lb.	VOLTAGE (60 CYCLE)			
		Lgth.	Width	Depth		110-125 V.		220-250 V.	
40	2	50 1/2	13	6 5/8	33 1/4	7021	\$23.75	7022	\$23.75
40	3	50 1/2	13	6 5/8	37 1/4	7031	31.45	7032	30.70
100	2	63	16 1/8	7 3/4	55	7121	44.25	7122	44.25

Closed End Type



Three 40-Watt Closed End Fixture

Lamp Size	No. of Lamps	OVERALL DIMEN. INCHES			Approx. Ship. Wt., Lb.	VOLTAGE (60 CYCLE)			
		Lgth.	Width	Depth		110-125 V.		220-250 V.	
40	2	52 1/4	13	6 5/8	34 3/4	7221	\$27.60	7222	\$27.60
40	3	52 1/4	13	6 5/8	38 3/4	7231	35.30	7232	34.50
100	2	65 3/8	16 1/8	7 3/4	58	7321	50.00	7322	50.00

Instant starting ballasts can be supplied on all units using 2-light, 40-watt, 110-volt ballasts; add \$5.75 per ballast. To order, prefix No. with letters IS.

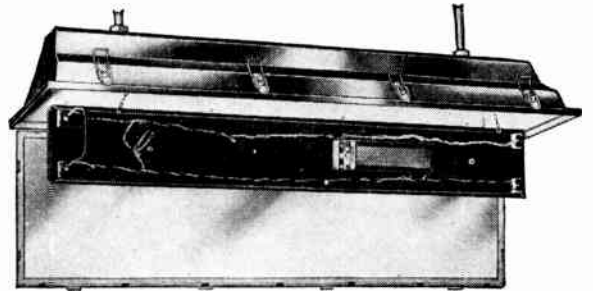
Accessories

No.	Description	Each
7083	C-Clamp Slide Hanger	\$.75
7089	6-Foot No. 18 2-Cond. Cord and Plug (Unattached)	.95
7090	6-Foot No. 18 3-Cond. Cord and Plug (Unattached)	1.45
7092	Chain Hangers—for 5-Foot Suspension (Pair of 2)	.95

Series II Wheeler Dust-Tight Lighting Units

For Two and Three 40-Watt Fluorescent Lamps
Vaportight

Approved by Underwriters' Laboratories
For Class II, (Group G and F), III, and IV Locations



With Hinged Dust-Tight Glass Cover Open

Hinged dust-tight glass cover is readily opened for access to lamps or starter switches by releasing toggle latches. Three types of glass are available: 3/16-inch double thick plain clear glass; 1/4-inch water white plate glass; and 1/4-inch tempered, clear safety plate glass.

All units are supplied complete with high power factor ballast equipment employing separate and renewable starter switches. A starting compensator is included.

Made for use in food plants, foundries, and similar locations where it is necessary to protect lamps, sockets and reflecting surfaces from moisture, dust, smoke and vapors.

The entire outer body of the reflector, including its closed ends, is enameled in one piece.

The mouth of the reflector has a recessed flange to receive the hinged glass cover which seats against cushioning gaskets.

Fixtures are furnished wired, with pigtailed left for connecting to branch circuit.

Two chain hangers are connected from hood of unit to wiring channel to prevent channel from dropping to floor after holding screws located in bottom of channel are released.

Suspension fittings: units are furnished with two flat flanges, spaced on 36-inch centers, tapped 1/2 inch standard, 3/4 inch if specified.

Fixture dimensions: length, 53 inches; width, 14 3/4 inches; depth, 7 inches.

Reflectors are porcelain enameled, gray outside, white inside.

Standard package, 1.

Prices do not include lamps.

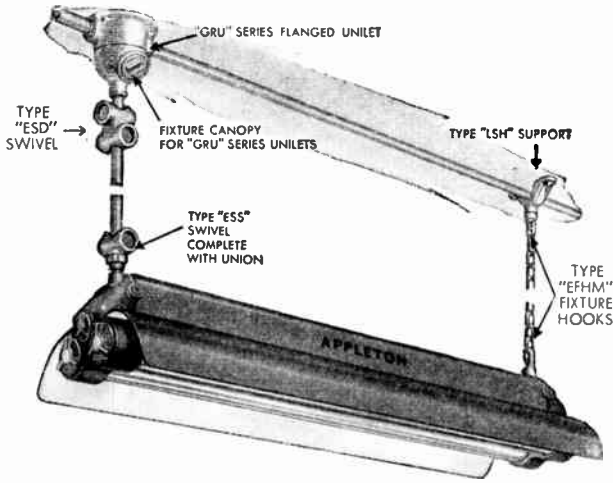
Conduit is not furnished.

Tapped for 1/2-Inch Conduit

No. of Lamps	Line Voltage	Unit with 3/16-Inch Double Thick Plain Clear Glass		Unit with 1/4-Inch Water White Plate Glass		Unit with 1/4-Inch Tempered Clear Safety Plate Glass		Weight Pounds
		No.	Each	No.	Each	No.	Each	
2	110-125	4981	\$57.70	C4980	\$71.65	H4980	\$77.80	80
2	220-250	4983	57.70	C4982	71.65	H4982	77.80	80
3	110-125	4985	65.40	C4984	79.35	H4984	85.50	81
3	220-250	4987	64.60	C4986	78.55	H4986	84.70	81

Appleton EFU Explosion-Proof Fluorescent Fixtures and Accessories

For Two 40-Watt, 48-Inch T-12 Fluorescent Lamps
Class 1, Groups C and D—Class 11, Groups E, F, and G
Listed as Standard by Underwriters' Laboratories



Modern lighting for hazardous locations. Hospital operating rooms, volatile fuel and chemical refineries, powder manufacture and shell loading, flour and grain mills are a few of the many locations where fluorescent lighting may now be safely applied.

The advantages of fluorescent lighting include new working comfort due to low brightness and lack of glare, high efficiency when compared with incandescent lamps of equal wattage, and safety of operation in explosive atmospheres due chiefly to cooler operating temperatures.

These fixtures are lightweight units designed to afford every convenience in making simple, quick lamp renewals and maintenance. No external seals are necessary as all seals and internal wiring are completed in manufacture. Line connections are made to terminal block in junction chamber.

Standard equipment includes the following:

High-power-factor two-lamp ballast, necessary auxiliary equipment, pyrex external glass tubes and two-piece, metallic reflector. Reflector has two coats of baked white enamel and surfaces are chip-proof, washable, and retain an unusually high reflection factor.

To facilitate mounting, the use of Appleton Type UNY Explosion-proof Union Connectors in either or both end castings is recommended. The ceiling junction may be of the GRU series of flanged Unilets with a suspended fixture canopy. This simplifies pulling of wires on continuous line runs.

Overall length, 52 $\frac{7}{8}$ inches, overall width, 15 inches, overall height, 8 $\frac{3}{4}$ inches, mounting centers, 46 $\frac{5}{8}$ inches, tube centers, 5 inches.

With One Two-Lamp Ballast of 95 Per Cent Power-Factor

No.	52900	52905
*Each.	\$176.45	\$176.45
Size. inches	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Line Voltage.	118 V., 60 Cycle	283 V.
Weight. pounds	49	49

No. 52910 Supports for Dummy End of Fluorescent Units

No.	52910
Each.	\$.55
Type.	LSH
Size. inches	1 $\frac{1}{2}$

No. UNY84 Union Connectors

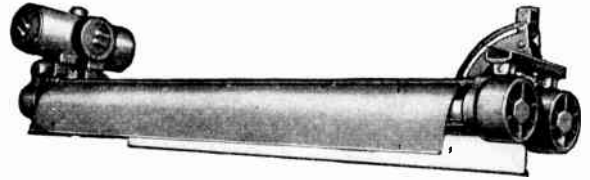
No.	UNY84
Each.	\$.50
Size. inches	1 $\frac{1}{2}$
Length. inches	2 $\frac{1}{8}$
Diameter. inches	1 $\frac{7}{8}$
Standard Package.	50

*Fluorescent lamps not included.

Type EVF Industrial Lighting Fixture Condulets

Schedule CE

For Two 40-Watt and T-8 Fluorescent Lamps
Explosion-Proof and Dust-Tight
Class I, Groups C and D Class II, Groups E, F, and G; and Class III

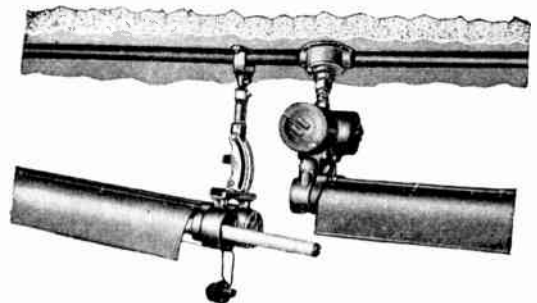


Can be mounted end to end. It is unnecessary to leave excessive space between fixtures for relamping, which makes possible continuous and uniform illumination. Relamping is quick and easy. No special tools are required.

Ballast housing is unobstructed and readily accessible. This arrangement also results in a cool operating temperature. Reflectors are easily removable and are replaced without the use of tools.

It is not necessary to raise and connect both ends simultaneously, thus simplifying installation.

*Furnished with enameled reflector, standard ballast, and starter.



Type EVF Showing Adjacent Ends of Two Fixtures One Fixture Lowered for Relamping with Lamp Partly Withdrawn

Dimensions

Length overall, 54 inches.
Width overall, 13 $\frac{5}{8}$ inches.
Height at ballast end, 12 $\frac{1}{8}$ inches.
Height at relamping end, 9 $\frac{5}{8}$ inches.
Distance between conduit centers, 50 inches.
Minimum center-to-center distance between fixtures, 55 inches.
Distance required for relamping between the relamping end and a partition or similar obstruction, 48 inches.

Hub Size Inches	No.	Each	LAMP	
			Watts	Volts
1 $\frac{1}{2}$	EVF124	\$176.45	40	110-125
3/4	EVF224	176.45	40	110-125
1 $\frac{1}{2}$	EVF1242	176.45	40	220-250
3/4	EVF2242	176.45	40	220-250

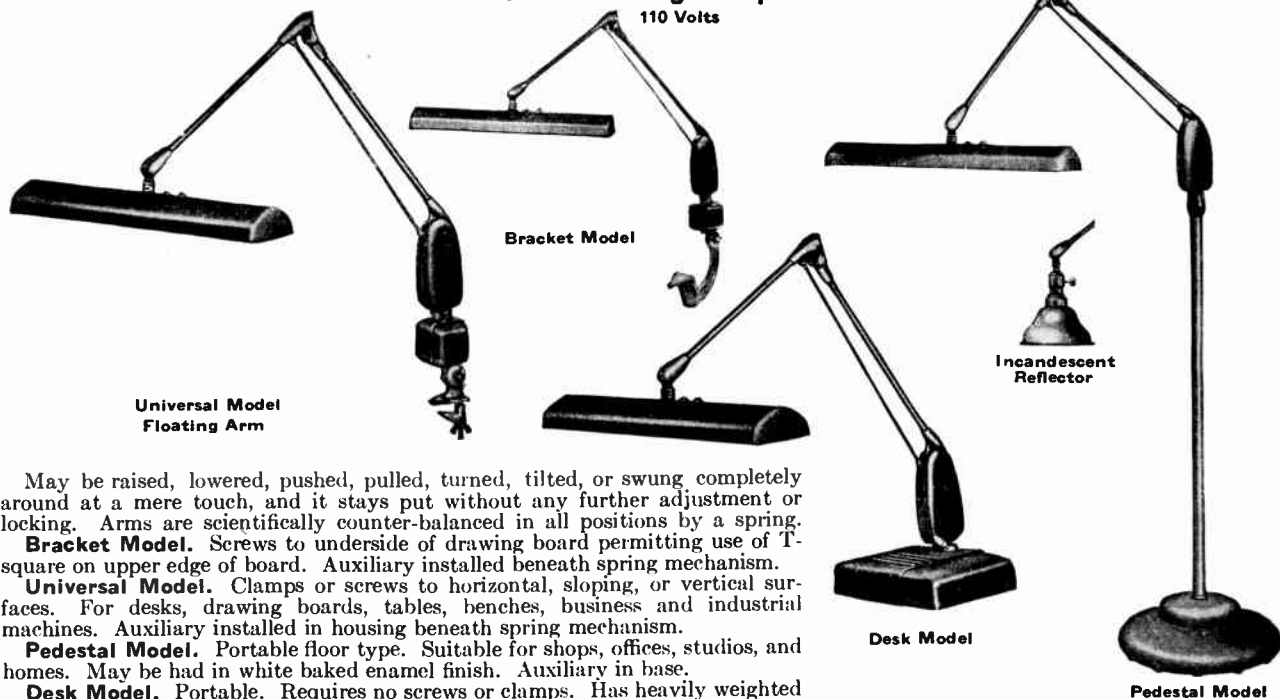
Accessories

No.	Size Inches	Description	Each
EVF20	3/4	Ceiling Saddle for Conduit Support	\$.67
EVF021	1/2	Ceiling Saddle for Support Hook	.67
EVF21	3/4	Support Hook for Conduit	.45

*Lamps are not included in prices.
1 $\frac{1}{2}$ -inch hub at ballast end only; 3/4-inch hub at relamping end.

Dazor Floating Lamps

110 Volts



May be raised, lowered, pushed, pulled, turned, tilted, or swung completely around at a mere touch, and it stays put without any further adjustment or locking. Arms are scientifically counter-balanced in all positions by a spring.

Bracket Model. Screws to underside of drawing board permitting use of T-square on upper edge of board. Auxiliary installed beneath spring mechanism.

Universal Model. Clamps or screws to horizontal, sloping, or vertical surfaces. For desks, drawing boards, tables, benches, business and industrial machines. Auxiliary installed in housing beneath spring mechanism.

Pedestal Model. Portable floor type. Suitable for shops, offices, studios, and homes. May be had in white baked enamel finish. Auxiliary in base.

Desk Model. Portable. Requires no screws or clamps. Has heavily weighted base. Auxiliary is installed in the base.

Standard Finish. Brown baked enamel over Bonderizing. Inner surfaces of reflectors are white baked enamel. Pedestal model available in white baked enamel.

Reflectors. Fluorescent: 18¾ inches long for 15-watt tubes; 9¾ inches long for 6-watt tubes. Incandescent: available in two sizes, 6½ and 5½ inches.

Standard Packing. Universal and Bracket Models—both Fluorescent and Incandescent: 1 to a carton, 6 cartons to a case. Pedestal Model—both Fluorescent and Incandescent: 1 to a case. Desk Model—Fluorescent: 1 to a carton, 2 or 3 to a shipping case.

Fluorescent Type

Bracket Model—Floating Arm

No.	One T8—15 Watt Tube		P.F. Per Cent	Arm Ext. In.
	Without Tube Each	Cycles		
1434-16	\$15.75	60	50	34
P-1434-16	18.50	60	95	34
1434-15	16.75	50	50	34
P-1434-15	19.75	50	95	34
*1434-10	17.25	DC	100	34
Two T8—15 Watt Tubes				
2434-16	\$19.50	60	50	34
P-2434-16	22.25	60	95	34
2434-15	20.50	50	50	34
P-2434-15	23.50	50	95	34
*2434-10	22.25	DC	100	34

Desk Model—Floating Arm

No.	One T8—15 Watt Tube		P.F. Per Cent	Arm Ext. In.
	Without Tube Each	Cycles		
1324-16	\$19.75	60	50	24
P-1324-16	22.50	60	95	24
1324-15	21.00	50	50	24
P-1324-15	23.75	50	95	24
*1324-10	21.50	DC	100	24
Two T8—15 Watt Tubes				
2324-16	\$23.00	60	50	24
P-2324-16	26.00	60	95	24
2324-15	24.25	50	50	24
P-2324-15	27.25	50	95	24
*2324-10	26.00	DC	100	24

Pedestal Model—Floating Arm

No.	One T8—15 Watt Tube		P.F. Per Cent	Arm Ext. In.
	Without Tube Each	Cycles		
1224-16	\$21.50	60	50	24
1234-16	21.50	60	50	34
P-1224-16	24.25	60	95	24
P-1234-16	24.25	60	95	34
1224-15	22.50	50	50	24
1234-15	22.50	50	50	34
P-1224-15	25.50	50	95	24
P-1234-15	25.50	50	95	34
*1224-10	23.00	DC	100	24
*1234-10	23.00	DC	100	34

Universal Model—Floating Arm

No.	One T8—15 Watt Tube		P.F. Per Cent	Arm Ext. In.
	Without Tube Each	Cycles		
1124-16	\$15.75	60	50	24
1134-16	15.75	60	50	34
P-1124-16	18.50	60	95	24
P-1134-16	18.50	60	95	34
1124-15	16.75	50	50	24
1134-15	16.75	50	50	34
P-1134-15	19.75	50	95	24
P-1134-15	19.75	50	95	34
*1124-10	17.25	DC	100	24
*1134-10	17.25	DC	100	34

Two T8—15 Watt Tubes

2124-16	\$19.50	60	50	24
2134-16	19.50	60	50	34
P-2124-16	22.25	60	95	24
P-2134-16	22.25	60	95	34
2124-15	20.50	50	50	24
2134-15	20.50	50	50	34
P-2124-15	23.50	50	95	24
P-2134-15	23.50	50	95	34
*2124-10	22.25	DC	100	24
*2134-10	22.25	DC	100	34

Pedestal Model—Floating Arm

No.	Two T8—15 Watt Tubes		P.F. Per Cent	Arm Ext. In.
	Without Tube Each	Cycles		
2224-16	\$26.00	60	50	24
2234-16	26.00	60	50	34
P-2224-16	28.75	60	95	24
P-2234-16	28.75	60	95	34
2224-15	27.25	50	50	24
2234-15	27.25	50	50	34
P-2224-15	30.00	50	95	24
P-2234-15	30.00	50	95	34
*2224-10	28.75	DC	100	24
*2234-10	28.75	DC	100	34

Universal Model—Floating Arm

No.	Two T5—6 Watt Tubes		P.F. Per Cent	Arm Ext. In.
	Without Tubes Each	Cycles		
6W-2124-16	\$19.50	60	50	24
6W-2134-16	19.50	60	50	34
P-6W-2124-16	22.25	60	95	24
P-6W-2134-16	22.25	60	95	34
*6W-2124-10	22.25	DC	100	24
*6W-2134-10	22.25	DC	100	34

Incandescent Type

Identical to Fluorescent except for light and reflector.

Universal Model

For One 40-75 Watt Lamp			
No.	3124		3134
†Each.	\$9.25		9.25
Arm Ext. in.	24		34

Pedestal Model

For One 40-75 Watt Lamp			
No.	3224		3234
†Each.	\$15.75		15.75
Arm Ext. in.	24		34

Bracket Model

For One 40-75 Watt Lamp			
No.			3434
†Each.			\$9.25
Arm Ext. in.			34

Reflectors

Packed 1 in a carton, 6 in a case.			
No.	R-1		R-2
†Each.	\$0.75		1.50
Diam. in.	5½		6½
For Bulb. watts	40-60		40-75

*Equipped with resistor cord, plug. †Prices do not include reflector, bulb. West Coast prices slightly higher.

Swivelier Adjustable Lighting Fixtures

Adjusts 90 degrees vertically and 350 degrees horizontally. Has no wing nuts or set screws. Stays put at any angle.

Will not work loose or drop down regardless of number of adjustments.

Unaffected by vibration. Spring construction maintains constant tension.

Wires will not twist as lamp is adjusted.

Desk Lamps



No. T605-12BR2



No. P600-12W3BR

Rich bronze finish. Has heavy, felt-covered base.

Individually packed.

No. T605-12BR2... each \$6.15
 No. P600-12W3BR... each 5.10

Heat Lamp Fixtures

For Infra-Red and RS Ultra-Violet Bulbs



No. 907BR



No. 607BR

Rich bronze finish. Has heavy, felt-covered base.

No.	Each	Carton
607BR	\$2.60	24
907BR	5.00	12
975BR	7.95	12



No. 975BR

Adjustable Hood Shades

Mounted on 4-Inch Outlet Box Covers



No. H547AN24-L30



No. H2547AN-L6



No. H547AN-L6

For store, theater and public building lighting.

Shade is finished in infra-baked aluminum.

Furnished with leads, ready for attachment.

No.	Each	Carton
H547AN-L6	\$6.90	12
H547AN24-L30	9.85	6
H2547AN-L6	13.80	6

Swivelier Work Lights

Used on machine tools, work benches, etc.

Furnished with toggle switch in base and porcelain keyless socket.

Individually packed, 10 to a carton.

No.	Each	Arm Length Inches
Y-6W3-BA2	\$9.00	6
Y-12W7-BA2	10.20	12
Y-18W7-BA2	10.90	18
Y-24W7-BA2	11.60	24
Y-30W7-BA2	12.30	30



No. Y-24W7-BA2

Adjustable Window Lighting Units



No. H607AN



No. 547GR



No. 107GR

Used as a direct light or indirect light table lamp.

Also used with infra-red and RS ultra-violet bulbs.

Price does not include bulbs.

Packed individually, 12 to a carton.

No. 940BR... each \$9.95



No.	Each	Description	Carton
107GR	\$1.60	Screw-In Adapter Type	10
547GR	1.75	On 4-Inch Box Cover	10
H607AN	7.50	Portable, with Hood Shade	12

Aduco Adjustable Lighting Brackets

With 3 Sets of Universal Joints



For direct attachment to conduit or outlet box. Has 1/2-inch I.P. male connection to conduit.

No.	242E	242G	242H	242K
Bracket Only.....each	\$5.40	\$5.60	\$5.80	\$6.00
*Complete.....	7.60	7.80	8.00	8.20
Length.....inches	18	24	30	36

With Universal Joint at Base—Flexible End Arm



For direct attachment to conduit or outlet box. Has 1/2-inch I.P. male connection to conduit.

No.	244E	244G	244H	244K
Bracket Only.....each	\$4.60	\$4.80	\$5.00	\$5.20
*Complete.....	6.80	7.00	7.20	7.40
Length.....inches	18	24	30	36

†With 3 Sets of Universal Joints for Adjustment



Showing No. 23 Shade

No.	262	263	264
Bracket Only.....each	\$5.60	\$6.00	\$6.40
*Complete.....	7.80	8.20	8.60
Length.....inches	24	36	48

†With 4 Sets of Universal Joints for Adjustment
For Wall or Bench



No.	266G	266H	266K	266L	266M
Bracket Only.....each	\$6.60	\$6.80	\$7.00	\$7.20	\$7.40
*Complete.....	8.80	9.00	9.20	9.40	9.60
Length.....inches	24	30	36	42	48

†With Universal Joint at Base—Flexible End Arm
For Wall or Bench



No.	272E	272G	272H	272K
Bracket Only.....each	\$4.60	\$4.80	\$5.00	\$5.20
*Complete.....	6.80	7.00	7.20	7.40
Length.....inches	18	24	30	36

General Information on Above Items

Fixtures are furnished complete unless otherwise specified. Portable wiring with 10-foot cord and plug instead of regular wiring furnished, if specified, at \$1.10 extra. Standard finish, black. Standard package, 12; can be assorted styles. Lamp bulbs are not included in prices. *Complete fixture includes extras as follows: No. 23 shade (illustrated), \$.80; No. 16 bell-shaped shade, \$.80; brass or porcelain factory socket, \$.80; and wiring 16-inch out, \$.60. †Clamp instead of flange will be furnished, if specified, at \$.90 extra.

No. 1591 Faries Desk Lamps

For 25 or 60-Watt Incandescent Lamps



For students.

Height overall, 22 1/2 inches. Extends 17 inches.

Shade diameter, 6 1/2 inches.

Has 11-inch flexible arm and iron base.

Finish: sprayed bronze.

No. 1591...each \$3.85

Lamp is not included in price.

No. 153A Faries Desk Lamps

For 25 to 60-Watt Incandescent Lamps



Height overall, 26 inches.

Extends 16 inches.

Has 9-inch flexible arm and a brass cover over iron base.

Furnished with slip-on adjustable metal shade.

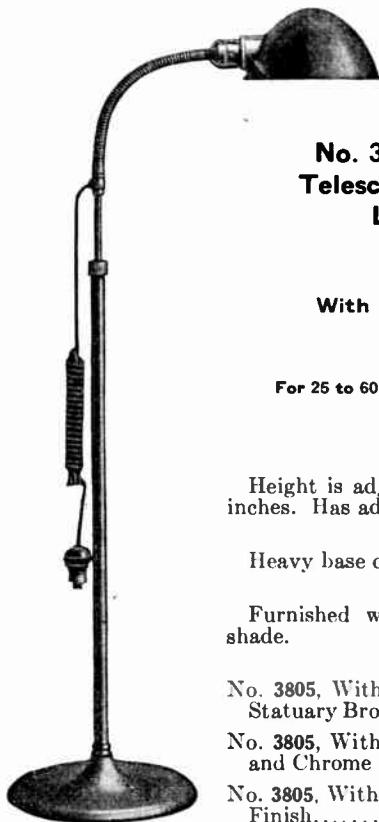
Finish: electroplated statuary bronze.

No. 153A.....each \$6.50
Lamp is not included in price.

No. 3805 Faries Telescoping Floor Lamps

With Flexible Arm

For 25 to 60-Watt Incandescent Lamps



Height is adjustable from 34 to 60 inches. Has adjustable joint.

Heavy base diameter, 9 inches.

Furnished with adjustable metal shade.

No. 3805, With Electroplated Statuary Bronze Finish...ea. \$12.50

No. 3805, With White enamel and Chrome Finish...each 12.50

No. 3805, With All Chromium Finish.....each 15.00

Lamp is not included in price.

No. 1989 Faries Desk Lamps

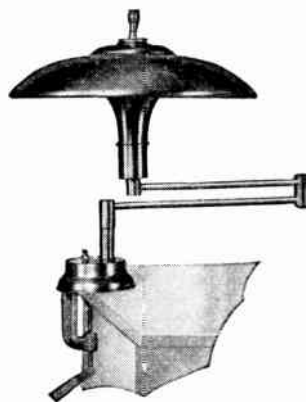
For 100-Watt Incandescent Lamps



For stenographers.
Swings right or left.
Arm extends horizontally 16½ to 24½ inches.
Height overall, 26½ inches.
Bottom of shade to desk level, 18½ inches.
Metal shade, 14 inches in diameter. Shade depth, 8 inches.
Furnished with 8-inch inner reflector.
Finish: Statuary bronze.
No. 1989.....each \$16.00
Lamp is not included in price.

No. 2207 Faries Desk Lamps

For 100-Watt Incandescent Lamps



For stenographers and executives.
Bulb is not visible from any position, no glare.
Height overall, 17½ inches. Shade, 13 inches in diameter.
Clamps opens to 25⅞ inches.
Finish: normandie bronze and gold.
No. 2207.....each \$23.00
Lamp is not included in price.

Faries Desk Lamps

For 100-Watt Incandescent Lamps



No. 2223



No. 2242

No. 2223
Height overall, 15½ inches. Shade, 12 inches in diameter. Base diameter 6½ inches.
Finish: electroplated statuary bronze.
No. 2223.....each \$9.50

No. 2242

Executive type desk lamp. Height overall, 17½ inches. Shade, 13 inches in diameter. Base diameter, 6 inches.
Finish: normandie bronze and gold.
No. 2242.....each \$14.50

No. 60243 Faries Desk Lamps
For 100-Watt Incandescent Lamps



Directs 80 per cent of light on working area without glare.
Height overall, 12¼ inches. Shade, 11 inches in diameter. Base diameter, 8 inches.
Finish: electroplated statuary bronze.
No. 60243.....each \$15.00

Emeralite Plain Glass Cone Shades

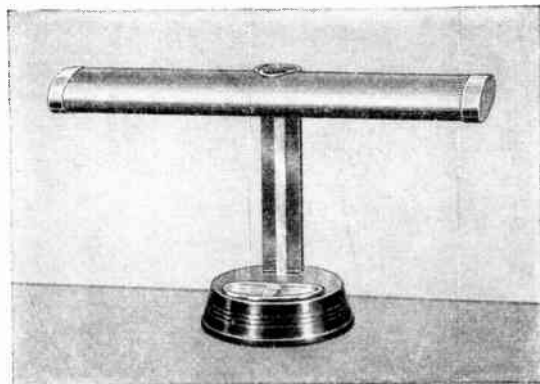
Green, White Lined



No.....	64	170
Each.....	\$2.00	4.00
Diam...in.	7	10
Depth...in.	5	5
Fitter...in.	2¼	2¼

No. 20000 Faries Desk Lamps

For One or Two 15-Watt, T-8, 18-Inch Fluorescent Lamps



Furnished with built-in ash tray, paper clip tray, or pencil rest; air flow type shade with baked enamel inner reflector; and manual type, self-starting switch.

Available for d.c. operation upon order.

Height overall, 12¼ inches. Base, 7¼ inches in diameter. Depth, 2 inches.

Finish: electroplated statuary bronze.

No. 20000, For One Fluorescent Lamp.....each \$19.50
No. 20003, For Two Fluorescent Lamps.....each 24.50

Lamps are not included in prices.

No. 1010 Mitchell Polaroid Fluorescent Desk Illuminators

For Two 15-Watt Fluorescent Lamps

110-125 Volts, 60 Cycles A.C.



Used in offices, banks, hotels, libraries, and all establishments where a glareless desk lighting is needed.

Combines the use of fluorescent lighting with Polaroid glare-eliminating material.

Made of metal with Alzak aluminum parabolic reflector and pencil tray molded in base.

Polaroid filter is shatterproof.

Equipped with switch at base and an 8-foot cord and plug.

Dimensions: height, 12 $\frac{5}{8}$ inches; length, 18 $\frac{3}{8}$ inches; width, 10 $\frac{1}{4}$ inches.

Packed in individual container.

Shipping weight, 18 pounds.

No. 1010.....each 39.95

No. 2050 Mitchell Desk Lamps

110-125 Volts, 60 Cycles A.C.



Stands 14 $\frac{1}{2}$ inches high. Shade, 18 inches long. Base, 10 inches long by 5 $\frac{1}{4}$ inches wide. Complete with cord and plug. Pen trough in base. Parabolic shaped chip-proof white enamel reflector. Morocco brown finish. Uses one No. T-8, 15-watt fluorescent bulb.

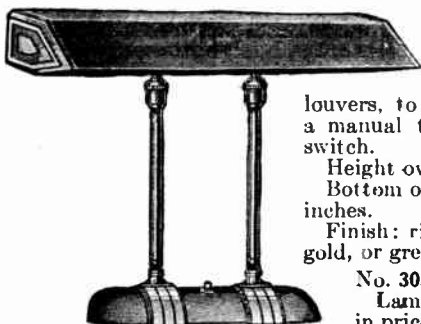
Packed individually. Shipping weight, 12 pounds.

No. 2050, Less Bulb.....each \$9.95

No. 3054 Faries Desk Lamps

For One 15-Watt, T-8, 18-Inch Fluorescent Lamp

For A.C. or D.C. Operation



Furnished with built-in louvers, to direct light, and a manual type, self-starting switch.

Height overall, 12 $\frac{1}{2}$ inches. Bottom of shade to desk, 10 inches.

Finish: rippled bronze and gold, or grey and chrome.

No. 3054.....each \$18.50

Lamp is not included in price.

No. M-1000 Moe Brothers Fluorescent Desk Lamps



Used in offices, libraries, etc. For a.c. operation only.

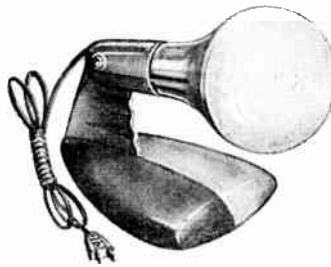
Gray or brown bonderized-baked finish with brass trim. Base ornaments are removable for pen holder fittings. Furnished with 6-foot cord and plug. Dimensions:

base, 1 $\frac{3}{4}$ x10x5 $\frac{3}{4}$ inches; reflector, 20 $\frac{1}{2}$ x4 $\frac{7}{8}$ x1 $\frac{5}{8}$ inches; overall height, 11 $\frac{1}{2}$ inches. Individually packed.

No. M-2000 (Holds Two 15-watt, T-12 Fluorescent Lamps).....each \$12.95

No. M-1000 (Holds One 15-Watt, T-12 Fluorescent Lamp).....each 10.95

No. M-77 Moe Brothers Lamp Holders



An attractive, handy holder for all reflector type heat lamps, sun lamps, and spot lamps.

Adjusts to any position.

Furnished with 6-foot cord and plug.

Bonderized-baked finish in ivory or seafoam gray.

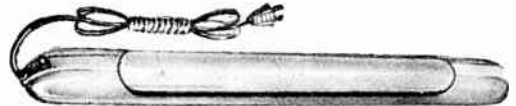
Base width, 4 $\frac{1}{2}$ inches, tapered.

Overall height, 4 $\frac{3}{8}$ inches.

Individually packed; 12 in a master carton.

No. M-77.....each \$2.95

No. M-218 Moe Brothers Fluorescent Pin-Up Lamps



Provides soft, glareless illumination for many hard-to-light locations. For a.c. operation only.

Recommended wattage, one 15-watt T-12 fluorescent lamp.

Furnished with 6-foot cord and plug.

Finished in sparkling chromium or bonderized-baked white enamel.

Width, 1 $\frac{1}{2}$ inches. Length, 24 $\frac{1}{4}$ inches. Height, 2 inches.

Individually packed; 12 in a master carton.

No. M-218, White Finish.....each \$6.65

No. M-218, Chromium.....each 7.95

No. M-418 Moe Brothers Fluorescent Bed Lamps



Fingertip adjustment. For a.c. operation only.

Available in ivory or brown bonderized-baked finish with brass trim.

Recommended wattage, one 15-watt T-12 fluorescent lamp.

Furnished with 6-foot cord and plug.

Length, 19 $\frac{1}{2}$ inches. Depth, extends 3 $\frac{1}{2}$ inches from wall. Back plate measures 8 $\frac{1}{2}$ x3 inches.

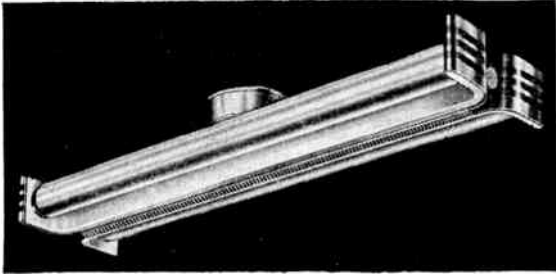
Individually packed.

No. M-418.....each \$10.95

Smithcraft Kitchener Lighting Fixtures

For Two 20-Watt Fluorescent Lamps

110-125 Volts, 60 Cycles, A.C.



Used in kitchens, bathrooms, bedrooms, playrooms, and corridors.

Polished fittings, graceful design, and glare-free lighting makes this unit ideal for other rooms also.

All parts are easily accessible.

Precision-made with all-riveted construction for greatest light output.

Starters are located at the ends of the channel.

No. K-1. Furnished with cord and plug and adapter to fasten to a 4-inch holder.

No. K-2. Furnished with canopy, fixture strap, and wire leads to fasten directly to outlet box. Carries Underwriters' Laboratories label.

Finished in white baked enamel with highly polished aluminum underside trim and end caps.

Packed 10 in a carton.

No. K-1.....each \$9.85
No. K-2.....each 9.85

No. K2-40 Smithcraft Lighting Fixtures

For Two 40-Watt Fluorescent Lamps

A.C.—For 110-220 Volts, 60 Cycles

Listed as Standard by Underwriters' Laboratories



Precision made; ceiling mounted, or with single non-turn stem for pendant mounting.

Complete with high power factor tulamp ballasts and FS4 starters.

Finished with Supercoat white baked enamel and trimmed with aluminum polished ends and decorative strip.

Matching fixture to the No. K-1 and No. K-2 for two 20-watt lamps.

Packed 1 in a carton.

Shipping weight, 13 pounds.

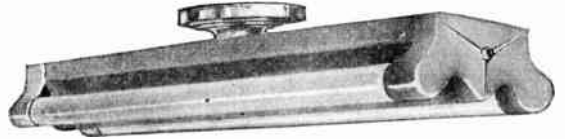
No. K2-40. Flush Mounted, less Lamps.....each \$23.95
No. SS102, Single 30-Inch Stem and Non-Turn Canopy Set for Pendant Mounting.....Each 3.35

No. M-1324 Moe Brothers Fluorescent Lighting Fixtures

Permanent Installation

110-125 Volts, 60 Cycles, A.C.

Approved by Underwriters' Laboratories, Inc.



Recommended wattage, two 20-watt T-12 fluorescent lamps. Has low power factor ballasts.

Furnished with 6-inch ceiling fitter with strap and barrel nuts. Fitter is removable if flush mounting is preferred.

Removable end caps cover lamp ferrules.

Bonderized-baked white enamel finish.

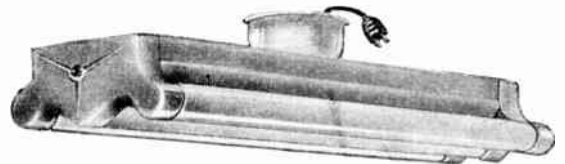
Individually packed.

No. M-1324.....each \$9.75

No. M-1124 Moe Brothers Fluorescent Lighting Fixtures

Adapter Type

110-125 Volts, 60 Cycles, A.C.



Recommended wattage, two 20-watt T-12 fluorescent lamps. Has low power factor ballasts, and a 4-inch adapter which can be removed if permanent flush mounting is desired.

Removable end caps cover lamp ferrules.

Bonderized-baked white enamel finish.

No. M-1124, Individually packed.....each \$9.75

Moe Brothers Holders and Globes



Nos. M-63 and M-73



Nos. M-631 and M-641



No. M-64

No.	Description	No. in Case
M- 64	White Enamel 4-Inch Holder, Wired.....	48
M- 64	Chromium 4-Inch Holder, Wired.....	48
M- 63	White Enamel 3¼-Inch Holder, Wired.....	48
M- 63	Chromium 3¼-Inch Holder, Wired.....	48
M- 63	Copper 3¼-Inch Holder, Wired.....	48
M- 63	Black Enamel 3¼-Inch Holder, Wired.....	48
M- 73	White Enamel 3¼-Inch Holder, Wired, with Convenience Outlet.....	48
M- 73	Chromium 3¼-Inch Holder, Wired, with Convenience Outlet.....	48
M-631	White Enamel 3¼-Inch Holder, Wired; 8-Inch Diameter White Glass with Clear Louver.....	6
M-631	Chromium 3¼-Inch Holder, Wired; 8-Inch Diameter White Glass with Clear Louver.....	6
M-641	White Enamel 4-Inch Holder, Wired; 10-Inch Diameter White Glass with Clear Louver.....	6
M-641	Chromium 4-Inch Holder, Wired; 10-Inch Diameter White Glass with Clear Louver.....	6

Moe Brothers Residential Incandescent Lighting Fixtures

No. M-201



Diameter, 11 inches. Length overall, 9½ inches. Recommended wattage, one 100-watt lamp.

Glass colors (fired): beige, rose, blue, green, and white; all with crystal trim. Canopy finish: ivory. Individually packed.

No. M-201.....each \$2.95

No. M-211



Diameter, 11 inches. Length overall, 9½ inches. Recommended wattage, one 100-watt lamp.

Glass colors (fired): clear crystal, beige, rose, and white. Canopy finish: ivory. Individually packed.

No. M-211.....each \$2.95

Nos. M-610 and M-612



No. M-610

Spread, 10 inches. Depth 4½ inches. Recommended wattage, two 60-watt lamps. White opal glass. Finish: chromium and red. Individually packed.

No. M-610.....each \$8.45

No. M-612

Spread, 12 inches. Depth 4½ inches. Recommended wattage, two 75-watt lamps. White opal glass. Finish: chromium and red. Individually packed.

No. M-612.....each \$9.95

Nos. M-710 and M-712



No. M-710

Spread, 10 inches. Depth 4½ inches. Recommended wattage, two 60-watt lamps. White opal glass. Finish: polished brass and red. Individually packed.

No. M-710.....each \$8.45

No. M-712

Spread, 12 inches. Depth 4½ inches. Recommended wattage, two 75-watt lamps. White opal glass. Finish: polished brass and red. Individually packed.

No. M-712.....each \$9.95

Nos. M-1013 and M-1016



No. M-1013

Diameter, 15 inches. Length overall, 36 inches. Screen design glass bowl with plastic spiral band. Recommended wattage, five 25-watt lamps. Finish: colonial brass. No. M-1013, Packed Individually.ea. \$15.95

No. M-1016

Diameter, 18½ inches. Length overall, 36 inches. Screen design glass bowl with plastic spiral band. Recommended wattage, five 40-watt lamps. Finish: colonial brass. No. M-1016, Packed Individually.ea. \$19.95

Nos. M-1023 and M-1028



No. M-1023

Diameter, 15 inches. Length overall, 7 inches. Screen design glass bowl with plastic spiral band. Recommended wattage, five 25-watt lamps. Finish: colonial brass. No. M-1023, Packed Individually.ea. \$14.95

No. M-1028

Diameter, 18½ inches. Length overall, 7 inches. Screen design glass bowl with plastic spiral band. Recommended wattage, five 40-watt lamps. Finish: colonial brass. No. M-1028, Packed Individually.ea. \$18.95

No. M-810



Spread, 10 inches. Depth, 3¾ inches. Recommended wattage, two 60-watt lamps. White opal glass. Made of copper. Finish: antique copper. No. M-810, Packed Individually...ea. \$5.95

No. M-872



Extends 7 inches. Back plate, 4½ inches. Length overall, 9 inches. Clear glass shade.

Finishes: antique copper (made of copper and forged brass); black with brass trim (made of copper and forged brass).

Packed individually. No. M-872.....each \$3.95

No. M-822



Extends 7 in. Back plate, 4½ in. Length overall, 10 in.

Finishes: antique copper (made of copper and forged brass); black with brass trim (made of copper and forged brass).

Packed individually. No. M-822.....each \$3.95

Nos. M-406, M-408, M-410, and M-412



No. M-406

Spread, 6 inches. Recommended wattage, one 60-watt lamp.

White opal glass. Finish: chromium. Individually packed.

No. M-406.....each \$2.75

No. M-408

Spread, 9 inches. Recommended wattage, two 60-watt lamps.

White opal glass. Finish: chromium. Individually packed.

No. M-408.....each \$3.75

No. M-410

Spread, 11 inches. Recommended wattage, two 75-watt lamps.

White opal glass. Finish: chromium. Individually packed.

No. M-410.....each \$5.45

No. M-412

Spread, 13 inches. Recommended wattage, three 75-watt lamps. White opal glass.

Finish: chromium. Individually packed. No. M-412.....each \$6.55

Graybar Silvray Lighting Fixtures

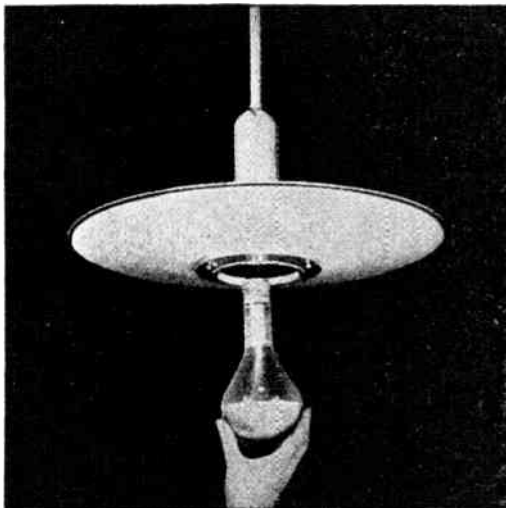
Indirect Luminaires for Use with Silvered and Semi-Silvered Bowl Lamps

Designed specifically for use with lamps of the silvered or semi-silvered bowl types, which utilize the sealed beam principle.

Silvered bowl lamps eliminate the need for separate reflectors, and have a wide distribution characteristic.

The design is modern and graceful due to the narrow cross-section of all luminaires. This advantage in design is possible because the bowl of the lamp protrudes through the center of the fixture and is made part of the fixture design.

As a result, uniform ceiling brightness is obtained without spottiness or high brightness directly above the fixture.



Features simple relamping, inherent high lighting efficiency, and a light output as high as 90 per cent.

Efficiency is maintained as dust and accumulations in the fixture have no effect on the output of light.

Conversion rings are available to accommodate different sizes of silvered bowl lamps to be used in the same fixture without changing the fixture itself.

Made of heavy gage metal or of metal and plastic combinations and triple-plated over a base copper coat to maintain the permanence of the finish.

Specially prepared heat-resistant enamels are used on units other than those with metallic finishes.

Correctly designed baffles are used to provide complete shielding of the lamp neck.

Commercial Line



No. 1500 ConEd

Embodies the concentric ring principle to provide effective lamp shielding and light output as high as 86.5 per cent. The vertical plane of rings permits reflected ceiling light to reach the work area.

Available in the three ring construction shown above for use with 300 and 500-watt lamps.

The same design, in two ring construction, is adapted for use with 200-watt lamps.

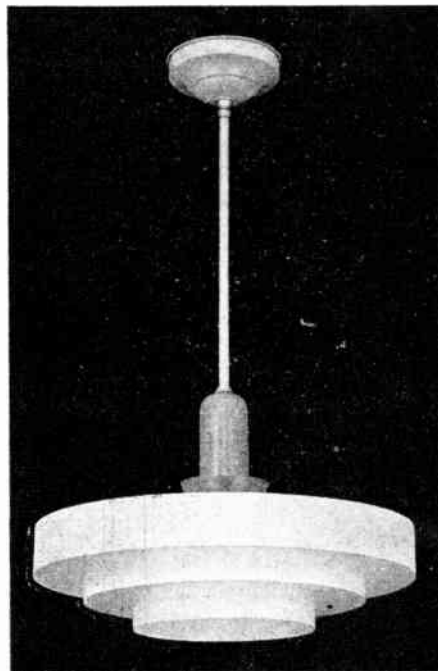
Also available with four ring construction for use with 750 and 1000-watt lamps.

Made of Steel, spot-welded for rigidity.

Body and canopy is finished in flat white enamel.

Husks are finished in aluminum.

No.	1500	1500/2
Each.	\$23.60	21.00
Diameter. inches	19	14
Length Overall. inches	14	12½
Lamp Size. watts	300,500	200



No. 1500-S ConEd

Made of steel and spot-welded for rigidity.

Three concentric rings provide complete shielding of the lamp. Has totally direct illumination with a high light output of 86.5 per cent. No. 1500-S/2 has two concentric rings; No. 1500-S/10 has four concentric rings.

When a semi-silvered bowl is used, the wide cone of direct downward light builds up illumination of merchandise on counters, tables, and cases. Vertical plane of rings prevents collection of dust, insects, etc. Body and canopy are finished in flat white enamel and husks are finished in aluminum.

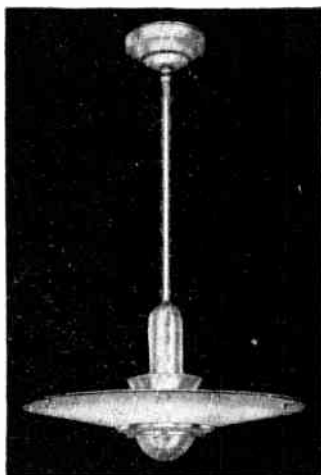
No. 1500-S is furnished with a stem suspension to permit its use in applications that are not suited to close-to-ceiling fixtures.

No.	1500-S/2	1500-S	1500-S/10
Each.	\$23.40	26.20	53.40
Diameter. inches	14	19	24
Length of Suspension. in.	26	38	44
*Lamp Size. watts	200	300,500	750,1000

*Silver bowl or semi-silvered bowl.

Graybar Silvray Lighting Fixtures Commercial Line

No. 207—Pinnacle



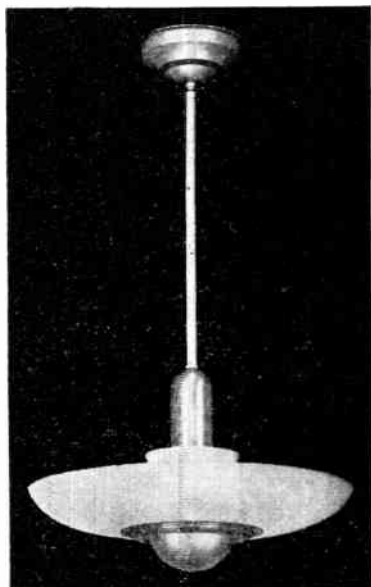
For areas such as accounting and clerical offices, and drafting and school rooms where the efficiency of the lighting system is the primary consideration. ETL output 91 per cent.

Made of triple-plated copperized, heavy gage steel.

Furnished with a deep canopy suited for use with levoloier switch. Standard finish is French grey enamel with black beaded edge and chrome bulb ring.

No.	Each	Silvered Bowl Wattage	Suspension Length Inches	Diam. Inches
207	\$21.60	300 or 500	26	20
207-20	25.30	750 or 1000	36	20

No. 210—Plasticon



Modern lighting favors the use of translucent plastic because it combines the best features of glass and metal.

This unit furnishes totally indirect illumination but avoids the blind spot of opaque metal units.

Has an output of 89.5 per cent (E.T.L.).

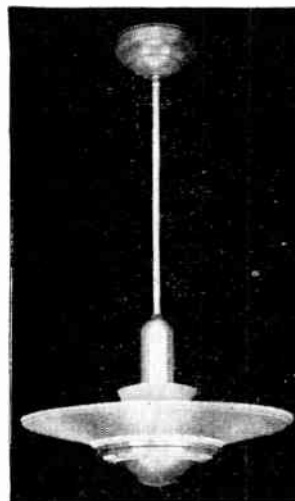
The bowl is protected against warping or deterioration by a series of chrome-and-aluminum concentric rings which separate it from the lamp.

Deep canopy accommodates a pull switch.

Suspension finished in triple-plated cadmium.

No.	Each	Silvered Bowl Wattage	Suspension Length Inches	Diam. Inches
210PL	\$23.60	300 or 500	26	18
210PL	44.30	750 or 1000	36	25

No. 207PL—Liteking



A highly efficient indirect unit with a shallow bowl of modern plastic which is lighted to a pleasing intensity by the silvered bowl lamp with which it is designed to be used.

Output (E.T.L.) 89.5 per cent.

Shallow bowl lighted to a maximum brightness of only 0.3 per square inch.

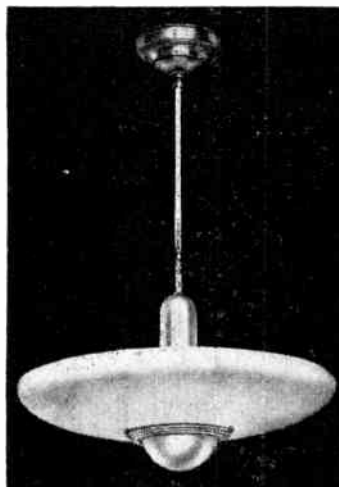
Lamp neck is fully concealed by shield which rests on bowl supports.

Attractive, plated metal rings separate the bowl from the lamp. Relamps from below without the need to remove bowl or handle the fixture.

Furnished with deep canopy to accommodate switch.

No.	Each	Silvered Bowl Wattage	Suspension Length Inches	Diam. Inches
207PL	\$23.60	300 or 500	31	18

No. 208—Crusader



An all-metal indirect unit of high efficiency. The rolled-edge treatment of the triple-plated solid steel bowl is designed to create an appearance of dense glass.

Standard finish is oyster white enamel. Also available in metallic plated bronze or cadmium.

Chrome-plated bulb ring and deep canopy are standard.

Self-aligning swivel in stem assures straight hanging.

Special bayonet assembly permits quick attachment or removal of bowl from stem.

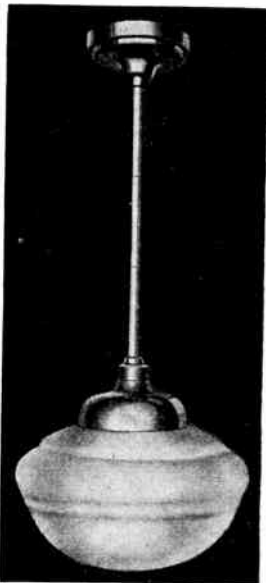
No.	Each	Silvered Bowl Wattage	Suspension Length Inches	Diam. Inches
208-I.B.T.	\$22.40	300 or 500	31	20

Graybar M-Type (Shelcrest) Fixtures

Wakefield Commodore Lighting Fixtures



No. M4C-6620



No. M6H-9920

This fixture is made of genuine molded bakelite which offers additional insulation properties not found in metal fixtures. It is particularly suitable for use in any location where exposed metal fixtures are subject to corrosion.

The globe holder for both hanging and ceiling models is a saddle type, shaped to accurately seat the globe from the inside and under the neck. To remove globe, tilt to a 30° angle and slip off the holder. Either the 4 or the 6-inch fitter can be used with the standard holder.

The hanging type is really a chain suspension encased in a rigid stem. This stem is in three 6-inch sections (3/4-inch diameter) which permits shipping in a knockdown form, and also makes this fixture adaptable for varying mounting heights. It is easy to install.

The extra strong supporting chain attaches to a brass slotted hickey, adaptable to all outlet conditions. The canopy is a shallow slip type with knockout. It drops the full length of the chain.

The ceiling type has the standard shallow canopy with knockout molded in one piece with the socket cover. The mounting is accomplished by a slotted strap.

Fixtures are already wired with No. 14 stranded asbestos covered wire: Ground leg, white; live leg, brown.

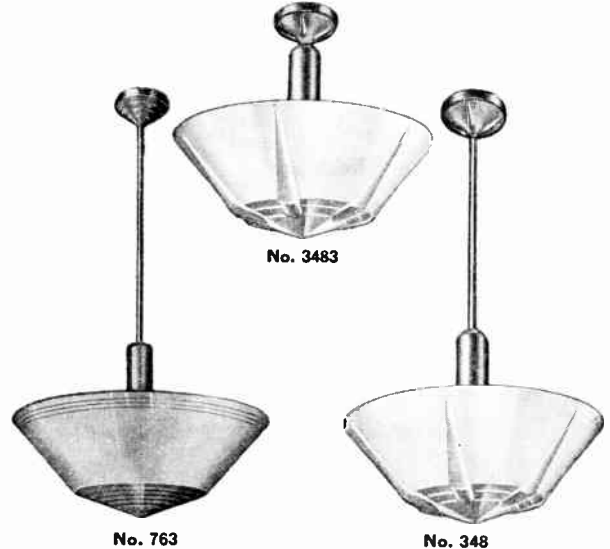
Japanese bronze finish. Also obtainable in ivory. The finish is practical and resistant to wear as the color permeates the entire material and surface scratches do not show.

Globes recommended for use with this fixture: 99, 66, 33, and 88.

Packed 12 in a standard package. Fixture parts are numbered and packed in individual cartons, 8x8x6 inches.

No.	Each	Suspension	Fitter Inches	Fixture Length less Glass Inches	Socket	Shipping Weight Pounds per Standard Package
M4C	\$3.75	Ceiling	4	4 1/2	Medium	21
M6C	4.00	Ceiling	6	5	Medium	24
M4H	6.30	Stem	4	23	Medium	24
M6H	6.90	Stem	6	24	Medium	27
M7H	9.00	Stem	6	24	Mogul	30

Approved by Underwriters' Laboratories



Provides excellent semi-indirect or luminous indirect illumination for offices, drafting rooms, classrooms, and other interiors where high level intensities are required.

For wattages from 200 to 1000 watts.

All hangers and reflectors are similarly styled so that an installation requiring units which utilize various sizes of lamps and reflectors will have complete uniformity of appearance.

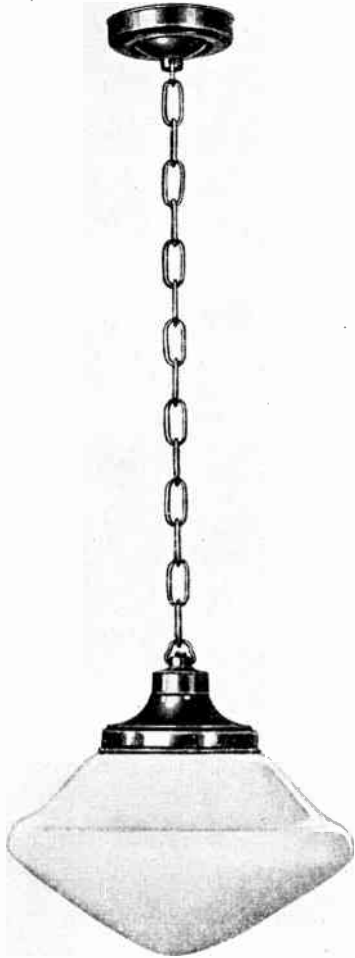
All hangers are made of aluminum with a satin aluminum finish.

Reflectors are available in either white or cream finish, and are made in diameters from 15 inches to 26 inches, varying in wall thickness to assure uniformity of brightness for the various lamp sizes.

No.	Each	Overall Length Inches	Reflector Diameter Inches	Lamp Watts	Socket	Color	Std. Pkg.	Wt., Lb. Std. Pkg.
265	\$9.74	28	15	200-300	Medium	White	4	24
2653	8.68	14	15	200-300	Medium	White	4	11
3693	13.68	16 1/2	19	300-500	Mogul	White	1	8
369	14.04	34	19	300-500	Mogul	White	1	8 1/2
3483	13.68	18	18	300-500	Mogul	Cream	1	8
348	14.04	34	18	300-500	Mogul	Cream	1	8 1/2
763	23.22	44	23	750	Mogul	White	4	40
106	32.22	48	26	750-1000	Mogul	White	4	55
3487	.92	Lamp Shield for Nos. 369 and 3693						

Wakefield Screwless 1000 Line Hangers and Graybar Globes

Hangers and Globes Must Be Ordered Separately



No. 1060AT, Hanger Only
No. 8820, Globe Only



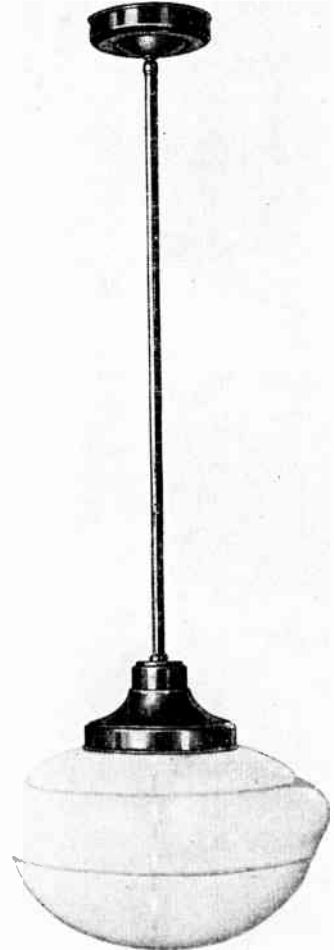
No. 1061AT, Hanger Only
No. 6620, Globe Only

Hanger is made of heavy gage steel with plated statuary bronze finish.

Canopy measures 5 inches on hanger type and 6 inches on ceiling units.

Holder is screwless toggle type.

Hangers and globes must be ordered separately.



No. 1064AT, Hanger Only
No. 9920, Globe Only

Hangers

(Hangers Must be Ordered Separately)

No.	Each	Recommended Wattage	Fitter Inches	Length Inches	Type of Socket	Description	Std. Pkg.	Wt., Lb. Std. Pkg.
1041AT	\$2.30	75-100	4	5 1/2	Medium	Ceiling Unit	12	16
1061AT	2.50	100-200	6	5 7/8	Medium	Ceiling Unit	12	18
1061BT	2.80	300	6	5 7/8	Mogul	Ceiling Unit	12	23
1040AT	3.10	75-100	4	24	Medium	Chain Suspension	12	18
1060AT	3.70	100-200	6	24	Medium	Chain Suspension	12	19
1060BT	4.00	300	6	24	Mogul	Chain Suspension	12	23
1044AT	4.90	75-100	4	24	Medium	Semi-Rigid	12	23
1064AT	5.20	100-200	6	24	Medium	Semi-Rigid	12	24
1064BT	5.50	300	6	24	Mogul	Semi-Rigid	12	28

Graybar Opal Globes

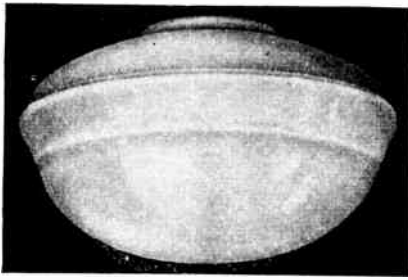
(Globes Must be Ordered Separately)

Series No. 66					Series No. 88					Series No. 99							
Diameter Inches	No.	Each	Fitter Inches	Depth Inches	Wt. Lb. Std. Pkg.	No.	Each	Fitter Inches	Depth Inches	Wt. Lb. Std. Pkg.	No.	Each	Fitter Inches	Depth Inches	Wt. Lb. Std. Pkg.	Wattage	Std. Pkg.
9	6675	\$1.20	4	5	21	8875	\$1.20	4	6 1/2	24	9975	\$1.20	4	6 1/4	25	75	8
10	6680	1.80	4	6	28	8880	1.80	4	6 1/2	27	9980	1.80	4	6 1/2	29	75-100	8
12	6610	3.10	*4 or 6	7	16	8810	3.10	*4 or 6	8 3/8	17	9910	3.10	*4 or 6	7 3/4	19	100-150	4
14	6620	4.00	6	8 1/2	14	8820	4.00	6	8 7/8	10	9920	4.00	6	9	14	200	2
16	6630	5.90	6	9 1/4	19	8830	5.90	6	10 3/8	16	9930	5.90	6	10	17	200-300	2
18	.....	.....	.....	.....	.....	8850	9.10	6 or 8	11	10	9950	9.10	6 or 8	12	20	500	1

*The 4-inch size is standard; 6-inch size supplied on request only. Specify 6 or 8-inch size when ordering.

Graybar Semi-Indirect Lighting Globes

Series No. 33



No. 3330, Plain

Made of clear crystal glass. The lower half is coated on the outside with a ceramic enamel which redirects the downward light. The upper half is etched on the inside for better diffusion.

Furnished in plain or in D-5 decorative styles; specify when ordering.

No.	Each	Fitter Inches	Diam. Inches	Depth Inches	Recommended Wattage	Estimated Std. Wt. Lb. per Pkg.
3375	\$3.00	4	9	6 1/4	75	8 22
3380	3.40	4	10	6 1/2	75-100	8 27
3310	4.50	*4 or 6	12	7 3/4	100-150	4 20
3320	6.90	6	14	9	200	2 14
3330	8.60	6	16	10	200-300	2 18
3350	12.30	†6 or 8	18	12	500	1 13

Series No. 77



Made of eased glass of dual opacity with light density top for diffusion and heavy density bottom for reflection. One-piece construction with two-layer diffusing alabaster top and three-layer alabaster reflecting bottom. Thus approximately two-thirds of the light is directed upward and softly diffused, without ceiling shadows, over a wide area. The remaining one-third downward transmitted light is of low brightness, free from glare.

Furnished in plain or in D-452 decorative styles; specify when ordering.

Also furnished with ground neck (neckless) for use with G type fixture only. When ordering, specify 1/2 after number—i.e., 7730 1/2.

No.	Each	Fitter Inches	Diam. Inches	Depth Inches	Recommended Wattage	Estimated Std. Wt. Lb. per Pkg.
7775	\$3.30	4	9	6 1/2	75	8 24
7780	3.80	4	10	6 1/2	75-100	8 27
7710	5.00	*4 or 6	12	8 3/8	100-150	4 17
7720	7.60	6	14	8 7/8	200	2 10
7730	9.60	6	16	10 3/8	200-300	2 16
7750	13.70	†6 or 8	18	11	500	1 10

*The 4-inch size is standard; 6-inch size supplied on request only. †Specify either 6 or 8-inch size when ordering.

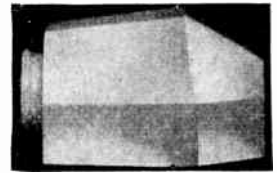
Graybar Miscellaneous Glassware

These shades are designed for use with some of the wall brackets and ceiling fixtures. They also can be used as replacements with fixtures of other makes that have standard fittings.

Made of a single layer homogeneous opal white glass of density carefully selected for diffusing qualities. This glass is light in weight and warm in color providing a more refined appearance than ordinary white commercial glass.



No. G-42

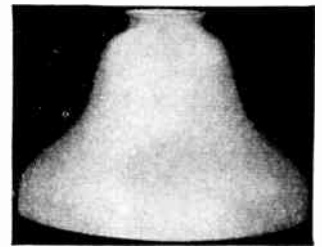


No. G-9504

No.	Each	Diam. In.	Depth In.	Fitter In.	Std. Pkg.	Shlp. Wt. Lb. per Std. Pkg.
G-42	\$.80	5 1/2	3 1/2	2 1/4	36	30
G-9504	.80	5	3 1/2	2 1/4	36	30



Nos. G-747 and G-975



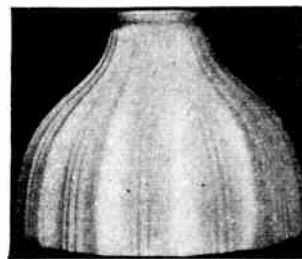
Nos. G-615, G-699, and G-700

No.	Each	Diam. In.	Depth In.	Fitter In.	Std. Pkg.	Shlp. Wt. Lb. per Std. Pkg.
G-747	\$.54	4 3/4	4 5/8	2 1/4	24	32
G-975	.66	6 1/8	5	2 1/4	27	37
G-615	.66	6	4	2 1/4	36	29
G-699	.90	7	5	2 1/4	24	30
G-700	1.24	8	5	2 1/4	24	42

Nos. G-346, G-347, and G-348

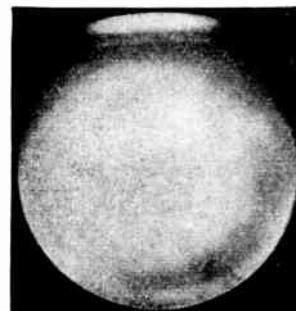


No.	Each	Diam. in.	Depth. in.	Fitter. in.	Std. Pkg.	Shlp. Wt. lb.
G-346	\$.88	7	2 3/4	2 1/4	33	33
G-347	1.24	9	3 5/8	2 1/4	33	34
G-348	1.40	9	3 7/8	2 1/4	33	34



Nos. G-340, G-341, and G-342

No.	Each	Diam. in.	Depth. in.	Fitter. in.	Std. Pkg.	Shlp. Wt. lb.
G-340	\$.66	6	4 1/2	2 1/4	24	27
G-341	.88	7	5 1/8	2 1/4	24	33
G-342	1.24	8	5 7/8	2 1/4	24	33



Nos. G-608-6 and G-608-8

No.	Each	Diam. in.	Depth. in.	Fitter. in.	Std. Pkg.	Shlp. Wt. lb.
G-608-6	\$.70	6	6	3 1/4	27	32
G-608-8	1.10	8	8	3 1/4	12	30

Alabax Porcelain Lighting Fixtures

Listed by the Underwriters' Laboratories

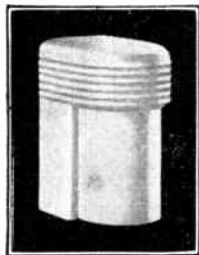
Fixtures will not tarnish, rust, stain or change color. Easy to clean—soap and water restore original luster.

An unusual degree of protection is afforded because porcelain is a complete insulator.

Fixtures with pull control are protected against damage by a snub, which takes the strain of unusual or unnecessary

pulling or abuse. Chain or cord can be broken without damage to pull mechanism.

Supplied in white or ivory glaze. Colors in glazes cannot change. They are permanently fired in at a temperature of approximately 2300°F. Glaze becomes an integral part of fixture, and is not subject to peeling or color change.



No. AL-3130

Ht., 6¼ in.; width, 3½ in.

No. AL-3130. Keyless. No outlet; with glass.

White.....each \$5.28

No. AL-3131. Push. With outlet; with glass.

White.....each \$6.30

No. AL-3134. Keyless. No outlet; with glass.

Black.....each \$5.88



No. AL-3100

Length, 6¾ inches; width, 4 inches. With pull.

No. AL-3100. With outlet.

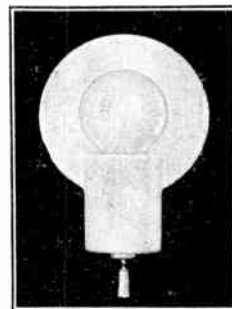
White.....each \$3.05

Color.....each 3.65

No. AL-3101. No outlet.

White.....each \$2.75

Color.....each 3.35



Length, 6¾ inches; width, 4¾ inches. With pull.

No. AL-2108. With outlet.

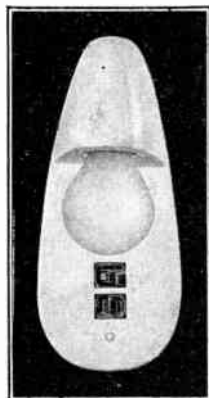
White.....each \$3.51

Color.....each 4.11

No. AL-2109. No outlet.

White.....each \$3.21

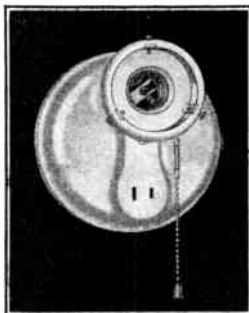
Color.....each 3.81



No. AL-2160. Keyless. Brown single pole switch P&S-1311. With T rating. Brown outlet with double contact, P&S-1320.

White.....each \$3.96

Color.....each 4.56



Diameter, 5⅜ inches. With convenience outlet and 2¼-inch shade holder; no glass.

No. AL-990. Pull.

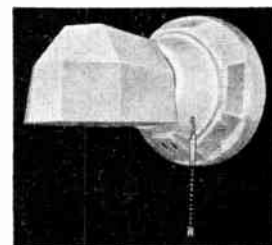
White.....each \$2.88

Color.....each 3.48

No. AL-980. Keyless.

White.....each \$2.58

Color.....each 3.18



No. AL-9234

Diameter, 5⅜ inches. With convenience outlet and glass.

No. AL-9234. Pull.

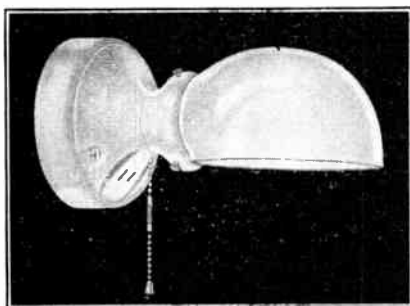
White.....each \$4.38

Color.....each 4.83

No. AL-9235 Keyless.

White.....each \$4.08

Color.....each 4.53



No. AL-2100 ND

Diameter, 4¾ inches. With glass.

No. AL-2100 ND. Pull. With outlet.

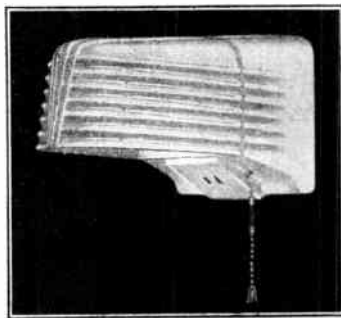
White.....each \$3.96

Color.....each 4.41

No. AL-2101 ND. Keyless. With outlet.

White.....each \$3.66

Color.....each 4.11



No. AL-2390

Length, 4⅝ inches; width, 4⅝ inches. With glass.

No. AL-2390. Pull. With outlet.

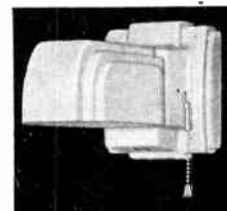
White.....each \$4.38

Color.....each 4.83

No. AL-2391. Pull. No outlet.

White.....each \$4.08

Color.....each 4.53



No. AL-2380

Length, 5 inches; width, 4½ inches. With convenience outlet and glass.

No. AL-2380. Pull.

White.....each \$4.38

Color.....each 4.83

No. AL-2382. Keyless.

White.....each \$4.08

Color.....each 4.53

Alabax Porcelain Lighting Fixtures

Approved by Underwriters' Laboratories



No. AL-2521
Diameter, 5½ inches.
No. AL-2521. Keyless.
White.....each \$1.71
Color.....each 2.16
No. AL-2521-P. Pull; short chain and long cord.
White.....each \$1.98
Color.....each 2.43



No. AL-3140. Diameter 5⅝ inches. Keyless.
Ivory.....each \$1.62
White.....each 1.17



No. AL-2007 ND
No. AL-2007 ND. Pull, with short chain, long cord.
White.....each \$1.59
Color.....each 2.04
No. AL-2011 ND. Keyless.
White.....each \$1.41
Color.....each 1.86



No. AL-859
Diameter, 4½ inches.
No. AL-859. Pull, short chain and long cord.
White.....each \$2.52
No. AL-898. Keyless.
White.....each \$1.74



No. AL-2401
Diameter, 5½ inches.
No. AL-2400. Pull, with long cord, short chain.
White.....each \$1.71
Color.....each 2.16
No. AL-2401. Keyless.
White.....each \$1.53
Color.....each 1.98



No. AL-2221. Diam. 4 inches. Pull; short chain, long cord.

White.....each \$1.35
Color.....each 1.80

No. AL-2260. Diam. 4 inches. Keyless.

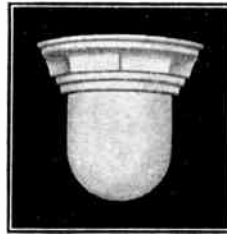
White.....each \$1.14
Color.....each 1.59

No. AL-2222. Diam. 4¾ in. Pull; short chain, long cord.

White.....each \$1.56
Color.....each 2.01

No. AL-2259. Diam. 4¾ in. Keyless.

White.....each \$1.35
Color.....each 1.80



Diameter of base, 5½ inches. Vapor proof.

No. AL-2300. With 5-inch CRI glass; for 25 to 75 watt lamps.

White.....each \$3.80
Color.....each 4.37

No. AL-2303. With 5-inch opal glass; for 25 to 75 watt lamps.

White.....each \$3.80
Color.....each 4.37

No. AL-2301. With 6-inch CRI glass; for 25 to 100 watt lamps.

White.....each \$4.17
Color.....each 4.75



Diameter, 5⅛ inches.
No. AL-2106. Pull, with short chain and long cord.

White.....each \$1.80
Color.....each 2.25

No. AL-2107. Keyless.

White.....each \$1.62
Color.....each 2.07



Diameter, 5½ inches; keyless; 4-inch fitter.

No. AL-2072.

Ivory.....each \$2.77
White.....each 1.98



Reflector and base cast integral.

Diameter of base, 5½ inches.

Nos. AL-2030 and AL-2031
Diameter of reflector, 6½ inches. White, 40 to 60 watt lamps.

Overall height, 4⅝ inches.

No. AL-2030. Keyless
.....each \$3.54

No. AL-2031. Pull Switch.....each 5.43

Nos. AL-2032 and AL-2033
Diameter of reflector, 8 inches. White, 75 to 100 watt lamps.

Overall height, 6½ inches.

No. AL-2032. Keyless
.....each \$4.74

No. AL-2033. Pull Switch.....each 6.72



No. AL-2019
Diameter, 5¾ inches. With 4-inch fitter.

No. AL-2019. Pull, with short chain, long cord.

White.....each \$2.37
Color.....each 2.97

No. AL-2020. Keyless.
White.....each \$2.19
Color.....each 2.79



Diameter, 5⅛ inches.
No. AL-2378. With 9-inch plastic bowl. For 75 watt lamps.

White.....each \$4.50
Color.....each 4.95

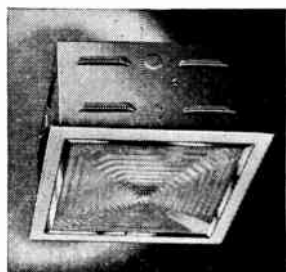
No. AL-2379. With 12-inch plastic bowl. For 100 watt lamps.

White.....each \$5.40
Color.....each 5.95

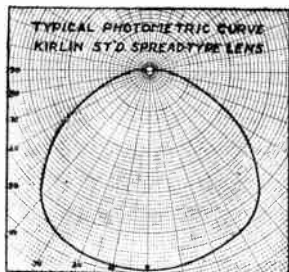
Kirlin Recessed Lighting

Listed as Standard by Underwriters' Laboratories

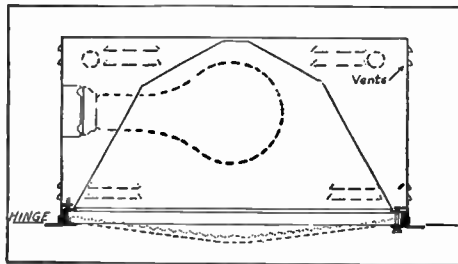
Incandescent



Square Unit



Typical Wide Distribution



Cross Section of Square Unit

Wide Distribution

Standard finish, satin stainless door, white ground-coat frame. All units have Underwriters' Laboratories and I.B. E.W. labels.

May be had with top of box removable for relamping from above ceiling, on special order.

No.	Each	Maximum Watts	SIZE CEILING OPENING, INCHES		
			Length	Width	Depth
1207	\$15.30	100	7 $\frac{3}{4}$	7 $\frac{3}{4}$	5 $\frac{1}{8}$
1208	18.20	150	9 $\frac{1}{4}$	9 $\frac{1}{4}$	5 $\frac{1}{2}$
1212	27.10	300 Med.	13 $\frac{1}{4}$	13 $\frac{1}{4}$	7 $\frac{5}{8}$
*1512	30.00	300 Med.	13 $\frac{1}{4}$	13 $\frac{1}{4}$	7 $\frac{5}{8}$
1218	77.30	500	19 $\frac{3}{8}$	19 $\frac{3}{8}$	13

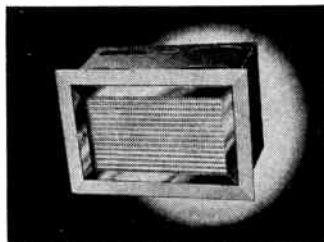
*Has clear center in lens.

All units have Alzak polished reflector, hinged doors. All units can be supplied with shock-proof glass on special order.

Concentrating 30° Beam

No.	Each	Watts	SIZE CEILING OPENING, INCHES		
			Length	Width	Depth
1409	\$20.40	150	9 $\frac{1}{4}$	9 $\frac{1}{4}$	5 $\frac{1}{2}$
1412	29.60	300 Med.	13 $\frac{1}{4}$	13 $\frac{1}{4}$	7 $\frac{5}{8}$

Rectangular Units



Albalite diffusing glass, Alzak reflector.

No. 508

Watts, 100. Length, 8 $\frac{1}{2}$ inches; width 5 $\frac{1}{2}$ inches; depth, 5 $\frac{3}{8}$ inches
No. 508 each \$13.90

No. 414

Watts, 40; uses T8 bulb. Length, 14 $\frac{1}{4}$ inches; width, 3 $\frac{3}{8}$ inches; depth, 4 inches.
No. 414 each \$15.40

Exits, Recessed Flush

Six-inch letters.

Box, width, 8 $\frac{3}{8}$ inches; length, 13 $\frac{1}{8}$ inches; depth, 3 $\frac{5}{8}$ inches.

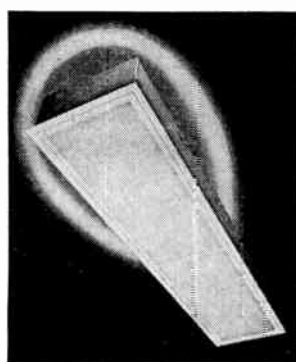
"No-Guard" type hinged exit uses shock-proof glass for gymnasiums.

White letters, red background.

No. 4506 each \$13.70
No. 4516 "No-Guard" . . . each 22.90



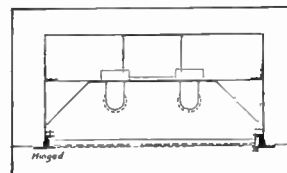
Fluorescent



Hinged Door Type

All H.P.F. ballasts, finish white ground-coat. Hinges concealed. Wide distribution of light.

Hinged Door and Open Troffer Types



Cross-Section of No. 240B

Frames arranged for single sections or continuous runs. If for runs specify length; small extra charge for runs, \$2.22 per section. Two-lamp units fit 12-inch acoustic tile ceilings. Albalite glass used.

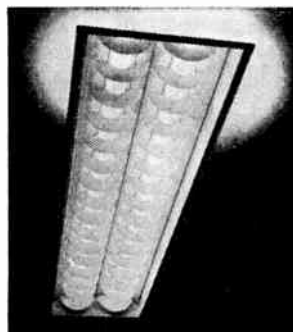
Baked white reflectors standard.

Alzak GlasSurfaced reflectors may be supplied at extra cost.

Hinged Door Type	No.	Each	Open Troffer		SIZE FOR CEILING OPENING, IN.			
			No.	Each	BULBS	Width	Length	Depth
220B	\$46.17	220TR	\$36.17	2	20	11 $\frac{3}{4}$	24 $\frac{1}{2}$	6 $\frac{1}{8}$
420B	72.66	420TR	53.53	4	20	16 $\frac{3}{8}$	24 $\frac{1}{2}$	6 $\frac{1}{8}$
230B	62.08	230TR	42.53	2	30	11 $\frac{3}{4}$	36 $\frac{1}{2}$	6 $\frac{1}{8}$
240B	59.12	240TR	39.78	2	40	11 $\frac{3}{4}$	48 $\frac{1}{2}$	6 $\frac{1}{8}$
440B	92.88	440TR	65.34	4	40	16 $\frac{3}{8}$	48 $\frac{1}{2}$	6 $\frac{1}{8}$



Snap-On Disc Louver



Snap-On Louver in Open Troffer

A full size louver, width, 1 $\frac{1}{4}$ inches. Discs may be interlocked on two lamp units. The original and highest efficiency louver. Lightweight, 48-inch louver 11 ounces. White baked enamel on spring steel.

Packed 24 of one size in a carton.

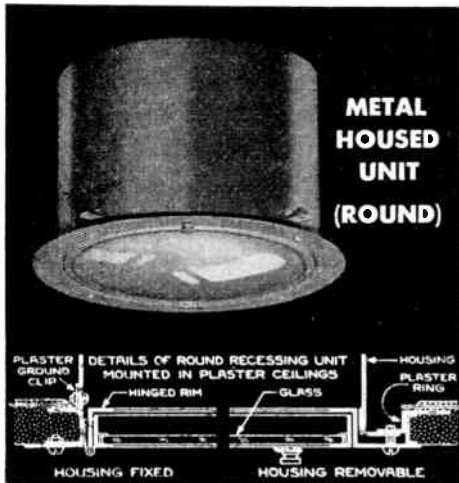
No.	Each	Size In.	Watts
60D	\$4.12	60	100
48D	2.22	48	40
36D	2.90	36	30
24D	1.53	24	20
18D	1.52	18	15

Curtis Incandescent Recessed Lighting Units

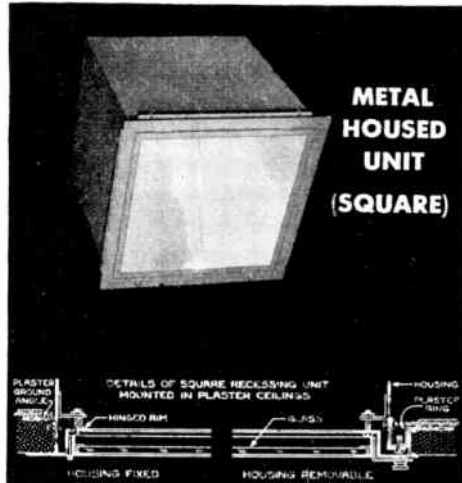
Maximum allowable spacing for good general lighting is approximately one and one half times distance of unit to working plane for good distribution of light with units listed. Concentrating reflector units, however, provide a spot-

light effect immediately under the unit and are not suitable for general lighting.

Satin Gray finish on louver and inside of housing. White Fluoracite finish on hinged rims.



Round



Square

Metal Housed Recessing Units

*For General Lighting

Bears Underwriters' Recessing Label

Fitted with "X-Ray" silver mirror reflectors, for maximum efficiency, and a hinged rim which holds the louvers and cover glasses.

Can be permanently set into plaster ceilings without plaster rings, but plaster rings should be ordered separately where housing must be removable for access to wiring.

Shallow types have aluminum interior finish and two sockets arranged to hold lamps in a horizontal position.

Large Round Deep Units—For 300-Watt Medium Base Lamps

Space required for recessing, 15 1/4 inches.
Dimensions: housing diameter, 14 1/2 inches; lens diameter, 14 inches; louver diameter, 14 inches; rim, 17 3/8 inches overall.

- No. 2309, with Cracked Glass Lens Only.....each \$25.50
- No. 2329, with Lens and Concentric Louver....each 29.60

If plaster ring is required, order No. 14038.

Large Round Shallow Units—For Two 150-Watt Lamps

Space required for recessing, 6 inches.
Dimensions: housing diameter, 11 1/2 inches; lens diameter, 14 inches; louver diameter, 14 inches; rim, 17 3/8 inches overall.

- No. 2302, with Sanded Glass Lens Only.....each \$15.25
- No. 2322, with Lens and Concentric Louver....each 20.85

If plaster ring is required, order No. 14038.

Small Round Deep Units—For 200 or 300-Watt Medium Base Lamp

Space required for recessing, 12 1/2 inches.
Dimensions: housing diameter, 11 3/16 inches; lens diameter, 10 inches; louver diameter, 10 inches; rim 12 5/8 inches overall.

- *No. 2306, with Sanded Glass Lens Only.....each \$17.75
- *No. 2315, with Concentric Louver Only.....each 20.65
- *No. 2326, with Lens and Concentric Louver....each 22.00

If plaster ring is required, order No. 14037.

Small Round Shallow Units—For Two 100-Watt Lamps

Space required for recessing, 6 inches.

Dimensions: housing diameter, 11 3/16 inches; lens diameter, 10 inches; louver diameter, 10 inches; rim, 12 5/8 inches overall.

- No. 2301, with Sanded Glass Lens Only.....each \$10.15
- No. 2321, with Lens and Concentric Louver....each 14.60

If plaster ring is required, order No. 14037.

Square Deep Units—For 200 or 300-Watt Medium Base Lamp

Space required for recessing, 13 1/4 inches.

Dimensions: housing, 10 7/8 inches; square; lens, 10 inches, square; louver, 10 inches, square; rim, 13 1/4 inches, square.

- No. 2455, with Etched Glass Lens Only.....each \$24.10
- No. 2495, with Lens and Pattern Louver....each 27.65

Square Shallow Units—For Two 100-Watt Lamps

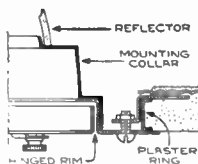
Space required for recessing, 6 inches.

Dimensions: housing, 10 7/8 inches, square; lens, 10 inches, square; louver, 10 inches, square; rim, 13 1/4 inches, square.

- No. 2451, with Etched Glass Lens Only.....each \$16.90
- No. 2491, with Lens and Pattern Louver....each 20.60

If plaster ring is required, order No. 14042.

*If housed units are wanted with concentrating type reflectors, use the following Nos. in place of Nos. 2306, 2315, and 2326 respectively (available in small round deep housings only): No. 2304, each \$18.60; No. 2314, each \$20.65; No. 2321, each \$22.65.



Hinged Rim Recessing Units

Without Housing

Furnished with "X-Ray" reflector, holder socket and shell, mounting collar and hinged rim with cover glass, concentric louver, or guard.

Plaster ground rings are not furnished but should be ordered separately when units are to be set into a plaster ceiling. May be serviced either from above or below.

For General Lighting

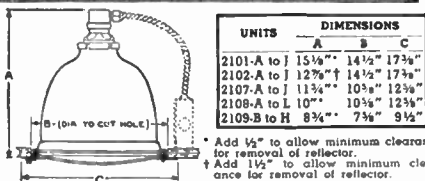
Wattage	With Lens Glass Only		With Lens and Louver		With Louver Only	
	300, 500	2101-A	\$20.75	2102-F	\$25.65	2102-II	$22.10
200, 300	2104-B	13.50	2104-F	17.75	2105-II	15.65
100	2109-B	9.40	2109-F	13.50	2109-II	12.40

Concentrating Units for Spotlighting Only

200 or 300	2106-A	\$13.60	2106-F	\$17.65	2106-II	\$15.65
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Plaster Ring

No. 14038, For 14-Inch Size Units.....	each	\$1.10
No. 14035, For 10-Inch Size Units.....	each	.88
No. 14011, For 7-Inch Size Units.....	each	.83



Curtis "X-Ray" Silver Mirror Show Window Reflectors

Recessing



No. 420
"Master" Model



No. 500
"King" Model

Made of crystal glass mirrored with pure silver.

No. 420 is semi-concentrating for shallow windows using 100 or 150-watt incandescent lamp. Adjustable holder included. Louver No. 12420 (U-Type) is furnished at extra cost. Dimensions: diameter, 8⁵/₈ inches; height with holder, 7¹/₆ inches.

No. 500 is an angle type for deep windows using 150, 200, or 300-watt medium base incandescent lamp. Adjustable holder is included. Dimensions: width, 10 inches; depth, front to back, 10¹/₂ inches. Height with holder, 10 inches.

No. 530 is semi-concentrating for shallow windows using 150, 200 or 300-watt medium base incandescent lamp. Adjustable holder is included. Louver No. 12531 (U-Type) is furnished at additional cost of \$1.25 each. Dimensions: diameter, 9³/₄ inches. Height, with holder, 9¹/₆ inches.

No. 1010 is semi-concentrating for very large windows using 300 or 500-watt mogul base incandescent lamp. Holder included is No. 10010, 3³/₄-inch which fits "X-Ray" mogul base sockets only. Socket No. 8300-B is included and has a 1/2-inch back outlet. Dimensions: diameter, 13 inches. Height, with holder and socket, 12³/₈ inches.

Installation: Nos. 420, 500, and 530 are usually installed on CurtiStrip using No. 5 socket or on outlet box by means of box cover receptacle unit; No. 1010 is installed directly on conduit or on a 1/2-inch or 3/8-inch nipple. May be recessed with finishing flanges.

Reflector No.	Each	Finishing Flange		Plaster Ring				
		No.	Each	Width of Flange Inches	No.	Each	Min. Spacing	*X
420	\$4.35	10517	\$1.08	10 ⁵ / ₈	14027	\$.82	10 ⁵ / ₈	12 ³ / ₈
500	5.35	11500	3.25	12				
530	5.00	14026	1.58	11 ³ / ₄	14028	.88	11 ³ / ₄	12 ³ / ₈
1010	11.00	14110	1.58	15 ¹ / ₂	14111	1.08	15 ¹ / ₂	15 ⁷ / ₈

*Dimension X is distance from front to back of plaster ring, measured on mounting screw hole-centers.

Accessories

Metal Shell Porcelain Sockets—Medium Base



For Screw Engaging "X-Ray" Holders Only

No. 8251-S, With 1/2-Inch Side Outlet each \$1.08

No. 8257-B, With 1/2-Inch Back Outlet each 1.08

With Groove for Clamping Type Holders

No. 8290-B, With 1/2-Inch Back Outlet each \$1.08

No. 8291-S, With 1/2-Inch Side Outlet each 1.08

Box Cover Socket Units



For Screw Engaging "X-Ray" Holders Only

No. 10145-B, For 3-Inch Outlet Box each \$.47

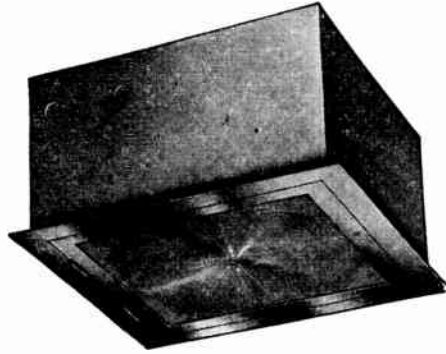
No. 10146-B, For 4-Inch Outlet Box each .50

With Groove for Clamping Type Holders

No. 10160-B, For 3-Inch Outlet Box each \$.47

No. 10161-B, For 4-Inch Outlet Box each .50

Wheeler Flush Lighting Units



No. 1860, Single Gang Unit

Designed to set into ceiling or wall so that front will be flush with finished plaster. Box portion is equipped with adjustable flanges on outside so that box can be fastened into position during construction of building before it is

plastered. Each box is equipped with compartment in which all wiring can be done.

Door and trim constructed of 12-gage steel.

Door is cut out to take standard size lens and is provided with a means of holding lens in place.

Boxes and trims finished aluminum bronze inside and out.

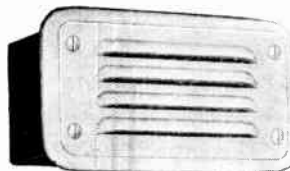
Box portion is constructed of 16-gage steel welded together at corners.

No.	Each	Lamp Position	Lamp Watts	Lens Size In.	Trim In.	Box, Inches	Depth
1860	\$23.00	Vertical	25-60	6 ¹ / ₂	9 ³ / ₄	8 ¹ / ₂	8
1861	17.00	Horizontal	25-60	6 ¹ / ₂	9 ³ / ₄	8 ¹ / ₂	4 ¹ / ₂
1862	24.00	Vertical	75-150	8 ¹ / ₂	12	10 ¹ / ₂	11 ¹ / ₂
1863	20.00	Horizontal	75-150	8 ¹ / ₂	12	10 ¹ / ₂	5 ¹ / ₂
1864	31.00	Vertical	200-300	12	15 ¹ / ₂	14 ¹ / ₄	13
1865	27.00	Horizontal	200-300	12	15 ¹ / ₂	14 ¹ / ₄	8

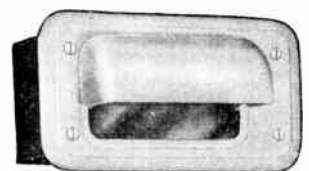
If lens is required for greater diffusion, suffix No. with letters VFD and add \$1.00 to price.

Special chromium-plated reflector for use in any of above boxes, \$5.00 extra for 6¹/₂ and 8¹/₂-inch sizes; \$7.00 for 12-inch size. Wire guard for 12-inch plate only, \$3.00 extra.

Wheeler Hospital Night Lights



No. 1877 Louver Type



No. 1878 Visor Type

Louver type night light is usually mounted eighteen inches or two feet above the floor. Louvers obstruct the light from shining in patients eyes. Box is 14 gage steel finished aluminum bronze inside and out. Face plate is cast aluminum finished in baked white enamel. A clear glass panel behind the louvers prevents dust from collecting in the box.

Visor type night light furnishes direct or indirect light over the bed or table in sick rooms. Visor swings up or down. Box is made of 14 gage steel painted aluminum bronze inside and out. Face plate is cast aluminum and is equipped with a clear glass panel over which visor swings. Face plate and visor are finished in baked white enamel.

Lens-in-door type is a corridor night light designed to set flush with the finished wall. Usually installed about two feet above the floor. Box is 16 gage steel finished aluminum bronze inside and out. Front consists of door and trim of 12 gage steel finished in baked white enamel. Lens is a diffusing type.

Cat. No.	Each	Watts	FACE OR TRIM - INCHES -	BOX DIMENSIONS, INCHES		
				Lgth.	Width	Depth.
1877	\$5.00	25-10	6 ³ / ₄ x3 ³ / ₄	6	3	3 ¹ / ₄
*1878	7.00	25-10	6 ³ / ₄ x3 ³ / ₄	6	3	3 ¹ / ₄
1879	15.00	25-100	9 ³ / ₄ x9 ³ / ₄	8 ¹ / ₂	8 ¹ / ₂	3 ¹ / ₄

*Can be furnished with toggle switch at an increase of \$2.00.

Wheeler Exit Signs



No. 2331-SHF

Wheeler exit signs are attractive in appearance, and fully meet the requirements of the most modern theatres, auditoriums and public buildings. They are available in a variety of designs, single-faced, double-faced and tri-angular, with five, six or eight-inch letters to comply with state laws.

All Wheeler exit signs are made of heavy gage sheet iron, finished aluminum bronze inside and dark bronze outside; signs can be finished outside in any color to match woodwork or wall finish, if desired and so specified on order. Prices on application.

All exit signs are supplied with two receptacles, unwired, for use with 25-40 watt lamps.

Wheeler stenciled exit signs are most attractive and efficient. The letters are stenciled Old Roman and are backed with imported ruby glass, which is sandblasted on the back to give even, diffused light. When the sign is lighted, only the red letters "Exit" can be seen, with no undesirable light around the letters.

Flush type exit signs with hinged fronts are heavier and more rugged than the standard signs. Hinged door permits quick and easy access to lamps and sockets.

Triangular exit signs are supplied with the word "Exit" on two sides. This type of sign is used in corridors and can be seen from either end of the corridor.

Standard Single-Faced Exit Signs

Stenciled Letters Backed with Imported Ruby Glass

Height Letter Inches	Surface Type		Flush Type	
	Box, INCHES Lgth. Ht.	No. Each	Depth Box In.	No. Each
5	14 7	2330 \$7.60	3	2331 \$8.20
6	14 8	2334 10.75	3	2333 11.20
8	14 10	2336 13.25	3	2335 13.50

White Opal Letters on Painted Red Background

Height Letter Inches	Surface Type		Flush Type	
	Box, INCHES Lgth. Ht.	No. Each	Depth Box In.	No. Each
5	14 7	2315 \$8.70	3	2322 \$9.30
6	14 8	2316 9.50	3	2323 10.10
8	14 10	2317 10.30	3	2324 11.40

Flush Type Exit Signs with Hinged Steel Fronts

Height Letter Inches	Surface Type		Flush Type	
	Box, INCHES Lgth. Ht. Dpth.	Stenciled Ltrs. Backed with Ruby Glass No. Each	White Opal Ltrs. on Painted Red Background No. Each	No. Each
5	14 7 4	2331-SHF \$14.20	2322-SHF	\$15.30
6	14 8 4	2333-SHF 17.20	2323-SHF	16.10
8	14 10 4	2335-SHF 19.50	2324-SHF	17.40

Triangular Exit Signs (Surface Type)

Height Letter Inches	Surface Type		Flush Type	
	Box, INCHES Lgth. Ht. Dpth.	Stenciled Ltrs. Backed with Ruby Glass No. Each	White Opal Ltrs. on Painted Red Background No. Each	No. Each
5	14 1/2 7 12 1/2	2346 \$18.80	2355	\$21.00
6	14 1/2 8 12 1/2	2347 27.55	2356	22.50
8	14 1/2 10 12 1/2	2348 32.05	2357	23.50

Kliegl Disappearing Type Footlights

When not in use, this type is closed down flush with stage floor. Wired for three colors. Automatic mercury on and off circuit switches. Solid kiln-dried oak flooring. Malleable iron cross brackets, positive latches. Terminal blocks for feeder connections.

Furnished in standard five-foot lengths. Completely assembled.

No. 829 Open Trough Style



For use with colored lamps.

With continuous reflector, sprayed white.

Single row receptacles, continuous flooring, 5-foot sections, 15 outlets, 60-100 watts.

No. 829.....each \$55.00

No. 832 Individual Reflector Style



For use with clear or inside frosted lamps.

Has single row Alzak aluminum reflectors and glass color-roundels.

Hinged mounting, continuous flooring, 5-foot section, 12 outlets, 100 watts.

No. 832.....each \$72.00

No. 610 Kliegl Individual Reflector and Roundel Borderlights

Wired as specified, for three or more colors. Furnished with splice box, scenery guards, and chain hangers.

Any continuous length, or in sections.



For clear or inside frosted lamps. Alzak aluminum individual reflectors. Heat-resisting glass color roundels, hinged-ring roundel holders. Porcelain screw-base receptacles, 100 or 150-watt outlets as specified, 6 inches on centers.

No. 610.....per foot \$13.00

Kliegl Stage-Floor Type Pockets



No. 354

Set in floor flush with surface. Has hinged self-closing cover notched for passage of cable. Fitted with heavy duty plug outlets.

Listed by Underwriters' Laboratories.

Furnished complete with two-wire plugs.

250 Volts

No.	Each	No. of 2-Wire Outlets	Ampers per Outlet	No.	Each	No. of 2-Wire Outlets	Ampers per Outlet
351	\$12.00	1	50	*355	\$14.00	1	30
352	22.00	2	1-25, 1-50	*356	26.00	2	30
353	32.00	3	25	*357	38.00	3	30
354	42.00	4	25	*358	50.00	4	30
1350	42.00	1	100	...	.....	..	..

*Each plug and receptacle with separate ground leg.

Kliegl Wall Type Pockets



No. 311



No. 319

Heavy duty plug outlets for use wherever heavy current temporary connections are required—in theatres, projection booths, photographic studios, hotels, schools, industrial plants, etc. Listed by Underwriters' Laboratories.

Furnished complete with two-wire plugs.

250 Volts

Flush Wall Mounting

No.	Each	No. of 2-Wire Outlets	Amperes per Outlet	No.	Each	No. of 2-Wire Outlets	Amperes per Outlet
310	\$11.00	1	50	*361	\$13.00	1	30
311	18.00	2	50	*362	22.00	2	30
312	26.00	3	50	*363	32.00	3	30
313	34.00	4	50	*364	42.00	4	30

Surface Wall Mounting

307	\$8.80	1	50	*366	\$11.00	1	30
317	16.00	2	50	*367	20.00	2	30
318	23.50	3	50	*368	30.00	3	30
319	31.00	4	50	*369	39.00	4	30

*Each plug and receptacle with separate ground leg.

Kliegl Portable Plugging Boxes



No. 400

For conveniently and quickly connecting several circuits to single outlet. Plug receptacles mounted in fireproofed case. Each receptacle independently fused. Feeder cable enters through special clamp.

Made to withstand rough usage.

Furnished complete with plugs.

Furnished with cartridge fuses, unless otherwise ordered. Other arrangements for heavier current demands available.

2-Wire Outlets Amperes	2-Wire Main		3-Wire Main	
	No.	Each	No.	Each
6-30	400	\$37.00	402	\$39.00
12-30	401	69.00	403	71.00
4-50	404	42.00	405	44.00
6-50	406	57.00	407	59.00

Kliegl Aisle, Step, and Corridor Lights

Casts subdued light downward on steps and aiseways, or diffused light in corridors.

No. 675 Aisle Spot Lights



For mounting on side of end seats adjoining aisleway. Cast aluminum housing with control lens and receptacle for 10-watt, S14 lamp.

Width, 3 inches; height, 6 inches; and depth, 2 3/4 inches.

No. 675.....each \$4.50

No. 2677 Step Lights



For stairways, mounted flush in riser.

Louvered openings direct light to tread. Removable cast aluminum front.

For 40-watt, medium screw-base lamp.

Width, 8 inches; height, 4 1/8 inches; and depth, 3 1/2 inches.
No. 2677.....each \$5.00

No. 2666 Aisle Lights



For flush wall mounting.

Louvered front directs light to floor. Front is removable.

For 40-watt, medium screw-base lamp.

Width, 4 1/8 inches; height, 8 1/4 inches; and depth, 3 1/2 inches.
No. 2666.....each \$5.00

No. 2681 Corridor Lights



For flush wall mounting.

Cast bronze, removable front, wire-glass face.

For 40-watt, medium screw-base lamp.

Width, 4 1/8 inches; height, 8 inches; and depth, 3 1/2 inches.
No. 2681.....each \$8.00

Kliegl Lighting Fixtures

Prices given below do not include lamps

Recessed Fresnel-Lens Ceiling Units

Flush inbuilt type which provides high intensity direct illumination. Accommodates standard screw-base general service incandescent filament lamps. Furnished complete with back box, mounting arrangements, wired porcelain receptacle, Alzak aluminum reflector, Fresnel lens with painted risers, and hinged front frame.



No. 22F12

No. 22F06, 100 Watts, 6-Inch Diam. Lens.....each	\$18.00
No. 22F08, 150 Watts, 8-Inch Diam. Lens.....each	22.00
No. 22F12, 200-300 Watts, 12-Inch Diam. Lens.....each	30.00
No. 22F14, 300-500 Watts, 14-Inch Diam. Lens.....each	40.00
No. 22F16, 500-750 Watts, 16-Inch Diam. Lens.....each	50.00

Circular Lens Types

Fitted with circular Fresnel lens of listed diameter. Circular front frame. Cylindrical back box. Plaster rings.



No. 24F12

No. 24F06, 100 Watts, 6-Inch Square Lens.....each	\$22.00
No. 24F08, 150 Watts, 8-Inch Square Lens.....each	26.00
No. 24F12, 200-300 Watts, 12-Inch Square Lens.....each	30.00

Square Lens Types

Fitted with square shaped Fresnel lens of indicated size. Square hinged front frame. Rectilinear back box.

Downlights—Concealed Ceiling Units

Provides high intensity direct illumination. Projects light beam through small hole in ceiling.



No. 2503

No. 2501, 150-Watt, Medium Screw Base.....each	\$38.00
No. 2503, 200-300-Watt, Medium Screw Base.....each	48.00
No. 2504, 300-500-Watt, Mogul Screw Base.....each	66.00
No. 2505, 750-1000-Watt, Medium Bipost.....each	82.50

Fixed Beam Types—Relamped from Above

For general lighting. Gives soft edge beam. Uses standard service lamps. Furnished with ellipsoidal reflector and fixed-focus lens system.

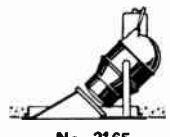
Adjustable Beam Types—Relamped from Above

For defined lighting and general illumination, either straight down or approximately 45° angular projection.

Sharp or soft edge cut-off. Shape and size of beam can be regulated. Has focusable lens, adjustable framing shutters, and reflector. Uses concentrated filament type lamps.



No. 2164



No. 2165

Watts	RATING	Volts	No.	*Each	Projection
250-500		115	2164	\$40.00	Straight Down
1000		115	2166	68.00	Straight Down
1500-2000		115	2168	83.00	Straight Down
250-500		115	2165	46.00	Angular
1000		115	2167	72.00	Angular
1500-2000		115	2169	88.00	Angular

*For relamping from below, add \$6.00 for straight down and \$8.00 for angular projection units.

Pin-Hole Spot Units—Relamped from Below

Furnished with plaster ring, removable aperture plate, and spherical reflector.

Approved by Underwriters' Laboratories, Inc.

Can also be furnished for top relamping.



No. 2145

Watts	RATING	Volts	No.	Each	Projection
100		115	2145	\$36.00	Straight Down
100		115	2146	38.00	Angular

Kliegl Picture and Poster Lights

Fitted with objective lens system and adjustable framing shutters, permitting confinement of light within picture area.



No. 276AA

No. 276, For 75 or 100-Watt G16 1/2 D.C. Bayonet Base Lamp.....each	\$24.00
No. 276AA, For 100-Watt P25, 250-400-Watt G30 Medium Screw-Base Lamp.....each	30.00

Kliegl Illuminated Exit Signs

For general safety requirements in places of assembly. Made in a variety of standard designs, well lighted, legible, and attractive. Meet all code requirements.



Flush Types

Recessed in wall, flush with surface. Wall box and front frame furnished as separable parts.

Hinged Style Front

Detachable, hinged, sheet metal frame for holding glass insert.

Ruby glass face plate. Plain white letters. Sprayed bronze finish.

No.	Each	Ht. of Letters Inches	Front Frame Size, In.	BACK BOX, INCHES	
				Size	Depth
6945	\$6.60	5	12 1/2 x 8	11 1/2 x 7	3 1/2
6946	8.00	6	15 x 9	14 1/2 x 8	3 1/2
6948	9.50	8	17 x 11 1/2	15 7/8 x 10 1/2	3 1/2

Pivoted Style Front

Removable cast-bronze frame with swinging panel for holding glass insert.

Ruby glass face plate. Fancy white letters. Statuary bronze finish.

No.	Each	Ht. of Letters Inches	Front Frame Size, In.	BACK BOX, INCHES	
				Size	Depth
696	\$18.00	3	14 1/4 x 7	13 x 6	3 1/2
697	20.00	4	15 3/4 x 9	14 1/4 x 7 5/8	3 1/2
699	28.00	6	17 3/8 x 10 1/2	16 1/8 x 9 1/2	3 1/2
698	35.00	8	18 x 12 1/2	16 3/4 x 11 5/8	3 1/2
*697W	23.00	4	15 3/4 x 9	14 1/4 x 7 5/8	3 1/2

*Equipped with wire guard for protection of glass face plate.

Pigtail wired socket installed, \$1.00 each additional.

Surface Types



Mounted on surface of wall, or semi-recessed, allowing 1/2-inch projection for removal of glass panel. Glass slides in from side. Single face signs with gold finish metal box. Ruby glass face plate, white letters. Depth, 3 1/2 inches.

Double face signs are also available.

No.	Each	680	685	686	687	690
Each		\$4.00	4.50	5.00	5.00	5.50
Size Letters	inches	3	5	6	8	8
Size Box	inches	10x5	11 1/2 x 6 3/4	14x8	12x10	15 3/4 x 10

Pigtail wired socket installed, \$1.00 each additional.



No. 711A Outlet Box Types

Made for attachment to standard octagonal 4-inch outlet box in wall.

Includes base plate, medium screw receptacle socket, and red lens with opaque letters.

Finished in brushed brass or statuary bronze.

Has 5-inch diameter; with 2-inch letters on front.

No. 711A.....each \$5.50

Kliegl Floodlights

Stage Units

Used from side wings or from overhead on the stage. Provided with slide grooves on front for color frames with gelatine mediums. For P. S. lamps.

No. 1N Standing Types

Open-box reflector sprayed white; grooves for color frame. Pedestal floor stand, 25-foot cable, For 500-1500 watts.

No. 1N.....each \$31.00

No. 2N Standing Types

Parabolic boxed Alzak aluminum reflector; grooves for color frame. Pedestal floor stand, 25-foot cable. For 500-1500 watts.

No. 2N.....each \$42.00

No. 540 Hanging Types

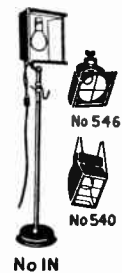
Open-box reflector sprayed white; chain hangers; asbestos leads; grooves for color frame. For 500 watts.

No. 540.....each \$17.00

No. 546 Hanging Types

Parabolic boxed Alzak aluminum reflector; grooves for color frames; asbestos leads; pipe clamp hanger. For 500 watts.

No. 546.....each \$26.00



Kliegl Color Gelatines

Furnished in all standard colors. Conventional Gelatine, 20x24-In. Sheets.....per sheet \$1.16 Heat and Moisture-Proof Gelatine, 20x22-In. Sheets.....per sheet .40

Kliegl Color Wheels

Hand Operated



No.	Each	Diam. In.	Colors	For Spotlights, Lens Size Inches
14	\$3.50	13 1/2	5	4 1/2
22	6.00	18	5	5 or 6
24	8.60	20	7	5 or 6
23	11.00	24	5	8

Motor Operated



Furnished with a.c. motors, 60 cycles, 115 volts.

No.	Each	Diam. In.	Colors	For Spotlights, Lens Size Inches
14AC	\$17.00	15 3/8	6	4 1/2
31AC	32.00	20	6	5 or 6
35AC	38.00	24	5	8

Can also be furnished with d.c. motors. Prices upon application.

Kliegl Dimmers



Round plate, resistance type dimmers for flat mounting on wall or similar surface. For general use and serviceable for continuous duty at their rated capacity.

Not adaptable for interlocking in color groups.

No.	Each	WATTS Min.	WATTS Max.	No. of Plates	Plate Size, In.	No.	Each	WATTS Min.	WATTS Max.	Plate Size, In.
1229	\$16.90	60	150	1	8	1237	\$26.00	1005	1350	1
1230	16.90	155	250	1	8	1238	35.10	1355	1650	1
1231	16.90	255	400	1	8	1239	36.40	1655	2000	1
1233	18.20	405	550	1	8	1240	42.90	2005	2450	1
1234	20.80	555	650	1	8	1241	52.00	2455	2700	1
1235	23.40	655	750	1	13	1242	54.60	2705	3000	1
1236	23.40	755	1000	1	13	.....	.....	.....	.....	.....

Kliegl Carbon-Arc Spotlights

General Service Types



Standard designs with plano-convex condensing lens. Hand-feed arc spots.

Provided with external focusing and arc feed control. Hand grip for directional movement. Arc ballast resistance on stand. Enclosed line switch. Cable, 25 feet.

No.	Each	9	10	11	18
Each		\$125.00	160.00	195.00	210.00
Rating	amps.	35	50	70	70
Lens Diam.	in.	6	6	6	8

All-Duty Booth Types

High powered, long-range arc spotlights fully equipped with boomerang for rapid color changes.

No. 1695 is a 100-ampere hand feed arc spotlight. Working range, 100 to 150 feet; 8-inch condensing lens. Five color frames in color box on front. Mounted on tubular-steel side-bracket on heavy cast iron base. Asbestos leads and line switch.

No. 1695.....each \$850.00

No. 1701 is a 140-ampere automatic and hand feed arc spotlight. Working range, 100-200 feet; 10-inch condensing lens. Has 6 removable color frames in boomerang in front of spot, keyed color levers on side. Built-in iris and curtain shutters. Movable arc carriage with focusing control hand wheel and position indicator. Motor driven mechanism for automatic arc regulation interconnected with hand controls. Balanced and supported in yoke on massive base. Complete with leads and booster switch.

No. 1701.....each \$1400.00

NOTE. Resistance for connection in series with all-duty arc spots not included in prices listed. When ordered, they are supplied as separate units, without cable, for mounting at some out of the way location.



Kliegl Klieglights

High intensity light beam projectors with ellipsoidal reflectors, lens system, and coordinated shutter arrangement which permits direct regulation of size and shape of beam in every conceivable manner, so as to confine the light within any desired area. Accommodates standard bipost base up burning concentrated filament lamps.

*Mounted Types

For permanent installation with square shutters only. Supplied with wall brackets, pipe clamps, or table base.

No.	Each	Shutters	Watts	Lens, In.
1163	\$31.00	Drop-In	250-500	5
1365	139.00	Built-In	250-500	6
†1165	153.00	Built-In	250-500	6
1366	199.00	Built-In	1000-2000	6
1368	110.00	Built-In	1000-2000	8



No. 1163

Can be supplied on floor stands at additional cost.

Portable Types

Mobile units. Mounted on telescopic floor stands with rubber tired casters, and additionally equipped with built-in Iris shutter, as well as framing shutter. Also, controls are conveniently located and arranged for quick and easy manipulation, such as required for service intended.

No.	Each	Shutters	Watts	Lens, In.	
1166-CR	\$185.00	Built-In	1000-2000	6	
No. 1168-CR	1168-CR	195.00	Built-In	1000-2000	8



No. 1168-CR

*Specify desired mounting by suffix to number as follows: A, wall bracket; B, table base; E, pipe clamp.

†With revolving front. ‡For built-in iris shutters add \$15. to price.

Kliegl Spotlights

Fresnel-Lens Types

Refracting, prismatic lens producing a soft-edge, high intensity beam. Uses concentrated filament lamps. Adjustable lamp carriage for focusing. Alzak aluminum reflectors. Slide grooves for color frames.

No. 43 Series are general service types. For focusing, 100-watt size has adjustable lens carrier; larger sizes have sliding lamp carriage with knob-screw clamp. Furnished with wall bracket but available with suspension mounting or table base.

No. 44 Series are studio types. With screw-feed focusing device. Mounted on telescopic floor stand with rubber-tired casters. With 25 feet of cable and switch.

*Wall Bracket Mounting

No.	43N3-A	43N6-A	43N8-A	43N12-A	43N16-A
Each	\$11.00	20.00	52.00	88.00	116.00
Watts	100	500	1000	2000	5000

Rolling Floor Stand Mounting

No.	44N6-D	44N8-D	44N12-D	44N16-D
Each	\$45.00	80.00	125.00	170.00
Watts	500	1000	2000	5000



No. 43N3



No. 44N16



No. 43N6



No. 53



No. 70



No. 6N14

General utility spotlights with clear glass condensing lens. Uses concentrated filament lamps. Sliding lamp carriage adjustable for focusing. Available in pipe clamp, wall bracket, table base, or telescopic floor stand mounting.

*Alzak aluminum reflector.

†Wall bracket or table base same price. Floor stands at slight additional cost. Floor stand models furnished with 25-foot cable, otherwise short leads furnished.

No.	Each	Watts	Receptacle	Lens, In.	Range, Ft.	Mounting
53E	\$14.00	250-400	Med. Screw-Base	4 1/2	15	†Pipe Clamp
5310E	16.00	250-400	Med. Screw-Base	4 1/2	25	†Pipe Clamp
*70E	39.50	1000	Mogul Prefocus	6	50	†Pipe Clamp
*6N14	63.00	2000	Mogul Prefocus	6	50	Floor Stand
*6N19	68.00	2000	Mogul Prefocus	6	75	Floor Stand
*8N20	85.00	2000	Mogul Prefocus	8	100	Floor Stand

Kliegl Pin-Plug Connectors

Single-Pole

Split-pin and sleeve encased in bakelite. Holes in outer ends for insertion of wires, with recessed screw to hold wire in place.



No. 971

No.	971	972	973	974	975	976
Each	\$.66	1.30	2.20	4.00	5.00	7.00
Rating	5	15	30	60	100	150

Multiple Pole



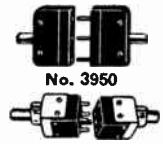
No. 955



No. 955AC



No. 955AA



No. 3950

No. 4950

Separable pin-plug connectors.

Made in two sections. Male end fitted with brass split pins, female end with brass sleeve.

All live parts insulated with solid fiber.

Listed by Underwriters.

Rating Amperes	2-Pole		3-Pole		4-Pole	
	No.	Each	No.	Each	No.	Each
5	950	\$1.30	3950	\$2.65	4950	\$5.50
15	955	1.70	3955	4.00	4955	6.60
30	956	2.65	3956	5.50	4956	9.50
60	957	5.90	3957	7.00	4957	14.50
100	958	14.85	3958	21.70	.....	.....
200	959	27.90	.....	.....	.....	.....

NOTE. Two-pole connectors are for connecting duplex to duplex. For connecting duplex to pair single conductor, add suffix AC to number. For connecting two pair single conductor, add suffix AA to number. Price same as for duplex to duplex.

Connectors Nos. 950 to 957 inclusive, 3950 and 3955 are reversible; can be furnished non-reversible at \$.55 each additional.

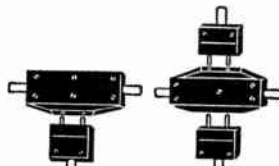
Spring catch for 5-30-ampere 2-pole connector, \$.35 additional.

Connectors with any number of pins from 1 to 30 are available, also flush types.

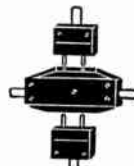
Kliegl Branch-Off Connectors

Single and Double

Permit one or more plug connections from one feed cable, at intervals throughout its length. Cable passes through plug receptacle and is attached by binding screws, without cutting wires. Furnished with plugs.



No. 990



No. 995

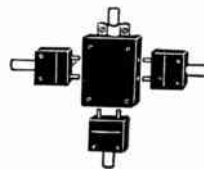
Rating of outlets, 5 amperes 250 volts.

No. 990, Single Branch, One Plug	each	\$3.50
No. 995, Double Branch, Two Plugs	each	4.00

Kliegl Multiple Circuit Connectors

Two or Three Wire

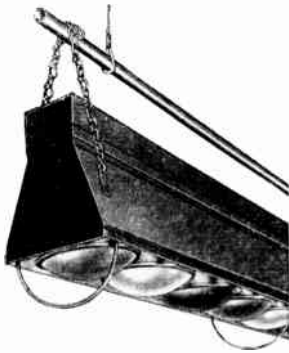
Provides three separate plug connections from one feed cable. Attached to one end of cable. Furnished with plugs.



No. 2950

Amperes per Outlet	Main Cable Size	2-Wire Main		3-Wire Main	
		Three 2-Wire Outlets	Each	Three 3-Wire Outlets	Each
5	12	2950	\$4.80	2855	\$30.00
15	8	2955	6.00	2855	36.00

**HUB Borderlights
Individual Reflector Type**



No. 21625

Available in any specified length with individual LUME-CROME Reflectors fitted with clear and natural colored convex heat-resisting glass roundels—hinged retaining rings accommodate either roundels or metal frames for gelatin.

Chain hangers. Heavy wire scenery guards. Splice-box with terminal block.

Wired for three or more colors and additional circuits as required for worklights, spotlights, etc.

No.	21623	21625	21830	21235
Per Foot	\$16.90	6.90	9.50	20.80
Outlet Wattage	100	150	200	300-500
Ctr. to Ctr. Min. Outlet Spacing	6 inches	6	8	12
Face	7 1/4 inches	7 1/4	9 1/4	14 1/4
Height	8 1/8 inches	9 5/8	11 1/4	15 1/2

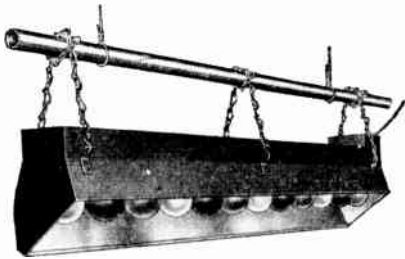
No. 526 Worklight Receptacles

Special outlet in top of borderlight to connect spotlights, worklights, etc.
No. 526..... each \$9.00

Upper Worklight Units

Consists of reflector, glass roundel, retaining ring, attachment clamp, cable and plug to fit No. 526 receptacle.
No. WL-1625, With 100 or 150-Watt Reflector... each \$14.30
No. WL-1830, With 200-Watt Reflector..... each 16.25

Type A With Continuous Reflector



No. 20804-L

For colored-bulb lamps up to 100 watts. Equipped with chain hangers and splice box for feed cables. Width, 5 1/2 inches; height, 8 1/2 inches; length as required.

Matte White or Lustralume Aluminum Lacquer Reflecting Surface

No.	20804P	20806P	20808P
Per Foot	\$7.80	7.50	7.15
Ctr. to Ctr. Min. Outlet Spacing, in.	4	6	8

Lume-Chrome or Alzak Aluminum Reflector Lining

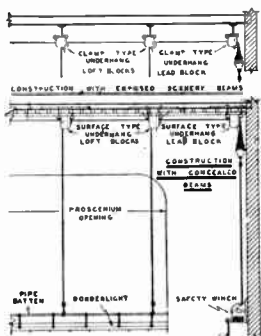
No.	20804L	20806L	20808L
Per Foot	\$9.75	9.40	9.10
Ctr. to Ctr. Min. Outlet Spacing, in.	4	6	8

HUB Winch Rigging

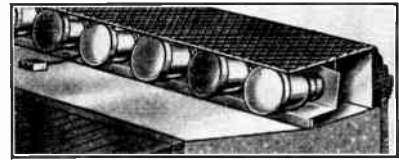
For raising or lowering borderlights. Consists of wire cables running over ceiling blocks to a winch. Ceiling blocks and winches are furnished in varying capacities according to load.

When ordering, specify type of ceiling (exposed or concealed beams), dimensions of stage, including height and length, and type and weight of borderlights.

No. of Lines in Set	Max. Proscenium Opening, Feet
2	20
3	35
4	45

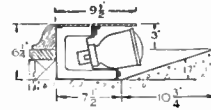


HUB Permanent Semi-Flush Footlights



No 63520

Saffred Type

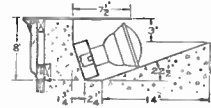


With individual spun reflectors and glass roundels in pivoting retaining rings that also accommodate gelatin frames.

Top is of 1/4-inch steel tread-plate supported on heavy channel brackets, angle iron reinforced. Furnished in any length. Reflector outlets spaced 6 inches on center (minimum).

No.	63520	63620
Per Foot	\$6.00	7.95
Lamp Wattage	60/100	150

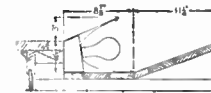
Open Type



With individual spun reflectors and glass roundels in pivoting retaining rings that also accommodate gelatin frames. Steel channel wiring. Tread plate not included. Furnished in any length. Center to center minimum outlet spacing, 6 inches.

No.	61623	61625
Per Foot	\$16.25	16.90
Lamp Wattage	60/100	150

Continuous Reflector Type



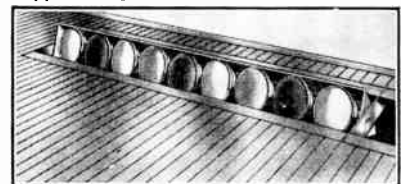
With complete housing of galvanized steel and continuous reflector finished in matte white or aluminum bronze.

No.	60004-P	60006-P
Per Foot	\$6.80	6.20
Lamp Wattage	40/100	40/100
Ctr. to Ctr. Min. Outlet Spacing, in.	4	6

For LUME-CROME or Alzak aluminum reflector, add \$1.95 per foot.

HUB Disappearing Footlights

Approved by Underwriters' Laboratories



No 41625

These footlights present practically an unbroken front, project but slightly above stage floor in use, fold flush when not in use, and are locked both open and closed.

Cover and trim of kiln-dried hardwood. Lamp carriage is secured to back of cover.

Furnished in 5-foot sections with Mercury cut-off switches, splice box and flexible steel armored conduit.

Approved by Underwriters' Laboratories, and comply with N.E.C. Standards.

Type I.—With individual spun reflectors and pivoting retaining rings for glass roundels or gelatine color frames.

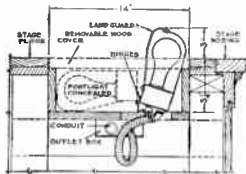
Type L.—With continuous LUME-CROME reflector.

Type P.—With continuous matte white or Lustralume aluminum lacquer reflector.

No.	41623	41625	43523	40004-L	40004-P
Per 5-Foot Section	\$120.00	120.00	108.00	90.00	84.00
Type	I	I	I	L	P
No. of Outlets	9	9	12	15	15
Lamp Wattage	100	150	60/100	40/100	40/100
Frame Width, inches	18	18	14	14	14
Ship Wt., pounds	100	100	80	70	70

HUB Concealable Footlights

For lamps up to 100 watts. Hinged for concealment under removable wood cover (by others).



No. 60024-P

Available in multiple sections, not exceeding 7 feet.

Type P is furnished with Matte white or aluminum bronze interior.

Type L is furnished with continuous LUME-CROME or Alzak aluminum reflector.

Available with Underwriters' Approved mercury disconnect switches, add \$10.50 per section.

No.	60024P	60024L	60026P	60026L
Per Foot.....	\$8.10	10.05	7.75	9.45
Ctr. to Ctr. Min. Outlet Spacing..... inches	4	4	6	6

HUB Portable Footlights



No. 73523

Available in multiple sections up to 10 feet each, complete with connecting cables and slip connectors, separable connectors or twist-lock couplings; specify when ordering.

No. 73523 Individual Reflector Type

With individual LUME-CROME reflectors with glass roundels for 60 to 100-watt lamps. Reflector outlets spaced 6-inch on center, minimum.

Width, 10 1/8 inches. Height, 5 3/8 inches.
No. 73523..... per foot **\$14.30**
For each connector or feeder cable, add \$4.55.

Continuous Reflector Type

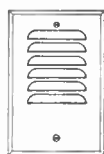
With continuous reflector for colored bulb lamps. Sockets spaced 4 inches on center, minimum.

No. 70004-P.—Matte white or Lustralume aluminum lacquer reflecting surface. Width, 8 3/4 inches. Height, 3 3/4 inches.

No. 70004-L.—With LUME-CROME or Alcoa aluminum reflector lining.

No. 70004-P..... per foot **\$7.80**
For each connector or feeder cable, add \$4.55.
No. 70004-L..... per foot **\$9.75**
For each connector or feeder cable, add \$4.55.

HUB Aisle, Step and Night Lights



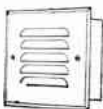
No. 9950



No. 9950



No. 9952



No. 9955

Made of steel with lacquer sprayed or brass plated finish.

No. 9950.—Vertical louvered flush wall unit designed to direct all light to floor.

No. 9950.—Mounts directly under arm of aisle chair. Cast housing, diffusing glass.

No. 9952.—A horizontal louvered flush unit with duplex convenience outlet.

No. 9951.—Same as No. 9952, except without convenience outlet.

No. 9955.—A louvered flush unit with LUME-CROME reflector.

All flush units have concealed aligners and can be furnished with clear glass dust panel at \$1.80 additional.

No.	Lacquer Sprayed Each	Brass Plated Each	Max. Lamp Size Watts	Cover, INCHES		RECESS, BOX, INCHES		
				Width	Height	Width	Height	Depth
9950	\$6.00	\$9.00	60	5 1/2	8 3/8	4 1/2	6 7/8	3 1/4
9951	6.00	9.00	60	8 3/8	5 1/2	6 7/8	4 1/2	3 1/4
9952	8.40	11.40	60	8 3/8	5 1/2	6 7/8	4 1/2	3 1/4
9955	6.00	9.00	10	6	6	4 1/16	4 1/16	2 1/4
9850	6.00	.....	10	6	3 1/2	.....	.....	.....

HUB Directional and Exit Signs With Concealed Hinge Front



Flush Type



Surface Type

Made of steel. Recess box has 1/2-inch knockouts and removable channel for concealed wiring and two or three receptacles for medium screw base lamps.

Exposed surfaces finished any standard lacquer color, interior sprayed Lustralume lacquer.

Exit.—Ruby or green letters on white, bronze-tone or aluminum background; or white letters on ruby or green background.

Directional Inscriptions.—Two lines of white letters on opaque bronzetone or aluminum background, or colored ceramic filled letters on opal background. Lettering may be any style.

Special designs and other glass combinations available at extra cost.

Flush Type

—2-Line Directional—

No.	Exit		Letter		Box Size, INCHES		
	Each	Letter Ht., In.	Each	Max. Letter Ht., In.	Height	Width	Depth
9003	\$8.70	3	\$2.00	1 1/4	6	12	4
9005	9.80	4, 5, 6	3.65	2 1/2	8 3/4	13 3/4	4
9006	3.65	6, 8	9.15	3 1/2	10 3/4	16 3/4	4

Surface Type

9203	\$9.80	3	\$3.10	1 1/4	7 1/4	13 1/4	4
9205	20.90	4, 5, 6	4.75	2 1/2	10	15	4
9206	5.30	6, 8	31.35	3 1/2	12	18	4

Available with wire guard, add \$4.40 per sign.

With 2-Piece Continuous Hinge Front



Heavy gauge steel frame and box. Two receptacles for medium screw base lamps.

Inscription in any style or wording in white letters on ruby or green background; ruby or green letters on white or bronze background at additional cost.

Exposed surfaces finished any standard lacquer color, interior sprayed aluminum bronze.

Flush Type

—FRONT, INCHES—

No.	Each	Letter Ht., In.	FRONT, INCHES		Box Size, INCHES		
			Height	Width	Height	Width	Depth
9060	\$4.20	3, 4, 5	9	13 7/8	7 3/4	12 1/4	4
9061	5.85	6	10	15 7/8	8 3/4	13 3/4	4
9062	7.50	8	12	18 3/8	10 3/4	16 3/4	4

Surface Type

9260	\$5.85	3, 4, 5	9	13 1/2	9	13 1/2	3 1/2
9261	7.50	6	10	15	10	15	3 1/2
9262	30.25	8	12	18	12	18	3 1/2

Available with wire guard, add \$4.40 per sign.

Stencil Plate—Removable Front



Cutout letters backed with ruby or green panels as required.

Light box with two receptacles for medium screw base lamps.

Exterior finished any standard lacquer color, interior finished in aluminum bronze.

Flush Type

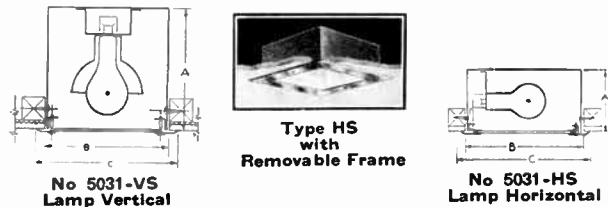
—FRONT, IN.—

No.	Each	Letter Height Inches	FRONT, IN.		Box Size, INCHES		
			Height	Width	Height	Width	Depth
9190	\$2.10	3, 4, 5	9	13 1/2	7 3/4	12 1/4	4
9191	5.95	6	10	15	8 3/4	13 3/4	4
9192	20.35	8	12	18	10 3/4	16 3/4	4

Surface Type

9390	\$3.20	3, 4, 5	9	13 1/2	9	13 1/2	3 1/2
9391	7.05	6	10	15	10	15	3 1/2
9392	22.00	8	12	18	12	18	3 1/2

HUB Flush Square Luminous Elements



Steel frames, removable or concealed hinge types, finished any standard lacquer color. With panels of flashed opal, ceramic or sanded clearlite glass; other glass available at additional cost.

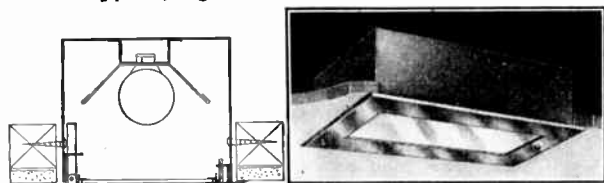
Recess box of rustproofed steel; interior sprayed Lustralume aluminum lacquer; exterior sprayed prime coat; fitted with individual LUME-CROME reflector.

No.	Lamps Vertical		DIMENSIONS, INCHES			
	With Hinged Frame Each	With Removable Frame Each	Max. Lamp Wattage	Height A	Ceiling Open. B	Frame Overall C
5001-VS	\$16.23	\$13.48	100	8 ³ / ₈	8 ³ / ₈	10 ¹ / ₄
5031-VS	20.08	16.23	200	11 ³ / ₈	10 ³ / ₈	12 ¹ / ₄
5061-VS	25.03	20.63	300	12 ³ / ₄	13 ⁷ / ₈	15 ³ / ₄

No.	Lamps Horizontal		DIMENSIONS, INCHES			
	With Hinged Frame Each	With Removable Frame Each	Max. Lamp Wattage	Height A	Ceiling Open. B	Frame Overall C
5001-HS	\$14.30	\$11.55	60	4 ⁵ / ₈	8 ³ / ₈	10 ¹ / ₄
5031-HS	17.60	13.75	100	4 ⁵ / ₈	10 ³ / ₈	12 ¹ / ₄
5061-HS	22.55	18.15	200	7	13 ⁷ / ₈	15 ³ / ₄

HUB Flush Luminous Elements

Type H, Tilted Angle Receptacle, Lamps Horizontal
Type V, Sign Receptacle, Lamps Vertical



Removable or concealed hinge type steel ceiling trim frames, finished any standard lacquer color; flashed opal glass panels. Recess box of rustproofed steel with removable wireway and continuous LUME-CROME reflector lining; interior sprayed Lustralume aluminum lacquer; exterior sprayed prime coat. Specify Type H or Type V.

For Lamps Up to 60 Watts

No.	With Concealed Hinged Frame Each	With Removable Frame Each	No. of Outlets	DIMENSIONS, INCHES		
				HEIGHT Type H	HEIGHT Type V	Ceiling Opening
5001	\$15.95	\$13.48	1	6 ⁷ / ₈	8 ³ / ₈	8 ³ / ₈ x 8 ³ / ₈
5002	19.80	16.78	2	6 ⁷ / ₈	8 ³ / ₈	15 x 8 ³ / ₈
5003	25.30	21.45	3	6 ⁷ / ₈	8 ³ / ₈	21 ⁵ / ₈ x 8 ³ / ₈
5004	30.80	26.13	4	6 ⁷ / ₈	8 ³ / ₈	28 ¹ / ₄ x 8 ³ / ₈
5091	30.80	26.13	4	6 ⁷ / ₈	8 ³ / ₈	15 x 15
5006	42.90	36.58	6	6 ⁷ / ₈	8 ³ / ₈	41 ¹ / ₂ x 8 ³ / ₈
5008	57.20	48.40	8	6 ⁷ / ₈	8 ³ / ₈	54 ³ / ₄ x 8 ³ / ₈
5010	71.50	61.05	10	6 ⁷ / ₈	8 ³ / ₈	68 x 8 ³ / ₈
5012	85.80	73.70	12	6 ⁷ / ₈	8 ³ / ₈	81 ¹ / ₄ x 8 ³ / ₈

For Lamps Up to 100 Watts

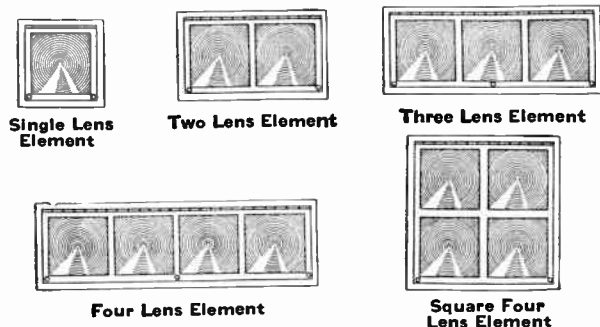
5031	\$19.80	\$16.78	1	8 ³ / ₈	11 ³ / ₈	10 ³ / ₈ x 10 ³ / ₈
5032	25.85	22.00	2	8 ³ / ₈	11 ³ / ₈	18 ⁷ / ₈ x 10 ³ / ₈
5033	34.65	29.43	3	8 ³ / ₈	11 ³ / ₈	27 ³ / ₈ x 10 ³ / ₈
5034	45.65	38.75	4	8 ³ / ₈	11 ³ / ₈	35 ⁷ / ₈ x 10 ³ / ₈
5092	45.65	38.75	4	8 ³ / ₈	11 ³ / ₈	19 x 19
5036	62.70	53.08	6	8 ³ / ₈	11 ³ / ₈	52 ⁷ / ₈ x 10 ³ / ₈
5038	79.20	67.38	8	8 ³ / ₈	11 ³ / ₈	69 ⁷ / ₈ x 10 ³ / ₈
5040	99.00	84.15	10	8 ³ / ₈	11 ³ / ₈	86 ¹ / ₈ x 10 ³ / ₈
5042	123.75	105.05	12	8 ³ / ₈	11 ³ / ₈	103 ¹ / ₈ x 10 ³ / ₈

For Lamps Up to 200 Watts

5061	\$26.13	\$22.00	1	11 ³ / ₈	12 ³ / ₄	13 ⁷ / ₈ x 13 ⁷ / ₈
5062	33.00	28.05	2	11 ³ / ₈	12 ³ / ₄	26 x 13 ⁷ / ₈
5063	49.50	42.08	3	11 ³ / ₈	12 ³ / ₄	38 ¹ / ₄ x 13 ⁷ / ₈
5064	66.00	55.83	4	11 ³ / ₈	12 ³ / ₄	50 ¹ / ₄ x 13 ⁷ / ₈
5093	66.00	55.83	4	11 ³ / ₈	12 ³ / ₄	26 ¹ / ₄ x 26 ¹ / ₄
5066	94.05	80.03	6	11 ³ / ₈	12 ³ / ₄	76 ¹ / ₄ x 13 ⁷ / ₈
5068	125.95	107.25	8	11 ³ / ₈	12 ³ / ₄	98 ³ / ₄ x 13 ⁷ / ₈
5070	154.00	131.18	10	11 ³ / ₈	12 ³ / ₄	123 x 13 ⁷ / ₈
5072	182.60	155.38	12	11 ³ / ₈	12 ³ / ₄	147 ¹ / ₄ x 13 ⁷ / ₈

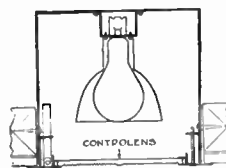
HUB Incandescent Controlens Elements

Flush Type



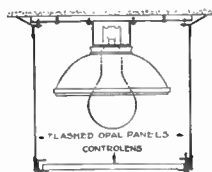
Consists of steel recess box with wireway, medium base sockets and individual reflectors and Controlens in a steel frame, hinged or removable, finished any standard lacquer color.

Pre-focused at factory to produce specific lighting distribution.



No.	With Hinged Frame Each	With Removable Frame Each	LENSES		LAMPS		RECESS BOX, INCHES		
			Size In.	Max. Wattage	Length	Width	Depth		
6001	\$26.40	\$24.75	1	6 ¹ / ₂	1	100	8 ¹ / ₈	8 ¹ / ₈	8 ³ / ₈
6002	47.85	43.45	2	6 ¹ / ₂	2	100	14 ³ / ₈	8 ¹ / ₈	8 ³ / ₈
6003	63.25	56.65	3	6 ¹ / ₂	3	100	21 ³ / ₈	8 ¹ / ₈	8 ³ / ₈
6004	79.75	71.50	4	6 ¹ / ₂	4	100	28	8 ¹ / ₈	8 ³ / ₈
6091	80.85	73.15	4	6 ¹ / ₂	4	100	14 ³ / ₈	14 ³ / ₈	8 ³ / ₈
6031	31.90	30.25	1	8 ¹ / ₂	1	150	10 ¹ / ₈	10 ¹ / ₈	11 ³ / ₈
6032	62.15	57.75	2	8 ¹ / ₂	2	150	18 ⁵ / ₈	10 ¹ / ₈	11 ³ / ₈
6033	81.40	74.80	3	8 ¹ / ₂	3	150	27 ¹ / ₈	10 ¹ / ₈	11 ³ / ₈
6034	106.70	98.45	4	8 ¹ / ₂	4	150	35 ³ / ₈	10 ¹ / ₈	11 ³ / ₈
6092	107.25	99.00	4	8 ¹ / ₂	4	150	18 ⁵ / ₈	18 ⁵ / ₈	11 ³ / ₈
6061	38.50	36.85	1	12	1	300	13 ⁵ / ₈	13 ⁵ / ₈	12 ³ / ₄
6062	73.35	70.95	2	12	2	300	25 ³ / ₈	13 ⁵ / ₈	12 ³ / ₄
6063	108.35	101.75	3	12	3	300	37 ⁷ / ₈	13 ⁵ / ₈	12 ³ / ₄
6064	140.25	132.00	4	12	4	300	50	13 ⁵ / ₈	12 ³ / ₄
6093	137.50	129.25	4	12	4	300	26	26	12 ³ / ₄

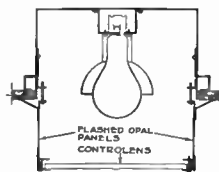
Surface Type



Made of steel with opal glass side panels and Controlens at bottom in hinged, removable or gravity lift frame. Complete with wireway, medium base sockets and individual reflectors, pre-focused at factory.

Finished any standard lacquer color.

No.	With Hinged Frame Each	*With Gravity Lift Frame Each	LENSES		LAMPS		DIMENSIONS, INCHES		
			Size In.	Max. Wattage	Length	Width	Depth		
6601	\$47.30	\$43.45	1	6 ¹ / ₂	1	100	10 ¹ / ₄	10 ¹ / ₄	8 ⁷ / ₈
6602	57.75	52.25	2	6 ¹ / ₂	2	100	16 ⁷ / ₈	10 ¹ / ₄	8 ⁷ / ₈
6603	80.85	73.70	3	6 ¹ / ₂	3	100	23 ¹ / ₂	10 ¹ / ₄	8 ⁷ / ₈
6604	97.35	88.00	4	6 ¹ / ₂	4	100	30 ¹ / ₈	10 ¹ / ₄	8 ⁷ / ₈
6691	88.00	78.65	4	6 ¹ / ₂	4	100	16 ⁷ / ₈	16 ⁷ / ₈	8 ⁷ / ₈
6631	58.30	54.45	1	8 ¹ / ₂	1	150	12 ¹ / ₄	12 ¹ / ₄	11 ⁷ / ₈
6632	71.50	66.00	2	8 ¹ / ₂	2	150	20 ³ / ₄	12 ¹ / ₄	11 ⁷ / ₈
6633	100.65	93.50	3	8 ¹ / ₂	3	150	29 ¹ / ₄	12 ¹ / ₄	11 ⁷ / ₈
6634	123.75	115.50	4	8 ¹ / ₂	4	150	37 ¹ / ₄	12 ¹ / ₄	11 ⁷ / ₈
6692	112.75	104.50	4	8 ¹ / ₂	4	150	20 ⁷ / ₈	20 ⁷ / ₈	11 ⁷ / ₈
6661	66.00	62.15	1	12	1	300	15 ³ / ₈	15 ³ / ₈	13 ¹ / ₄
6662	85.25	79.75	2	12	2	300	27 ⁷ / ₈	15 ³ / ₈	13 ¹ / ₄
6663	119.90	112.75	3	12	3	300	40	15 ³ / ₈	13 ¹ / ₄
6664	151.25	143.00	4	12	4	300	52 ¹ / ₈	15 ³ / ₈	13 ¹ / ₄
6693	145.75	137.50	4	12	4	300	28 ¹ / ₈	28 ¹ / ₈	13 ¹ / ₄



Semi-Flush Type

Exposed portion has opal glass sides and Controlens in hinged, removable or gravity lift frames.

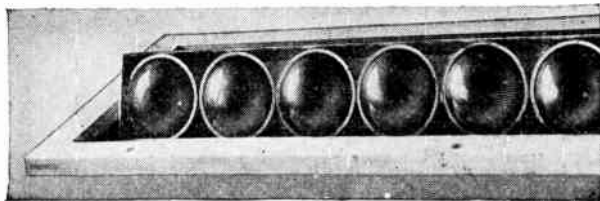
Recess box dimensions same as flush type shown above, except height is 3³/₈ to 5 inches less.

Prices upon request.

*Elements with one lens provided with removable frame.

Century Footlights

Approved by Underwriters' Laboratories, Inc.



Disappearing type made in 62-inch sections.

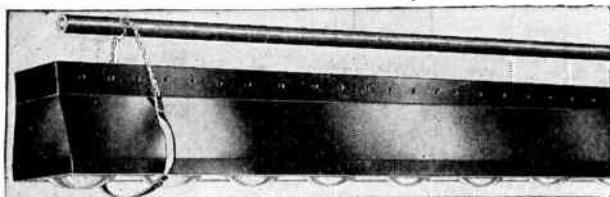
Has kiln dry maple wood cover with individual aluminum alcen finish reflectors. Heat resisting color roundels in red, white and blue. Furnished with mercury on and off switches and a splice box for feed with terminal blocks.

No. 846M, With Twelve 60-Watt Outlets.....each \$79.20
 No. 843M, With Nine 75 to 150-Watt Outlets...each 85.80

Century Borderlights

Approved by Underwriters' Laboratories, Inc.

Individual Reflector Type

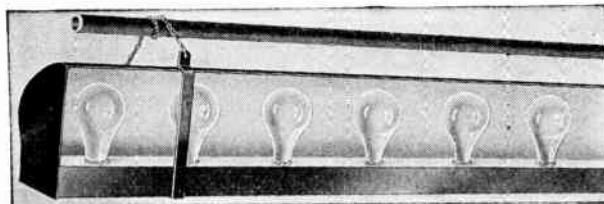


Has aluminum alcen finish reflectors, red, amber, green, white, or blue roundels, chain hangers and splice box.

No.	450	455	460
Per Foot.....	\$7.70	11.00	13.75
Outlet Centers.....inches	6	8	12
Wattage.....	75-150	200	300-500

Cable clamp and cradle sets furnished at \$7.70 extra.

No. 400 Continuous Reflecting Surface Type



White paint continuous reflecting surface, semi-open trough, chain hangers, splice box for feed cables.

No.	400	400	400
Per Foot.....	\$5.28	4.29	3.52
Outlet Centers.....inches	4	6	12
Wattage.....	25-100	25-100	25-100

Individual Compartment Type

White paint individual compartment type with metal doot frames, chain hangers, and splice box for feed cables.

No.	406 $\frac{1}{2}$	406
Per Foot.....	\$5.00	5.00
Outlet Centers.....inches	6	8
Wattage.....	100-150	200

Century Dramalites

Approved by Underwriters' Laboratories, Inc.

Decoratively designed to receive reflector bulbs in 150 and 300-watt R10 and PAR38 sizes. All aluminum finish.



No. 373. Canopy Type...ea.\$12.10



No. 372. Base Type...ea.\$12.10

Century Lekolites

For 100 to 500 Watts
 For 1000 to 2000 Watts

Approved by Underwriters' Laboratories, Inc.



No. 1565

Elliptical spotlites with built-in beam framing shutters, yoke base or clamp, metal cutter frame, heat resisting condensing lens, and asbestos lead.

No. 1565 has one 8x10-inch heat resisting condensing lens, built-in 4-way shutters, elliptical reflector, and is wired for 1000 to 2000 watts.

No. 1591 has two 6x9-inch lenses, 4-way shutters, elliptical reflectors, and is wired for 100 to 500 watts.

Bulbs are not included in price.

No. 1565.....	each	\$148.50
No. 1591.....	each	55.00

Irish shutter may be substituted for 4 way shutters at no extra cost.

Century Fresnelites

For 75 to 5000 Watts

Approved by Underwriters' Laboratories, Inc.



Fresnelens provides soft edged spot and floodlight.

Ideal for stage lighting.

Furnished with spherical reflector, focusing device, yoke (clamp or base), metal color frame, and asbestos lead. Accessories available: tripod base, glass filter, flanges; prices on request.

No.	Each	Lens Diam. In.	Watts
500	\$18.70	6	250-500
*501	66.00	8	1000-1500
*502	93.50	10	2000
*503	148.50	14	5000
*505	44.00	6	250-500
507	17.60	5	100-400
508	15.40	3	75-150

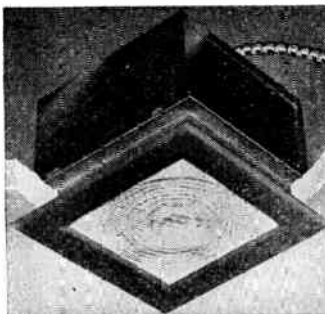
*Cast aluminum top and bottom, with screw feed focusing device. Others are all steel bodies, with push-button type slider focusing device.

Bulbs are not included in prices.

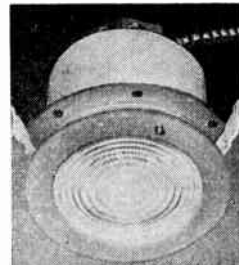
Available with telescopic stand at extra cost.

Century Fresnelite Downlights

Approved by Underwriters' Laboratories, Inc.



Square Fresnelens Unit



Circular Fresnelens Unit

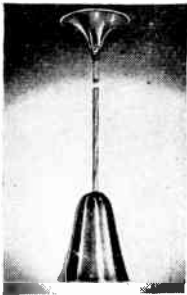
Built-in heat resisting lens unit with hinged door, plaster ring, and bottom access.

Square				Circular			
No.	Each	Lens Size Sq. In.	Watts	No.	Each	Lens Size In.	Watts
2220	\$21.00	12	300-500	2201	\$14.50	6	60-100
2221	19.20	8 $\frac{7}{16}$	100-200	2202	19.70	8	100-150
2222	17.70	6 $\frac{7}{16}$	60-75	2203	13.20	3	60
.....	.....	.....	.....	2210	22.00	10	150-200
.....	.....	.....	.....	2212	26.40	12	100-300
.....	.....	.....	.....	2214	30.80	14	200-300

Century Reflec-O-lites

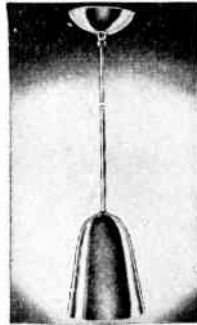
For 150 to 300-Watt R40 and PAR38 Bulbs

No. 346, Bellshape



No. 346 each \$9.90

No. 347, Streamline



No. 347 each \$9.90

No. 348, Sphere



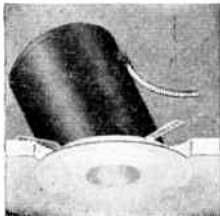
No. 348 \$19.80

No. 338



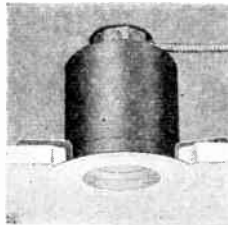
Recessed type. Louver ring, bottom access, ceiling ring.
Minimum ceiling opening, 6½ inches diameter.
Depth, 9½ inches.
No. 338 each \$14.30

No. 386



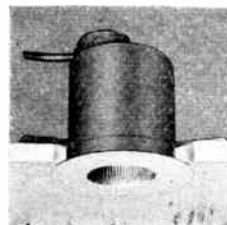
Recessed, swivel type, 360° turn, angle to 45° from vertical. Flush ceiling ring. Light aperture, 5¼ inches. Ceiling opening, 12 inches. Depth, 14½ inches.
No. 386 each \$36.00

No. 388



Recessed type. Baffle rings, fixed focus. Flush ceiling ring. Light aperture, 5¼ inches. Minimum ceiling opening, 8½ inches. Depth, 11¼ inches. Low surface contrast.
No. 388 each \$22.00

No. 387



Recessed counter light. Long, narrow elliptical beam pattern. Offset bulb, 55° spread lens. Light aperture, 5¼ inches. Ceiling opening, 11½ inches. Depth, 11½ inches.
No. 387 each \$26.50

No. 351

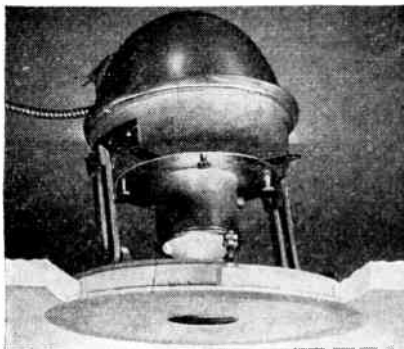


Semi-recessed, eyeball swivel. Minimum ceiling opening, 13¾ inches diameter. Depth, 5 inches.
No. 351 each \$25.00

Century Downlights

No. 250 or 400-Watt G30 Bulb

No. 1653



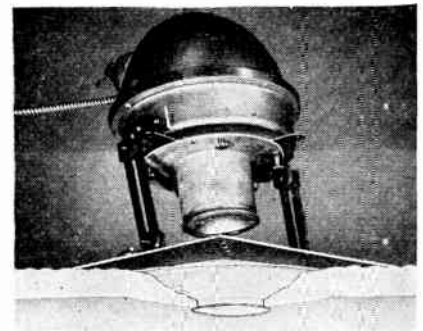
No. 1653 each \$66.00

Has built-in 4-way framing shutters, objective lens, ellipsoidal reflector, 3½-inch aperture opening; 250 or 400 watt incandescent type.

No. 1653. Bottom access to lamp. Bayonet locked aperture plate.

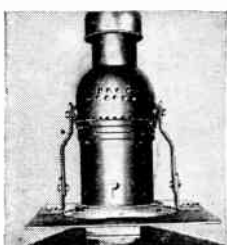
No. 1653A. Top access to lamp.

No. 1653A



No. 1653A, With Plaster Cone each \$60.50

No. 1646



No. 1646 each \$52.80

Top access only.
Uses prefocus base bulb.
Has built-in framing shutters, objective lens system with two 6x9-inch lenses, and ellipsoidal reflector.

No. 1646. Has 90° angle of projection.

No. 1649. Has 30° to 60° angle of projection.

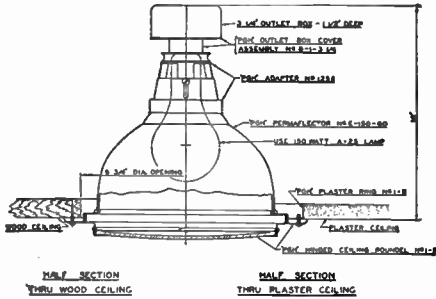
No. 1649



No. 1649 each \$61.60

For 250 or 500-Watt T-12 Bulb

Pittsburgh Permalector Recessed Show Window Lighting Units No. E-150 Series



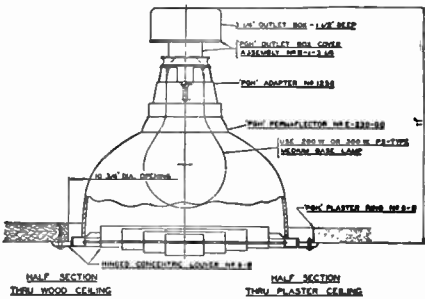
No. E-150-4 Recessed in Ceiling

Provides a broadly distributing reflector with a desirable concentration at center for direct lighting service where a close spacing of lamps is needed for low mounting such as entrance ways and marquees.

Furnished complete with Permalector E-150, outlet box and hinged ceiling roundel with or without wire guards or hinged concentric louvers.

Lamp sizes: 100-watt A-21 and 150-watt PS-25.

No. E-230 Series

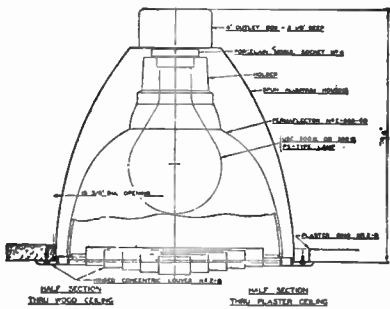


No. E-230-5 Recessed in Ceiling

Provides a broadly distributing reflector with a desirable center concentration. Used for downlighting in stores, gymnasiums, and below mezzanine floors and other locations with low head room. Equipped with Permalector E-230 outlet box cover assembly and hinged ceiling roundel with or without wire guards or hinged concentric louvers.

Lamp sizes: 300-w. PS-35, 200-w. PS-30 or 150-w. PS-25.

No. E-500 Series



No. E-500-8 Recessed in Ceiling

Used exposed or enclosed in metal housing for industrial and public space illumination. It is recessed in the ceiling, with flush mounting ring and concentric louver, or hinged ceiling roundel. Excellent for use above skylights and for all recessed installations for general lighting.

Lamp Sizes: 500-watt PS-40 or 300-watt PS-35.

No.	Each	Std. Pkg.	Wt. Lb.	No.	Each	Std. Pkg.	Wt. Lb.	No.	Each	Std. Pkg.	Wt. Lb.
E-150	\$3.50	7 15		F-230	\$4.00	5 14		E-500	\$8.70	1 8	
E-150R	3.50	7 15		F-230-R	4.00	5 14		E-500-B	8.70	1 8	
E-150-2	4.37	7 20		F-230-2	4.95	5 17		E-500-2	9.85	1 8	
E-150-4	7.70	7 33		F-230-4	9.05	5 28		E-500-4	17.20	1 13	
F-150-5	7.70	7 28		F-230-5	8.70	5 25		E-500-5	14.20	1 11	
E-150-7	12.00	1 11		F-230-7	15.00	1 12		E-500-7	25.00	1 20	
E-150-8	12.00	1 10		F-230-8	15.25	1 11		E-500-8	22.00	1 18	

Pittsburgh Permalector Floodlight Units

No. I-1005 Series



Used in high-bay industrial applications where the lighting equipment is located 25 feet or more above the floor and exceptional light concentration is required.

Available in a metal protective housing for use in industrial plants, power houses, gymnasiums, repair shops, and similar installations.

Also available in concentrated and broad light distribution and wattages ranging from 200 to 1000-watts and for use with 400-watt mercury lamps.

Can be equipped with concentric louvers and various types of protective guards.

Bottom diameter, 16 inches.

No. I-1005-N Series

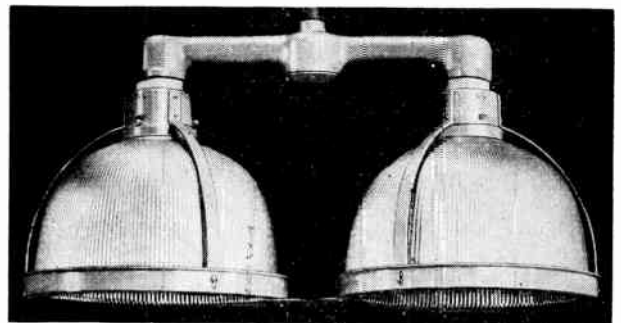
Provides support and protection for the Permalector without the use of a complete housing.

Incorporates the retaining ring arrangement for lighting interiors, in industrial plants, repair shops, hangers, armories, power plants, and similar installations.

Available in concentrated and broad light distribution; wattages from 150 to 1000-watts and for use with 400-watt mercury lamps. Bottom diameter, 16 1/2 inches.

No.	Each	Std. Pkg.	Wt. Lb.
I-1005-S	\$24.00	1	35
I-1005-L	26.65	1	36
I-1005-G	26.25	1	36
I-1005-LG	28.90	1	37
I-1005-N	23.60	1	22

Dual Units



Used for general factory and industrial installations.

The twin hangers support two Permalectors; one for the incandescent filament lamp and the other for the mercury T-16 lamp. In this manner, a perfect blend of incandescent and mercury is obtainable in desired proportions. Available in 500-watt, 750-watt, and 1000-watt incandescent lamps combined with 400-watt T-60 mercury lamps.

No.	Each	Std. Pkg.	Wt. Lb.
D-005-N	\$49.46	1	39
D-505-N	47.00	1	37
D-500-N	25.70	1	30
D-530-N	39.17	1	32

Benjamin Intensifiers

Listed by Underwriters' Laboratories, Inc.

For supplementary, high intensity illumination of small areas.

Packed 1 in a standard package.

Medium Base—Adjustable-Focus Projectors



Highly polished Alzak aluminum reflector. Medium base composition socket (No. 6656) has focusing adjustment. Universal adjusting bracket is attached to reflector neck. Two thumb screws lock bracket at any point in a wide range of horizontal and vertical settings.

Bracket tapped for 1/2 inch conduit connection. Reflector interior sealed by dust-tight glass cover with quick-opening latch.

Band is natural aluminum, latch electro-plated. Reflector is green lacquer outside; louver, black.

Size Lamp Watts	Complete		Glass Only		Style of Cover Glass	Diam. In.	Lgth. In.
	No.	Each	No.	Each			
60-100	5603	\$12.00	6281	\$1.00	Plain, Clear ...	9 7/8	12 1/4
150-200	5604	14.95	6285	3.50	Stippled, Clear	12 7/8	15 3/4

Mogul Base—Fixed-Focus Projectors



Highly polished Alzak aluminum reflector. Non-focusing, mogul base porcelain socket, No. 2585.

Universal adjusting bracket encloses wiring; fixture supplied with 10-foot leads of No. 16 B&S gage, asbestos covered stranded fixture wire.

Bracket is tapped 1/2 inch standard, 3/4 inch if specified. Reflector interior is sealed by glass cover with quick-opening latch.

Band is natural aluminum; latch, electro-plated. Reflector is green lacquer outside; louver, dead black.

Size Lamp Watts	Complete		Glass Only		Style of Cover Glass	Diam. In.	Lgth. In.
	No.	Each	No.	Each			
300-500	5637	\$22.00	6285	\$3.45	Stippled, Clear	12 7/8	13
300-500	5639	19.00	6287	6.00	*Daylight	12 7/8	13

Benjamin Explosion-Proof Pendant Lighting Units

Listed as Standard by Underwriters' Laboratories Class I, Groups C and D, Hazardous Locations



Less Reflector

A line of enclosing-globe type explosion-proof units to which can be attached any of four standard porcelain enamel steel reflector shapes. Units completely satisfy all Underwriters' requirements for installation in Class I, Groups C and D, hazardous locations—atmospheres having vapors of gasoline, naphtha, petroleum, alcohol, acetone, lacquer solvents, and natural gas.

The pendant hood is cast iron, finished in sprayed aluminum applied over electroplating; tapped 1/2 and 3/4 inch. Removable inspection plug in side of hood gives access to socket terminal screws.

Socket is one-piece porcelain, with wiring terminals conveniently located on side. Socket base has permanently formed-on metal gasket.

Packed 1 in a standard package.



With Dome Reflector



With Shallow Dome Reflector

Units Less Reflectors With Guards

Size Lamp Watts	Tapped 1/2 Inch		Tapped 3/4 Inch		Diam. Refl. In.	Over-all Ht. In.	Ship. Wt., Lb. Std. Pkg.
	No.	Each	No.	Each			
75,100	7601	\$22.35	7501	\$22.45	..	11	11
150	7602	22.35	7502	22.45	..	12	10 1/2
200	7603	32.10	7503	32.20	..	13 1/2	15
Without Guards							
75,100	7631	\$21.20	7531	\$21.30	..	10 1/8	11
150	7632	21.20	7532	21.30	..	11 1/8	10 1/2
200	7673	30.35	7573	30.45	..	12 1/4	14 1/2

Units with Dome Reflectors With Guards

75,100	7611	\$25.55	7511	\$25.65	12	11	15
150	7612	26.10	7512	26.20	14	12	17
200	7613	36.45	7513	36.55	16	13 1/2	20
Without Guards							
75,100	7651	\$24.40	7551	\$24.50	12	10 1/8	14 1/2
150	7652	24.95	7552	25.05	14	11 1/8	16 1/2
200	7653	34.70	7553	34.80	16	12 1/4	23

Units with Shallow Dome Reflectors With Guards

75,100	7615	\$25.25	7515	\$25.35	12	11	15
150	7616	25.80	7516	25.90	14	12	17
200	7617	36.15	7517	36.25	16	13 1/2	19 1/4
Without Guards							
75,100	7655	\$24.10	7555	\$24.20	12	10 1/8	14
150	7656	24.65	7556	24.75	14	11 1/8	16 1/2
200	7657	34.40	7557	34.50	16	12 1/4	22 1/4

Units with Bowl Reflectors With Guards

75,100	7629	\$25.80	7529	\$25.90	10	11	14 1/2
150	7630	26.40	7530	26.50	12	12	10
Without Guards							
75,100	7659	\$24.65	7559	\$24.75	10	10 1/8	14
150	7660	25.25	7560	25.35	12	11 1/8	14

Units with Symmetrical Angle Reflectors With Guards

75,100	7633	\$25.80	7533	\$25.90	10	*12 7/8	14 1/2
150	7634	26.40	7534	26.50	12	*15	14 1/2
200	7635	37.30	7535	37.40	16	*18 1/8	22
Without Guards							
75,100	7663	\$24.65	7563	\$24.75	10	*12 7/8	14
150	7664	25.25	7564	25.35	12	*15	14
200	7665	35.55	7565	35.65	16	*18 1/8	25

*Height from top of hood to lower rim of reflector.

Benjamin Explosion-Proof Ceiling Lighting Units

Listed by Underwriters' Laboratories as Standard Class I, Groups C and D, Hazardous Locations



Less Reflector

Units completely satisfy all Underwriters' requirements for installation in Class I, Groups C and D, hazardous locations—atmospheres having vapors of gasoline, naphtha, petroleum, alcohol, acetone, lacquer solvents and natural gas. Any of four standard porcelain enamel steel reflector shapes can be attached to units.

The two-piece ceiling hood is cast iron. Consists of an explosion-proof outlet box to which is attached the main body of the hood containing the socket. Hood body is fastened to the box by four screws; has a removable inspection plug and is threaded

to take the fixture body. Sprayed aluminum finish, applied over electro-plating.

Boxes have four 3/8-inch diameter mounting holes and four tapped hubs, with conduit stops; three having plugs.

Packed 1 in a standard package.



With Dome Reflector



With Bowl Reflector

Units Less Reflectors With Guards

Size Lamp Watts	Tapped 1/2 Inch		Tapped 3/4 Inch		Diam. Refl. In.	Over-all Ht. In.	Ship. Wt., Lb. Std. Pkg.
	No.	Each	No.	Each			
75,100	7601CX	\$27.30	7501CX	\$27.50	11 3/8	12 1/2	16 1/2
150	7602CX	27.30	7502CX	27.50	12 3/8	12	16 1/2
200	7603CX	37.05	7503CX	37.25	13 3/8	16 1/2	
Without Guards							
75,100	7631CX	\$26.15	7531CX	\$26.35	10 1/2	12 1/2	16
150	7632CX	26.15	7532CX	26.35	11 1/2	12	16
200	7673CX	35.30	7573CX	35.50	12 3/8	19 1/2	

Units with Dome Reflectors With Guards

75,100	7611CX	\$30.50	7511CX	\$30.70	12	11 3/8	16 1/2
150	7612CX	31.05	7512CX	31.25	14	12 3/8	18 1/2
200	7613CX	41.40	7513CX	41.60	16	13 7/8	21 1/2
Without Guards							
75,100	7651CX	\$29.35	7551CX	\$29.55	12	10 1/2	16
150	7652CX	29.90	7552CX	30.10	14	11 1/2	18
200	7653CX	39.65	7553CX	39.85	16	12 5/8	24 1/2

Units with Shallow Dome Reflectors With Guards

75,100	7615CX	\$30.20	7515CX	\$30.50	12	11 3/8	16 1/2
150	7616CX	30.75	7516CX	30.95	14	12 3/8	18 1/2
200	7617CX	41.10	7517CX	41.30	16	13 7/8	20 3/4

Without Guards

75,100	7655CX	\$29.05	7555CX	\$29.25	12	10 1/2	15 1/2
150	7656CX	29.60	7556CX	29.80	14	11 1/2	18
200	7657CX	39.35	7557CX	39.55	16	12 5/8	23 3/4

Units with Bowl Reflectors With Guards

75,100	7629CX	\$30.75	7529CX	\$30.95	10	11 3/8	16
150	7630CX	31.35	7530CX	31.55	12	12 3/8	17

Without Guards

75,100	7659CX	\$29.60	7559CX	\$29.80	10	10 1/2	15 1/2
150	7660CX	30.20	7560CX	30.40	12	11 1/2	15 1/2

Units with Symmetrical Angle Reflectors With Guards

75,100	7633CX	\$30.75	7533CX	\$30.95	10	*13 1/4	16
150	7634CX	31.35	7534CX	31.55	12	*15 3/8	16
200	7635CX	42.25	7535CX	42.45	16	*18 1/2	23 1/2

Without Guards

75,100	7663CX	\$29.60	7563CX	\$29.80	10	*13 1/4	15 1/2
150	7664CX	30.20	7564CX	30.40	12	*15 3/8	15 1/2
200	7665CX	40.50	7565CX	40.70	16	*17 1/4	23 1/2

*Height from top of hood to lower rim of reflector.

Benjamin Explosion-Proof Junction Boxes

With Hubbed Covers

For Installing Explosion-Proof, Pendant Type Units

Listed as Standard by Underwriters' Laboratories for Class I, Groups C and D

Class II, Group E, F, G and Classes III and IV Hazardous Locations



No. 7350X

Designed for the suspension of pendant type explosion-proof and dust-tight lighting units in hazardous atmosphere locations.

Hubbed cover is attached by four screws, lock washer equipped, which thread into blind tapped holes.

Boxes are supplied with four 3/8-inch diameter mounting holes, equally spaced on a 5 1/2-inch circle.

A single style and size of box, equipped with four tapping hubs equally spaced on a circle, is the basis of all tapping combinations.

Hubs on boxes and covers are provided with built-in conduit stops.

Boxes and covers are cast iron; sprayed aluminum finish, applied over electro-plating.

Cover attaching screws are electro-plated.

Packed 5 in a standard package.

One Side Tapped

Size Tapping Inches	Type EPS Box with Hubbed Cover				*Type ES Box Only	
	1/2-INCH HUB COVER		3/4-INCH HUB COVER		No.	Each
	No.	Each	No.	Each		
1/2	7350V	\$3.70	7351V	\$3.75	7300V	\$1.40
3/4	7355V	3.75	7356V	3.80	7305V	1.45
1	7360V	3.80	7361V	3.85	7310V	1.50

Feed Through Tapped

1/2	7350C	\$3.80	7351C	\$3.85	7300C	\$1.50
3/4	7355C	3.90	7356C	3.95	7305C	1.60
1	7360C	4.00	7361C	4.05	7310C	1.70

Right Angle Tapped

1/2	7350L	\$3.80	7351L	\$3.85	7300L	\$1.50
3/4	7355L	3.90	7356L	3.95	7305L	1.60
1	7360L	4.00	7361L	4.05	7310L	1.70

3-Way Tapped

1/2	7350T	\$3.90	7351T	\$3.95	7300T	\$1.60
3/4	7355T	4.05	7356T	4.10	7305T	1.75
1	7360T	4.20	7361T	4.25	7310T	1.90

4-Way Tapped

1/2	7350X	\$4.00	7351X	\$4.05	7300X	\$1.70
3/4	7355X	4.20	7356X	4.25	7305X	1.90
1	7360X	4.40	7361X	4.45	7310X	2.10

Covers

Made of cast iron; sprayed aluminum finish, applied over electro-plating.

Packed 5 in a standard package.

No.	Hubbed		Plain
	7370	7371	
Each	\$2.30	2.35	2.20
Tapped	1/2	3/4	.....

*Outlet box without tapping, No. 7300, \$1.15 each.

Type II-G Benjamin Dust-Tight Lighting Units

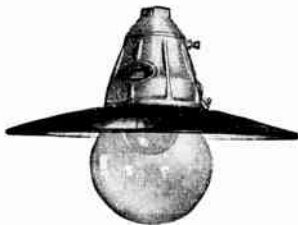
Listed by Underwriters' Laboratories for Class II, Groups E, F and G and Classes III and IV Hazardous Locations



No. 8500



No. 8506



No. 8513



No. 8517

For locations requiring dust or vapor-tight lighting equipment. Weather and moisture-proof, and due to the protection of the lamp afforded by the glass screw globe, this unit is valuable in food industries where there is a danger of spoilage from breakage of uncovered lamps.

Cast aluminum hoods with removable cast-aluminum cap; sprayed aluminum finish. Acid-resisting porcelain enameled reflector; green outside, reflecting white inside. Medium base, one-piece porcelain socket with side terminals. Standard package is 10.

With Dome Reflectors

No.	Each	Watts	Type of Refl.	Diam. In.	Over-ht. In.	Hood No.	Refl. No.	Globe No.
8500	\$13.30	75	Plain Cl.	12	10 ¹ / ₁₆	8550	1100	1062
8500-HR	17.25	75	Heat-Res.	12	10 ³ / ₁₆	8550	1100	1094
8505	19.05	150	Plain Cl.	18	13 ³ / ₈	8551	1103	1063
8505-HR	24.50	150	Heat-Res.	18	12 ⁷ / ₈	8551	1103	1095
8503	19.05	200	Plain Cl.	18	13 ³ / ₈	8552	1103	1063
8503-HR	24.50	200	Heat-Res.	18	12 ⁷ / ₈	8552	1103	1095

With Bowl Reflectors

8506	\$13.75	100	Plain Cl.	9	10 ¹ / ₁₆	8550	1106	1062
8506-HR	17.70	100	Heat-Res.	9	10 ³ / ₁₆	8550	1106	1094

With Flat Cone Reflectors

8513	\$13.30	75	Plain Cl.	14	10 ¹ / ₁₆	8550	1113	1062
8513-HR	17.25	75	Heat-Res.	14	10 ³ / ₁₆	8550	1113	1094
8514	17.80	150	Plain Cl.	18	13 ³ / ₈	8551	2515	1063
8514-HR	23.25	150	Heat-Res.	18	12 ⁷ / ₈	8551	2515	1095
8515	17.80	200	Plain Cl.	18	13 ³ / ₈	8552	2515	1063
8515-HR	23.25	200	Heat-Res.	18	12 ⁷ / ₈	8551	2515	1095

With Symmetrical Angle Reflectors

8517	\$13.85	75	Plain Cl.	10	11 ¹ / ₁₆	8550	1117	1062
8517-HR	17.80	75	Heat-Res.	10	11 ³ / ₁₆	8550	1117	1094
8519	18.45	150	Plain Cl.	14	16 ¹ / ₂	8568	1119	1063
8519-HR	23.90	150	Heat-Res.	14	16 ¹ / ₂	8568	1119	1095
8518	18.45	200	Plain Cl.	14	16 ¹ / ₂	8569	1119	1063
8518-HR	23.90	200	Heat-Res.	14	16 ¹ / ₂	8569	1119	1095

Without Reflectors

8520	\$11.20	75	Plain Cl.	6	10 ¹ / ₁₆	8555	....	1062
8520-HR	15.15	75	Heat-Res.	6 ³ / ₈	10 ³ / ₁₆	8555	....	1094
8525	13.10	150	Plain Cl.	8 ¹ / ₄	13 ³ / ₈	8572	....	1063
8525-HR	18.55	150	Heat-Res.	8 ³ / ₈	12 ⁷ / ₈	8572	....	1095
8521	13.10	200	Plain Cl.	8 ¹ / ₄	13 ³ / ₈	8556	....	1063
8521-HR	18.55	200	Heat-Res.	8 ³ / ₈	12 ⁷ / ₈	8556	....	1095

Hoods for Type II-G Dust Tight Lighting Units

Hood includes keyless sockets. Standard package, 10.

For Units With Reflectors			For Units Without Reflectors		
No.	Each	Watts	No.	Each	Watts
8550	\$9.80		8555	\$9.80	100
*8551	11.25		8572	11.25	150
†8568	11.25		....	....	150
*8552	11.25		8556	11.25	200
†8569	11.25		....	....	200

*For use on Dome and Flat Cone Reflector Units Only.
†For use on Bowl and Symmetrical Angle Units Only.

Type II-G Benjamin Dust-Tight and Moisture-Proof Units

Listed by Underwriters' Laboratories for Class II, Groups E, F, G and Class III and Class IV, Hazardous Locations



No. 665



No. 657

For installation in Class II, Group G, hazardous locations, where combustible organic dusts are in suspension in the atmosphere and are likely to collect on lighting fixtures in sufficient quantities to cause overheating or explosions; also listed for Class II, Group E atmospheres containing metal dust; and Class II Group F, atmospheres containing carbon black, coal or coal dust. Units are also listed for Classes III and IV locations, where ignitable fibers and materials producing combustible flyings are manufactured, handled or stored.

Has one-piece, weatherproof copper casing; tapped for 1/2-inch conduit. Fitted with removable, one-piece, medium base porcelain socket, which has lamp grip to retard loosening of lamp, and is held in place by a retaining ring that threads into the casing.

Glass globe threads into copper casing seats against an impregnated, asbestos gasket. Natural copper finish.

Guard-type units have removable wire guard which threads onto outside of copper casing. Guards are heavy steel wire, welded and finished bright tin.

Packed 10 in standard package.

Without Guards

No.	Complete Each	Globe Only		Size Lamp Watts	Ht. In.	Diam. In.	Shp. Wt., Lb. Std. Pkg.
		No.	Each				
663	\$2.65	1060	\$.75	25-60	7 ⁵ / ₈	4 ¹ / ₈	21
665	3.45	1062	1.20	75,100,150	9 ³ / ₄	6	33
665-HR	7.40	1094	4.65	75,100,150	9 ¹ / ₂	6 ³ / ₈	29 ¹ / ₂
665-OP	6.00	1092	3.40	75,100,150	9 ¹ / ₂	6 ³ / ₈	33

With Wire Guards

657	\$4.95	1060	\$.90	25-60	8 ¹ / ₂	4 ⁵ / ₈	24
658	7.60	1062	1.40	75,100,150	10 ¹ / ₄	7 ¹ / ₂	35
658-HR	11.55	1094	5.35	75,100,150	10 ¹ / ₄	7 ¹ / ₂	31
658-OP	10.15	1092	3.95	75,100,150	10 ¹ / ₄	7 ¹ / ₂	35

Wire Guards Only

No.	Each	Fits Fixture No.	Ht. In.	Diam. In.	Shp. Wt., Lb. Std. Pkg.
1415	\$2.30	663, 657	6 ¹ / ₈	4 ⁵ / ₈	5
1428	4.15	665(HR-OP), 658(HR-OP)	7 ¹ / ₂	7 ¹ / ₂	7



Benjamin Porcelain Enamelled Steel Reflectors

For Vapolets



No. 145



No. 153

With cast aluminum ring for attachment to outside threading on lighting Vapolet bodies.

Seamless, acid-resisting reflector; green outside, reflecting white inside.

Threaded cast aluminum rings for 50-60 and 75-100-watt reflectors fit 50-100-watt Vapolet bodies; rings for 150, 150-200 and 200-watt reflectors, fit 150-200-watt Vapolet bodies.

Packed 10 in a standard package.

Dome Reflectors

No.	Each	Size Lamp Watts	Diam. In.	Ht. In.	Ship. Wt., Lb. Std. Pkg.
145	\$2.75	75,100	12	5 5/8	24 1/2
146	3.00	150	14	6 7/8	31 1/2
147	3.85	200	16	7 7/8	40 1/2
Shallow Dome Reflectors					
148	\$2.50	75,100	12	5 1/8	19
149	3.00	150	14	6 1/8	28
150	3.60	200	16	7 1/8	40
30° Symmetrical Angle Reflectors					
152	\$2.20	50,60	*10	7 1/4	29
153	3.00	75,100	*12	9 5/8	28 1/2
154	3.85	150,200	*16	12 3/8	39 1/2

*Allow the following distances from center line of lamp to wall, No. 152, 6 1/2 inches; No. 153, 7 3/4 inches; and No. 154, 10 inches.

Type M Benjamin Junction Vapolets

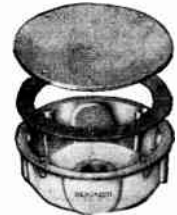
Without Lugs

Listed by Underwriters' Laboratories

A standard, 4 1/2-inch diameter, water tight outlet box; 1 1/2 inches deep. Made of cast brass or cast iron.

Plain type cover, cast iron. Rubber gasket makes water tight connection between cover and Vapolet.

Iron junction vapolets and covers are sprayed aluminum.



No. 6701

Size Tapping In.	Bottom Tapped		Vapolet Box		Vapolet Box Cover & Gasket	
	No.	Each	No.	Each	No.	Each
1/2	6901A- 1/2	\$.75	6701A- 1/2	\$1.25		
	6901A- 3/4	.75	6701A- 3/4	1.25		
3/4	6901V- 1/2	.75	6701V- 3/4	\$1.25		
	6901V- 3/4	.75	6701V- 3/4	1.25		
1	6901V-1	.80	6701V-1	1.30		
1/2	Feed-Through Tapped					
	6901C- 1/2	\$.85	6701C- 1/2	\$1.35		
	6901C- 3/4	.85	6701C- 3/4	1.35		
1	6901C-1	.95	6701C-1	1.45		
1/2	Right-Angle Tapped					
	6901L- 1/2	\$.85	6701L- 1/2	\$1.35		
	6901L- 3/4	.85	6701L- 3/4	1.35		
1	6901L-1	.95	6701L-1	1.45		
1/2	3-Way Tapped					
	6901T- 1/2	\$.95	6701T- 1/2	\$1.45		
	6901T- 3/4	.95	6701T- 3/4	1.45		
1	6901T-1	1.10	6701T-1	1.60		
1/2	4-Way Tapped					
	6901X- 1/2	\$1.05	6701X- 1/2	\$1.55		
	6901X- 3/4	1.05	6701X- 3/4	1.55		
1	6901X-1	1.25	6701X-1	1.75		
...	6901	Without Tapping \$1.65	6701	\$1.15		

Ceiling Flanges

Fits Type M Junction Vapolets.

Sprayed aluminum finish.

Weight, 3/4 pound.

No. 6928, 1/2-Inch Male....each \$.50

No. 6929, 1/2-Inch Female...each .50



Benjamin Industrial Lighting Vapolets

Listed by Underwriters' Laboratories



Ceiling Type

For use in indoor and outdoor locations where equipment is subjected to rough handling and corrosive fumes, vapors, etc.

Cast iron alloy junction box body; sprayed aluminum finish. One-piece composition receptacle. Plain clear glass globe supplied; for opal, heat-resisting and colored globes, prices on request.

Steel wire guard with cast iron threaded neck guard.

When specified, brass guards and bodies can be furnished at a slight additional charge.

When desired without guard, deduct price of guard only from price of complete Vapolet, and specify Less Guard after Vapolet number.



Pendant Type

Size Lamp Watts	Size Tapping In.	Ceiling Type One Side Tapped			Without Globe and Guard	Guard Only No.	Globe Only No.
		No.	Each	Ht. In.			
15- 60	1/2	7117V	\$5.15	8 1/4	7013V	\$2.65	7069 7080
15- 60	3/4	7127V	5.25	8 1/4	7023V	2.75	7069 7080
15- 60	1	7137V	5.35	8 1/4	7033V	2.85	7069 7080
75-100	1/2	7113V	5.30	9 3/4	7013V	2.65	7070 7062
75-100	3/4	7123V	5.40	9 3/4	7023V	2.75	7070 7062
75-100	1	7133V	5.50	9 3/4	7033V	2.85	7070 7062
150-200	1/2	7114V	6.20	11 1/4	7014V	3.00	7071 6867
150-200	3/4	7124V	6.30	11 1/4	7024V	3.10	7071 6867
150-200	1	7134V	6.40	11 1/4	7034V	3.20	7071 6867
Feed-Through Tapped							
15- 60	1/2	7117C	\$5.15	8 1/4	7013C	\$2.65	7069 7080
15- 60	3/4	7127C	5.25	8 1/4	7023C	2.75	7069 7080
15- 60	1	7137C	5.35	8 1/4	7033C	2.85	7069 7080
75-100	1/2	7113C	5.30	9 3/4	7013C	2.65	7070 7062
75-100	3/4	7123C	5.40	9 3/4	7023C	2.75	7070 7062
75-100	1	7133C	5.50	9 3/4	7033C	2.85	7070 7062
150-200	1/2	7114C	6.20	11 1/4	7014C	3.00	7071 6867
150-200	3/4	7124C	6.30	11 1/4	7024C	3.10	7071 6867
150-200	1	7134C	6.40	11 1/4	7034C	3.20	7071 6867
Angle Tapped							
15- 60	1/2	7117L	\$5.35	8 1/4	7013L	\$2.85	7069 7080
15- 60	3/4	7127L	5.55	8 1/4	7023L	3.05	7069 7080
15- 60	1	7137L	5.75	8 1/4	7033L	3.25	7069 7080
75-100	1/2	7113L	5.50	9 3/4	7013L	2.85	7070 7062
75-100	3/4	7123L	5.70	9 3/4	7023L	3.05	7070 7062
75-100	1	7133L	5.90	9 3/4	7033L	3.25	7070 7062
150-200	1/2	7114L	6.40	11 1/4	7014L	3.20	7071 6867
150-200	3/4	7124L	6.60	11 1/4	7024L	3.40	7071 6867
150-200	1	7134L	6.80	11 1/4	7034L	3.60	7071 6867
3-Way Tapped							
15- 60	1/2	7117T	\$5.35	8 1/4	7013T	\$2.85	7069 7080
15- 60	3/4	7127T	5.55	8 1/4	7023T	3.05	7069 7080
15- 60	1	7137T	5.75	8 1/4	7033T	3.25	7069 7080
75-100	1/2	7113T	5.50	9 3/4	7013T	2.85	7070 7062
75-100	3/4	7123T	5.70	9 3/4	7023T	3.05	7070 7062
75-100	1	7133T	5.90	9 3/4	7033T	3.25	7070 7062
150-200	1/2	7114T	6.40	11 1/4	7014T	3.20	7071 6867
150-200	3/4	7124T	6.60	11 1/4	7024T	3.40	7071 6867
150-200	1	7134T	6.80	11 1/4	7034T	3.60	7071 6867
4-Way Tapped							
15- 60	1/2	7117X	\$5.35	8 1/4	7013X	\$2.85	7069 7080
15- 60	3/4	7127X	5.55	8 1/4	7023X	3.05	7069 7080
15- 60	1	7137X	5.75	8 1/4	7033X	3.25	7069 7080
75-100	1/2	7113X	5.50	9 3/4	7013X	2.85	7070 7062
75-100	3/4	7123X	5.70	9 3/4	7023X	3.05	7070 7062
75-100	1	7133X	5.90	9 3/4	7033X	3.25	7070 7062
150-200	1/2	7114X	6.40	11 1/4	7014X	3.20	7071 6867
150-200	3/4	7124X	6.60	11 1/4	7024X	3.40	7071 6867
150-200	1	7134X	6.80	11 1/4	7034X	3.60	7071 6867

For brass or iron plugs, price on request.

Pendant Type

Size Lamp Watts	Size Tapping In.	Top Tapped		Guard Only No.	Globe Only No.		
		No.	Each				
15- 60	1/2	7110A	\$5.00	8 1/2	7011A	\$2.50	7069 7080
15- 60	3/4	7120A	5.05	8 1/2	7021A	2.50	7069 7080
75-100	1/2	7111A	5.20	9 3/4	7011A	2.50	7070 7062
75-100	3/4	7121A	5.25	9 3/4	7021A	2.55	7070 7062
150-200	1/2	7112A	6.05	11 1/2	7012A	2.85	7071 6867
150-200	3/4	7122A	6.10	11 1/2	7022A	2.90	7071 6867

Prices do not include wires or lamps.

Benjamin Heavy Duty Vaporproof Lighting Units

Suitable for use in locations exposed to moisture or non-combustible dust.

The lamp is enclosed in a heavy glass screw globe. A single asbestos gasket between the hood and globe seals the lamp and assures a tight enclosure. A stuffing gland in the hood top seals the wire entrance.

The hood is an aluminum casting designed to accommodate the threaded, copper neck of the heavy gage steel reflector. Reflector rim is tightly closed to assure a smooth unbroken surface for the acid-resisting porcelain enamel. A formed copper gasket provides a cushion between the bottom edges of the hood and the porcelain surfaces of the reflector.

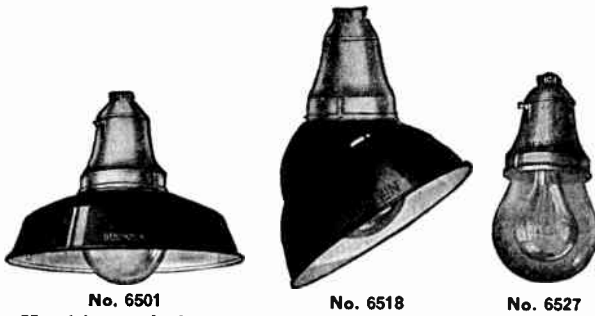
Hood is finished in sprayed aluminum; reflector is green outside, reflecting white inside.

Regularly supplied with plain clear or opal diffusing globes. Can be furnished with heat-resisting globe at an advance over the plain clear globe unit list, \$3.95 for medium and \$5.45 for mogul base units. To order, use suffix number of plain clear globe unit with HR.

Keyless rigid medium or mogul base sockets supplied. When specified, at 20 cents advance in list, shock-absorbing socket can be furnished. To order, suffix fixture number with SHB.

Benjamin Heavy Duty Vaporproof Pendant Lighting Units

Listed by Underwriters' Laboratories



No. 6501

No. 6518

No. 6527

Hood is regularly tapped 1/2 inch standard; 3/4 inch when specified.

With Dome Reflectors

Size Lamp Watts	With Clear Globe		With Opal Globe		Diam. Refl. In.	*Ht. In.	Std. Pkg.	Ship. Wt. Lb. Std. Pkg.
	No.	Each	No.	Each				
75, 100	6500	\$7.75	6500-OP	\$10.30	12	11 3/4	10	58
150	6501	8.40	6501-OP	10.95	14	11 3/4	10	64
200	6502	8.85	6502-OP	11.40	16	11 3/4	10	71
300, 500	6503	12.85	6503-OP	16.55	18	15 1/4	5	65 1/2

With Bowl Reflectors

150	6506	\$8.25	6506-OP	\$10.80	9	11 3/4	10	57
200	6507	8.40	6507-OP	10.95	10	11 3/4	10	60
300, 500	6508	10.90	6508-OP	14.60	12	15 1/4	5	54 1/2

With Flat Cone Reflectors

75, 100	6513	\$7.75	6513-OP	\$10.30	14	11 3/4	10	61
150	6514	8.75	6514-OP	11.30	16	11 3/4	10	67
200	6515	10.40	6515-OP	12.95	18	11 3/4	10	67

With Symmetrical Angle Reflectors

75, 100	6517	\$8.30	6517-OP	\$10.85	10	11 23/8	10	57
150, 200	6518	9.25	6518-OP	11.80	12	11 15/8	10	65
300, 500	6519	12.25	6519-OP	15.95	14	11 18	5	56

Without Reflectors

Size Lamp Watts	With Clear Globe		With Opal Globe		Diam. Globe In.	*Ht. In.	Std. Pkg.	Ship. Wt. Lb. Std. Pkg.
	No.	Each	No.	Each				
50, 100	6526	\$5.65	6526-OP	\$8.20	16	9 3/4	10	44
150, 200	6527	5.70	6527-OP	8.25	16	11 3/4	10	48
300, 500	6528	6.90	6528-OP	10.60	18 1/4	15 1/4	5	41 1/2

*Heights are for clear globe units; for opal or heat-resisting deduct 3/8 inch from medium and 3/4 inch from mogul unit heights.

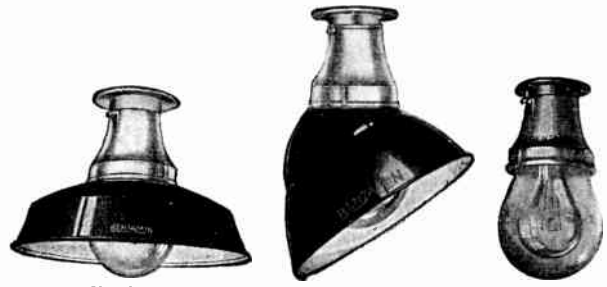
†Height taken from top of hood to lower rim of reflector.

‡Clear globe diameter; opal or heat-resisting globe diameter is 6 3/8 inches.

§Clear globe diameter; opal or heat-resisting globe diameter is 8 3/8 inches.

Benjamin Heavy Duty Vaporproof Ceiling Lighting Units

Listed by Underwriters' Laboratories



No. 6551

No. 6568

No. 6577

Suitable for use in locations exposed to moisture or non-combustible dust.

With Dome Reflectors

For Benjamin Type M 4 1/2-Inch Junction Vapolet Boxes

Size Lamp Watts	With Clear Globe		With Opal Globe		Diam. Refl. In.	*Ht. In.	Std. Pkg.	Ship. Wt. Lb. Std. Pkg.
	No.	Each	No.	Each				
75, 100	6550	\$7.95	6550-OP	\$10.50	12	11	10	59 1/2
150	6551	8.60	6551-OP	11.15	14	11	10	65 1/2
200	6552	9.05	6552-OP	11.60	16	11	10	73
300, 500	6553	13.05	6553-OP	16.75	18	14 1/2	5	71 1/2

For Standard 4-Inch Round or Octagonal Boxes

75, 100	6650	\$7.95	6650-OP	\$10.50	12	11	10	61 1/2
150	6651	8.60	6651-OP	11.15	14	11	10	67 1/2
200	6652	9.05	6652-OP	11.60	16	11	10	75
300, 500	6653	13.05	6653-OP	16.75	18	14 1/2	5	65

With Bowl Reflectors

For Benjamin Type M 4 1/2-Inch Junction Vapolet Boxes

150	6556	\$8.45	6556-OP	\$11.00	9	11	10	58
200	6557	8.60	6557-OP	11.15	10	11	10	61 1/2
300, 500	6558	11.10	6558-OP	14.80	12	14 1/2	5	60 1/2

For Standard 4-Inch Round or Octagonal Boxes

150	6686	\$8.45	6686-OP	\$11.00	9	11	10	60
200	6687	8.60	6687-OP	11.15	10	11	10	63 1/2
300, 500	6688	11.10	6688-OP	14.80	12	14 1/2	5	54

With Flat Cone Reflectors

For Benjamin Type M 4 1/2-Inch Junction Vapolet Boxes

75, 100	6563	\$7.95	6563-OP	\$10.50	14	11	10	62 1/2
150	6564	8.95	6564-OP	11.50	16	11	10	68 1/2
200	6565	10.60	6565-OP	13.15	18	11	10	70

For Standard 4-Inch Round or Octagonal Boxes

75, 100	6663	\$7.95	6663-OP	\$10.50	14	11	10	65
150	6664	8.95	6664-OP	11.50	16	11	10	71
200	6665	10.60	6665-OP	13.15	18	11	10	73

With Symmetrical Angle Reflectors

For Benjamin Type M 4 1/2-Inch Junction Vapolet Boxes

75, 100	6567	\$8.50	6567-OP	\$11.05	10	11 5/8	10	58 1/2
150, 200	6568	9.45	6568-OP	12.00	12	11 3/8	10	66
300, 500	6569	12.45	6569-OP	16.15	14	17 1/4	5	62

For Standard 4-Inch Round or Octagonal Boxes

75, 100	6667	\$8.50	6667-OP	\$11.05	10	11 5/8	10	61
150, 200	6668	9.45	6668-OP	12.00	12	11 3/8	10	68 1/2
300, 500	6669	12.45	6669-OP	16.15	14	17 1/4	5	56

Without Reflectors

For Benjamin Type M 4 1/2-Inch Junction Vapolet Boxes

50, 100	6576	\$5.85	6576-OP	\$8.40	16	9	10	41
150, 200	6577	5.90	6577-OP	8.45	16	11	10	44
300, 500	6578	7.10	6578-OP	10.80	18 1/4	14 1/2	5	47 1/2

For Standard 4-Inch Round or Octagonal Boxes

50, 100	6676	\$5.85	6676-OP	\$8.40	16	9	10	38
150, 200	6677	5.90	6677-OP	8.45	16	11	10	46
300, 500	6678	7.10	6678-OP	10.80	18 1/4	14 1/2	5	44

*Heights are for clear globe units; for opal or heat-resisting deduct 3/8 inch from medium and 3/4 inch from mogul unit heights.

†Heights taken from top of hood to lower rim of reflector.

‡Clear globe diameter; opal or heat-resisting globe diameter is 6 3/8 inches.

§Clear globe diameter; opal or heat-resisting globe diameter is 8 3/8 inches.

Benjamin 400-Watt Mercury Lamp Units

Will not operate on ordinary lighting circuits unless special transformer or reactor equipment is provided.

With 22-Inch Spread Porcelain Dome



No. 5485

For use with the standard 400-watt mercury lamp in general lighting installations.

The porcelain enameled steel dome shaped reflector provides uniform illumination on both horizontal and vertical surfaces and its 78° cut-off (bottom of light source) is lowered to 61° by the opal glass cylinder surrounding the lower portion of the lamp, which is furnished as standard.

Unit is available with spun steel neck for use with any of three Turnlox hoods or socket-reflector X fitting.

Turnlox ceiling hood fits 3¼ or 4-inch standard round or octagonal outlet boxes. Other Turnlox hoods and all X fittings tapped ½-inch standard; ¾-inch if specified. Reflector is porcelain enameled steel, green outside, white inside.

Standard package, 4.

No.	Each	Type	Neck	DIMENSIONS, IN.	
				Diameter	Height
5485	\$10.00	Socket Reflector	Steel	22	15¼
7485	11.15	Turnlox Pendant	Steel	22	17
9485	11.15	Turnlox Ceiling	Steel	22	16⅝
3485	11.15	Turnlox Angle	Steel	22	17⅝

With 20-Inch Porcelain Dome



No. 5480

For use with standard 400-watt mercury lamp in general lighting conditions.

The dome shaped reflector provides uniform illumination on both horizontal and vertical surfaces and its 72½° angle of cut-off (bottom of light source) minimizes glare.

Available with spun steel neck for use with any of three Turnlox hoods or socket-reflector X fitting. An auxiliary reflector is provided to assure maximum light output.

Standard package, 4.

No.	Each	Type	Neck	DIMENSIONS, IN.	
				Diameter	Height
5480	\$10.00	Socket Reflector	Steel	20	15½
7480	11.15	Turnlox Pendant	Steel	20	17¼
9480	11.15	Turnlox Ceiling	Steel	20	16⅞
3480	11.15	Turnlox Angle	Steel	20	17⅞

Benjamin Steelite Armor-Clad Lighting Units

Listed As Vapor Tight by Underwriters' Laboratories, Inc.



Designed to stand up under severe mechanical strain and unfavorable atmospheric conditions.

Consists of a highly efficient Alzak aluminum reflector, enclosed in a protective steel housing to guard against damage caused by rough handling or from flying metal particles. The bottom of this housing is sealed against dust, moisture, and corrosive fumes by

a hinged cover, equipped with heat and impact-resisting glass which offers resistance to sudden impacts and is impervious to temperature changes.

Diameter of reflector, 18 inches. Overall diameter, 20½ inches.

Narrow Beam Units. Recommended for lighting relatively small areas to a high intensity or for use where units must be mounted a considerable distance from the lighted surface. Equipped with an Alzak reflector having a satinized polished reflecting surface.

Concentrating Units. Recommended for lighting high narrow bays. Equipped with an Alzak reflector, with inner surfaces of etched aluminum, which concentrates light directly below the unit with most favorable illumination on horizontal surfaces.

Spread Units. For general industrial lighting; have an Alzak reflector with inner surfaces of etched aluminum. Provides a relatively broad distribution of light and gives uniform illumination on both horizontal and vertical surfaces.

Provided with X-type separable fitting tapped ½ inch standard, ¾ inch if specified. Sockets are keyless, rigid, mogul base type with finger type lamp grip.

Packed 1 in a standard package.

Type of Distribution	For 750-1500-Watt Lamps		For 400-Watt Mercury Lamps		Recom. Mtg. Ft.	Ht. In.	Ship. Wt. Lb. Std. Pkg.
	No.	Each	No.	Each			
Narrow Beam	5280	\$39.65	5285	\$39.65	Over 46	18½	25
Concentrating	5281	37.40	5286	37.40	35-45	18½	25
Spread	5282	37.40	5287	37.40	18-34	18½	25½

SHOCK-ABSORBING SOCKETS supplied at 20 cents advance in price. To order, suffix number with S11B.

Benjamin Emblem Sign Reflectors

Listed by Underwriters' Laboratories, Inc.



For lighting circular emblem signs of the type used around automobile service and gasoline filling stations and other similar small signs.

When installed as recommended, this reflector is neat and inconspicuous and does not interfere with the readability of the sign, day or night.

Conduit is led straight into side outlet of reflector hood. Hood, with reflector, is screwed to conduit, and drilled for attaching guy wires. Cast iron hood is electroplated; side outlet tapped for ½

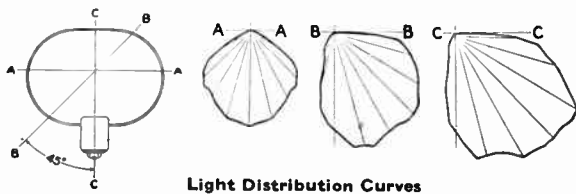
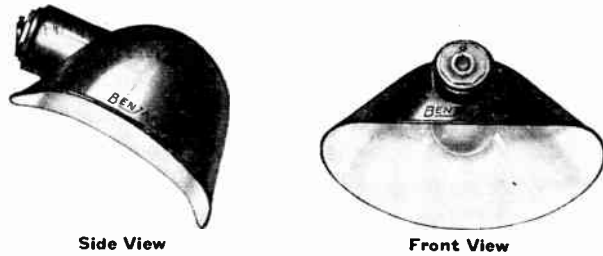
inch standard, ¾ inch when specified.

Has one-piece porcelain sockets, with easily accessible terminal screws. Symmetrical reflector is porcelain enameled steel, green outside and white inside.

Packed 10 in a standard package.

No.	Each	Watts	Height (inches)	Diameter (inches)	Ship. Wt. (lb.)
No.	\$1821-L				
Each	\$3.00				
Size Lamp	50-60	75, 100			
Height	9⅞	10½	12⅝		
Diameter	8	8	10		
Ship. Wt. per Std. Pkg.	20	22½	32½		

Benjamin Master Sign Reflectors



Recommended for use on standard poster panels, standard city or suburban bulletins, 3-sheet poster panels, standard store bulletins and other types of signs; also standard highway bulletins, railroad metropolitan or highway bulletins.

Elliptical shaped reflector is porcelain enameled steel with side outlet. Regularly finished green outside, reflecting white inside; can be furnished white outside at no extra charge.

Has angle X-type weatherproof separable fitting with set screw. Tapped 1/2 inch, standard; 3/4 inch, if specified. Has one-piece porcelain, medium base rigid keyless socket with lamp grip to retard loosening of lamps under vibration.

Packed 9 in a standard package.

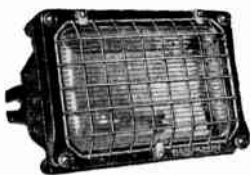
No.	Each	Size Lamp Watts	Diam. In.	Ht. In.	Width In.	Shp. Wt., Lb. Std. Pkg.
5570	\$4.15	100,150	13 1/2 x 9 1/8	8 3/4	8 7/8	33
5571	4.85	150,200	13 1/2 x 9 1/8	9 1/4	10 1/8	35

Prices do not include wires or lamps.

Benjamin Pit and Tunnel Lighting Units

For Multiple Circuits

Listed by Underwriters' Laboratories



Proper lighting of pit interiors and vehicles over the pits, lessens the danger of accidents to workers and increases their speed and effectiveness.

The trough-shaped porcelain enameled steel reflector assures maximum light output, while the refracting glass cover concentrates the major portion of the light on the underside of the object over the pit.

Suitable for built-in or surface installation in locations like repair shop service pits, railway and traction line repair pits, wash racks, viaducts, tunnels and similar locations. In some types of locations, such as viaducts, tunnels and subways, where lighting requirements are of a general nature, the pit light with a plain glass cover will be found more satisfactory than the refracting.

Fixture consists of a cover and an aluminum box which are held together by four bolts. Cover includes a cast iron frame, a heat-resisting glass cover, a double rubber gasket, which seals cover frame to box and glass to cover frame, and a brass wire guard.

Aluminum box includes a porcelain enameled steel trough-shaped reflector and a keyless socket. Body is tapped 1/2-inch iron pipe size at both ends. When specified on order, body will be tapped either 3/4, 1 or 1 1/4-inch iron pipe size, at no advance in list price.

Packed 1 in a standard package.

Size Lamp Watts	With Refracting Glass Cover		With Plain Glass Cover		Depth In.	Lgth. In.	Width In.
	No.	Each	No.	Each			
100,500	5715-AI.	\$22.45	5710-AI.	\$22.45	6 1/2	12 5/8	8 3/8
*200	5720-AI.	25.30	5717-AI.	25.30	7 1/2	13	8 9/8

*With wire clamp for feed wires.

Prices do not include wires or lamps.

Benjamin Stock-Bin-Lite Reflectors

Listed by Underwriters' Laboratories



No. T-1876

For the lighting of stock-room bins and shelves, tool crib bins and shelves, stock-room carton stacks, file rooms, library book stacks and warehouse aisles.

Special deep-trough shaped reflector is porcelain enameled steel, white inside and out. Has apertures in each end to assist in building up illumination at points farthest away. Interchangeable in any of the hoods shown. Can be turned in hoods to any desired position and locked in place by

tightening two screws on sides of hoods. Width of reflector, 7 3/8 inches. Reflector should be mounted level with the top of the highest bin of shelf and the spacing distance between reflectors should never exceed 8 feet. A V-shaped deflector bar, 11 3/8 inches long, is suspended below reflector to direct a portion of the light upward above the cutoff.

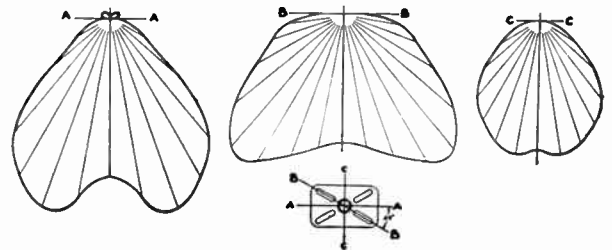
Cast iron hoods are available in pendent, angle, feed-through and outlet box. Pendent and angle hoods tapped 1/2 inch standard, 3/4 inch when specified (angle also 1 inch), without extra charge. Feed-through hood tapped 1/2 inch only. Ceiling hood fits 4-inch standard outlet boxes.

One-piece porcelain, rigid, keyless sockets are standard.

Complete unit consists of hood with reflector and socket.

Packed 10 in a standard package.

Pull Chain Sockets can be supplied, when specified, at 80 cents advance in list price. When ordering, add suffix PUL to number of fixture.



Typical Curves

Pendent Hood Units

No.	Each	*Size Lamp Watts	Height Inches	Shp. Wt., Lb. Std. Pkg.
E-1875	\$4.40	60	9 3/8	44
E-1876	4.50	75, 100	10 5/8	45
E-1877	4.60	150	11 1/2	46

Angle Hood Units

L-1875	\$4.40	60	9 3/4	45
L-1876	4.50	75, 100	11	46
L-1877	4.60	150	11 7/8	47

Feed-Through Hood Units

T-1875	\$4.55	60	9 3/4	45 1/2
T-1876	4.70	75, 100	11	46 1/2
T-1877	4.80	150	11 7/8	47 1/2

Ceiling Hood Units

C-1875	\$4.40	60	8 7/8	47
C-1876	4.50	75, 100	10 1/8	48
C-1877	4.60	150	11	49

*Inside frosted lamps are recommended.

Prices do not include wires or lamps.

Benjamin Socket-Reflectors

Porcelain Enameled Steel

Sockets and Fittings Listed by Underwriters' Laboratories

Weatherproof, one-piece units, for indoor or outdoor use where interchangeability of reflectors and easy removal for cleaning are not considerations.

Complete unit includes reflector, socket and X-type fitting; an auxiliary aluminum oxide inner reflector which fits around lamp neck is supplied with all reflector sizes where it is of advantage.

The porcelain enameled steel reflector is green outside, reflecting white inside. The finish offers effective resistance to the deteriorating effects of fumes, moisture and grime and is easily cleaned.

Tapped 1/2 inch standard; when specified, tapped 3/4 inches, or supplied with 1/2 inch I.P. size insulating drop cord bushing, No. 1265. Strain relief cord grip at additional charge.

Elliptical angle reflector; medium base units tapped 1/2 inch standard, 3/4 inch, when specified; mogul units tapped 3/4 inch standard.

Symmetrical angle reflector tapped 1/2 inch standard, 3/4 inch, when specified.

Socket adapter straps, for changing lamp position, furnished at no extra charge.

SELF-LOCKING SOCKETS: prevent unauthorized lamp removal; furnished, when specified, on medium-base socket-reflectors. For rigid locking socket, add 50 cents to list price of fixture with regular rigid socket and suffix number of same with LOK. For shock-absorbing locking socket add 60 cents to list price of fixture with regular rigid socket and suffix number of same with ASL. Key No. 1399, for releasing lamps in both types, \$1.15.

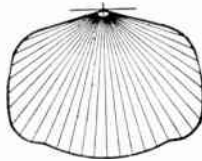
Prices do not include wires or lamps.



RLM Dome Reflectors

No. 5642

Cut-off at 72 1/2°.



Typical Curve

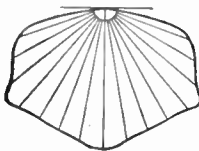
Size Lamp Watts	With Keyless Rigid Socket		With Pull Chain Socket		With Keyless Shock-Absorbing Socket		Diam. In.	Ht. In.	Std. Pkg.	Ship. Wt., Lb.
	No.	Each	No.	Each	No.	Each				
75, 100	5641	\$3.80	5641-PUL	\$4.75	5641-SHIB	\$4.00	12	7 1/2	10	31 3/4
150	5642	4.25	5642-PUL	5.20	5642-SHIB	4.45	14	9 3/8	10	39 1/2
200	5643	4.70	5643-PUL	5.65	5643-SHIB	4.90	16	10 3/8	10	48
300, 500	5644	6.10	5644-SHIB	6.30			18	12 1/8	5	39
750-1500	5645	8.30	5645-SHIB	8.50			20	14 7/8	5	49

Shallow Dome Reflectors



No. 5423

Cut-off at 77 1/2°.



Typical Curve

Size Lamp Watts	With Keyless Rigid Socket		With Pull Chain Socket		With Keyless Shock-Absorbing Socket		Diam. In.	Ht. In.	Std. Pkg.	Ship. Wt., Lb.
	No.	Each	No.	Each	No.	Each				
50, 60	5437	\$3.70	5437-PUL	\$4.65	5437-SHIB	\$3.90	12	6 1/2	10	28 1/2
75, 100	5421	3.80	5421-PUL	4.75	5421-SHIB	4.00	12	7 1/2	10	30
150	5423	4.25	5423-PUL	5.20	5423-SHIB	4.45	14	8 5/8	10	36
200	5425	4.70	5425-PUL	5.65	5425-SHIB	4.90	16	9 5/8	10	43 1/2
300, 500	5509	6.10	5509-SHIB	6.30			18	11 3/4	5	36 1/2

Benjamin Socket-Reflectors

Porcelain Enameled Steel

Sockets and Fittings Listed by Underwriters' Laboratories
RLM Bowl Reflectors



No. 6169

Cut-off is 60°.



Typical Curve

Size Lamp Watts	With Keyless Rigid Socket		With Pull Chain Socket		With Keyless Shock-Absorbing Socket		Diam. In.	Ht. In.	Std. Pkg.	Ship. Wt., Lb.
	No.	Each	No.	Each	No.	Each				
60	6166	\$3.35	6166-PUL	\$4.30	6166-SHB	\$3.55	7	6 3/4	10	24
75, 100	6161	3.55	6161-PUL	4.50	6161-SHB	3.75	8	8 1/2	10	27
200	6169	4.05	6169-PUL	5.00	6169-SHB	4.25	10	10 5/8	10	28 1/2
300, 500	6173	6.00			6173-SHB	6.20	12	12 3/4	5	23
750-1500	6177	7.35			6177-SHB	7.55	16	16 3/8	5	35

Flat Cone Reflectors



No. 5402

Cut-off is 85°.



Typical Curve

50, 60	5431	\$3.80	5431-PUL	\$4.75	5431-SHB	\$4.00	14	5 3/4	10	31
75, 100	5401	3.80	5401-PUL	4.75	5401-SHB	4.00	14	6 3/4	10	32
150	5402	4.25	5402-PUL	5.20	5402-SHB	4.45	16	7 3/4	10	39 1/2
200	5403	4.70	5403-PUL	5.65	5403-SHB	4.90	18	8 3/8	10	50

Prices do not include wires or lamps.

Benjamin Angle Socket-Reflectors

Porcelain Enameled Steel

Listed by Underwriters' Laboratories



No. 5525



No. 5542

Elliptical Angle Reflectors

Cut-off is 72 1/2°.

Size Lamp Watts	With Keyless Rigid Socket		With Pull Chain Socket		With Keyless Shock-Absorbing Socket		Diam. In.	Ht. In.	Std. Pkg.	Ship. Wt., Lb.
	No.	Each	No.	Each	No.	Each				
75, 100	5522	\$4.05	5522-PUL	\$5.00	5522-SHB	\$4.25	12 3/4	12 5/8	10	36
150	5525	4.85	5525-PUL	5.80	5525-SHB	5.05	12 3/4	13 3/8	10	39
200	5526	5.50	5526-PUL	6.45	5526-SHB	5.70	16 1/4	15 3/8	10	49
300, 500	5537	10.00			5537-SHB	10.20	20	19 1/8	5	37
750-1500	5538	11.15			5538-SHB	11.35	21 3/8	21 1/4	2	26

RLM Symmetrical Angle Reflectors

75, 100	5541	\$3.40	5541-PUL	\$4.35	5541-SHB	\$3.60	8	9 5/8	10	23
150	5542	3.95	5542-PUL	4.90	5542-SHB	4.15	10	11 3/4	10	29 1/2
200	5546	4.55	5546-PUL	5.50	5546-SHB	4.75	12	13 13/16	10	...
300, 500	5543	5.70			5543-SHB	5.90	14	17 3/8	5	29

*750-1500
1500 5544 8.75 5544-SHB 8.95 16 19 1/2 5 37

*Takes 60-watt lamps, if No. 91 socket extension is used.
Prices do not include wires or lamps.

Benjamin Turnlox Reflectors

Hoods and Lamp Holders Listed by Underwriters' Laboratories, Inc.



Bayonet Type Coupling

Construction permits reflector, together with lamp, to be taken down with one simple movement.

Unit consists of two separable elements; hood with wiring terminal base, and reflector to which is assembled lamp holding element. Contact is made at any point where reflector heel may be entered in hood. Polarization is by circular design of contacts.

One type of terminal base is standard in ceiling, angle, and pendent type hoods and accommodates reflectors with medium or mogul base lamp holders.

Hood is made of cast metal.

Pendent and angle type are tapped 1/2-inch standard, 3/4-inch if specified.

Elliptical Angle Type Porcelain Enameled Steel



Hood has a corrosion resisting finish.

Reflector is porcelain enameled steel, green outside, reflecting white inside. Cut-off at 72 1/2 degrees.

Angle hood provides three reflector positions, 120° apart. Use fixture with No. 3 hood where reflector must face directly toward the conduit support; No. 3R, where reflector must face directly away.

Pendent Type Hood with Reflector and Keyless Rigid Lamp Holder

No.	Each	Size Lamp Watts	Width In.	Depth In.	Height In.	Size Tap In.	Std. Pkg.	Ship. Wt., Lb. Std. Pkg.
7522	\$5.20	*75-100	12 3/4	9 1/8	14 1/2	†1 1/2	10	48
7525	6.00	150	12 3/4	9 1/8	15 3/8	†1 1/2	10	50 1/2
7526	6.65	200	16 1/4	11 1/2	17 3/8	†1 1/2	10	60 1/2
7537	11.15	300-500	20	14 3/4	20 7/8	3/4	5	45
7538	12.30	750-1500	21 7/8	14 7/8	23	3/4	5	29

Ceiling Type Hood with Reflector and Keyless Rigid Lamp Holder

Fits 3 1/4 or 4-inch standard octagonal or round outlet boxes of 1 1/2 inches or more depth; also plaster covers with mounting holes on 2 3/4-inch centers.

9522	\$5.20	*75-100	12 3/4	9 1/8	14 1/8	...	10	48
9525	6.00	150	12 3/4	9 1/8	15	...	10	50 1/2
9526	6.65	200	16 1/4	11 1/2	16 3/4	...	10	60 1/2
9537	11.15	300-500	20	14 3/4	20 1/2	...	5	45
9538	12.30	750-1500	21 7/8	14 7/8	22 5/8	...	2	30

Angle Type Hood with Reflector and Lamp Holder

With No. 3 Hood Rigid Lamp Holder

3522	\$5.20	*75-100	12 3/4	9 1/8	15 1/8	†1 1/2	10	48
3525	6.00	150	12 3/4	9 1/8	16	†1 1/2	10	50 1/2
3526	6.65	200	16 1/4	11 1/2	17 3/4	†1 1/2	10	54
3537	11.15	300-500	20	14 3/4	21 1/2	3/4	5	45
3538	12.30	750-1500	21 7/8	14 7/8	23 5/8	3/4	2	29

With No. 3R Hood Rigid Lamp Holder

3522R	\$5.20	*75-100	12 3/4	9 1/8	15 1/8	†1 1/2	10	48
3525R	6.00	150	12 3/4	9 1/8	16	†1 1/2	10	50 1/2
3526R	6.65	200	16 1/4	11 1/2	17 3/4	†1 1/2	10	54
3537R	11.15	300-500	20	14 3/4	21 1/2	3/4	5	45
3538R	12.30	750-1500	21 7/8	14 7/8	23 5/8	3/4	2	29

*Suitable for 60-watt lamps if No. 91 socket extension is used.

†Tapped 3/4 inch size, when specified, without extra charge.

Prices do not include wires or lamps.

Benjamin Turnlox RLM Dome Reflectors Porcelain Enameled Steel



Typical Curve

Reflector is seamless porcelain enameled steel, green outside and white inside, with bayonet-lock coupling and porcelain lamp holder. Angle of cutoff, 72 1/2°. Hood and bayonet plate, electro-plated.

Pendent Type Hood with Reflector and Keyless Rigid Lamp Holder

Cast metal hood; tapped 1/2 inch standard, 3/4 inch if specified.

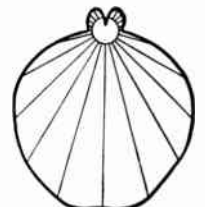
No.	Each	Size Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt., Lb. Std. Pkg.
7641	\$4.95	75, 100	12	9 1/4	10	41
7642	5.40	150	14	10 7/8	10	48
7643	5.85	200	16	12	10	56
7644	7.25	300, 500	18	13 3/4	5	43
7645	9.45	750-1500	20	16 5/8	5	52

Ceiling Type Hood with Reflector and Keyless Rigid Lamp Holder

Cast metal hood; fits 3 1/4 or 4-inch standard round or octagonal outlet boxes of 1 1/2 inches or more in depth.

9641	\$4.95	75, 100	12	8 7/8	10	41
9642	5.40	150	14	10 1/2	10	48
9643	5.85	200	16	11 5/8	10	56
9644	7.25	300, 500	18	13 3/8	5	43
9645	9.45	750-1500	20	16 1/4	5	52

Benjamin Turnlox Glassteel Diffusers



Ceiling and pendent type hoods are provided. Ceiling type has one hole slotted for easy attachment.

Reflectors are white porcelain enameled inside and out, with blue-black bead. Spring clamp globe holder. Hood and bayonet plate are finished to resist corrosion.

Pendent Type Hood with Keyless Lamp Holder

Size Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	With Opal Glass Globe	Wt. Lb. Std. Pkg.
*150, 200	18	13 1/8	4	7201 \$11.50	47
†300	20	15 3/8	4	7204 15.55	64
300, 500	20	15 3/8	4	7202 15.55	60
750, 1000	24 1/2	18 3/8	2	7203 22.45	51

Ceiling Type Hood with Keyless Lamp Holder

Cast metal; fits 3 1/4 or 4-inch standard round or octagonal outlet boxes of 1 1/2 inches or more in depth.

*150, 200	18	12 3/4	4	9201 \$11.50	47
†300	20	15	4	9204 15.55	66
300, 500	20	15	4	9202 15.55	60
750, 1000	24 1/2	18	2	9203 22.45	51

*When using 150-watt lamp, socket extension No. 91 must be used to correctly position lamp in reflector.

†300-watt medium base lamps.

Prices do not include wire or lamps.

Benjamin Turnlox Shallow Dome Reflectors

Porcelain Enameled Steel

Hoods and Lamp Holders Listed by Underwriters' Laboratories



Characteristic Distribution Curve

Reflectors are porcelain enameled steel; green outside, white inside. Hood and bayonet plate are electro-plated to prevent corrosion.

Pendent Hood and Reflector with Keyless Rigid Lamp Holder

Pendent hoods are cast iron, tapped $\frac{1}{2}$ inch standard; $\frac{3}{4}$ inch if specified.

No.	Each	Size Lamp Watts	DIMEN., INCHES	Height	Std. Pkg.	Wt., Lb. Std. Pkg.
7437	\$4.85	50, 60	12	8 $\frac{1}{4}$	10	40
7421	4.95	75, 100	12	9 $\frac{1}{4}$	10	40 $\frac{1}{2}$
7423	5.40	150	14	10 $\frac{1}{4}$	10	45 $\frac{1}{2}$
7425	5.85	200	16	11 $\frac{1}{4}$	10	54
7509	7.25	300, 500	18	13	5	33

Ceiling Type Hood and Reflector with Keyless Rigid Lamp Holder

Ceiling type hoods are of cast iron and fit $3\frac{1}{4}$ or 4-inch octagonal or round outlet boxes of $1\frac{1}{2}$ inches or more depth.

No.	Each	Size Lamp Watts	DIMEN., INCHES	Height	Std. Pkg.	Wt., Lb. Std. Pkg.
9437	\$4.85	50, 60	12	7 $\frac{7}{8}$	10	40
9421	4.95	75, 100	12	8 $\frac{7}{8}$	10	40 $\frac{1}{2}$
9423	5.40	150	14	9 $\frac{7}{8}$	10	45 $\frac{1}{2}$
9425	5.85	200	16	10 $\frac{7}{8}$	10	54
9509	7.25	300, 500	18	12 $\frac{5}{8}$	5	41

Benjamin Turnlox Flat Cone Reflectors

Porcelain Enameled Steel

Hoods and Lamp Holders Listed by Underwriters' Laboratories, Inc.



No. 7402



Typical Curve

Reflector is porcelain enameled steel; green outside, white inside.

Hood and bayonet plate are electro-plated to prevent corrosion.

Pendent Type Hood with Reflector and Keyless Rigid Lamp Holder

Hoods tapped, $\frac{1}{2}$ inch standard; $\frac{3}{4}$ inch, if specified.

No.	Each	Size Lamp Watts	Diameter Inches	Height Inches	Std. Pkg.	Shipping Wt., Lb. Std. Pkg.
7431	\$4.95	50-60	14	7 $\frac{1}{2}$	10	43 $\frac{1}{2}$
7411	4.95	75-100	14	8 $\frac{1}{2}$	10	44 $\frac{1}{2}$
7402	5.40	150	16	9 $\frac{1}{2}$	10	52
7403	5.85	200	18	10 $\frac{3}{8}$	10	62 $\frac{1}{2}$

Ceiling Type Hood with Reflector and Keyless Rigid Lamp Holder

Hoods fit $3\frac{1}{4}$ or 4-inch octagonal or round outlet boxes of $1\frac{1}{2}$ inches or more depth; also plaster covers with mounting holes on $2\frac{3}{4}$ -inch centers.

No.	Each	Size Lamp Watts	Diameter Inches	Height Inches	Std. Pkg.	Shipping Wt., Lb. Std. Pkg.
9431	\$4.95	50-60	14	7 $\frac{1}{8}$	10	46 $\frac{1}{2}$
9411	4.95	75-100	14	8 $\frac{1}{8}$	10	47 $\frac{1}{2}$
9402	5.40	150	16	9 $\frac{1}{8}$	10	55
9403	5.85	200	18	10	10	65 $\frac{1}{2}$

Prices do not include wires or lamps.

Benjamin Turnlox RLM Symmetrical Angle Reflectors

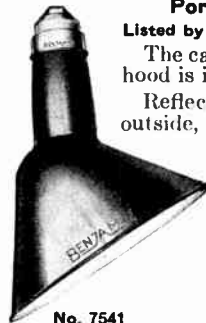
Porcelain Enameled Steel

Listed by Underwriters' Laboratories, Inc.

The cast metal pendent, ceiling and angle type hood is interchangeable and resists corrosion.

Reflector is porcelain enameled steel, green outside, reflecting white inside.

*Angle hood provides three reflector positions, 120° apart. Use fixtures with No. 3 hoods where reflector must face directly towards the conduit support; No. 3R, where reflector must face directly away from the conduit support. No. 3 hood regularly supplied.



No. 7541

Pendent Type Hood with Reflector and Lamp Holder

Hood is tapped $\frac{1}{2}$ inch standard; $\frac{3}{4}$ inch, if specified.

Size Lamp Watts	With Keyless Rigid Lamp Holder		With Shock-Absorbing Lamp Holder		Diam. In.	Width In.	Ht. In.	Std. Pkg.	Ship. Wt. Lb. Std. Pkg.
	No.	Each	No.	Each					
75,100	7541	\$4.55	7541-SHB	\$4.75	8	7	11 $\frac{1}{16}$	10	31 $\frac{1}{2}$
150	7542	5.10	7542-SHB	5.30	10	8 $\frac{3}{4}$	13 $\frac{1}{2}$	10	41
200	7546	5.70	7546-SHB	5.90	12	10 $\frac{3}{4}$	15 $\frac{1}{16}$	10	43
300,500	7543	6.85	7543-SHB	7.05	14	12 $\frac{1}{2}$	18 $\frac{3}{4}$	5	35
*750-1500	7544	9.90	7544-SHB	10.10	16	14 $\frac{1}{2}$	21 $\frac{1}{4}$	5	44

Ceiling Type Hood with Reflector and Lamp Holder

Hood, $3\frac{1}{4}$ or 4-inch standard octagonal or round outlet boxes of $1\frac{1}{2}$ inches or more depth; also plaster covers with mounting holes on $2\frac{3}{4}$ -inch centers.

Size Lamp Watts	No.	Each	No.	Each	Diam. In.	Width In.	Ht. In.	Std. Pkg.	Ship. Wt. Lb. Std. Pkg.
75,100	9541	4.55	9541-SHB	\$4.75	8	7	10 $\frac{1}{16}$	10	31 $\frac{1}{2}$
150	9542	5.10	9542-SHB	5.30	10	8 $\frac{3}{4}$	13	10	41
200	9546	5.70	9546-SHB	5.90	12	10 $\frac{3}{4}$	15 $\frac{1}{16}$	10	43
300,500	9543	6.85	9543-SHB	7.05	14	12 $\frac{1}{2}$	18 $\frac{3}{4}$	5	36
*750-1500	9544	9.90	9544-SHB	10.10	16	14 $\frac{1}{2}$	20 $\frac{7}{8}$	5	44

Angle Type Hood with Reflector and Lamp Holder

Hood is tapped $\frac{1}{2}$ inch standard; $\frac{3}{4}$ inch, if specified.

Size Lamp Watts	No.	Each	No.	Each	Diam. In.	Width In.	Ht. In.	Std. Pkg.	Ship. Wt. Lb. Std. Pkg.
75,100	3541	\$4.55	3541-SHB	\$4.75	8	7	11 $\frac{1}{16}$	10	33
150	3542	5.10	3542-SHB	5.30	10	8 $\frac{3}{4}$	14	10	41 $\frac{1}{2}$
200	3546	5.70	3546-SHB	5.90	12	10 $\frac{3}{4}$	16 $\frac{1}{16}$	10	43
300,500	3543	6.85	3543-SHB	7.05	14	12 $\frac{1}{2}$	19 $\frac{3}{8}$	5	35
*750-1500	3544	9.90	3544-SHB	10.10	16	14 $\frac{1}{2}$	21 $\frac{7}{8}$	5	41

Benjamin Turnlox RLM Bowl Reflectors

Porcelain Enameled Steel

The porcelain enameled steel reflector is green outside, reflecting white inside. Cut-off at 60°. An auxiliary aluminum oxide inner reflector fits around lamp neck.



No. 7169

Hoods and Lamp Holders Listed by Underwriters' Laboratories, Inc.



Typical Curve

Pendent Type Hood with Reflector and Keyless Rigid Lamp Holder

Hoods tapped, $\frac{1}{2}$ inch standard; $\frac{3}{4}$ inch, if specified.

No.	Each	Size Lamp Watts	Diameter Inches	Height Inches	No. in Std. Pkg.	Shipping Wt., Lb. Std. Pkg.
7156	\$4.50	60	7	8 $\frac{3}{4}$	10	34 $\frac{1}{2}$
7161	4.70	75, 100	8	10 $\frac{1}{4}$	10	38
7169	5.20	200	10	12 $\frac{1}{2}$	10	44
7173	7.15	300, 500	12	14 $\frac{5}{8}$	5	31
7177	8.50	750-1500	16	18 $\frac{1}{4}$	5	43

Ceiling Type Hood with Reflector and Keyless Rigid Lamp Holder

Hoods fit $3\frac{1}{4}$ or 4-inch octagonal or round outlet boxes of $1\frac{1}{2}$ inches or more depth; also plaster covers with mounting holes on $2\frac{3}{4}$ -inch centers.

No.	Each	Size Lamp Watts	Diameter Inches	Height Inches	No. in Std. Pkg.	Shipping Wt., Lb. Std. Pkg.
9156	\$4.50	60	7	8 $\frac{3}{8}$	10	34 $\frac{1}{2}$
9161	4.70	75, 100	8	9 $\frac{3}{8}$	10	38
9169	5.20	200	10	11 $\frac{1}{8}$	10	44
9173	7.15	300, 500	12	14 $\frac{1}{2}$	5	31
9177	8.50	750-1500	16	17 $\frac{3}{8}$	5	45

Prices do not include wires or lamps.

Type RR Benjamin Threaded Hood Units

Sockets Listed by Underwriters' Laboratories, Inc.

Suitable for use around railroad yards, steel mills, and other industrial plants where conditions require the most rugged and sturdy equipment.

Allows easy removal of reflectors for cleaning and interchangeability among the various types and sizes of reflectors.

Pendent hood is tapped 1/2-inch standard; 3/4-inch if specified, at the same price. Ceiling hood fits 4-inch standard, octagonal, or round outlet boxes.

Steel hood is finished in green enamel. Cast hood is finished in green paint enamel.

Reflector is finished porcelain enameled steel; green outside, white inside.

Furnished with special shock-absorbing socket which cushions the filament against jars and shocks, at 20 cents additional. To order, suffix number with SHB.



Type RR Hoods with Sockets
Pendent Cast Hoods

No.	Each	Base	Std. Pkg.	Wt., Lb. Std. Pkg.
26050	\$2.65	Medium	10	27
26055	3.10	Mogul	5	16



Ceiling Cast Hoods

No.	Each	Base	Std. Pkg.	Wt., Lb. Std. Pkg.
26045	\$2.75	Medium	10	24
26049	3.20	Mogul	5	15



Pendent Steel Hoods

No.	Each	Base	Std. Pkg.	Wt., Lb. Std. Pkg.
26030	\$1.75	Medium	10	14
26035	2.30	Mogul	5	9



Ceiling Steel Hoods

No.	Each	Base	Std. Pkg.	Wt., Lb. Std. Pkg.
26025	\$1.75	Medium	10	12
26029	2.30	Mogul	5	8

Reflectors for Type RR Equipment

Shallow Dome Reflectors



No. 26416

Best adapted to lighting of yards, warehouses, and platforms, or where it is desired that one unit light a large area.

Cat. No.	Each	Size Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt., Lb. Std. Pkg.
26412	\$2.50	50, 60	12	2 1/2	10	17
26414	2.95	100, 150	14	3 1/2	10	22
26416	3.40	200	16	4 1/2	10	25
26418	4.25	300, 500	18	5 7/8	5	22 1/2



RLM Bowl Reflector

For general illumination where lighting of horizontal surfaces is of first importance and where a high intensity is required in a relatively small area.

Cat. No.	Each	Size Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt., Lb. Std. Pkg.
26108	\$2.25	100	8	4 3/4	10	13 1/2
26110	2.75	200	10	7	10	19
26112	4.15	300, 500	12	8 3/4	5	16

Prices do not include wire or lamps.

Type RR Benjamin Threaded Hood Units

Sockets Listed by Underwriters' Laboratories, Inc.

Reflectors for Type RR Equipment

RLM Dome Reflectors



No. 26014

Reflectors may be removed without the use of tools and given a thorough washing. They are replaced just as easily.

Every threaded reflector will fit any threaded hood in the Benjamin Type RR Lines.

Outside of reflector is Benjamin green; inside is white porcelain enamel.

Cat. No.	Each	Size Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt., Lb. Std. Pkg.
26012	\$2.50	75, 100	12	4 3/8	10	20
26014	2.95	150	14	5 5/8	10	25
26016	3.40	200	16	6 3/4	10	33 1/2
26018	4.25	300, 500	18	8 1/8	5	28 1/2
26020	6.45	750, 1500	20	10 7/8	5	38

Fluted Bowl Reflectors



No. 26114

The only type of porcelain enameled steel reflector having an intensive distribution. It is used therefore for high mounting, i.e., 16 feet and upward.

Cat. No.	Each	Size Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt., Lb. Std. Pkg.
26114	\$4.15	300, 500	14	8 5/8	5	21
26117	8.20	750, 1500	18	11 3/4	5	30

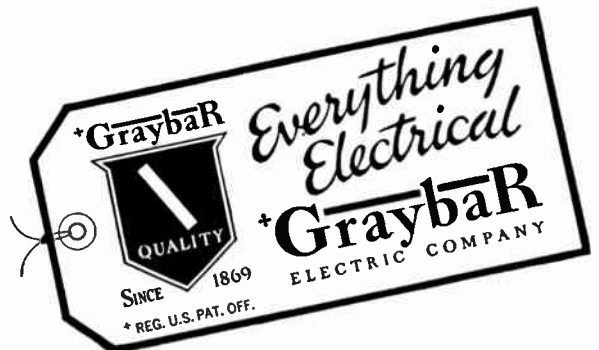
RLM Symmetrical Angle Reflectors



No. 26232

For illuminating places where light must come from the side.

No.	Each	Size Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt., Lb. Std. Pkg.
26232	\$3.25	200	12	10 3/4	10	44
26234	3.85	300-500	14	13 1/2	5	20
26236	6.90	750-1000	16	15 1/2	5	26



Benjamin Bowl Shade Holder Reflectors

RLM



No. 12075N



Characteristic Distribution Curve

For general illumination where the lighting of flat surfaces is of first importance and where a high intensity is required in a relatively small area.

With Type N Neck for Standard 2 1/4-Inch Shade Holders

No.	Each	Size of Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt. Lb. Std. Pkg.
*12025N	\$1.10	25, 40	5	3 3/8	10	5
12060N	1.75	60	7	4 3/8	10	8
12075N	1.85	75, 100	8	5 3/8	10	13
†12200N	2.55	200	10	8 1/8	10	19 1/2

With Type S Holder for Benco Sockets and Outlet Box Fittings

No.	Each	Size of Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt. Lb. Std. Pkg.
*12025S	\$1.45	25, 40	5	3 3/8	10	5
12060S	2.10	60	7	4 3/8	10	9
12075S	2.20	75, 100	8	5 3/8	10	14
†12200S	2.90	200	10	8 1/8	10	20 1/2

*Not RLM standard. †Not RLM standard when used with 150-watt lamps.

Benjamin Shallow Dome Shade Holder Reflectors



No. 11100



Characteristic Distribution Curve

For general illumination where the lighting requirement is of an extensive character.

With Type N Neck for Standard 2 1/4-Inch Shade Holders

No.	Each	Size of Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt. Lb. Std. Pkg.
11060N	\$1.70	60	12	4	10	13 1/2
11075N	1.95	75, 100	12	4 5/8	10	14
11100N	2.20	150	14	6	10	22
11200N	2.90	200	16	7	10	31

With Type S Holder for Benco Sockets and Outlet Box Fittings

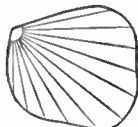
No.	Each	Size of Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt. Lb. Std. Pkg.
11060S	\$2.05	60	12	4	10	14
11075S	2.30	75, 100	12	4 5/8	10	15
11100S	2.55	150	14	6	10	22
11200S	3.25	200	16	7	10	31 1/2

Benjamin Symmetrical Angle Shade Holder Reflectors

RLM



No. 15075N



Characteristic Distribution Curve

With Type N Neck for Standard 2 1/4-Inch Shade Holders

No.	Each	Size of Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt. Lb. Std. Pkg.
15040N	\$1.30	25, 40	7	5 1/2	10	8
15060N	1.65	60	8	6 1/8	10	9 1/2
15075N	1.65	75, 100	8	6 7/8	10	11
15100N	2.25	150	10	9 1/8	10	19

With Type S Holder for Benco Sockets and Outlet Box Fittings

No.	Each	Size of Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt. Lb. Std. Pkg.
15040S	\$1.65	25, 40	7	5 1/2	10	8
15060S	2.00	60	8	6 1/8	10	10
15075S	2.00	75, 100	8	6 7/8	10	11
15100S	2.60	150	10	9 1/8	10	18

Benjamin Dome Shade Holder Reflectors

Reflector and Lamp Manufacturers' (RLM) Standard



No. 14100N



Type N Shade Holder



Type S Shade Holder

For general illumination when it is desired to avoid reflected glare from the surfaces lighted and to avoid direct glare by having the angle of light cut-off agree with all state lighting codes. Angle of cut-off 72 1/2°.

Type N shade holder reflector is fitted with a neck so shaped as to fit any standard 2 1/4 or 3 1/4-inch shade holder.

Type S shade holder reflector has a screw threaded holder to fit Benco Sockets and Type S Outlet Box Fittings.

Reflectors are green porcelain enamel outside and white inside.

With Type N Neck for Standard Shade Holder

No.	Each	Size of Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt. Lb. Std. Pkg.
†14075N	\$2.20	75, 100	12	5	10	18 1/2
14100N	2.55	150	14	6 3/4	10	23
14200N	3.00	200	16	7 3/4	10	30 1/2
*14300N	4.15	300, 500	18	7 7/8	5	24

With Type S Holder for Benco Sockets and Type S Outlet Box Fittings

No.	Each	Size of Lamp Watts	Diam. In.	Ht. In.	Std. Pkg.	Wt. Lb. Std. Pkg.
†14075S	\$2.55	75, 100	12	5	10	19
14100S	2.90	150	14	6 3/4	10	24 1/2
14200S	3.35	200	16	7 3/4	10	31

*With 3 1/4-inch fitter. †Not RLM standard when used with 60-watt lamps.

Benjamin Snap-In Reflector Holders

Attach to Any Type N Benjamin Reflector with Neck for 2 1/4-Inch Holders

Designed so that when used with Benjamin Reflectors and proper socket equipment, correct location of the lamp in the reflector is assured.

To attach, line up the rivet heads on holder with slots in reflector neck. Then push down with palm of hand, snapping holder into place. The Reflector with holder is then ready for attachment.

Standard package, 10.

Shipping weight per standard package, 2 pounds.

*No. 4386—Type A

For attachment to Ben-Ox sockets and fittings.

Made of copper; copper finish.

No. 4386.....each \$3.35

No. 4384—Type B

For attachment to brass shell sockets with Uno thread.

Made of brass; natural brass finish.

No. 4384.....each \$3.35

No. 4385—Type P

For attachment to standard porcelain or composition sockets.

Made of copper; bright metal finish.

No. 4385.....each \$5.50

No. 4383—Type S

For attachment to Benco metal clad sockets and fittings, and other manufacturers' sockets with inside threads.

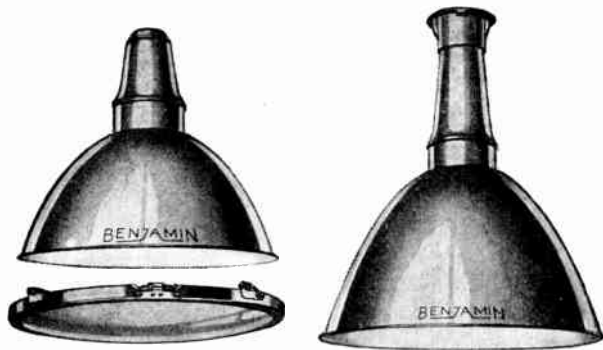
Made of copper; bright metal finish.

No. 4383.....each \$3.35

*Type A holder method of attachment is slightly different from the procedure followed on other types.

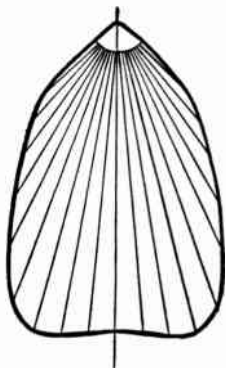
Benjamin Concentrating Type Alzak Aluminum Reflectors

For Lighting High Narrow Bays
Listed by Underwriters' Laboratories



No. 4166 Socket-Reflector with No. N-6416 Dust-Tight Cover

No. 9168, Turnlox Ceiling Construction



Typical Curve

Recommended for lighting high, narrow rooms, requiring not more than three rows of units, as these reflectors concentrate light on the working plane directly below the units with the most favorable illumination on horizontal surfaces. Suitable for installation where the mounting height of the reflector is equal to or greater than the width of the area to be lighted.

Also satisfactory for use as medium-range open type floodlights.

The spacing distance between units should never exceed the mounting height.

TURNLOX; weatherproof bayonet mechanism permits removal of reflector and lamp from hood as a unit, for cleaning or storage. Supplied with Turnlox hoods and No. 2760 rigid, keyless, mogul base lamp holder. Pendant and angle hoods tapped $\frac{1}{2}$ inch standard, $\frac{3}{4}$ inch when specified. Ceiling hoods fit $3\frac{3}{4}$ or 4-inch standard octagonal or round outlet boxes, $1\frac{1}{2}$ inches or more deep.

SOCKET-REFLECTOR; standard Socket-Reflector, separable X-type fittings and No. 4657 keyless, rigid, mogul base sockets. Fitting tapped $\frac{1}{2}$ inch standard, $\frac{3}{4}$ inch when specified.

Reflectors are Alzak oxidized etched aluminum inside; natural Alzak outside. Caps on X-type fittings are cast aluminum. Turnlox hoods are finished in baked aluminum paint over electro-plating.

Packed 4 in a standard package.

For 300-500-Watt Lamps

No.	Each	Type of Construction	Diam. In.	Ht. In.	Shp. Wt., Lb. Std. Pkg.
7166	\$14.95	Turnlox Pendant.....	16	15 $\frac{3}{8}$	28
9166	14.95	Turnlox Ceiling.....	16	15 $\frac{3}{8}$	28
3166	14.95	Turnlox Angle.....	16	16 $\frac{3}{8}$	27
4166	13.80	Socket-Reflector.....	16	14	21

For 750-1500-Watt Lamps

7168	\$17.85	Turnlox Pendant.....	18	20 $\frac{7}{8}$	34
9168	17.85	Turnlox Ceiling.....	18	20 $\frac{1}{2}$	34
3168	17.85	Turnlox Angle.....	18	21 $\frac{1}{2}$	34
4168	16.70	Socket-Reflector.....	18	19 $\frac{1}{8}$	28

Prices do not include wires or lamps.

SHOCK-ABSORBING HOLDERS AND SOCKETS; supplied in place of rigid type holder and sockets at 10 cents advance in list price. To order, suffix number with SHB.

Benjamin Spread Type Alzak Aluminum Reflectors

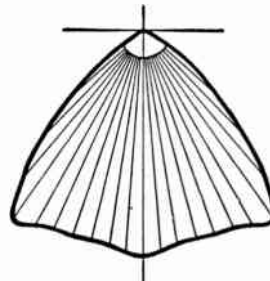
For General Lighting Installation

Sockets Listed by Underwriters' Laboratories



No. 4178, Socket-Reflector Construction

No. 7174, Turnlox Pendant Construction



Typical Curve

Suitable for general lighting installations where a relatively broad distribution of light and uniform illumination is desired.

Also used as an open type floodlight, where it is desired to cover a relatively large area at close range.

Spacing distance between units should never exceed one and one-quarter times the mounting height.

TURNLOX; weatherproof bayonet mechanism permits removal of reflector and lamp from hood as a unit, for cleaning or storage. Supplied with Turnlox hoods and No. 2760 rigid, keyless, mogul base lamp holder. Pendant and angle hoods tapped $\frac{1}{2}$ inch standard, $\frac{3}{4}$ inch when specified. Ceiling hoods fit $3\frac{3}{4}$ or 4-inch standard octagonal or round outlet boxes, $1\frac{1}{2}$ inches or more deep.

SOCKET-REFLECTOR; standard Socket-Reflector, separable X-type fittings and No. 4657 keyless, rigid, mogul base sockets. Fitting tapped $\frac{1}{2}$ inch standard, $\frac{3}{4}$ inch when specified.

Reflectors are Alzak oxidized etched aluminum inside, aluminum outside. Caps on X-type fittings are cast aluminum. Turnlox hoods are finished in baked aluminum paint applied over electro-plating.

Packed 4 in a standard package.

For 300-500-Watt Lamps

No.	Each	Type of Construction	Diam. In.	Ht. In.	Shp. Wt., Lb. Std. Pkg.
7174	\$12.65	Turnlox Pendant.....	14	15 $\frac{3}{4}$	20
9174	12.65	Turnlox Ceiling.....	14	15 $\frac{3}{8}$	22
3174	12.65	Turnlox Angle.....	14	16 $\frac{3}{8}$	25
4174	11.50	Socket-Reflector.....	14	14	17

For 750-1500-Watt Lamps

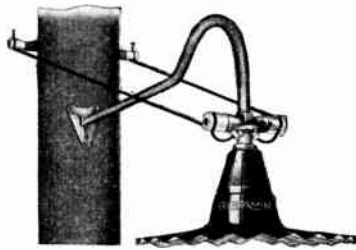
7176S	\$14.95	Turnlox Pendant.....	16	18 $\frac{1}{16}$	25 $\frac{1}{2}$
9176S	14.95	Turnlox Ceiling.....	16	18 $\frac{3}{16}$	27 $\frac{1}{2}$
3176S	14.95	Turnlox Angle.....	16	19 $\frac{3}{16}$	27 $\frac{1}{2}$
4176S	13.80	Socket-Reflector.....	16	17 $\frac{3}{16}$	21
7178	17.85	Turnlox Pendant.....	18	19 $\frac{3}{4}$	27
9178	17.85	Turnlox Ceiling.....	18	19 $\frac{3}{8}$	29
3178	17.85	Turnlox Angle.....	18	20 $\frac{3}{8}$	32
4178	16.70	Socket-Reflector.....	18	18	24

Prices do not include wires or lamps.

Standard package, 4.

SHOCK-ABSORBING HOLDERS AND SOCKETS; supplied in place of rigid type holder and sockets at 10 cents advance in list price. To order, suffix number with SHB.

Benjamin Radial Wave Outdoor Reflectors Porcelain Enameled Steel



No. 1206

Packed 5 in a standard package.

Reflector is 18 inches in diameter, of porcelain enameled steel; green outside, reflecting white inside.

Supplied with porcelain rigid, keyless socket and separable X-type fittings, tapped $\frac{1}{2}$ or $\frac{3}{4}$ inch.

Fittings, goosenecks and brackets, electroplated.

With Gooseneck Supports

Has socket fitting assembly, No. 2368 medium base and No. 4666 mogul base; No. 5037, 40x $\frac{3}{4}$ -inch gooseneck. Nos. 1204 and 1205 include No. 5031 wall fitting; Nos. 1206 and 1207 have No. N-5026-V wall fitting and No. 6203 cross arm. Tapped $\frac{3}{4}$ inch.

Size Lamp Watts	Concealed Wiring			Open Wiring		
	No.	Each	Wt., Lb. Std. Pkg.	No.	Each	Wt., Lb. Std. Pkg.
150,200	1204	\$8.85	86	1206	\$10.10	87
300,500	1205	10.60	91	1207	11.85	92

Without Gooseneck

Consists of radial wave reflector used on above fixtures in combination with socket-fitting assembly tapped $\frac{1}{2}$ inch, No. 2366, medium base; No. 4657, mogul base. When specified, tapped $\frac{3}{4}$ inch, as supplied on Nos. 1204 to 1207, without extra charge.

150,200	1214	\$5.75	44	.....	.....	..
300,500	1218	7.50	46	.....	.....	..

SHOCK-ABSORBING SOCKETS can be supplied when specified at 20 cents advance. To order, suffix number with SHB.

Benjamin Unit Package Fixtures

Listed by Underwriters' Laboratories, Inc.

Unit consists of a durable porcelain enameled steel reflector, a detachable cast iron hood, No. 1706 medium base receptacle, a section of $\frac{1}{2}$ -inch conduit with wall or outlet box fitting and two 24-inch lengths of No. 14 gage rubber covered, solid copper, single conductor wire. The conduit entrance in hood has set screw to prevent accidental loosening of assembly.

Reflector is green outside, white inside. Hood, conduit section, and mounting fitting is sprayed aluminum over electro-plating.

Prices do not include lamps.

Shallow Dome Reflectors with Brackets



For lighting farmyards, barns, stables and driveways. Supplied with a 16-inch length of $\frac{1}{2}$ -inch conduit and wall fitting. Two lag screws are furnished for attachment.

Complete units are individually packed in attractively labelled shipping containers. Standard package quantity is 5.

No.	Each	Type of Fitting	Style of Wiring	Reflector Diam. Inches
1912	\$4.20	Wall	Open	12
1914	4.55	Wall	Open	14
1916	4.90	Wall	Open	16

No. 6030 Benjamin Shock Absorber Looped Top Suspension Fittings



Made of iron, with sprayed aluminum finish applied over electro-plating. Tapped, $\frac{1}{2}$ inch.

Shipping weight per standard package, 11 pounds.

No. 6030.....each \$.86

Benjamin Aluminum Goosenecks

No. 5066A, With Wall Fitting



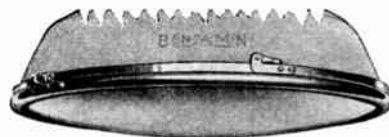
Regularly furnished with wall fitting No. N5026, but may be furnished if specified, with pole fitting No. 5025 at 20 cents reduction in price.

No.	Each	Standard Length Inches	Size Pipe Inches	Std. Pkg.
5066A	\$1.70	30	$\frac{1}{2}$	10

No. 5036A, Without Fitting

5036A	\$1.10	30	$\frac{1}{2}$	10
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Benjamin Hinged For Dust Protection Glass Covers



Complete cover consists of a two-piece electroplated steel retaining band, circular asbestos gasket and a cover glass. Attaches to all Benjamin reflector equipment having circular openings and beaded edges, where the lamp does not project below the reflector bead. Keeps reflectors at maximum efficiency, as it is necessary only to wipe the smooth outer surface of the glass cover for thorough cleaning.

Heat and impact-resisting glass covers will withstand the effects of sudden temp. changes. Packed 5 in a std. pkg.

Plain Clear Glass Covers

For Reflector Diameter Inches	Plain Clear Glass			Impact-Resisting Glass		
	No.	Each	Ship. Wt., Lb. Std. Pkg.	No.	Each	Ship. Wt., Lb. Std. Pkg.
8	N-6408	\$3.80	8	.....	.....	..
10	N-6410	4.05	15 $\frac{1}{2}$	.....	.....	..
12	N-6412	4.30	13 $\frac{1}{2}$	.....	.....	..
14	N-6414	5.30	18	6384	\$9.95	26
16	N-6416	6.45	22	6386	12.80	33
18	N-6418	7.05	28	6388	17.60	41
20	N-6420	8.90	31 $\frac{1}{2}$	6390	22.45	..
22	N-6422	11.30	52	.....	.....	..

Benjamin Flexible Suspension Fittings

Furnished with medium or heavy shock absorber to accommodate various weights of fixtures. Medium springs are for fixtures weighing from 3 to 8 pounds, heavy for 8 to 16 pounds. Specify spring desired, otherwise medium weight will be supplied. Tapped, $\frac{1}{2}$ inch.



No. 3366

Outlet Box Cover Type

Has flexible joint, permitting fixture to hang plumb. Mounting screw holes are elongated.

Sprayed aluminum finish applied over electro-plating.

Shipping weight per standard package, 8 pounds.

No. 3366, with Steel Cover for 4-Inch Box.....each \$1.05

No. 3367, with Steel Cover for M Junction Vapolet Box.....each 1.05

No. 3355 Canopy Type



Fitting is supported by a strap with slots to slip over the screws on the ears of standard 3 $\frac{1}{4}$ and 4-inch outlet boxes. May also be mounted on fixture stud by using stirrups.

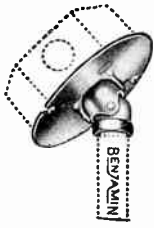
Metal parts are electro-plated.

Shipping weight per standard package, 7 pounds.

No. 3355.....each \$1.50

**Benjamin Universal Joint 45° Aligners
Outlet Box Cover Type**

Listed by Underwriters' Laboratories, Inc.



Consists of a steel pipe bushing, tapped $\frac{1}{2}$ or $\frac{3}{4}$ inch, which swings forward or back on two pivot studs joining it to a steel cup. In turn, this cup is hinged to the steel cover of the aligner to allow movement in a plane at right angles to the first, thus providing free movement through 45° in any direction. Sprayed aluminum finish over electro-plating.

Packed 10 in a standard package; weight, 7 pounds.

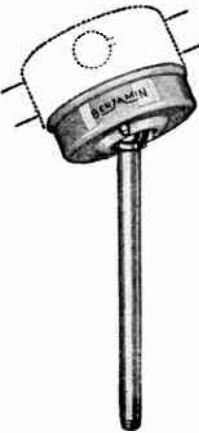
No.	Each	Description	Tap. In.
N-3380	\$.70	*For 3 $\frac{1}{4}$ and 4-In. Rd. & Oct. Outlet Box.	$\frac{1}{2}$
N-3385	.90	For 4-Inch Square Outlet Box.	$\frac{1}{2}$

*Also fits plaster cover with ears spaced on 2 $\frac{3}{4}$ -inch centers.
†Supplied tapped $\frac{3}{4}$ -inch size, when specified, at same price.

Benjamin Porcelain Enamelled Stem Suspensions

With 45° Canopy Type Ball Aligners
Listed by Underwriters' Laboratories, Inc.

For use with standard 3 $\frac{1}{4}$ and 4-inch outlet boxes, allowing lighting units to hang plumb from boxes on ceilings having up to 45° slope. Finished in white porcelain enamel.



No. 8906

Has an adjustment feature to compensate for boxes slightly recessed or protruding beyond plaster line. Porcelain enamelled steel canopy has a chromium plated die-cast aligner ball, which swivels between two steel plates inside the cover, and a steel mounting strap for attaching to the outlet box or stud. Canopy and aligner plate assembly are joined to the mounting strap by two threaded studs provided with lock and cap nuts. Aligners are provided with metal-to-metal contact for automatic grounding. Canopy cover has $\frac{1}{2}$ -inch diameter knock-out at the side. Porcelain enamel stems are of $\frac{1}{2}$ -inch iron pipe size, threaded at both ends. Aligners attach to 3 $\frac{1}{4}$ or 4-inch standard round or octagonal boxes using either box ears or a $\frac{3}{8}$ -inch fixture stud. They also fit 4-inch square boxes by using fixture stud only. For boxes 1 $\frac{1}{2}$ inches or more deep, a fixture extension is needed. Slotted attaching holes in mounting strap are spaced on 2 $\frac{3}{4}$ or 3 $\frac{1}{2}$ -inch centers. Packed 5 in a standard package.

With 45° Aligner and Stem

No.	Each	Description	8906	8912
No.	Each		\$2.30	2.65
Length Stem	..... inches		12	18
Shipping Weight, Std. Pkg.	..... pounds		11 $\frac{1}{2}$	13 $\frac{1}{2}$

With 45° Aligner Less Stem

No.	Each	Description	8916
No.	Each		\$1.70
Shipping Weight, Std. Pkg.	..... pounds		7 $\frac{1}{4}$

Benjamin Vaportight Adjustable Hangers

Listed by Underwriters' Laboratories



No. 3395

For alignment of vaportight and other lighting fixtures when outlet box is mounted at an angle. Range of adjustment, 315°.

Two-piece ball type cast iron body; gasket sealed at adjustable ball joint. Adjustment controlled by steel bolt joining two sections of fitting while a locking nut prevents accidental loosening.

Hexagonal neck at each end of fitting is tapped for conduit entrance.

Maximum overall length, 5 $\frac{5}{8}$ inches.

Green lacquer finish.

Packed 5 in a standard package.

Shipping weight per standard package, 10 pounds.

No. 3395, Tapped $\frac{1}{2}$ Inch.	each	\$1.65
No. 3396, Tapped $\frac{3}{4}$ Inch.	each	1.65

Benjamin Weatherproof Cable Suspension Fittings

With Hook and Clamp Top—Insulated Wire Openings

Weatherproof fittings with heavily insulated wire openings. Clamp block is adjustable and accommodates cable from $\frac{3}{16}$ to $\frac{1}{2}$ inch in diameter.

Fitting bodies are cast iron. All iron parts are finished in sprayed aluminum applied over electro-plating.

Cross arm types supplied with porcelain knobs.

Packed 10 in a standard package.

For 2-Wire Service



No. 6037M



No. 6039M

Designed for quick and easy hanging of reflectors from messenger cable, as lighting of outdoor recreational areas.

With Cross Arms

Shipping weight per standard package, 22 pounds.

No. 6036, Tapped $\frac{1}{2}$ -Inch Female.	each	\$1.75
No. 6037M, Tapped $\frac{1}{2}$ -Inch Male.	each	1.75

Without Cross Arms

Shipping weight per standard package, 15 pounds.

No. 6038, Tapped $\frac{1}{2}$ -Inch Female.	each	\$1.10
No. 6039M, Tapped $\frac{1}{2}$ -Inch Male.	each	1.10

Benjamin Weatherproof Pole and Wall Fittings



No. 5025



No. 5026



No. 5031

Pole and Wall Fittings

Has wire entrance slots for open wiring. Hot-dip galvanized. N5026 and N5026V have two porcelain insulating bushings for wire entrance.

Packed 10 in a standard package.

No.	Each	Description	Tap. In.	Shp. Wt., Lb. Std. Pkg.
5025	\$.60	For Pole	$\frac{1}{2}$	7
N5026	.60	For Wall	$\frac{1}{2}$	5 $\frac{1}{2}$
N5026V	.60	For Wall	$\frac{3}{4}$	6 $\frac{1}{2}$

Wall Fittings

Sprayed aluminum finish over electro-plating.

Packed 10 in a standard package.

5031	\$1.15	Insulated Wire Openings	$\frac{3}{4}$	18
5032	1.15	Insulated Wire Openings	$\frac{1}{2}$	19 $\frac{1}{2}$

No. 365P Benjamin Pear Shaped Half Shades



For use with desk lamps, bracket lamps, oil gauge lamps, etc. Takes 25 to 60-watt Mazda lamps.

Shade can be attached to either standard porcelain sockets or standard brass shell sockets.

The shade is of steel, finished in white baked enamel inside, green baked enamel outside. The holder is of steel, with steel attaching screws. Screws and holder are Parkersized.

Standard package is 20.

Shipping weight per standard package, 10 pounds.

No. 365P	each	\$.70
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Benjamin Reflector Locking Lamp Guards

Made of heavy gage steel wire with welded joints. Bright tin finish, after welding. Clamp is electroplated.

Arranged for, but does not include padlock. For No. 2570 padlock with two keys, add 65 cents to list.

Shallow Type

For reflector having circular opening and beaded edge, where globe or lamp does not project below reflector bead.



Shallow Type

No.	Each	For Reflector Diameter Inches	Depth Inches	Standard Package	Shipping Weight Pounds Standard Package
1387	\$3.15	12	1	10	7
1389	3.45	14	1 3/4	10	12
1393	3.80	16	1 1/2	10	11 1/2
1391	4.15	17 3/8	2 3/4	10	14
1395	4.15	18	1 3/4	10	14
1397	4.60	20	2	10	16

Deep Type

Accommodates fixtures in which lamp or enclosing globe projects below reflector bead.

1380	\$2.00	8	1 1/2	10	6
1383	2.30	10	2 3/4	10	6
1385	2.55	11 3/8	2	10	6 1/2
1386	2.80	12	3 3/4	10	8
1388	3.25	14	5	10	10
1392	3.45	16	4 3/4	10	12 1/2
1394	4.15	18	6 1/4	10	17
1396	4.60	20	4	10	18
*1324	5.75	24 1/2	4	2	6 1/2

*Has a single clamping screw in place of locking lever; not arranged for padlock.

No. 1263R Benjamin Strain Relief Watertight Cord Grips



Serves as a strain relief cord grip and as a watertight cord bushing for outdoor installations.

Attaches to any reflector fitting tapped 1/2-inch and accommodates any cord from 3/8 to 3/16-inch inclusive.

Consists of steel bushing, brass nut, washer and a rubber stuffing gland. Packed 10 in a standard package.

Weight per standard package, 2 pounds.

No. 1263R each \$1.30

No. 1265 Benjamin Insulating Bushings



A composition bushing for drop cord suspension of fixtures tapped 1/2-inch; 1 1/2-inch center hole.

Packed 200 in a standard package.

Weight per standard package, 4 pounds.

No. 1265 each \$1.10

No. 1261 Benjamin Strain Relief Cord Grips



A simple type of fitting which serves both as a strain relief and a cord bushing.

Easily attached to any socket tapped 1/2-inch, and accommodates any cord from 3/8 to 1 1/2-inch diameter, inclusive.

Consists of malleable iron bushing with 1/2-inch iron pipe thread, to which two steel straps, forming the cord grip, are attached by machine screws.

When properly installed, this fitting will relieve the wiring terminals of all strain, transferring it to the body of the socket.

Packed 50 in a standard package.

Weight per standard package, 5 pounds.

No. 1261 each \$2.25

No. 5429 Hubbell Half Reflectors

With Adjustable Holder



Adjustable holder can be securely screwed to the threads on socket shell, and turned as much as one full turn to adjust.

Made of steel; green and white finish.

Size lamp, 25, 40 and 60 watts.

Package weight, 9 pounds.

No. 5429 per 100 \$70.00

No. 5564 Hubbell Parabola Reflectors

With Adjustable Holder at Side

Size, 6 1/2 Inches



Adjustable holder can be securely screwed to the threads on socket shell, and turned as much as one full turn to adjust.

Made of steel; green and frosted finish.

Size lamp, 25, 40 and 60 watts.

Carton, 1. Standard package, 30. Package weight, 19 pounds.

No. 5564 per 100 \$156.00

No. 5432 Hubbell Flat Reflectors

For Threading Direct to Brass Shell Sockets

Made of tin; white finish.

Size lamp, 25, 40 and 60 watts. Size, 10 inches.

Carton, 10. Std. pkg., 50. Package weight, 20 pounds.

No. 5432 per 100 \$72.00

Hubbell Cone Reflectors

For Threading Direct to Brass Shell Sockets

Made of tin; green, white finish.

Carton, 10. Standard package, 50.



No. 5440P

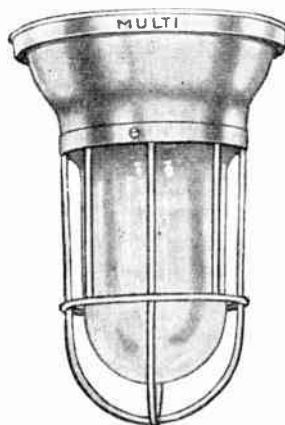
No.	Per 100	Size In.	Size Lamp Watts	Pkg. Wt. Lb.
5440	\$70.00	8	15-25-40	22
5441	88.00	10	25-40-60	29
5442	106.00	12	40-60-100	41

If the above reflectors are desired for weatherproof sockets, place the letter P after the number and add \$12.00 per 100 to the price.

For brass reflectors in polished nickel or in statuary bronze finish, add 50 per cent to the price. Other special finishes are available; prices upon application.

White interior furnished without extra charge. Aluminum or steel reflectors cannot be furnished in a plated finish.

Multi Shower Room Vaporproof Fixtures



Consists of a vaporproof receptacle with a welded wire guard supported from a heavy spun metal canopy finished overall in a baked synthetic white enamel.

Standard package, 5.

No.	Each	Overall Diameter Inches	Overall Height Inches	Lamp Size Watts
3070	\$5.40	7 1/2	10	40-60
3071	7.50	8 1/2	11 1/2	100-150

Multi Reflectors

Finish: porcelain enameled white inside; green outside.

Flat Cone

With Threaded Nipple for 1/2-Inch Pipe



No. 6625

For mounting on conduit with a long thread which protrudes through the nipple and carries a standard socket or receptacle having a 1/2-inch cap.

No.	Each	Diameter Inches	Height Inches	Standard Package
6625	\$1.00	10	2 1/4	10
6626	1.25	12	2 3/4	10
6627	1.65	14	3 1/8	10

Shallow Bowl

With Low Neck for 2 1/4-Inch Shade Holder



No. 5612

No.	Each	Diameter Inches	Fitter Size, In.	Standard Package
5610	\$.85	10	2 1/4	10
5612	1.00	12	2 1/4	10
5614	1.30	14	2 1/4	10
5616	1.60	16	2 1/4	10

Deep Cone

With Type A Neck for 2 1/4-Inch Holder Shade



No. 6630

No.	Each	Diameter Inches	Height Inches	Standard Package
6630	\$1.20	7	4 1/2	10
6631	1.35	8	5	10
6632	1.60	10	5 1/2	10

Multi Reflectors

Small Size

for Sewing Machine and Refrigerator With Holder for Threaded Brass Shell Socket



No. 6638

Lamp size, 15 to 25 watts.

No.	Each	Diam. Inches	Height Inches	Finish	Std. Pkg.
6638	\$1.05	3 1/2	3 3/8	Porcelain Enameled	10
6639	.75	3 1/2	3 3/8	Aluminum Paint	10

Special Postoffice Reflectors

With Shade Holder for Brass Shell Socket



No. 8250

No.	Each	Type	Diam. In.	Lamp Size	Std. Pkg.
4250B	\$1.40	Deep Bowl	7	60	10
4251	1.50	Deep Bowl	8	60	10
8249	1.40	Angle	7	60	10
8250	1.50	Angle	8	60	10

Multi Gymnasium Fixtures

Complete With Mounting Ring

Listed by Underwriters' Laboratories, Inc.



No. 3089



No. 3078R

For ceiling mounting so as to be nearly flush. Relamped from below. Entire fixture can be removed for servicing.

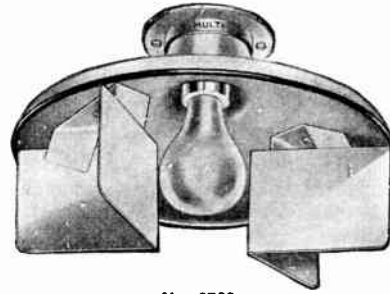
Lamp size, 300 to 500 watts. Reflector diameter, 18 inches.

No. 3078, Without Guard	each	\$11.80
No. 3088, With Wire Guard	each	14.30
No. 3089, With Cast Guard	each	21.30
No. 3078R, Steel Mounting Angle Collar Only	each	6.50

Multi Ile-Lite

For Bins and Book Stacks

With Keyless Socket



No. 6722

Finish: white Porcelain enamel inside and outside with black bead.

Pendant type is tapped for 1/2-inch pipe. Box cover type is for a 4-inch box.

Diameter Inches	Pendant Type		Box Cover Type		Lamp Size Watts	Std. Pkg.
	No.	Each	No.	Each		
12	6712	\$3.50	6722	\$3.50	100	10
14	6713	3.60	6723	3.60	150	10
16	6714	3.70	6724	3.70	200	10

Also available with bracket type hood and with pull chain sockets. For pull chain socket, add \$.80 to prices. Lamp is not included in price.

Multi Exit Sign Fixtures



No. 3062

Heavy gage steel box. Frame and hinged door made of either cast iron or cast bronze.

White, 6-inch letters on red background is standard. Prices on other color combinations on application.

Dimensions: steel box only, 15x9x4 inches; flush mounting over trim, 16x10 inches; surface mounting

overall, 15x9x4 inches.

Mounting	Cast Iron Frame and Door Without Guard		With Cast Guard		Cast Bronze Frame and Door Without Guard		With Cast Guard	
	No.	Each	No.	Each	No.	Each	No.	Each
Flush	3065A	\$11.50	3066	\$12.50	3061	\$16.00	3062	\$17.50
Surface	3067A	11.25	3068	12.25	3063	15.75	3064	17.25

Multi Dust and Moisture-Proof Fixtures

Listed by Underwriters' Laboratories, Inc.

Designed to afford safety against fire in locations where a combustible dust, suspended in the air or accumulated on the fixtures, may become ignited and explode.

Construction. Threaded metal shell carries a porcelain socket, mounted on a rubber gasket, and an enclosing globe. Pendant type is tapped for 1/2-inch pipe. Box cover type is mounted on a steel plate adapter for attaching directly to a 4-inch outlet box. Lamp vertical with receptacle at top.



No. 3124



No. 3132

Finish. Metal parts are rust-proofed.

4-Inch Box Cover Type

No.	Each	Overall Height Inches	Lamp Size	Std. Pkg.	Approx. Wt. Lb.
3124	\$1.85	7 3/4	40-60	10	18
3125	2.40	8 3/4	75-150	10	28

No. 3123 Rubber Gasket

For use between box and fixture.

No. 3123	Each	Pendant Type	Std. Pkg.	Approx. Wt. Lb.	
3131	\$2.10	9 1/2	40-60	10	20
3132	2.65	11	75-150	10	30

Wheeler 1300 Heavy Duty Railroad Line Lighting Equipment

Recommended for use in machine shops, steel mills, railroad shops, and wherever heavy duty lighting equipment is required.

Fixture consists of a canopy, socket, and porcelain enameled steel reflector. Canopy is supplied with an aluminum screw ring which engages the 3/4-inch screw threaded neck of reflector.

Reflector is porcelain enameled green outside, white inside. Reflector fits all 1300, R, and F canopies.

Wheeler two-piece socket furnished standard. Other sockets as follows:

Bottom Pull Chain Socket, Medium Base Only..each \$1.35

Extra for Wheeler Shock-Absorbing Socket, Medium and Mogul Base.....each .10

Canopies

The following canopies are available for use with 1300 reflectors. **When ordering**, specify catalog number of canopy desired and catalog number of reflector.

Stamped Canopy R

For 1/2-inch pipe. Overall height 4 1/16-inches.



No.	Each	Socket Att'd.	Std. Pkg.	Pkg. Wt.
1318	\$1.85	Medium	10	12
1319	2.20	Mogul	5	8

Stamped Canopy F

For 4-inch outlet boxes. Overall height, 3 1/2-inches.



No.	Each	Socket Att'd.	Std. Pkg.	Pkg. Wt.
215	\$1.85	Medium	10	15
216	2.20	Mogul	5	10

1300 Cast Industrial Canopy

For 1/2-inch pipe. Overall height 3 3/4-inches.



No.	Each	Socket Att'd.	Std. Pkg.	Pkg. Wt.
1325	\$2.65	Medium	10	30
1330	3.10	Mogul	5	15

1300 RLM Standard Dome Reflectors



No.	Each	Diam. In.	Watts	Std. Pkg.	Shipping Wt., Lb.
1390	\$2.55	12	100	10	20
1391	2.95	14	150	10	25
1392	3.45	16	200	10	30
1393	4.25	18	300-500	5	25
1394	6.45	20	750-1500	5	40

1300 Shallow Dome Reflectors



No.	Each	Diam. In.	Watts	Std. Pkg.	Shipping Wt., Lb.
1357	\$2.55	12	100	10	20
1354	2.95	14	150	10	22
1358	3.45	16	200	10	30
1373	4.25	18	300-500	5	20

Wheeler RLM One-Piece Solid Neck Reflectors



Standard



Deep Bowl



30° Angle



Shallow

A line of solid neck one-piece reflectors, which have been expertly designed and carefully manufactured to provide maximum lighting efficiency. These units are attractive in appearance, rugged in construction, and will give long, trouble-free service.

Recommended for both indoor and outdoor use in locations where quick removal or interchangeability of reflectors is not important or necessary.

The neck construction provides a rugged 1-piece reflector unit, in which the Wheeler Standard 2-Piece Socket is attached to a brass yoke with a deep hex shoulder. This shoulder fits a hex hole in top of reflector neck, and is securely clamped by an aluminum locknut.

Reflectors are porcelain enameled green outside, white inside. Yokes are tapped 1/2-inch pipe size standard; 3/4-inch pipe size when specified, at no extra charge.

Bottom pull chain medium base sockets can be furnished at \$1.25 extra; shock absorbing sockets at 10 cents extra.

Standard

No.	Each	DIMENSIONS, IN.		Lamp Watts	Socket Base	Std. Pkg.	Ship. Wt., Lb.
		Diam.	Height				
HS-75	\$3.80	12	8 1/4	75	Medium	10	35
HS-100	3.80	12	8 1/4	100	Medium	10	36
HES-150	4.25	14	9 1/2	150	Medium	10	40
HES-200	4.70	16	10 1/2	200	Medium	10	45
HES-500	6.10	18	11 7/8	300-500	Mogul	5	30

Deep Bowl

PS-100	\$3.55	8	8 5/8	100	Medium	10	25
PES-150	4.05	10	11	150	Medium	10	32
PES-200	4.05	10	11	200	Medium	10	32
PES-500	6.00	12	12 1/2	300-500	Mogul	5	22

30° Angle

NS-100	\$3.40	8	10	100	Medium	10	29
NES-150	3.95	10	11 7/8	150	Medium	10	26
NES-200	4.55	12	13 5/8	200	Medium	10	35
NES-500	5.70	14	15 3/8	300-500	Mogul	5	25

Shallow

DS-100	\$3.80	12	7 1/4	75-100	Medium	10	32
DES-150	4.25	14	8 3/4	150	Medium	10	35
DES-200	4.70	16	9 3/4	200	Medium	10	40

Wheeler Class II-G Vapolux Fixtures

Dust-Tight and Vaporproof
For Hazardous Locations
Approved by Underwriters' Laboratories



Standard



30° Angle

Used in locations where combustible dust atmospheres exist. Typical locations are flour mills, feed mills, grain elevators, starch mills, sugar, cocoa and coal pulverizing plants, and establishments or industries involving similar hazardous processes or conditions.

Consists of a two-piece cast aluminum canopy, socket, aluminum baffle plate, acid-resisting porcelain enameled steel reflector, and a convex shaped heat-resisting cover glass.

Reflector body, with sealed-in cover glass assembly, can be removed as a unit over the lamp by unscrewing from canopy body. Reflectors are porcelain enameled green outside, white inside. Canopies are finished natural aluminum.

Canopies are tapped 1/2-inch standard; 3/4-inch when specified, at no increase in price.

Standard For Pendant Suspension Only							Ship.
No.	Each	DIMENSIONS, IN.		Lamp	Socket	Std.	Wt.
		Diam.	Height	Watts	Base	Pkg.	Lb.
2637	\$27.25	14	11	100-150	Medium	2	25
2638	31.75	17 1/4	12 1/2	200	Medium	2	35
2639	40.50	19 1/2	15	300-500	Mogul	1	22
With Combination Cast Outlet Box and Canopy							Ship.
2637-OB	\$29.65	14	11 1/2	100-150	Medium	2	32
2638-OB	34.15	17 1/4	13	200	Medium	2	42
2639-OB	42.90	19 1/2	15 1/2	300-500	Mogul	1	29

30° Angle For Pendant Suspension Only							Ship.
No.	Each	DIMENSIONS, IN.		Lamp	Socket	Std.	Wt.
		Diam.	Height	Watts	Base	Pkg.	Lb.
2644	\$33.90	17 1/4	16 1/2	150-200	Medium	2	45
2645	42.45	19 1/2	19	300-500	Mogul	1	27

Wheeler RLM Type C Shade Holder Reflectors



Standard Dome

For Snap-Tite Holders or
Standard 2 1/4-Inch Shade Holder

Reflector is porcelain enameled green outside, white inside.

No.	Each	DIMENSIONS, IN.		Lamp	Socket	Std.	Shipping
		Diam.	Height	Watts	Base	Pkg.	Wt., Lb.
HC-100	\$2.20	12	5 1/2	100	Medium	10	22
HEC-150	2.55	14	6 3/8	150	Medium	10	24
HEC-200	3.00	16	7 3/4	200	Medium	10	34

Wheeler Snap-Tite Reflector Holders



Type Q



Type J

For Reflector with Type C Neck
for 2 1/4-Inch Holders

For attaching to reflectors with Type C neck for 2 1/4-inch standard shade holders.

Type J. For attaching to standard brass shell sockets having Uno thread.

Type Q. For attaching to composition or standard porcelain sockets having a shade holder groove.

Type	No.	Each	Material	Std. Pkg.	Ship. Wt. Lb.
J	25	\$.35	Brass	10	1
Q	27	.50	Copper	10	1

Wheeler Isolux Sign Reflectors

Two-Piece Medium Base



Top Outlet Canopy

Designed for lighting signboards and other vertical surfaces.

Made with a separable cast iron canopy, having a hot dipped galvanized finish.

Reflector may be assembled to canopy in either normal or reversed positions.

Two styles: side outlet canopy, tapped for 1/2-inch or 3/4-inch pipe; top outlet canopy, tapped 1/2-inch only.

Unless otherwise specified, reflector will be furnished porcelain enameled green outside, white inside. Also available in white porcelain enamel outside at no increase in price. Other colors available, prices on request.

With Side Outlet Canopy								Ship.
No.	Each	DIMENSIONS, IN.		Lamp	Socket	Std.	Ship.	Wt., Lb.
		Height	Mouth Opening						Watts	Base	Pkg.
2451-SO	\$4.70	12 3/8	11 1/2 x 8 3/8	100	Medium	8	40	
2452-SO	4.85	13	11 1/2 x 8 3/8	150	Medium	8	45	
2453-SO	4.85	13 3/4	11 1/2 x 8 3/8	200	Medium	8	45	
With Top Outlet Canopy								Ship.
2451-TO	\$4.70	12 3/8	11 1/2 x 8 3/8	100	Medium	8	40	
2452-TO	4.85	13 1/4	11 1/2 x 8 3/8	150	Medium	8	45	
2453-TO	4.85	14	11 1/2 x 8 3/8	200	Medium	8	45	

Two-Piece Mogul Base

Tapped for 1-Inch Pipe

With Side Outlet Canopy

No.	Each	DIMENSIONS, IN.		Lamp	Socket	Std.	Ship.	Wt., Lb.
		Height	Mouth Opening						Watts	Base	Pkg.
2454-SO	\$10.00	19	13 3/4 x 11 1/8	300-500	Mogul	4	30	
2458-SO	11.15	20 5/8	14 5/8 x 12 5/8	750-1500	Mogul	4	30	
With Top Outlet Canopy								Ship.
2454-TO	\$10.00	18 3/8	13 3/4 x 11 1/8	300-500	Mogul	4	30	
2458-TO	11.15	20	14 5/8 x 12 5/8	750-1000	Mogul	4	30	

One-Piece Medium and Mogul Base

For Pendant Suspension Only

No.	Each	DIMENSIONS, IN.		Lamp	Socket	Std.	Ship.	Wt., Lb.
		Height	Mouth Opening						Watts	Base	Pkg.
2373-N	\$4.70	12 3/8	11 1/2 x 8 3/8	100	Medium	8	30	
2374-N	4.85	13 3/4	11 1/2 x 8 3/8	150	Medium	8	35	
2375-N	4.85	14 1/2	11 1/2 x 8 3/8	200	Medium	8	35	
2377-N	10.00	18	13 3/4 x 11 1/8	300-500	Mogul	4	25	

Tapped 1/4-Inch Standard, 3/4-Inch When Specified.

Wheeler Arcolux Two-Piece 30° Angle Sign Reflectors



Top Outlet Canopy

For intensive lighting of small circular and oval signs.

Two styles: side outlet canopy, tapped for 1/2 or 3/4-inch pipe; top outlet canopy, tapped for 1/2-inch pipe only.

Reflector may be assembled to canopy in either normal or reversed position.

Supplied with a two-piece removable ring type socket. Reflector is porcelain enameled green outside, white inside. Canopy is finished in baked green enamel.

It is recommended that this reflector be mounted out from the sign a distance approximately equal to half the height of the sign.

With Side Outlet Canopy								Ship.
No.	Each	DIMENSIONS, IN.		Lamp	Socket	Std.	Ship.	Wt., Lb.
		Diam.	Height						Watts	Base	Pkg.
2491-SO	\$3.00	8 1/8	9 1/4	75-100	Medium	10	40	
2493-SO	3.20	10 1/4	11 1/2	150-200	Medium	10	40	
With Top Outlet Canopy								Ship.
2491-TO	\$3.00	8 1/8	9 1/4	75-100	Medium	10	40	
2493-TO	3.20	10 1/4	11 3/4	150-200	Medium	10	40	

Wheeler Vaportight Pendent and Ceiling Fixtures

Approved by Underwriters' Laboratories

Wheeler vaportight fixtures are sturdily constructed units, made to resist the deteriorating effects of vaporous and adverse atmospheric conditions.

Fixtures consist of a cast iron canopy with either pendent top or ceiling top, a socket, vaporproof glass globe, and an acid-resisting porcelain enameled steel reflector.

The reflector is securely fastened to the canopy. Reflectors are interchangeable throughout the medium base and mogul base range. A gasket between the globe and canopy and one between the mounting top provide a tight unit.

Wiring. By removing the mounting top from the cast canopy, the socket is fully exposed so that wiring to socket terminals is easily done.

Canopies and Canopy Tops. Canopies are durable iron castings. They are supplied with pendent tops for standard 1/2-inch conduit, or with ceiling tops drilled with two holes

to fit any standard 4-inch outlet box. The conduit system is effectively sealed by a stuffing gland, which prevents dirt, moisture or gases from entering system through the fixtures.

Finish. The cast iron canopy is finished in baked green enamel. The exterior of the reflector is finished in green porcelain enamel. The reflecting surfaces are white porcelain enamel.

Glass Globes. Supplied in clear and opal glass in a squat or pear-shaped design. Pear-shaped globes are used with medium base sockets and have a maximum thread diameter of 4 1/4 inches. Squat globes are used with mogul base sockets, and have a maximum thread diameter of 5 5/8 inches. Globes screw directly into the canopy.

Wire Guards. Guards are available for all vaportight fixtures, pendent or ceiling, with or without reflectors.



Pendent Mounting
Standard Dome



Pendent Mounting
Deep Bowl



Pendent Mounting
30° Angle



Pendent Mounting
Shallow Dome



Pendent Mounting
Without Reflector

Pendent Type

Standard Dome

No.	Clear Globe		No.	Opal Globe		DIMENSIONS, IN. Diam. Height	Lamp Watts	Socket Base	Shipping	
	Each			Each					Std. Pkg.	Wt. Lb.
2100	\$7.75		2100-OG	\$10.45		12 1/8 11 1/4	75-100	Medium	10	80
2101	8.30		2101-OG	11.00		13 3/4 11 1/4	150	Medium	10	88
2102	8.85		2102-OG	11.55		16 11 1/4	200	Medium	10	91
2103	12.25		2103-OG	14.90		18 13 1/2	300-500	Mogul	5	65

Deep Bowl

2105	\$7.90		2105-OG	\$10.60		9 1/4 11 1/4	150	Medium	10	71
2106	8.30		2106-OG	11.00		10 3/4 11 1/4	200	Medium	10	77
2107	11.65		2107-OG	14.30		12 1/8 13 1/2	300-500	Mogul	5	60

30° Angle

2110	\$7.75		2110-OG	\$10.45		10 1/4 12	75-100	Medium	10	73
2111	8.30		2111-OG	11.00		12 1/8 14	150-200	Medium	10	78
2112	12.25		2112-OG	14.90		15 3/8 16 1/2	300-500	Mogul	5	63

Shallow Dome

2115	\$8.30		2115-OG	\$11.00		13 3/4 11 1/4	75-100	Medium	10	76
2116	8.75		2116-OG	11.45		16 11 1/4	150	Medium	10	81
2117	9.35		2117-OG	12.05		18 11 1/4	200	Medium	10	118

Without Reflector

2120	\$5.50		2120-OG	\$8.20		5 5/8 10 1/4	60-100	Medium	10	60
2121	5.50		2121-OG	8.20		5 5/8 11 1/4	150-200	Medium	10	65
2122	8.50		2122-OG	11.15		8 3/8 13 1/2	300-500	Mogul	5	50

Ceiling Type

Standard Dome

2130	\$7.95		2130-OG	\$10.65		12 1/8 11 1/4	75-100	Medium	10	81
2131	8.50		2131-OG	11.20		13 3/4 11 1/4	150	Medium	10	89
2132	9.05		2132-OG	11.75		16 11 1/4	200	Medium	10	92
2133	12.45		2133-OG	15.10		18 13 1/2	300-500	Mogul	5	66

Deep Bowl

2135	\$8.10		2135-OG	\$10.80		9 1/4 11 1/4	150	Medium	10	72
2136	8.50		2136-OG	11.20		10 3/4 11 1/4	200	Medium	10	78
2137	11.85		2137-OG	14.50		12 1/8 13 1/2	300-500	Mogul	5	61

30° Angle

2140	\$7.95		2140-OG	\$10.65		10 1/4 12	75-100	Medium	10	74
2141	8.50		2141-OG	11.20		12 1/8 14	150-200	Medium	10	79
2142	12.45		2142-OG	15.10		15 3/8 16 1/2	300-500	Mogul	5	64

Shallow Dome

2145	\$8.50		2145-OG	\$11.20		13 3/4 11 1/4	75-100	Medium	10	77
2146	8.95		2146-OG	11.65		16 11 1/4	150	Medium	10	82
2147	9.55		2147-OG	12.25		18 11 1/4	200	Medium	10	119

Without Reflector

2150	\$5.70		2150-OG	\$8.40		5 5/8 10 1/4	60-100	Medium	10	60
2151	5.70		2151-OG	8.40		5 5/8 11 1/4	150-200	Medium	10	65
2152	8.70		2152-OG	11.35		8 3/8 13 1/2	300-500	Mogul	5	50



Ceiling Mounting
Standard Dome



Ceiling Mounting
Deep Bowl



Ceiling Mounting
30° Angle



Ceiling Mounting
Shallow Dome



Ceiling Mounting
Without Reflector

Wheeler Durex Industrial Canopy and Reflector Combinations

N.E.C. Standard



RLM Standard



Shallow Dome



RLM Deep Bowl



30° Angle

Fixture consists of a canopy, socket, and a porcelain enameled steel reflector.

Recommended for industrial plant lighting, railroad lighting, garage lighting, and wherever rugged, serviceable lighting fixtures are required.

Durex canopies are made in four types and fill the needs of the most difficult and unusual lighting requirements. This line represents one of the most complete developments in modern lighting equipment.

RLM Standard. For general industrial lighting.

Shallow Dome. For platforms, sheds, warehouses, and yards.

RLM Deep Bowl. Recommended for work benches or

elsewhere when concentrated light is desired.

30° Angle. For side lighting.

There are two types of Durex canopies for pipe installation, one for outlet box installation and one for drop cord construction. Canopy supplied with an aluminum screw ring which provides a cushion grip on the porcelain enameled threaded neck of the reflector. No set-screw is required to keep reflector in place. No washers, lock nuts, or yokes are necessary. Canopy is short, allowing socket to be exposed for easy wiring when reflector is removed.

Durex reflectors are interchangeable in the various types of Durex canopies.

Porcelain enameled green outside, white inside.

RLM Standard Dome Reflectors
Medium Socket Base

Lamp Watts	Std. Pkg.	Reflector Only			Reflector and Durex Cast Pendent Canopy			Reflector and Durex Cast Outlet Box Canopy			Reflector and Durex Side Outlet Canopy			Reflector and Durex Cast Pendent Canopy with Cord Grip			
		No.	Each	Dimen., In. Diam. Ht.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	
75	10	1043	\$2.55	12 6	32	1215	\$4.40	12 14	1235	\$4.40	12 47	1297-S	\$4.40	12 48	1215-CG	\$4.50	12 44
100	10	1042	2.55	12 6 1/2	33	1212	4.40	12 46	1232	4.40	12 48	1292-S	4.40	12 49	1212-CG	4.50	12 46
150	10	1044	2.95	14 7 5/8	41	1214	4.80	14 53	1234	4.80	14 56	1293-S	4.80	14 57	1214-CG	4.90	14 53
200	10	1046	3.45	16 8 3/4	54	1216	5.30	16 68	1236	5.30	16 70	1294-S	5.30	16 72	1216-CG	5.40	16 68
Mogul Socket Base																	
300-500	5	1048	4.25	18 10	39	1218	6.45	18 48	1238	\$6.45	18 49	1295-S	\$6.45	18 50	.....	.....	.....
750-1500	5	1049	6.45	20 13	37	1219	8.65	20 46	1239	8.65	20 47	1296-S	8.65	20 48	.....	.....	.....

Shallow Dome Reflectors
Medium Socket Base

Lamp Watts	Std. Pkg.	No.	Each	Dimen., In. Diam. Ht.	Shp. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.
150	10	1054	2.95	14 6 7/8	30	1224	4.80	14 42	1244	4.80	14 44	1187-S	4.80	14 44	1224-CG	4.90	14 42
200	10	1056	3.45	16 7 7/8	35	1226	5.30	16 47	1246	5.30	16 49	1188-S	5.30	16 49	1226-CG	5.40	16 47
Mogul Socket Base																	
300-500	5	1058	\$4.25	18 9 1/4	20	1228	\$6.45	18 29	1248	\$6.45	18 31	1189-S	\$6.45	18 31	.....	.....	.....

RLM Deep Bowl Reflectors
Medium Socket Base

Lamp Watts	Std. Pkg.	No.	Each	Dimen., In. Diam. Ht.	Shp. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.
100	10	1060	2.20	8 6 7/8	20	1136	4.05	8 31	1142	4.05	8 33	1101-S	4.05	8 33	1136-CG	4.15	8 31
150	10	1061	2.80	10 8 1/2	24	1137	4.65	10 35	1143	4.65	10 37	1102-S	4.65	10 37	1137-CG	4.75	10 35
200	10	1062	2.80	10 9 1/2	25	1138	4.65	10 36	1144	4.65	10 38	1103-S	4.65	10 38	1138-CG	4.75	10 36

RLM 30° Angle Reflectors
Medium Socket Base

Lamp Watts	Std. Pkg.	No.	Each	Dimen., In. Diam. Ht.	Shp. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.	No.	Each	Dim. In. Wt. Lb.
100	10	1070	2.15	8 8 1/4	20	1170	4.00	8 32	1190	4.00	8 32	.....	.....	.....	.....	.....
150	10	1079	2.70	10 10 1/8	26	1179	4.55	10 38	1199	4.55	10 38	.....	.....	.....	.....	.....
200	10	1071	3.20	12 11 7/8	35	1171	5.05	12 47	1191	5.05	12 49	.....	.....	.....	.....	.....

*Durex Cast Pendent Canopy
Tapped for 1/2-Inch Pipe



No.	1022	1023
Each	\$1.85	2.20
Socket Att'd.	Medium	Mogul
Ht. Overall. in.	1 3/4	1 3/4
No. in Std. Pkg.	10	5
Shp. Wt. lb.	14	9

Durex Cast Outlet Box Canopy
For 4-Inch Outlet Boxes



No.	1026	1027
Each	\$1.85	2.20
Socket Att'd.	Medium	Mogul
Ht. Overall. in.	1 5/16	1 5/16
No. in Std. Pkg.	10	5
Shp. Wt. lb.	17	11

Durex Side Outlet Canopy
Tapped for 1/2-Inch Pipe



No.	1066	1067
Each	\$1.85	2.20
Socket Att'd.	Medium	Mogul
Ht. Overall. in.	2 1/4	2 1/4
No. in Std. Pkg.	10	5
Shp. Wt. lb.	17	11

Durex Cast Pendent Canopy
With Cord Grip



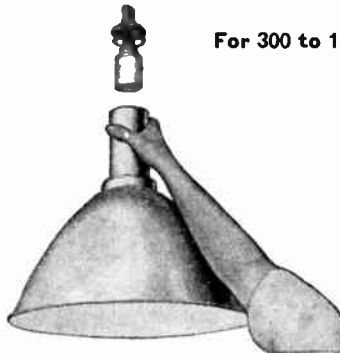
No.	1022CG	1023CG
Each	\$1.95	2.30
Socket Att'd.	Medium	Mogul
Ht. Overall. in.	2 1/4	2 1/4
No. in Std. Pkg.	10	5
Shp. Wt. lb.	14	9

*Can be supplied tapped for 3/4-inch pipe when specified.

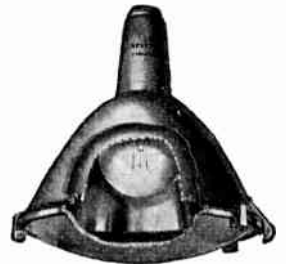
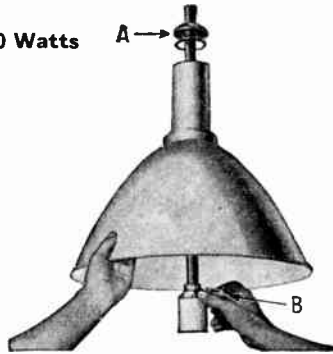
Reverse High, Medium, and Low Bay Lighting Units



No. 6602
Aluminum Reflector



For 300 to 1500 Watts



No. 5625
Steel Porcelain Enamel
with Alzak Aluminum
Reflector

Installation

After the socket is threaded tightly on the conduit and wired, unscrew locknut A and remove key-collar B. Then slip the reflector up over the socket and conduit. Replace key-collar and lower reflector into place. Thread on locknut to a snug fit.

Designed for crane bays, auditoriums, stadiums, hangers, gymnasiums, and other large areas with high ceilings.

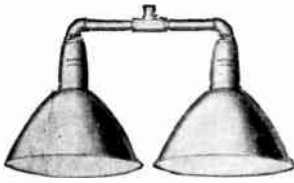
Features

Alzak aluminum or porcelain enamel reflector.

Three beam spreads. Furnished with plain glass or Herculite glass and hinged covers.

Quick, easy installation and an easy adaptation to any lowering device.

Reflector removal without disturbance of wiring. Two-piece separable socket that is easy to wire with no slack to dispose of. Safe reflector mounting which prevents the reflector from falling even when the locknut is removed. Weatherproof construction. Conduit suspension of 1/2 or 3/4 inches, and hexagonal caps which permit use of wrench to obtain secure mounting.



Twin-Lite Combination

Steel Porcelain Enamel with Alzak Aluminum Reflectors

With 750-1000-Watt Incandescent Lamp

No.	Each	Cover Glass	Height In.	Diam. In.	Class Use	Reflector	Wt. Lb.
5621	\$25.00	None	17 5/8	18	High Bay	Alzak	15
5622	31.00	Plain	20 1/2	18	High Bay	Alzak	22
5623	40.00	Herculite	19 1/2	18	High Bay	Alzak	25
5624	25.00	None	17 5/8	18	Med. Bay	Alzak	15
5625	31.00	Plain	20 1/2	18	Med. Bay	Alzak	22
5626	40.00	Herculite	19 1/2	18	Med. Bay	Alzak	25
5646	8.70	None	19 1/2	18	Low Bay	Porcelain	15
5627	14.50	Plain	20 1/2	18	Low Bay	Porcelain	22
5628	23.70	Herculite	19 1/2	18	Low Bay	Porcelain	25

With 300-500-Watt Incandescent Lamp

No.	Each	Cover Glass	Height In.	Diam. In.	Class Use	Reflector	Wt. Lb.
5634	\$21.00	None	14 3/4	14	Med. Bay	Alzak	14
5635	24.60	Plain	16 3/4	14	Med. Bay	Alzak	26
5636	31.00	Herculite	15 1/4	14	Med. Bay	Alzak	27
5637	6.50	None	14 3/4	14	Low Bay	Porcelain	9
5638	10.10	Plain	16 3/4	14	Low Bay	Porcelain	21
5639	16.50	Herculite	15 1/4	14	Low Bay	Porcelain	22

With 750-1000 and 400-Watt Mercury Twin-Lite Lamps

No.	Each	Cover Glass	Height In.	Diam. In.	Class Use	Reflector	Wt. Lb.
5629	\$25.00	None	17	18	Med. Bay	Alzak	15
5630	31.00	Plain	20 1/2	18	Med. Bay	Alzak	27
5631	40.00	Herculite	19 1/2	18	Med. Bay	Alzak	30
5647	8.70	None	18 1/2	18	Low Bay	Porcelain	15
5632	14.50	Plain	19 1/2	18	Low Bay	Porcelain	22
5633	23.70	Herculite	18 1/2	18	Low Bay	Porcelain	25

No.	Each	Cover Glass	Height In.	Diam. In.	Class Use	Reflector	Wt. Lb.
5640	\$54.90	None	....	..	Med. Bay	Alzak	39
5641	66.90	Plain	....	..	Med. Bay	Alzak	53
5642	84.90	Herculite	....	..	Med. Bay	Alzak	59
5643	22.30	None	....	..	Low Bay	Porcelain	39
5644	33.90	Plain	....	..	Low Bay	Porcelain	53
5645	52.30	Herculite	....	..	Low Bay	Porcelain	59

Alzak Aluminum Reflectors

With 750-1000-Watt Incandescent Lamp

No.	Each	Cover Glass	Diam. In.	Class Use	Wt. Lb.
6601	\$14.50	None	18	Low Bay	10
6602	22.80	Plain	18	Low Bay	18
6603	29.50	Herculite	18	Low Bay	18
6604	14.50	None	18	Medium Bay	10
6605	22.80	Plain	18	Medium Bay	18
6606	29.50	Herculite	18	Medium Bay	18
6607	16.00	None	18	High Bay	10
6608	24.30	Plain	18	High Bay	18
6609	31.00	Herculite	18	High Bay	18

With 250-Watt Mercury Lamp

No.	Each	Cover Glass	Diam. In.	Class Use	Wt. Lb.
6625	\$16.80	Plain	14	Medium Bay	18
6626	20.40	Herculite	14	Medium Bay	18
6627	18.90	Plain	14	High Bay	18
6628	22.50	Herculite	14	High Bay	18

With 400-Watt Mercury Lamp

No.	Each	Cover Glass	Diam. In.	Class Use	Wt. Lb.
6610	14.50	None	18	Medium Bay	10
6611	22.80	Plain	18	Medium Bay	18
6612	29.50	Herculite	18	Medium Bay	18
6613	16.00	None	18	High Bay	10
6614	24.30	Plain	18	High Bay	18
6615	31.00	Herculite	18	High Bay	18

With 750-1000 and 400-Watt Mercury Twin-Lite Lamps

No.	Each	Cover Glass	Diam. In.	Class Use	Wt. Lb.
6651	33.90	None	18	Low Bay	20
6652	50.50	Plain	18	Low Bay	38
6653	63.90	Herculite	18	Low Bay	38
6654	33.90	None	18	Medium Bay	38
6655	50.50	Plain	18	Medium Bay	40
6656	63.90	Herculite	18	Medium Bay	40
6657	36.90	None	18	High Bay	20
6658	53.50	Plain	18	High Bay	38
6659	66.90	Herculite	18	High Bay	38

With 300-500-Watt Incandescent Lamp

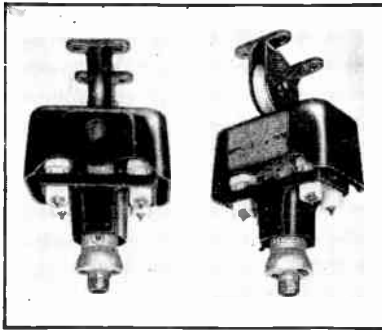
No.	Each	Cover Glass	Diam. In.	Class Use	Wt. Lb.
6616	10.40	None	14	Low Bay	18
6617	16.80	Plain	14	Low Bay	10
6618	20.40	Herculite	14	Low Bay	18
6619	10.40	None	14	Medium Bay	10
6620	16.80	Plain	14	Medium Bay	18
6621	20.40	Herculite	14	Medium Bay	10
6622	12.50	None	14	High Bay	18
6623	18.90	Plain	14	High Bay	18
6624	22.50	Herculite	14	High Bay	18

With 300-500 and 250-Watt Mercury Twin-Lite Lamps

No.	Each	Cover Glass	Diam. In.	Class Use	Wt. Lb.
6660	38.50	Plain	14	Low Bay	38
6661	45.70	Herculite	14	Low Bay	38
6662	38.50	Plain	14	Medium Bay	36
6663	45.70	Herculite	14	Medium Bay	36
6664	42.70	Plain	14	High Bay	36
6665	49.90	Herculite	14	High Bay	36

Thompson Disconnecting and Lowering Hangers

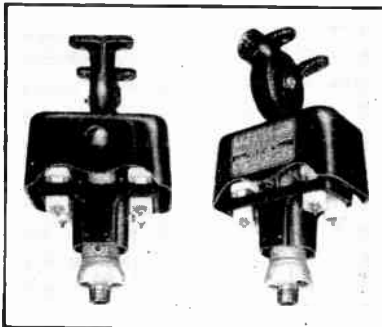
For Indoor Installation—Underwriters' Approved
3-Way (3 Circuit) 4-Wire (4 Pole)



Model No. L-321, having an open face pulley sheave housing is suitable for a wide range of installation conditions. For combination mercury-incandescent fixtures, etc., this hanger is ideal.

Furnished with Type M 3/4-inch male adapter.

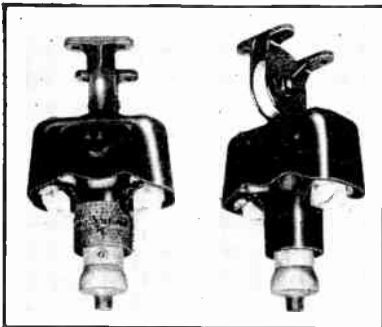
Model No. L-321, Black Japan..... each \$18.00
Model No. L-321, Cadmium Plated or Galv..... each 20.00



Model No. L-325 has the enclosed type of pulley sheave housing. The pulley sheave housing is tapped for 3/4-inch conduit for enclosing the operating chain from the hanger to the conduit-type corner pulley (L-607). The chain delivery is confined to horizontal only. Especially suitable

for auditorium use with fixtures of 1, 2, or 3 circuits, such as colored lights, rheostat circuits, etc.

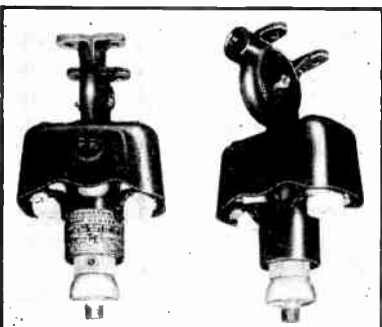
Furnished with Type M 3/4-inch male adapter.
Model No. L-325, Black Japan..... each \$19.50
Model No. L-325, Cadmium Plated or Galv..... each 21.50
Single Circuit (2 Pole)



Model No. L-141 will be found suitable for most inside installations. Open face of sheave housing permits operating chain to enter at any vertical angle up to 15 degrees above horizontal.

Furnished with 1/2-inch male standard adapter.

Model No. L-141, Black Japan..... each \$14.00
Model No. L-141, Cadmium Plated or Galv..... each 16.00

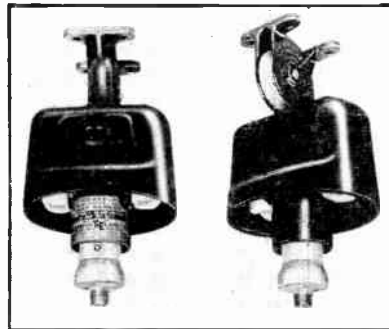


Model No. L-145 is suitable only for installations where the operating chain may be run horizontally in 3/4-inch conduit over to a conduit-type (L-607) corner pulley at wall or column. Enclosed pulley and chain is suggested for extremely dusty locations or where it is desired to eliminate

all chain sag between pulleys.
Furnished with 1/2-inch male standard adapter.
Model No. L-145, Black Japan..... each \$15.50
Model No. L-145, Cadmium Plated or Galv..... each 17.50

Thompson Disconnecting and Lowering Hangers

For Outdoor Installation—Single Circuit (2-Pole)
Underwriters' Approved

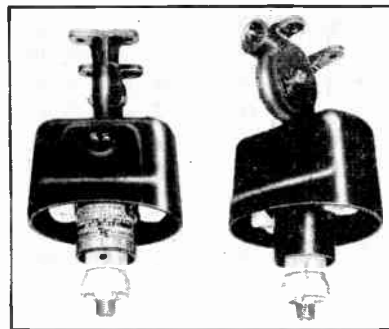


Model No. L-181 has an open face pulley sheave housing. This permits operating chain to travel at almost any required slope over to pole or wall, clearing brackets, knee braces, etc.

With 1/2-inch male standard adapter.

Model No. L-181, Black Japan, ea. \$15.50
Cadmium Plated or Galvanized, ea. 17.50

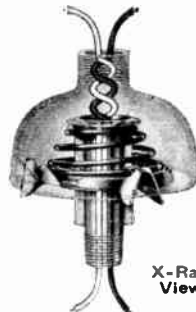
Model No. L-181, Cadmium Plated or Galvanized, ea. 17.50



Model No. L-185 provides maximum weather protection. Sheave housing is tapped for 3/4-inch conduit for enclosing operating chain from hanger to corner pulley (L-607). Wherever possible, conduit enclosure of the vertical portion of operating chain is also suggested. Do not bend conduit.

With 1/2-inch male standard adapter.
Model No. L-185, Black Japan..... each \$17.00
Model No. L-185, Cadmium Plated or Galvanized..... each 19.00

Thompson Shock Absorbers



X-Ray View

These shock absorbers may be used either with Thompson Hangers or separately. Designed primarily to protect lighting fixtures from shock and vibration, they are also adaptable to many other uses.

Simple and rugged in construction, easy to install and without a bolt, screw or nut to work loose, they afford maximum protection with long trouble-free life.

There are two sizes and three types, and a range of springs to cover suspended weights from 1 1/2 to 65 pounds.

Finish: junior size, cadmium plated; heavy duty size, hot dip galvanized. Bottom fixture connection on all models is 1/2-inch male pipe thread.

Junior Size				Heavy Duty Size			
Top Connection		Each	Total Weight Pounds of Fixture	Top Connection		Each	Total Weight Pound of Fixture
1/2-Inch Female	3/4-Inch Male			1/2-Inch Female	3/4-Inch Male		
No.	No.			No.	No.		
10L	20L	\$1.90	1 1/2 - 5	50L	60L	\$2.90	5-12
10M	20M	1.90	3 - 8	50M	60M	2.90	9-25
10H	20H	1.90	5 - 12	50H	60H	3.00	15-40
				50HH	60HH	3.20	30-65

Heavy Duty Loop Suspension

The Series 70 Shock Absorbers, having the stem split part way from the top, is designed for free swing suspension and serves both as a shock absorber and adapter.

No.	70L	70M	70H	70HH
Each	\$3.30	3.30	3.40	3.50
Total Weight of Fixture	pounds	5-12	9-25	15-40 30-65

Thompson Disconnecting and Lowering Hangers

Unit Packages—For Outdoor Use
Underwriters' Approved

Since the mounting heights and methods of mounting of outside lights is more uniform, standardization of some of the equipment is possible.

Outdoor lights may be divided into two classification groups; viz., (1) those which hang in a vertical position from a threaded stem connection, such as R.L.M.'s, elliptical angle reflectors, and street lighting type of light; and (2) those which provide for vertical adjustment of the beam and hang from a "U" shaped bail or yoke, such as many of the most popular floodlights. It is therefore possible to make available Unit Packages suitable for these two groups. These two groups with their modifications are listed below.

For Reflectors with Threaded Stem Connection

These Unit Packages contain—Thompson Hanger (galvanized), corner pulley, flare end, U-bolts and filler blocks, bracket end, slip fit elbow, lock box No. 691, anti-slap chain spring No. 906, and 33 feet of No. 33 galvanized steel chain. For 50-foot length of chain add \$1.40 to prices.

Vertical Run of Chain Not Enclosed	
No. UPL-177-1 $\frac{1}{4}$, For Mounting on 1 $\frac{1}{4}$ -Inch Pipe Bracket.....	each \$32.00
No. UPL-177-1 $\frac{1}{2}$, For Mounting on 1 $\frac{1}{2}$ -Inch Pipe Bracket.....	each 32.50

Vertical Run of Chain Conduit Enclosed

Contents of the following Unit Packages is the same as above except special link No. 911 substituted for anti-slap spring on chain end, 3/4-inch conduit connected lock box No. 692 substituted for open type No. 691, and flare end No. 700 omitted.

No. UPBL-177-1 $\frac{1}{4}$, For Mounting on 1 $\frac{1}{4}$ -Inch Pipe Bracket.....	each \$35.00
No. UPBL-177-1 $\frac{1}{2}$, For Mounting on 1 $\frac{1}{2}$ -Inch Pipe Bracket.....	each 35.50

For Floodlights with Bail or Yoke

These Unit Packages contain—Thompson Hanger (galvanized) equipped with conductor cable clamp, special floodlight-adaptor Type R and the other accessories listed above for corresponding numbers.

Vertical Run of Chain Not Enclosed

No. UPL-1177-1 $\frac{1}{4}$, For Mounting on 1 $\frac{1}{4}$ -Inch Pipe Bracket.....	each \$36.00
No. UPL-1177-1 $\frac{1}{2}$, For Mounting on 1 $\frac{1}{2}$ -Inch Pipe Bracket.....	each 36.50

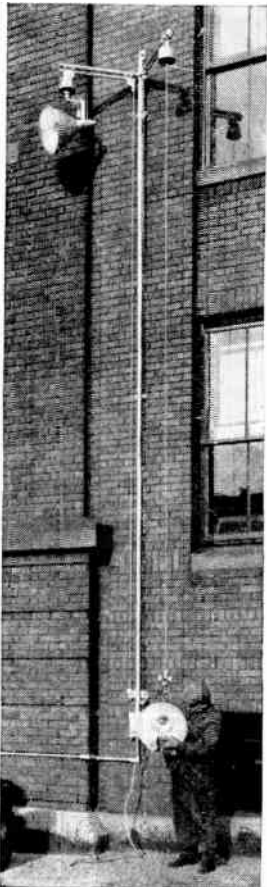
Vertical Run of Chain Conduit Enclosed

Contents of these Unit Packages same as above except special link No. 911 substituted for anti-slap spring on chain end, 3/4-inch conduit connected lock box No. 692 instead of open type No. 691, and flare end No. 700 omitted.	
No. UPBL-1177-1 $\frac{1}{4}$, For Mounting on 1 $\frac{1}{4}$ -Inch Pipe Bracket.....	each \$39.00
No. UPBL-1177-1 $\frac{1}{2}$, For Mounting on 1 $\frac{1}{2}$ -Inch Pipe Bracket.....	each 39.50

NOTICE Floodlights when lowered must balance so that stem of Hanger lower member is vertical. If floodlight is not supported at a point over its center of gravity (see illustration above) use Channel Balance Arm.

No. 761 Channel Balance Arm 5-Inch Adjustment

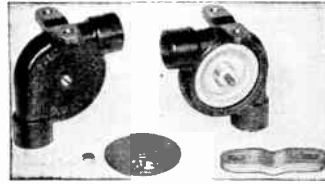
No. 761.....	each \$3.30
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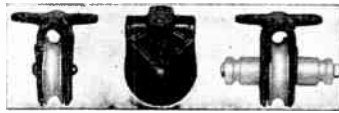
Accessories for Thompson Disconnecting and Lowering Hangers

For every "Thompson Hanger" installation corner pulleys, and sometimes intermediate pulleys are required. Also operating chain, chain-end-link, and lock box (or grip cleat) for securing operating end of chain will be required. Select the accessories to suit the "Hanger" model used.

Pulleys

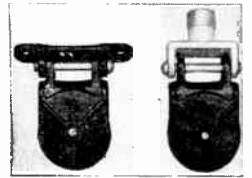


No. L-607



No. L-611

No. L-612



No. L-615

No. L-616

No.	.....	L-607	L-611	L-612	L-615	L-616
Black Japan.....	each	\$3.30	\$1.70	\$1.80	\$2.20	\$2.60
Cad. or Galv.....	each	3.80	1.90	2.00	2.50	2.90

Steel Arc Lamp Chain

The operating chain required for every installation of Thompson Hangers should be carefully selected from the following table. Select chain according to the total weight of fixture plus connections.

For each operating chain, order one No. 900 and one No. 910 connecting link.

NOTICE: Chain is sold only in multiples of 50 feet.

No.	Hot Galv. per 100 Feet	Weight of Fixtures & Connections Pounds	Rated Tensile Strength Pounds	Connecting Link, 1 per Hanger No.	Wt., Lb. per 100 Feet
35	\$6.00	Under 25	550	910	8
33	7.30	Under 50	725	911	10
31	7.50	Under 70	915	912	13

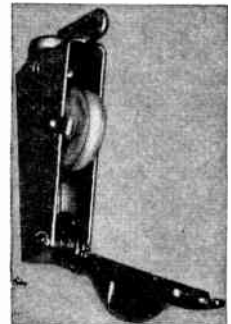
Grip Cleat and Lock Boxes



No. 690 Grip Cleat



No. 691 Lock Box



No. 692 Lock Box

For securing the free end of the operating chain, choose from the following:

No. 690 Grip Cleat. This grip cleat affords an easy and inexpensive method of securing the end of the operating chain where locking is not necessary.

No. 690..... each \$2.25

No. 691 Lock Box. Where the vertical portion of the operating chain is not conduit enclosed, the No. 691 lock box provides a method for padlocking the end of the operating chain.

No. 691, Padlock not included..... each \$1.20

No. 692 Lock Box. Where the vertical portion of the operating chain is enclosed in 3/4-inch conduit, the No. 692 lock box should be used. It is threaded at the top to receive 3/4-inch conduit. Requires padlock.

No. 692, Padlock not Included..... each \$5.00

Type MUA Crouse-Hinds Floodlights

Schedule F

Designed for lighting gasoline service stations, tennis courts, playgrounds, swimming pools, parking spaces, football fields, baseball and softball fields.

The MUA line of light duty floodlights consists of three different types of reflectors, each of which can be furnished in several combinations. All of the reflectors are interchangeable on either of the two heads, and each reflector has different lighting characteristics.

Slip fitter, cross arm base, pole bracket, and pendent mountings can be supplied.

Furnished with 750, 1000, or 1500-watt, PS-52 bulb lamp. Floodlights will be furnished arranged for standard 500-watt lamp, if specified. Porcelain mogul screw base receptacle.

Finish: porcelain enameled reflectors, white inside and blue outside; aluminum reflectors, non-tarnishing Alzak; and support head, aluminum.

Alumalux Aluminum Reflectors

Model I Head

Medium beam reflector is designed for a beam spread of approximately 90°. It is very effective for medium range projection.

Narrow beam reflector has a beam spread of 30°. It is very effective for spotting small areas.

Can be furnished with hinged door and heat-resisting lens to keep the reflector clean and protect the lamp. Standard lens is clear; a stippled lens will be furnished if desired.



With Cross Arm Mounting

With Medium Beam Etched Alzak 18-Inch Reflector

Description	Without Hinged Door		With Hinged Door	
	No.	Each	No.	Each
1½-Inch Slip Fitter.....	42394A	\$31.00	44138	\$46.00
Cross Arm.....	42395A	29.00	44136	44.00
Pole Bracket.....	42396A	30.00	44140	45.00
Pendent Mounting.....	42401A	27.00	44150	42.00

With Narrow Beam Polished Alzak 18-Inch Reflector

1½-Inch Slip Fitter.....	42397A	\$38.00	44137	\$53.00
Cross Arm.....	42398A	36.00	44135	51.00
Pole Bracket.....	42399A	37.00	44139	52.00
Pendent Mounting.....	42402A	34.00	44151	49.00

Head and Support Complete Without Alzak Reflector

No.	Description	Each
42177	1½-Inch Slip Fitter Mounting.....	\$11.00
42176	Cross Arm.....	9.00
42178	Bracket Mounting.....	10.00
42380	Pendent Mounting.....	7.00

Reflector and Hinged Door Complete Without Head and Support

No.	Description	Each
44152	Medium Beam Reflector, Clear Lens.....	\$35.00
44153	Narrow Beam Reflector, Clear Lens.....	42.00

Elliptalux Porcelain Enameled Reflectors*

Model I Head

Wide beam auxiliary reflector is sheet aluminum with etched Alzak finish. Superimposes on the general distribution a wide beam of high intensity for lighting distant areas.

Narrow beam auxiliary reflector is sheet aluminum with polished Alzak finish. Supplies a narrow beam of high intensity having a spread of 40° horizontally by 27° vertically.



With Slip Fitter Mounting

Without Auxiliary Reflector

No.	Description	Each
42174	1½-Inch Slip Fitter.....	\$19.00
42173	Cross Arm.....	17.00
42175	Pole Bracket.....	18.00
42381	Pendent Mounting.....	15.00

With Wide Beam Etched Alzak Auxiliary Reflector

42188	1½-Inch Slip Fitter.....	\$22.00
42187	Cross Arm.....	20.00
42189	Pole Bracket.....	21.00
42384	Pendent Mounting.....	18.00

With Narrow Beam Polished Alzak Auxiliary Reflector

42180	1½-Inch Slip Fitter.....	\$25.00
42179	Cross Arm.....	23.00
42181	Pole Bracket.....	24.00
42382	Pendent Mounting.....	21.00

Prices Do Not Include Incandescent Lamps

Model II Head

The adjustable head and support arm is recommended for athletic field installations. Can be tipped completely over for convenience when relamping and cleaning and when it is swung back against the adjustable relamping stop, it is in its exact original position.

Mounting provides both horizontal and vertical degree scales for accurate setting of the floodlight during installation. Special cross arm bracket for steel tower mounting, using two bolts, can be furnished without additional charge if specified.

With Cross Arm Mounting

Furnished wired complete with two single conductors of rubber-covered service wire, 4-feet long, or 4 feet of 2-conductor cable. Either open style or with enclosing lens. Hinged door and lens recommended for keeping the reflecting surface free from dirt and dust, and preventing lamp breakages. Standard lens is clear; a stippled lens will be furnished if desired.

With Medium Beam Etched Alzak 18-Inch Reflector

Description	Without Hinged Door		With Hinged Door	
	No.	Each	No.	Each
1½-Inch Slip Fitter.....	43911	\$31.00	43953	\$46.00
Cross Arm.....	43909	29.00	43951	44.00
Pole Bracket.....	43917	30.00	43959	45.00

With Narrow Beam Polished Alzak 18-Inch Reflector

1½-Inch Slip Fitter.....	43912	\$38.00	43954	\$53.00
Cross Arm.....	43910	36.00	43952	51.00
Pole Bracket.....	43918	37.00	43960	52.00

Head and Support Complete Without Alzak Reflector

No.	Description	Each
43507	1½-Inch Slip Fitter Mounting.....	\$11.00
43506	Cross Arm.....	9.00
43510	Bracket Mounting.....	10.00

Reflector and Hinged Door Complete Without Head and Support

No.	Description	Each
44152	Medium Beam Reflector, Clear Lens.....	\$35.00
44153	Narrow Beam Reflector, Clear Lens.....	42.00

Multalux Porcelain Enameled Reflectors*

Model I Head

Designed for lighting service stations. Interchangeable.

Wide beam auxiliary reflector is sheet aluminum with etched Alzak finish. Superimposes on the general distribution a wide beam of high intensity for lighting buildings and pumps.

Narrow beam auxiliary reflector is sheet aluminum with polished Alzak finish.

Without Auxiliary Reflector

No.	Description	Each
42206	1½-Inch Slip Fitter.....	\$30.00
42207	Cross Arm.....	28.00
42208	Pole Bracket.....	29.00
42387	Pendent Mounting.....	26.00

With Wide Beam Etched Alzak Auxiliary Reflector

42209	1½-Inch Slip Fitter.....	\$33.00
42210	Cross Arm.....	31.00
42211	Pole Bracket.....	32.00
42388	Pendent Mounting.....	29.00

With Narrow Beam Polished Alzak Auxiliary Reflector

42212	1½-Inch Slip Fitter.....	\$36.00
42213	Cross Arm.....	34.00
42214	Pole Bracket.....	35.00
42389	Pendent Mounting.....	32.00

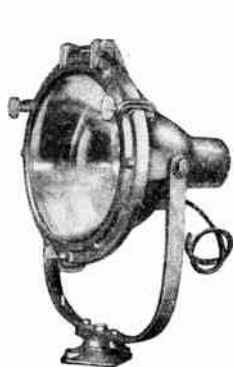
*Also furnished with Model II head.

Crouse-Hinds Floodlight Projectors

Medium and Long Range

Schedule F

Types ADE-12, ADE-14, and ADE-16



Type ADE-12
With Standard Mounting



Type ADE-14 and ADE-16,
with Standard Mounting

A clear, plain lens is furnished unless otherwise specified. A clear, diffusing lens and two types of spread lens, 50° and 100°, can be furnished if specified, at no extra charge. Heavy duty housing are made of cast aluminum.

Type ADE-12

With Standard Mounting

No.	Each	Description	LAMP	
			Watts	Bulb
42428A	\$43.00	With Wide Beam Polished Alzak Reflector	200	PS-30
42429A	43.00	With Narrow Beam Polished Alzak Reflector	250	G-30

Type ADE-14

42740	\$68.00	With Wide Beam Polished Alzak Reflector	500	PS-40
42739	68.00	With Narrow Beam Polished Alzak Reflector	500	PS-40
42921A	68.00	With Narrow Beam Polished Alzak Reflector	500	G-40

Type ADE-16

42741	\$85.00	With Wide Beam Polished Alzak Reflector	300 to 1000	PS-52
42932	85.00	With Narrow Beam Polished Alzak Reflector	300 to 1000	PS-52
42743	85.00	With Narrow Beam Polished Alzak Reflector	500 or 1000	G-40

Available with Slip Fitter at same price.

Type LCE-1120

1500 Watts

Used for the illumination of large areas.

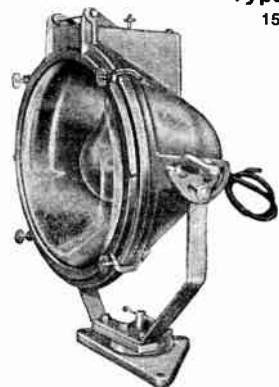
The unit can be arranged with plain, spread or diffusing lens.

The 750, 1000, or 1500-watt, PS-52 bulb lamp; or the 1000 or 1500-watt, G-bulb lamp, may be used as required.

When used with the G-bulb lamp, the housing is tipped over so that the lamp operates in a base-down position.

Finish: case, natural aluminum; base and trunnion, galvanized.

Shipping weight, 115 pounds.

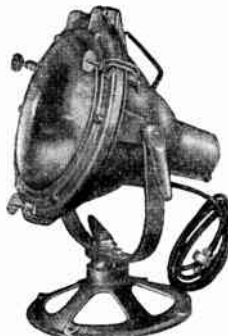


No.	Each	Description	LAMP	
			Watts	Bulb
42745	\$140.00	With Wide Beam Polished Alzak 20-Inch Reflector	750 to 1500	PS-52
42746	140.00	With Narrow Beam Polished Alzak 20-Inch Reflector	1000 or 1500	G
42953	140.00	With Narrow Beam Polished Alzak 20-Inch Reflector	750 to 1500	PS-52

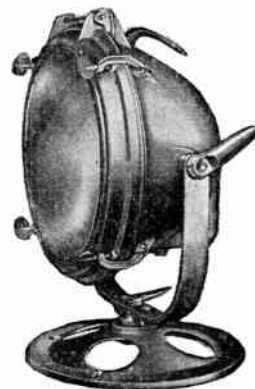
Crouse-Hinds Portable Floodlight Projectors

Types ADR-12 and ADR-14

12-Inch, 200 to 250-Watt—14 Inch, 500-Watt



Type ADR-12



Type ADR-14

For portable use with either a narrow beam spotlight or a wide, evenly distributed, beam of light.

Housing: cast aluminum alloy, dust-tight, non-ventilated, and weatherproof.

Wiring connections: 10 feet of heavy-duty rubber-covered cable is furnished with a standard parallel blade plug.

Furnished with polished Alzak reflector.

Lamps are not included.

No.	Each	Type	*Lens	LAMP	
				Watts	Bulb
42950C	\$50.00	ADR-12	Diffusing	200 or 250	PS or G
42023C	50.00	ADR-12	Plain	200 or 250	PS or G
44176C	71.00	ADR-14	Diffusing	500	G-40
42783C	71.00	ADR-14	Plain	500	G-40

*Diffusing lens provides wide beam, and plain lens provides narrow spotlight beam.

Crouse-Hinds Floodlights

Types RM, RMU, RME, and RMF

Short and Medium Range



Type RM



Type RME



Type RMU



Type RMF

Furnished with narrow beam Alzak reflector. Lamps are not included.

No.	Each	Type	Description	LAMP	
				Watts	Bulb
40407A	\$28.00	RM-10	Surface	60 or 150	A
40408A	33.00	RM-12	Surface	150 or 200	PS
40409A	40.00	RMU-10	With Bracket	60 or 100	A
40410A	45.00	RMU-12	With Bracket	150 or 200	PS
40411A	45.00	RME-10	Trunnion	60 or 100	A
40412A	50.00	RME-12	Trunnion	150 or 200	PS
42930	40.00	RMF-12	Flush	150 or 200	PS

Type GCP-14 Crouse-Hinds Lantern Floodlights

Schedule F



An ornamental lantern type floodlight designed for the illumination of buildings, gasoline service stations, and other locations where the appearance of the lighting unit is a factor of importance.

The daytime appearance is that of an ornamental street lantern. At night, the large, efficient reflector on the inside transforms the unit into a powerful floodlight.

With Floodlight Reflector

Cast Aluminum Slip Fitter		Cast Feraloy Slip Fitter		Form		Reflector
4-Inch	7-Inch	4-Inch	7-Inch	No.	Each	
No.	Each	No.	Each	No.	Each	
41322	\$91.00	41323	\$91.00	41970	\$85.00	*A Wide Beam
41324	91.00	41325	91.00	41972	85.00	†B Wide Beam
41402	91.00	41401	91.00	41974	76.00	C Narrow Beam

Without Reflector

With Mogul Multiple Receptacle

41337	\$62.00	41338	\$62.00	41976	\$56.00	41977	\$56.00	Without
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With Series Film Cutout Receptacle

41320	\$65.00	41321	\$65.00	41978	\$59.00	41979	\$59.00	Without
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*For lighting above horizontal.

†For lighting below horizontal.

Units with floodlighting reflector are furnished with a medium screw base auxiliary lamp receptacle.

Lamps are not included.

Crouse-Hinds Floodlights

Schedule F

Types MDB-8 and MDB-10

8-Inch, 100 Watts

10-Inch, 200 Watts



Lightweight, weatherproof; for lighting residential yards, driveways.

Round flange base can be bolted to flat horizontal or vertical surface. Holes are spaced to fit holes in a 4-inch outlet box. Steel stake provided for temporary mounting on ground. Suspension mounting furnished without additional charge. Aluminum finish.

Furnished with polished Alzak reflector, units become spotlights.

Incandescent lamps not included.

Shipping weight: Type MDB-8, 7½ pounds; Type MDB-10, 9 pounds.

Std. Mounting

*With Wide Beam Etched Aluminum Reflector		Type MDB-10		Polished Alzak Reflector		Type MDB-10		Color of Lens
Type MDB-8		Type MDB-10		Type MDB-8		Type MDB-10		
100 Watts	200 Watts	100 Watts	200 Watts	100 Watts	200 Watts	100 Watts	200 Watts	
No.	Each	No.	Each	No.	Each	No.	Each	
42403	\$8.00	42405	\$12.50	42409	\$9.50	42411	\$14.50	Clear
42434	12.80	42438	19.00	42442	14.30	42446	21.00	Red
42435	12.80	42439	19.00	42443	14.30	42447	21.00	Amber
42436	12.80	42440	19.00	42444	14.30	42448	21.00	Green
42437	12.80	42441	19.00	42445	14.30	42449	21.00	Blue

*Furnished in etched Alzak finish, Type MDB-8, add \$1.50; Type MDB-10, \$2.00.
Without lens or clamping ring, Type MDB-8, deduct \$2.00; Type MDB-10, deduct \$4.00.

Accessories and Parts

Description	For Type MDB-8	For Type MDB-10
	No. Each	No. Each
Plain Lens.....	HL5375 \$1.70	HL6813 \$3.50
Spread Lens.....	HL5376 1.70	HL6815 3.50
Diffusing Lens.....	HL5377 1.70	HL6814 3.50
Plain Red Lens.....	HL5754 6.50	KL507 10.00
Plain Amber Lens.....	HL5753 6.50	KL508 10.00
Plain Green Lens.....	HL5755 6.50	KL509 10.00
Plain Blue Lens.....	KL511 6.50	KL510 10.00
Lamp Receptacle.....	HL4203 .60	HL4203 .60

Crouse-Hinds Floodlights

Schedule F

Type MDB-14, 14-Inch, 500 Watts and Type MDB-16, 16-Inch, 1000 Watts



With Standard Base

Lightweight, weather-proof floodlights. Furnished with heat-resisting clear lenses.

Cast aluminum socket housing and support. Reflectors are for narrow, medium and wide beam; attached to housing by four screws and key-hole slots.

When installing the floodlights, housing and mounting can be installed and wired complete before reflector is attached. Aluminum finish.

Incandescent lamps are not included in numbers and prices. *Does not include head and support base.

†Less Mounting.

‡Includes Cover Glass and Clamp Ring.

§Includes Cover Glass and Hinged Door.

Type MDB-14, Floodlight Complete, without Cover Glass

Description	With Wide Beam Etched Alzak Refl.		With Medium Beam Etched Alzak Refl.		With Narrow Beam Polished Alzak Refl.	
	No.	Each	No.	Each	No.	Each
With Standard Mounting.....	44141	\$20.00	44142	\$20.00	44143	\$25.00
With Slip-Fitter Mounting.....	44144	21.00	44145	21.00	44146	26.00
With Cross Arm Mounting.....	44159	19.00	44160	19.00	44161	24.00
With U-Bolt Bracket Mounting...	44189	20.00	44190	20.00	44191	25.00
*†Reflector Only.....	KL527	10.50	KL243	10.50	KL244	15.50

Type MDB-14, Floodlight Complete with Lens and Clamping Ring

With Standard Mounting.....	42491A	\$26.00	42461A	\$26.00	42462A	\$31.00
With Slip-Fitter Mounting.....	42487A	27.00	42495A	27.00	42721A	32.00
With Cross Arm Mounting.....	42488A	25.00	42496A	25.00	42722A	30.00
With U-Bolt Bracket Mounting...	43543	26.00	43544	26.00	43545	31.00
*††Reflector Complete.....	42489A	16.50	42497A	16.50	42723A	21.50

Type MDB-14, Floodlight Complete with Hinged Door and Lens

With Standard Mounting.....	43567	\$34.00	43568	\$34.00	43569	\$39.00
With Slip-Fitter Mounting.....	43570	35.00	43571	35.00	43572	40.00
With Cross Arm Mounting.....	43564	33.00	43565	33.00	43566	38.00
With U-Bolt Bracket Mounting...	43579	34.00	43580	34.00	43581	39.00
*†§Reflector Complete.....	43840	24.50	43841	24.50	43842	29.50

Type MDB-16, Floodlight Complete, without Cover Glass

With Standard Mounting.....	44162	\$23.00	44163	\$23.00	44164	\$29.00
With Slip-Fitter Mounting.....	44165	24.00	44166	24.00	44167	30.00
With Cross Arm Mounting.....	44168	22.00	44169	22.00	44170	28.00
With U-Bolt Bracket Mounting...	44192	23.00	44193	23.00	44194	29.00
*†Reflector Only.....	KL528	13.50	KL247	13.50	KL248	19.50

Type MDB-16, Floodlight Complete with Lens and Clamping Ring

With Standard Mounting.....	42490A	\$34.00	42465A	\$34.00	42466A	\$40.00
With Slip-Fitter Mounting.....	42484A	35.00	42492A	35.00	42498A	41.00
With Cross Arm Mounting.....	42485A	33.00	42493A	33.00	42499A	39.00
With U-Bolt Bracket Mounting...	43615	34.00	43616	34.00	43617	40.00
*††Reflector Complete.....	42486A	24.50	42494A	24.50	42500A	30.50

Type MDB-16, Floodlight Complete with Hinged Door and Lens

With Standard Mounting.....	43675	\$41.00	43676	\$41.00	43677	\$47.00
With Slip-Fitter Mounting.....	43678	42.00	43679	42.00	43680	48.00
With Cross Arm Mounting.....	43672	40.00	43673	40.00	43674	46.00
With U-Bolt Bracket Mounting...	43687	41.00	43688	41.00	43689	47.00
*†§Reflector Complete.....	43843	31.50	43844	31.50	43845	37.50

Type SPS Crouse-Hinds Swimming Pool Floodlights

Schedule F
For Dry Niche Mounting



For pools which have a passage around the outside wall, or for installation in a manhole. In the latter case, the design is such that a very small manhole can be used. It is not necessary for the service man to enter the manhole, as the unit is easily unhooked and lifted to the surface for relamping.

A 3-conductor cable is furnished with the unit. The third wire is grounded to the floodlight.

Housing: bronze is standard for swimming pools; cast aluminum can be used in fresh water.

Door frame: cast bronze, or cast aluminum, natural finish.

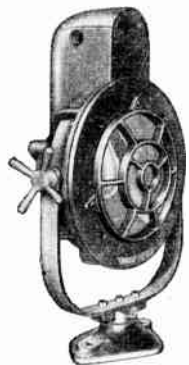
Lens: Convex, Pyrex, heat-resisting, horizontal spread lens, 1 1/16 inches in diameter (No. HL6810).

Lamps: 500 or 1000-watt, G40 bulb, 115-volt floodlight service lamp; not included in prices.

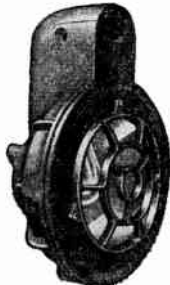
Type SPS Complete:	Bronze		Aluminum	
	No.	Each	No.	Each
With Porthole Ring.....	44124	\$150.00	44132	\$80.00
With Relamping Bracket.....			44131	30.00
Porthole Ring with Door....	44123	120.00	44130	50.00
Ring Only with Screws.....	KL3587	50.00	KL3589	20.00
Door Only with Gasket.....	KL3588	70.00	KL3590	30.00

Type RCDE-8 Crouse-Hinds Explosion-Proof Floodlights

Schedule R



With Trunnion Mounting



Pit Light

Designed to meet the requirements of an explosion-proof floodlight.

Recommended for use around oil refineries, chemical plants and for lighting spray booths from the outside.

The Pit Light is recommended for lighting automobile greasing pits and lifts and for general use in hazardous locations.

With Trunnion Mounting

With Narrow Beam Polished Alzak Reflector		With Wide Beam Etched Alzak Reflector		Housing	Door
No.	Each	No.	Each		
41719A	\$75.00	41720A	\$71.75	Feraloy	Aluminum
41721A	85.00	41722A	81.75	Feraloy	Brass
41723A	75.00	41724A	71.75	Aluminum	Aluminum
41725A	102.00	41726A	98.75	Brass	Brass

With Suspension Mounting

41989A	\$72.00	41990A	\$68.75	Aluminum	Aluminum
41991A	72.00	41992A	68.75	Feraloy	Aluminum
41993A	99.00	41994A	95.75	Brass	Brass

Portable Unit

41727A	\$76.00	41728A	\$72.75	Aluminum	Aluminum
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Pit Light—Without Brackets

41704A	\$62.50	41702A	\$59.50	Feraloy	Aluminum
41705A	72.00	41706A	69.00	Feraloy	Brass
41707A	62.50	41708A	59.50	Aluminum	Aluminum
41709A	88.00	41710A	85.00	Brass	Brass

Pit Light—With Three Z Brackets

41711A	\$63.50	41712A	\$60.50	Feraloy	Aluminum
41713A	74.00	41714A	71.00	Feraloy	Brass
41715A	63.50	41716A	60.50	Aluminum	Aluminum
41717A	89.00	41718A	86.00	Brass	Brass

Prices do not include lamps.

Type RCD-8 Crouse-Hinds Lighting Units

Schedule R

Designed for mounting in concrete. Provides perfect lighting for pits, underpasses, tunnels and washracks.

Form F for Floor Mounting



No. 41427A.....each \$20.00

Form W for Wall Mounting



Similar to Form F, except that it is provided with a hinged and flush door, so that it can be set absolutely flush with a concrete wall.

Can also be mounted on a ceiling or wall by using brackets.

Refracting lenses can be set to refract light up or down.

Black enamel finish.

Form W, with Hinged Door and Grid	With Plain Lens		With Refracting Lens	
	No.	Each	No.	Each
With Grid.....	41409	\$20.00	41410	\$20.00
Without Grid.....	41332	19.00	41334	19.00

Prices do not include incandescent lamps.

No. 43729 Type RMC-8 Watertight Marine Lighting Units

Schedule F

For Deck or Hold Lighting
100 Watts

Meets requirements of U.S. Maritime Commission. Lightweight, allows easy handling and reduces considerably total weight of any vessel requiring several hundred fixtures.



Housing: cast aluminum alloy, dust-tight and weatherproof. Can be drilled and tapped at factory, at additional cost of \$.10 for each tapped lug.

Mounting: four lugs are provided for surface mounting.

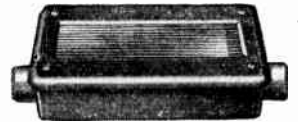
No. 43729, Type RMC-8.....each \$16.00

Type FS Crouse-Hinds Lighting Units

Schedule F



6-Watt



25-Watt

Small lighting units made to mount flush in concrete, stone, or plastered walls; to light steps, walks, floors and gardens. Also used in hospitals, mounted low in the wall for lighting the floor without disturbing patients.

Cover is equipped with refracting glass, which is normally set to refract light downward. Two styles are shown; a 25-watt and 6-watt unit, with two hub combinations each, through feed and bottom hubs.

*With Aluminum Cover

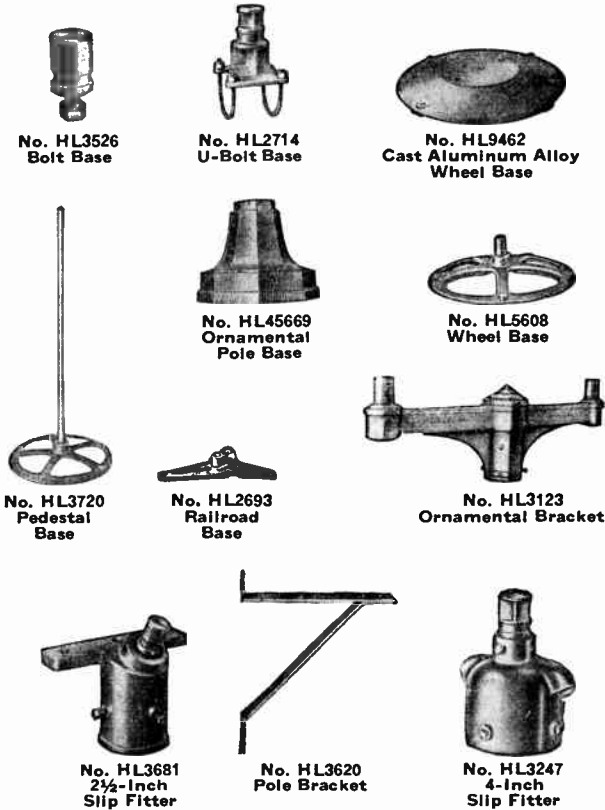
Size Inches	6 Watts				25 Watts			
	Through No.	Each	Dead End No.	Each	Through No.	Each	Dead End No.	Each
1/2	42877	\$3.60	42879	\$3.50	.....	.....	.....	.....
3/4	42916	3.80	42908	3.60	42912	\$7.20	42904	\$7.00
1	42917	4.05	42909	3.70	42913	7.40	42905	7.30

*For brass chrome plated covers add \$3.00 to prices for 25-watt type and \$1.50 for 6-watt type.

Crouse-Hinds Special Floodlight Bases and Brackets

Schedule F

For Crouse-Hinds Floodlights



When any one of these special bases or brackets is ordered with a projector, the number and price of the particular base or bracket should be added to number and price of the projector.

Bases

For Types ADE-14 and ADE-16

*No. HL3720, Pedestal.....	each	\$10.00
No. HL2693, Railroad.....	each	3.00
No. HL2714, U-Bolt.....	each	3.75
No. HL5608, Wheel.....	each	7.50

For Type ADA-12

No. HL3526, Bolt.....	each	\$2.50
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For Type LCE-1120

No. HL3247, Slip Fitter, 4-Inch.....	each	\$6.00
No. HL3681, Slip Fitter, 2 1/2-Inch.....	each	6.00
No. HL9462, Wheel.....	each	11.00

Ornamental Pole Bases

No. 45669, Threaded.....	each	.....
No. 45889, Slip Fitter.....	each

Brackets

For Two Type LCE-1120

No. HL3123, Ornamental.....	each	\$32.00
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For Two Types ADE-14 or ADE-16

No. HL3685, Ornamental.....	each	\$32.00
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For Type LCE-1120

No. HL2630, Pole.....	each	\$9.00
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For Types ADE-14 and ADE-16

No. HL2632, Pole.....	each	\$7.50
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*For projector in place of regular base, add \$2.00.

Crouse-Hinds Lenses



Plain Lens



Spread Lens

Most Crouse-Hinds floodlights are supplied as standard equipment with plain, convex, Pyrex, heat-resisting lenses. Unless another lens is specified on the order, plain lens will be furnished. The plain lens does not alter the beam spread of the floodlight in any way.

Light Control Lenses

It is often desirable to increase the natural spread of a floodlight beam either in all directions or in one direction only. To meet this condition, the Crouse-Hinds Company can supply two different types of lenses as described below. There is no additional charge for these lenses, if specified on the order.

Diffusing Lenses

The convex, heat-resisting, diffusing lens spreads the natural beam both horizontally and vertically, giving a larger light spot. This lens is used where the natural spread from the floodlight is not sufficient to cover the area desired.

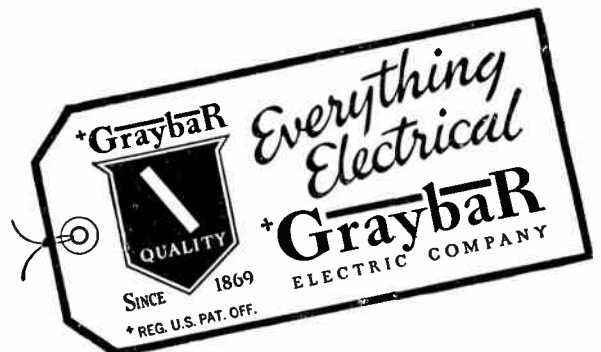
Spread Lenses

The convex, heat-resisting, spread lens spreads the light at right angles to the direction of the ribs, leaving the spread in the other direction the same. The resulting beam is elliptical in shape. When the ribs are vertical, the beam is spread horizontally and when they are horizontal, the beam is spread vertically. The lens can be set at the factory for either spread, and the order should specify which is desired. This type of lens is very useful when lighting rectangular areas. The nominal beam spread produced with the standard spread lens is 45° to 50°. The actual beam spread depends on the characteristics of the floodlight with which the lens is used.

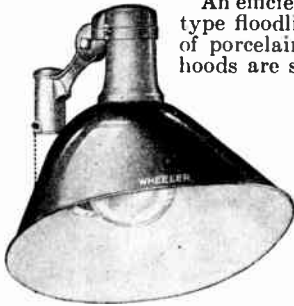
Color Screens

Floodlights using 500-watt or larger lamps can be furnished with red, amber, green, or blue color screens. These screens are placed inside the floodlight, behind the clear lens. 12-inch projectors can be furnished with colored, heat-resisting lenses in place of the clear glass lenses, for an addition of \$3.00.

Color screens can be obtained for lenses having a diameter of 12, 14, or 16 7/16 inches.



Wheeler Meteor Floodlights



An efficient and dependable style of open type floodlight. Reflector is constructed of porcelain enameled steel. Supporting hoods are separable from reflector necks, permitting any of the various bracket assemblies to be put in place without the necessity of handling the complete fixture. All cast parts are made of aluminum with the exception of the base of the pipe clamp assembly which is cast iron.

Auxiliary Interior. An auxiliary interior is available for attaching to the inside of the reflector. Made of aluminum with a special diffused ALZAK aluminum reflecting surface. Designed to build up the illumination in the area farthest from the unit.

Finish. Porcelain enameled light blue outside, white inside. Hoods retain their natural cast aluminum finish.

With Pole Top Assembly Slips 1½-Inch Iron Pipe

No.	Each	Reflector Mouth, In.	Overall Height, In.	Lamp Watts
2546	\$21.60	21½x15¼	19	300-500
2547	22.80	21½x15¼	21½	750-1500

With Cross Arm and Pipe Clamp Assembly Clamps Around ¾ to 1½-Inch Iron Pipe

2548	\$20.40	21½x15¼	19	300-500
2549	21.60	21½x15¼	21½	750-1500

With Cross Arm Assembly Fits Cross Arms

2550	\$19.20	21½x15¼	19	300-500
2551	20.40	21½x15¼	21½	750-1500

With Pendant Hood Tapped ¾-Inch Standard

2552	\$16.80	21½x15¼	19¾	300-500
2553	18.00	21½x15¼	22¼	750-1500

*Tapped 1-inch when specified.

When specified, can be furnished with a diffused ALZAK aluminum inner reflector at an increase of \$3.60 in price.

Benjamin Ellipto-Lite Play-Area Floodlights



No. 5977

A wide angle, open type reflecting surface for floodlighting recreational areas, playgrounds, parking lots, etc. Weatherproof.

Four types of hood; pendant for attaching directly to threaded pipe; with cross arm bracket for fastening to flat surfaces; with cross arm and pipe clamp for attaching to 1 to 2-inch pipe; or slip fitter to slip over 1½ or 2-inch pipe.

Fittings not aluminum, are electro-plated.

With Pendant Hoods

Hood tapped ¾ inches standard; 1 inch, if specified.

Size Lamp Watts	With Inner Reflector		Less Inner Reflector		Diam. In.	Ht. In.	Ship. Wt. Lb.
	No.	Each	No.	Each			
300,500	5770	\$17.00	5772	\$14.00	20	19	19
750-1500	5970	18.00	5973	15.00	21⅞	22¾	24

Fits standard 4¼-inch arms and any flat surface.

300,500	5771	\$19.00	5773	\$16.00	20	18¼	24
750-1500	5971	20.00	5974	17.00	21⅞	21¾	26

With Cross Arms and Pipe Clamps

300,500	5777	\$20.00	5779	\$17.00	20	18¼	21
750,1500	5977	21.00	5978	18.00	21⅞	21¾	25

With Slip-Fitter Brackets

300,500	5774	\$21.00	5775	\$18.00	20	18¼	21
300,500	*5774A	21.00	*5775A	18.00	20	18¼	21
750,1500	5975	22.00	5976	19.00	21⅞	21¾	28
750-1500	*5975A	22.00	*5976A	19.00	21⅞	21¾	28

With Saffox Lowering Attachment

Bracket slips on 1½-inch iron pipe mast.

750-1500	25975	\$41.00	25976	\$38.00	21⅞	....	41
750-1500	*25975A	41.00	*25976A	38.00	21⅞	....	41

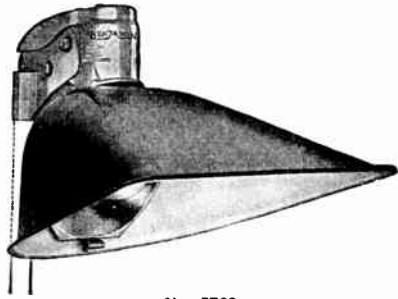
For Bi-Post Lamps

Floodlight can be supplied with holder for 1000-watt, medium Bi-post, hard-glass lamp. To order, prefix number with BP and add \$2.00 list (with Saffox add \$2.50). A length of No. 12AF nickel fixture wire is included (except Saffox).

*Slips on 2-inch iron pipe mast.

Benjamin Duo-Service Floodlights

For 750, 1000 and 1500-Watt Lamps



No. 5763

Used for lighting gasoline service stations, super-service stations, roadside inns, etc.

Porcelain enameled steel reflector, regularly supplied green outside, special diffusing surface white inside. When specified, choice of red or white outside, without extra charge.

Has No. 2772 one-piece, mogul base receptacle, with improved finger type lamp grip.

All fittings not aluminum are electro-plated to resist corrosion.

CLOSED WIRING, SLIP FITTER mounting bracket has wires completely enclosed and protected from receptacle through to pole. Bracket slips over the end of a 1½ inch iron pipe mast; also available for 2 inch pipe. Horizontal and vertical adjustments have degree marking graduations.

OPEN WIRING, CROSS ARM mounting bracket has separable hood with weatherproof wire entrance bushing which can be replaced with standard BX connector. Fits standard 4¼ inch arms and any flat surface. Horizontal and vertical adjustments have degree marking graduations.

With Concentrating Beam Inner Projector

Has efficient, highly polished aluminum reflecting surface producing a narrow, concentrated, high intensity floodlight beam.

No.	Description	Ship. Wt., Lb.		Inner Projector Each
		Each	Each	
5763	Fits 1½-Inch Iron Pipe Mast...	35	\$36.00	\$6.00
*27563	Fits 1½-Inch Iron Pipe Mast...	50	50.00	6.00
5763-A	Fits 2-Inch Iron Pipe Mast...	35	36.00	6.00
*27563-A	Fits 2-Inch Iron Pipe Mast...	50	50.00	6.00
5933	With Cross Arm Bracket...	35	34.00	6.00

With Medium-Spread Beam Inner Reflector

Reflecting surface is oxidized aluminum, providing a sufficient amount of spread to widen the floodlight beam considerably.

No.	Description	Ship. Wt., Lb.		Inner Projector Each
		Each	Each	
5764	Fits 1½-Inch Iron Pipe Mast...	35	\$33.00	\$3.00
*27564	Fits 1½-Inch Iron Pipe Mast...	50	47.00	3.00
5764-A	Fits 2-Inch Iron Pipe Mast...	35	33.00	3.00
*27564-A	Fits 2-Inch Iron Pipe Mast...	50	47.00	3.00
5934	With Cross Arm Bracket...	35	31.00	3.00

With Wide-Spread Beam Inner Reflector

Has oxidized aluminum reflecting surface, but is considerably larger than the medium-spread reflector above, and thereby intercepts more light producing much broader floodlighting coverage.

No.	Description	Ship. Wt., Lb.		Inner Projector Each
		Each	Each	
5766	Fits 1½-Inch Iron Pipe Mast...	35	\$34.50	\$4.50
*27566	Fits 1½-Inch Iron Pipe Mast...	50	48.50	4.50
5766-A	Fits 2-Inch Iron Pipe Mast...	35	34.50	4.50
*27566-A	Fits 2-Inch Iron Pipe Mast...	50	48.50	4.50
5936	With Cross Arm Bracket...	35	32.50	4.50

For Bi-Post Lamps

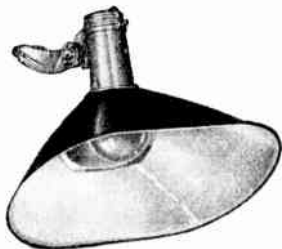
Floodlight can be supplied with holder for 1000-watt, medium Bi-post, hard-glass lamp. To order, prefix number with BP and add \$2.00; for Saffox add \$2.50 list.

*Furnished with Saffox attachment.

Benjamin Play-Area Floodlights

With Inner Auxiliary Reflectors

For 750, 1000, and 1500-Watt Lamps



No. 5751

An open type, wide angle, diffusing floodlight designed for lighting railroad yards, docks, loading platforms, construction projects and outdoor sport areas. Provides uniform, strong illumination on the ground area to the front and sides of the unit. Includes an Alzak aluminum auxiliary reflector.

Available in 3 types of mounting brackets: Open-wiring cross arm bracket for, attaching to wood cross arms and other flat surfaces; cross arm with pipe clamp for clamping around 1 to 2-inch iron pipe; closed-wiring slip fitter bracket for fitting over end of 1½-inch iron pipe mast; also available to fit over 2-inch pipe. Reflector is 28½ inches long, and 17½ inches wide.

Porcelain enameled reflector, green outside, white inside. Bracket arm, reflector neck, pipe clamp, etc., are cast iron; finished to resist corrosion.

Open-Wiring—Cross Arm Bracket Type

No. 5751 with Cross Arm Bracket.....	each	\$29.00
No. 5754 with Cross Arm Bracket and Pipe Clamp	each	30.00

Closed-Wiring—With Slip Fitter Bracket

No. 5752, for 1½-Inch Pipe.....	each	\$31.00
No. 5752A, for 2-Inch Pipe.....	each	31.00

Benjamin Column-Lite Fixtures



No. 5681

One-piece, seamless, porcelain enameled steel reflector. Regularly supplied green or red outside, special diffusing white inside to reduce glare from specular reflection. When specified, on special order, fixtures can be supplied in white, blue, yellow, gray, or cream; prices on request.

Shock-absorbing socket to protect lamp filament against shocks and vibration. A shock-absorbing spring, permanently attached to

socket supporting strap, floats the one-piece porcelain, listed by Underwriters, standard socket which has easy-to-wire, side terminal screws.

Slip fitter bracket of cast iron is first electro-plated and then finished in sprayed aluminum. Slip fitter fits over end of unthreaded 2-inch iron pipe mast and is locked in place by 2 large, rugged set-screws.

Supplied without shielding ring.

Lamp Watts	No.	Each	Outside Reflector Finish	Diam. In.	Ht. In.	Ship. Wt. Lb.
*150, 200	5680G	\$15.00	Green	18	19½	21
*150, 200	5680R	15.00	Red	18	19½	21
300, 500	5681G	15.00	Green	20	21½	25
300, 500	5681R	15.00	Red	20	21½	25

*For 150-watt lamps, use socket extension No. 91 to correctly position lamp in reflector. Sockets for replacement, No. 44, medium, No. 244, mogul.

Benjamin Variety-Lites



For use about the home and business establishment. Indoors, it is ideal for lighting furnace rooms, laundries, stairways, store-rooms and attics. Outdoors, for porches, garage approaches, gardens and play-areas.

The porcelain enameled steel reflector is not affected by heat or dampness and is easily cleaned. Reflecting white inside, gray outside, with black bead. Has snap-in type, etched aluminum inner reflector.

Cast iron reflector cap and steel bracket; finished in blue lacquer over galvanizing. Steel bracket band is electro-plated.

Unit can be quickly attached to any flat surface by first installing the two No. 10 round headed wood screws furnished and then slipping the key hole slots of the bracket over them.

Supplied wired, with 6 feet of rubber service cord and rubber plug.

Packed 1 in a standard package.

No.	1934	1936
Each	\$4.65	5.00
Size Lamp.....	watts 100	200, *300
Diameter Reflector.....	inches 8	10
Shipping Weight.....	pounds 4¾	6½

*Medium base lamp.

Prices do not include lamps.

Benjamin Service-Lites

A handy, telescoping and portable work light that can be easily moved from place to place and quickly adjusted to any desired height from 9 to 72 inches above the floor. At any point in this adjustment, the reflector can be tilted up or down through a wide angle to direct the light where it is needed.

The lower section of the telescoping shaft is iron pipe, upper section steel tubing. Ornament, cord hook, shafts and clamps are electro-plated.

Cast iron base with 18-inch diameter, and four ½-inch diameter holes equally spaced in rim for screws or casters. Galvanized; finished red.

Fixtures are wired with 25 feet of rubber covered service cable. Two-wire cables have soft rubber plug; three-wire cables, less plug, have wires skinned and tinned.

Interiors sealed against dust and moisture by heat-resisting cover glasses and gaskets. Wire guard, welded to the cover band, protects glass. Guard and band heavily tinned. Clear cover glass in 75-100 watts; stippled in 150-200 watts.

Porcelain enameled reflector, white inside and green outside. Symmetrical shape gives wide, even light.

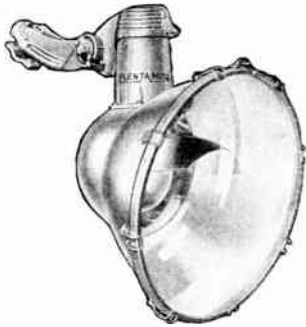
Aluminum reflector has efficient, polished reflecting surface. Beam spread, 25° minimum to 60° maximum.

Size Lamp Watts	Porcelain Floodlights Complete with Stand		Aluminum Floodlights Complete with Stand		Diam. In.	Ship. Wt., Lb.
	2-Wire Cable No.	Each	*3-Wire Cable No.	Each		
75-100	5785	\$16.00	5788	\$16.75	8½	30
150-200	5786	20.75	5789	21.50	10¾	35
150-200	5787	\$20.75			10¾	34

*Listed as Vaportight by Underwriters' Laboratories.

Benjamin Alzo-Lite Long-Range Floodlights

For 750-1500-Watt Lamps



No. N6192

A narrow-beam, open-type unit primarily designed for football field floodlighting from behind the stands when located 55 to 150 feet back from the sideline.

Reflector has bi-focal, compound, three-element projector of Alzak aluminum. Section behind the lamp is polished, while section in front is etched. Outside is baked aluminum enamel over Alzak.

Etched Alzak aluminum deflector, positioned above and in front of lamp filament to direct a portion of the light downward.

Skeleton type receptacle, with mogul base.

Diameter, 18¼ inches; height, 23¾ inches; and width, 12½ inches.

Cross arm units supplied with a 26-inch length of No. 14 two-conductor AFS rubber covered cable; slip-fitter units have two 31-inch lengths of No. 14 solid AF wire.

Fittings, not aluminum are electro-plated.

With Cross Arm Brackets

Fits 4¼-inch standard arms and all flat surfaces.

Description	Less Glass Cover			With Glass Cover		
	No.	Each	Wt., Lb.	No.	Each	Wt., Lb.
Less Deflector	N5996	\$36.00	18	N6196	\$51.00	30
With Deflector	N5991	38.00	18½	N6191	53.00	32½

With Cross Arm Brackets and Pipe Clamps

Pipe Clamp fits around 1 to 2-inch iron pipe.

Less Deflector	N5997	\$37.00	18¾	N6197	\$52.00	30¾
With Deflector	N5992	39.00	19½	N6192	54.00	33

With Slip-Fitter Brackets

Fits on 1½ inch Iron Pipe

Less Deflector	N5998	\$38.00	18½	N6198	\$53.00	24
With Deflector	N5993	40.00	16½	N6193	55.00	31

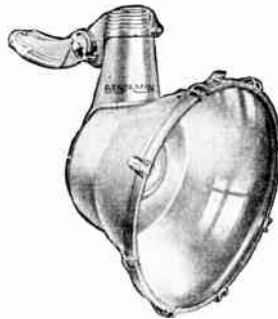
Fits on 2-inch Iron Pipe

Less Deflector	N5998A	\$38.00	19	N6198A	\$53.00	24
With Deflector	N5993A	40.00	16½	N6193A	55.00	31½

Floodlights can be supplied with shoulder for 750 and 1000-watt, medium Bi-post, hard-glass lamps. To order, prefix number with BP and add \$2.00 list.

Benjamin Alzo-Lite Medium-Spread Floodlights

For 750-1500-Watt Lamps



No. N6146

A medium-spread reflector approximating a 90° beam designed for floodlighting baseball, softball, and football fields, etc.

Reflector has bi-focal, compound, three-element projector of etched Alzak aluminum. Exterior is baked enamel over Alzak.

Waterproof cover hinged to top of reflector and attached by spring clamps around the rim. Disc is clear, heat-resisting glass, specially gasketed and cemented and secured in cover frame by an internal expanding band.

Skeleton type receptacle, with mogul screw base.

Separable hood construction makes possible removal of reflector for cleaning or easier installation. Neck has water-tight joint at reflector with concealed attaching screws.

Diameter, 18¼ inches; height, 23¼ inches; width, 12½ inches.

Cross arm bracket units supplied with 26-inch length of No. 14 two-conductor AFS rubber covered cable; slip-fitter units have two 31-inch lengths of No. 14 solid AF single conductor wire.

Fittings, not aluminum are electro-plated.

With Cross Arm Brackets

No.	Less Glass Cover		Wt., Lb.	With Glass Cover	
	Each	Wt., Lb.		Each	Wt., Lb.
N6156	\$29.00	18½	N6146	\$44.00	30½

With Cross Arm Brackets and Pipe Clamps

Fits around 1 to 2-inch iron pipe.

N6157	\$30.00	19¼	N6147	\$45.00	31¼
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With Slip-Fitter Brackets

Fits on 1½-Inch Iron Pipe

N6158	\$31.00	19	N6148	\$46.00	31
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Fits on 2-Inch Iron Pipe

N6158A	\$31.00	19½	N6148A	\$46.00	31½
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For Bi-Post Lamps

Floodlights can be supplied with holders for 750 and 1000-watt, medium Bi-post, hard-glass lamps. To order, prefix number with BP and add \$2.00 list.

Benjamin Floodlighting Projectors



Model RD14

Meets major requirements of modern floodlighting practice. Weatherproof projector; one-piece all aluminum housing; heat resisting cover glass.

May be rotated and turned on supporting staff. Reflecting surface is silvered glass protected by a coating of copper. Supplied with horizontal and vertical stops.

Special visors and louver rings are available at an advance in price.

Model RD11

11-Inch Diameter Reflector for 200-Watt General Service Lamps, and 250-Watt Floodlighting Lamps

Shipping weight, 21 pounds.

No. 5825, Plain Glass Cover	each	\$38.00
No. 5826, Stippled Glass Cover	each	38.00
No. 5827, Ribbed Glass Cover	each	38.00

Model RD14

14¼-Inch Diameter Universal Service Reflector That Can Be Used with Either 500-Watt Floodlighting Lamps or 300-500-Watt General Service Lamps

Shipping weight, 38 pounds.

No. 5850, Plain Glass Cover	each	\$60.00
No. 5851, Stippled Glass Cover	each	60.00
No. 5852, Ribbed Glass Cover	each	60.00

Model RD18

18-Inch Diameter Universal Service Reflector That Can Be Used with Either 1000-Watt Floodlighting Lamps or 750 or 1000-Watt General Service Lamps

Shipping weight, 60 pounds.

No. 5875, Plain Glass Cover	each	\$85.00
No. 5876, Stippled Glass Cover	each	85.00
No. 5877, Ribbed Glass Cover	each	85.00

Model RD20

20-Inch Diameter Universal Service Reflector That Can Be Used with Either 1400-Watt Floodlighting Lamps or 1500-Watt General Service Lamps

Shipping weight, 80 pounds.

No. 5892, Plain Glass Cover	each	\$140.00
No. 5893, Stippled Glass Cover	each	140.00
No. 5894, Ribbed Glass Cover	each	140.00

Benjamin Utility Floodlights
150-200 Watts



No. 6011

For general purpose and decorative floodlighting jobs. The interior surface of the sheet aluminum housing forms a highly efficient reflector. Concentrating units have durable, highly polished Alzak aluminum reflecting surfaces while spread type units have reflecting surfaces of etched aluminum oxide. Diameter, 10 3/4 inches. Beam focusing mechanism is controlled by a single thumb screw on the barrel of the housing.

Units can be tilted up or down or turned in a circle.

Reflecting surfaces are sealed against dust and moisture by the heat-resisting cover

glass which seats against an impregnated asbestos gasket, held in place by a removable aluminum channel band.

Three styles of mounting provided by the two types of brackets. Pedestal base is cast iron and includes a removable steel spike for turf mounting. Also has slotted screw holes for surface attachment. Pipe bracket is cast iron, tapped 1/2 inch, with a weatherproof wire entrance bushing in the removable wiring plate.

Pedestal base and spike has a 5-foot, 7 inches rubber covered cord and plug cap; pipe bracket types have 15-inch pigtail for lead-in to bracket.

With Concentrating Type Polished Alzak Aluminum Reflectors

Style Bracket	Plain Clear Cover		Stippled Clear Cover		Shipping Weight Pounds
	No.	Each	No.	Each	
Base and Spike...	*6007	\$14.50	6011	\$14.50	9 1/2
Pipe Bracket....	*6014	14.50	6016	14.50	9

With Spread Type Etched Aluminum Oxide Reflectors

Base and Spike...	6010	\$12.50	6012	\$12.50	10
Pipe Bracket.....	6015	12.50	6017	12.50	9 1/2

Covers and Receptacles

No. 6090 Plain Cover.....	each	\$3.50
No. 5802-CL Stippled Clear Cover.....	each	3.50
No. 6092 Ribbed Clear Cover.....	each	3.50
No. 1462 Receptacle Only.....	each	.30

*Due to striae caused by filament images in all polished reflectors, these plain cover glass units are not recommended.

RIBBED COVERS, available for all units at regular prices. To order, prefix number of plain cover unit with R.

WITHOUT COVER, available at a \$4.00 reduction in price of complete unit. To order use the following numbers: for concentrating units, with base and spike, No. 6005—with pipe bracket, No. 6018; for spread units, with base and spike, No. 6006—with pipe bracket, No. 6020.

Beam Lumens and Range of Beam Spreads

The lumen figures below are based on the use of general service lamps with clear bulbs. With lamps having inside frosted bulbs, beam spreads in all cases will be increased considerably.

150-Watt, 2610-Lumen General Service Lamps

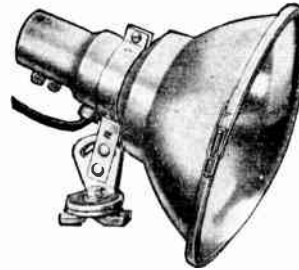
Type of Cover	Concentrating Polished Reflectors				Spread Etched Reflectors			
	MINIMUM SPREAD		MAXIMUM SPREAD		MINIMUM SPREAD		MAXIMUM SPREAD	
	Beam	Lumens	Beam	Lumens	Beam	Lumens	Beam	Lumens
Plain....					78°	1420	100°	1654
Stippled.	48°	994	112°	1654	84°	1414	102°	1535
Ribbed..	52°x74°	†1330	56°x76°	†1359				

200-Watt, 3640-Lumen General Service Lamps

Plain....					78°	1931	100°	2308
Stippled.	48°	1385	112°	2309	84°	1971	102°	2140
Ribbed..	52°x74°	†1855	56°x76°	†1895				

†Approximate lumens.

Benjamin Utility Floodlights
300-500 Watts



No. S6023B

Weatherproof, durable, attractive appearing units of high lighting efficiency.

The interior of the sheet aluminum housing forms a highly efficient reflector. Concentrating type reflectors have highly polished Alzak aluminum reflecting surfaces while spread type reflectors have reflecting surfaces of etched Alzak aluminum. Diameter, 14 1/8 inches.

Projectors are of durable, weatherproof and dust-tight construction. Housings are of sheet aluminum, with both exterior and reflecting surfaces of durable Alzak aluminum. Wire entrance into the housing is weatherproof. Glass cover held in place by an aluminum channel band.

Colored lighting effects are obtainable through the use of glass color plates. These plates do not supplant the standard cover glass as they are set behind the regular cover.

Floodlights are wired and include 3-foot leads of No. 14 AFS rubber sheathed portable cord with tinned ends. Skeleton type receptacle, with mogul screw base.

Type B swivel and stand, is for attachment to any flat surface. Type D pipe clamp, attaches to 1 to 2-inch size iron pipe or 1 1/4 to 2 5/8-inch tubing. Type E wall bracket is for wall attachment. Type H slip fitter is for mounting over the end of a 1 1/2-inch iron pipe. Type K pipe bracket is to thread units to 1/2-inch pipe standards, but can be furnished to fit 3/4-inch standards, when specified. Type M cross arm is for attachment to standard 4 1/4-inch cross arms.

With Concentrating Type Polished Alzak Aluminum Reflectors

*With Plain Glass Cover	Type B, Swivel and Stand				Shipping Weight Pounds	
	With Stippled Glass Cover		With Ribbed Glass Cover			
	No.	Each	No.	Each		
P6023B	\$31.00	S6023B	\$31.00	R6023B	\$31.00	16
P6023D	\$31.00	Type D, Pipe Clamp		R6023D	\$31.00	17
		S6023D	\$31.00			
		Type E, Wall Bracket				
P6023E	\$32.00	S6023E	\$32.00	R6023E	\$32.00	20
		Type H, 1 1/2-Inch Slip Fitter				
P6023H	\$32.00	S6023H	\$32.00	R6023H	\$32.00	18 1/2
		Type K, 1/2-Inch Pipe Bracket				
P6023K	\$32.00	S6023K	\$32.00	R6023K	\$32.00	18
		Type M, Cross Arm				
P6023M	\$30.00	S6023M	\$30.00	R6023M	\$30.00	15 1/2

With Spread Type Etched Alzak Aluminum Reflectors

*With Plain Glass Cover	Type B, Swivel and Stand				Shipping Weight Pounds	
	With Stippled Glass Cover		With Ribbed Glass Cover			
	No.	Each	No.	Each		
P6022B	\$26.00	S6022B	\$26.00	R6022B	\$26.00	16
		Type D, Pipe Clamp				
P6022D	\$26.00	S6022D	\$26.00	R6022D	\$26.00	17
		Type E, Wall Bracket				
P6022E	\$27.00	S6022E	\$27.00	R6022E	\$27.00	20
		Type H, 1 1/2-Inch Slip Fitter				
P6022H	\$27.00	S6022H	\$27.00	R6022H	\$27.00	18 1/2
		Type K, 1/2-Inch Pipe Bracket				
P6022K	\$27.00	S6022K	\$27.00	R6022K	\$27.00	18
		Type M, Cross Arm				
P6022M	\$25.00	S6022M	\$25.00	R6022M	\$25.00	15 1/2

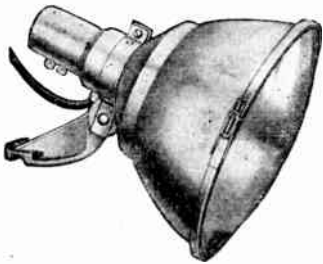
Parts

No. 6055	Red Glass Color Plate.....	each	\$9.00
No. 6056	Green Glass Color Plate.....	each	9.00
No. 6057	Amber Glass Color Plate.....	each	9.00
No. 6058	Blue Glass Color Plate.....	each	9.00
No. 6080	Visor.....	each	4.00
No. 6093	Plain Glass Cover.....	each	6.00
No. 6094	Stippled Glass Cover.....	each	6.00
No. 6095	Ribbed Glass Cover.....	each	6.00
No. 2780	Mogul Receptacle.....	each	1.05

*Due to striae caused by filament images in polished reflectors, these units are not recommended.

WITHOUT COVER, available at a \$6.00 reduction in price of complete unit. For units without cover, use No. 6025 to indicate the concentrating type and No. 6024, the spread type unit. This number is to be suffixed in each instance with one of the six letters used above to indicate the bracket style desired.

Benjamin Weatherproof Utility Floodlights
750-1000 Watts



No. P6032M

Weatherproof, durable, attractive appearing units of high lighting efficiency. The interior of the sheet aluminum housing forms a highly efficient reflector. Concentrating type reflectors have highly polished Alzak aluminum reflecting surfaces while spread type reflectors have reflecting surfaces of etched Alzak aluminum. Diameter, 16 1/2 inches.

Projectors are of durable, weatherproof and dust-tight construction. Housings are of sheet aluminum, with both exterior and reflecting surfaces of durable Alzak aluminum. Wire entrance into the housing is weatherproof. Glass cover held in place by an aluminum channel band.

Colored lighting effects are obtainable through the use of glass color plates. These plates do not supplant the standard cover glass as they are set behind the regular cover.

Floodlights are wired and include 3-foot leads of No. 14 AFS rubber sheathed portable cord with tinned ends. Skeleton type receptacle, with mogul screw base.

Type B swivel and stand, is for attachment to any flat surface. Type D pipe clamp, attaches to 1 to 2-inch size iron pipe or 1 1/4 to 2 1/2-inch tubing. Type E wall bracket is for wall attachment. Type H slip fitter is for mounting over the end of a 1 1/2-inch iron pipe. Type K pipe bracket is to thread units to 1/2-inch pipe standards, but can be furnished to fit 3/4-inch standards, when specified. Type M cross arm is for attachment to standard 1/4-inch cross arms.

With Concentrating Type Polished Alzak Aluminum Reflectors

*With Plain Glass Cover		Type B, Swivel and Stand With Stippled Glass Cover		With Ribbed Glass Cover		Shipping Weight Pounds
No.	Each	No.	Each	No.	Each	
P6033B	\$40.00	S6033B	\$40.00	R6033B	\$40.00	20
P6033D	\$40.00	Type D, Pipe Clamp		R6033D	\$40.00	22
P6033E	\$41.00	S6033E	\$41.00	R6033E	\$41.00	23
P6033H	\$41.00	Type H, 1 1/2-Inch Slip Fitter		R6033H	\$41.00	22
P6033K	\$41.00	Type K, 1/2-Inch Pipe Bracket		R6033K	\$41.00	21
P6033M	\$39.00	Type M, Cross Arm		R6033M	\$39.00	19

With Spread Type Etched Alzak Aluminum Reflectors

*With Plain Glass Cover		Type B, Swivel and Stand With Stippled Glass Cover		With Ribbed Glass Cover		Shipping Weight Pounds
No.	Each	No.	Each	No.	Each	
P6032B	\$34.00	S6032B	\$34.00	R6032B	\$34.00	20
P6032D	\$34.00	Type D, Pipe Clamp		R6032D	\$34.00	22
P6032E	\$35.00	S6032E	\$35.00	R6032E	\$35.00	23
P6032H	\$35.00	Type H, 1 1/2-Inch Slip Fitter		R6032H	\$35.00	22
P6032K	\$35.00	Type K, 1/2-Inch Pipe Bracket		R6032K	\$35.00	21
P6032M	\$33.00	Type M, Cross Arm		R6032M	\$33.00	19

Parts

No. 6060	Red Glass Color Plate	each	\$13.00
No. 6061	Green Glass Color Plate	each	13.00
No. 6062	Amber Glass Color Plate	each	13.00
No. 6063	Blue Glass Color Plate	each	13.00
No. 6081	Visor	each	4.00
No. 5856	Plain Glass Cover	each	8.50
No. 5857	Stippled Glass Cover	each	8.50
No. 5858	Ribbed Glass Cover	each	8.50
No. 2780	Mogul Receptacle	each	1.05

*Due to striae caused by filament images in polished reflectors, these units are not recommended.

WITHOUT COVER, available at a \$11 reduction in price of complete unit. For units without cover, use No. 6035 to indicate the concentrating type and No. 6034, the spread type unit. This number is to be suffixed in each instance with one of the six letters used above to indicate the bracket style desired.

Revere Adjustable Triangular Floodlights



No. 3C83

Ideal for service station lighting. Casts a definite 90° beam pattern to provide efficient property-line cutoff lighting.

Light area is controlled by a head and telescopic arm, which provide vertical adjustment of 37° and a total horizontal range of 360°.

Head conceals all wiring. Clips hold wire secure and take all strain off socket terminals.

Reflector is made of Alzak aluminum. All castings are made of aluminum. Screws and fittings are made of either aluminum alloy, brass, or cadmium plated steel.

Lamp.....watts	750-1000	300-500	400
Type Lamp.....	Bi-Post	Gen. Serv.	H-1 Mercury
Slips 1 1/2-Inch Pipe:			
No.....	3086	3087	3088
Each.....	\$25.00	\$24.00	\$24.00
Approx. Ship. Wt....lb.	17	17	17
Slips 2-Inch Pipe:			
No.....	3086A	3087A	3088A
Each.....	25.00	24.00	24.00
Approx. Ship. Wt....lb.	17 1/2	17 1/2	17 1/2
Clamp Mounting:			
No.....	3086B	3087B	3088B
Each.....	27.00	26.00	26.00
Approx. Ship. Wt....lb.	20 1/2	20 1/2	20 1/2
Wall Mounting:			
No.....	3086C	3087C	3088C
Each.....	26.60	25.60	25.60
Approx. Ship. Wt....lb.	19 1/2	19 1/2	19 1/2
Cross Arm Mounting:			
No.....	3086D	3087D	3088D
Each.....	26.50	25.50	25.60
Approx. Ship. Wt....lb.	19	19	19

Revere Show-Master Spotlights
For 150 and 300-Watt Lamps



No. 3175

For a multitude of merchandizing applications where efficient illumination of the product is desired.

No. 3175 is for floor or wall mounting and is furnished with a neatly designed base for mounting to horizontal or vertical surfaces. Cord and plug are furnished but not wired.

No. 3176 is for ceiling and wall mounting and is furnished with a standard outlet box cover.

Both types accommodate 150-watt par 38, 150-watt R-40, or 300-watt R-40 lamps.

Housing is made of spun aluminum with natural aluminum finish.

Concentric louvers are furnished to control the direct rays of the lamps used.

Diameter, 5 inches. Height, 11 inches.

No.	Description	Each
3175	With Cord and Plug.....	\$13.15
3176	With Outlet Box Cover.....	12.60
4696	Red Filter, With Holding Clips.....	1.00
4697	Blue Filter, With Holding Clips.....	1.00
4698	Amber Filter, With Holding Clips.....	1.00
4699	Green Filter, With Holding Clips.....	1.00

Revere Eliptor Floodlights
Porcelain

300 to 1500 Watts

Easy to adjust, as all adjustments are made from one position on one side of the housing.



Inner reflector is plated semi specular finish, giving maximum projection and control.

Any of the 500-watt floodlights can be used with the 400-watt type base-burning mercury lamp. Care must be exercised in setting the floodlight, keeping lamp within 10° of vertical.

Porcelain enamel steel reflector, white inside and red, green or blue outside finish. Other colors available.

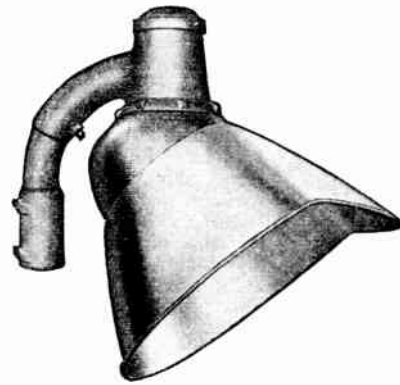
Revere Open-Type Floodlights
300-1000 Watts

Reflector is made of Alzak aluminum.

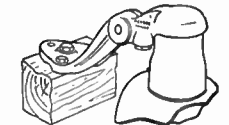
All cast parts are made of aluminum. Screws and fittings are aluminum alloy, brass, or cadmium plated steel.

Head conceals all wiring.

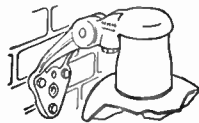
Telescopic arm provides a positive vertical adjustment controlled by one set screw, for a range of 37°. Horizontal adjustment of 360° is controlled by two set screws. Lens diameter, 18½ inches.



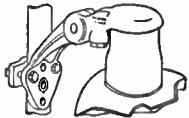
ed by two set screws. Lens diameter, 18½ inches.



Cross Arm Mounting for Wood or Angle Iron



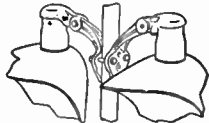
Wall Mounting



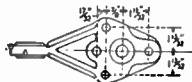
Clamps Around 1½ to 2-Inch Vertical Pipe



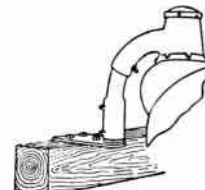
Clamps Around 1½ to 2-Inch Horizontal Pipe



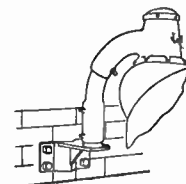
Wall Type, Clamped Back to Back for Installation on Pole



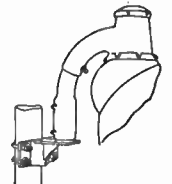
Hole Spacing on Cross Arm or Wall Mounting



Cross Arm Mounting



Wall or Wood Pole Mounting



Clamp Mounting for 2, 2½ or 3-Inch Pipe

Mounting	Size Lamp Watts	Without Inner Reflector		With Inner Reflector		Wt. Lb.
		No.	Each	No.	Each	
1½-Inch Pipe Slip Fitter...	300-500	3800	\$18.00	3820	\$21.00	20
	750-1000-1500	3801	19.00	3821	22.00	20
2-Inch Pipe Slip Fitter...	300-500	3802	18.00	3822	21.00	20
	750-1000-1500	3803	19.00	3823	22.00	20
Pipe Clamp Bracket.....	300-500	3804	17.00	3824	20.00	22
	750-1000-1500	3805	18.00	3825	21.00	22
Cross Arm and Wall Bracket	300-500	3806	16.00	3826	19.00	22
	750-1000-1500	3807	17.00	3827	20.00	22
*Pendent Mtg. for ¾-Inch Pipe.....	300-500	3808	14.00	3828	17.00	22
	750-1000-1500	3809	15.00	3829	18.00	22
	750-1000 Bi-Post	3808-B	16.00	3828-B	19.00	22

Aluminum

Without Inner Reflector

Mounting	Watt		Watt		Watt	
	No.	Each	No.	Each	No.	Each
Cross Arm and Wall Bracket...	3851	\$18.00	3861	\$19.00	3871	\$20.00
1½-Inch Slip... Fitter	3852	20.00	3862	19.00	3872	22.00
2-Inch Slip Fitter.	3853	20.00	3863	21.00	3873	22.00
Pipe Clamp Bracket.....	3854	19.00	3864	20.00	3874	21.00
*Pendent Mtg. for ¾-Inch Pipe....	3859	16.00	3869	17.00	3879	18.00

*Can be furnished for ½ or 1-inch pipe, when specified, at no extra cost.

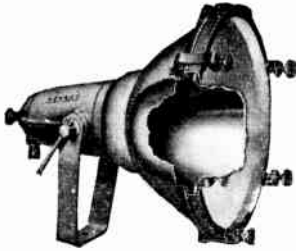
One set (2) bolts and nuts (No. 3819) is available at \$.40 per set to mount two cross arm brackets back to back on 1½ or 2 inch pipe.

Lamp.....watts	With Round Reflector		
	750-1000 Bi-Post	300-500 Gen. Serv.	400 II-1 Mercury
Type Lamp.....			
Slips 1½-Inch Pipe:			
No.....	3080	3081	3082
Each.....	\$22.00	\$21.00	\$21.00
Approx. Wt. pounds	13	13	13
Slips 2-Inch Pipe:			
No.....	3080A	3081A	3082A
Each.....	22.00	21.00	21.00
Approx. Wt. pounds	13½	13½	13½
Clamp Mounting:			
No.....	3080B	3081B	3082B
Each.....	24.00	23.00	23.00
Approx. Wt. pounds	17	17	17
Wall Mounting:			
No.....	3080C	3081C	3082C
Each.....	23.60	22.60	22.60
Approx. Wt. pounds	15½	15½	15½
Cross Arm Mounting:			
No.....	3080D	3081D	3082D
Each.....	23.50	22.50	22.50
Approx. Wt. pounds	15	15	15

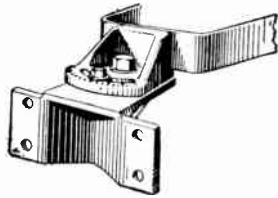
Lamp.....watts	With Formed Reflector		
	750-1000 Bi-Post	300-500 Gen. Serv.	400 II-1 Mercury
Type Lamp.....			
Slips 1½-Inch Pipe:			
No.....	3083	3084	3085
Each.....	\$22.00	\$21.00	\$21.00
Approx. Wt. pounds	13	13	13
Slips 2-Inch Pipe:			
No.....	3083A	3084A	3085A
Each.....	22.00	21.00	21.00
Approx. Wt. pounds	13½	13½	13½
Clamp Mounting:			
No.....	3083B	3084B	3085B
Each.....	24.00	23.00	23.00
Approx. Wt. pounds	17	17	17
Wall Mounting:			
No.....	3083C	3084C	3085C
Each.....	23.60	22.60	22.60
Approx. Wt. pounds	15½	15½	15½
Cross Arm Mounting:			
No.....	3083D	3084D	3085D
Each.....	23.50	22.50	22.50
Approx. Wt. pounds	15	15	15

Visors for use with the above units for redirection of light or for blocking out light in any given direction are (No. 3078) are available at \$4.00 additional.

Revere Enclosed Type Floodlights 150-200, 300-500, and 750-1000 Watts Dust-Tight—Weatherproof



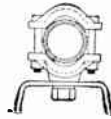
No. 7100



Bracket for Wall or Wood Pole Mounting



Slip Fitter



Clamp



Flat Base



Standard Base

Made of spun sheet aluminum with cast aluminum neck and socket mounting. A separate removable aluminum casting is used for the mounting of the socket and focusing mechanism. Hermetically sealed by an impregnated asbestos gasket attached to the ring.

Focusing mechanism is furnished as standard on narrow beam type only. If desired, mechanism can be furnished for fixed focus.

Plain lens is used where it is not desired to change the characteristic of the beam. A stippled lens is used where a wider spread of light is desired and the ribbed lens is used when an oval pattern is desired.

150-200 Watts With 12-Inch Heat-Resisting Lens Clamp Cover Glass

Mounting	Wide Beam						Narrow Beam							
	No Lens		Plain		Stippled		Ribbed		Plain		Stippled		Ribbed	
	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each
Yoke Only.....	7110W	\$18.00	7110WP	\$23.00	7110WS	\$23.00	7110WR	\$23.00	7120NP	\$27.50	7120NS	\$27.50	7120NR	\$27.50
Cross Arm.....	7111W	19.00	7111WP	24.00	7111WS	24.00	7111WR	24.00	7121NP	28.50	7121NS	28.50	7121NR	28.50
1½" Slip Fitter.....	7112W	19.80	7112WP	24.80	7112WS	24.80	7112WR	24.80	7122NP	29.30	7122NS	29.30	7122NR	29.30
2" Slip Fitter.....	7113W	19.80	7113WP	24.80	7113WS	24.80	7113WR	24.80	7123NP	29.30	7123NS	29.30	7123NR	29.30
Clamp 1"-2" Pipe.....	7114W	19.80	7114WP	24.80	7114WS	24.80	7114WR	24.80	7124NP	29.30	7124NS	29.30	7124NR	29.30
Standard Base.....	7115W	19.00	7115WP	24.00	7115WS	24.00	7115WR	24.00	7125NP	28.50	7125NS	28.50	7125NR	28.50
Flat Base.....	7117W	19.00	7117WP	24.00	7117WS	24.00	7117WR	24.00	7127NP	28.50	7127NS	28.50	7127NR	28.50
Wall Mounting.....	7118W	20.00	7118WP	25.00	7118WS	25.00	7118WR	25.00	7128NP	29.50	7128NS	29.50	7128NR	29.50

Hinged Cover Glass

Yoke Only.....	7110WPH	\$31.30	7110WSH	\$31.30	7110WRH	\$31.30	7120PH	\$35.80	7120NSH	\$35.80	7120NRH	\$35.80
Cross Arm.....	7111WPH	32.30	7111WSH	32.30	7111WRH	32.30	7121PH	36.80	7121NSH	36.80	7121NRH	36.80
1½" Slip Fitter.....	7112WPH	33.10	7112WSH	33.10	7112WRH	33.10	7122PH	37.60	7122NSH	37.60	7122NRH	37.60
2" Slip Fitter.....	7113WPH	33.10	7113WSH	33.10	7113WRH	33.10	7123PH	37.60	7123NSH	37.60	7123NRH	37.60
Clamp 1"-2" Pipe.....	7114WPH	33.10	7114WSH	33.10	7114WRH	33.10	7124PH	37.60	7124NSH	37.60	7124NRH	37.60
Standard Base.....	7115WPH	32.30	7115WSH	32.30	7115WRH	32.30	7125PH	36.80	7125NSH	36.80	7125NRH	36.80
Flat Base.....	7117WPH	32.30	7117WSH	32.30	7117WRH	32.30	7127PH	36.80	7127NSH	36.80	7127NRH	36.80
Wall Mounting.....	7118WPH	33.30	7118WSH	33.30	7118WRH	33.30	7128PH	37.80	7128NSH	37.80	7128NRH	37.80

300-500 Watts Clamp Cover Glass

Mounting	Wide Beam						Narrow Beam							
	No Lens		Plain		Stippled		Ribbed		Plain		Stippled		Ribbed	
	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each
Yoke Only.....	7140W	\$24.60	7140WP	\$31.00	7140WS	\$31.00	7140WR	\$31.00	7150NP	\$35.70	7150NS	\$35.70	7150NR	\$35.70
Cross Arm.....	7141W	25.60	7141WP	32.00	7141WS	32.00	7141WR	32.00	7151NP	36.70	7151NS	36.70	7151NR	36.70
1½" Slip Fitter.....	7142W	26.40	7142WP	32.80	7142WS	32.80	7142WR	32.80	7152NP	37.50	7152NS	37.50	7152NR	37.50
2" Slip Fitter.....	7143W	26.40	7143WP	32.80	7143WS	32.80	7143WR	32.80	7153NP	37.50	7153NS	37.50	7153NR	37.50
Clamp 1"-2" Pipe.....	7144W	26.40	7144WP	32.80	7144WS	32.80	7144WR	32.80	7154NP	37.50	7154NS	37.50	7154NR	37.50
Standard Base.....	7145W	25.60	7145WP	33.00	7145WS	33.00	7145WR	33.00	7155NP	36.70	7155NS	36.70	7155NR	36.70
Flat Base.....	7147W	25.60	7147WP	33.00	7147WS	33.00	7147WR	33.00	7157NP	36.70	7157NS	36.70	7157NR	36.70
Wall Mounting.....	7148W	26.60	7148WP	34.00	7148WS	34.00	7148WR	34.00	7158NP	37.70	7158NS	37.70	7158NR	37.70

Hinged Cover Glass

Yoke Only.....	7140WPH	\$38.40	7140WSH	\$38.40	7140WRH	\$38.40	7150PH	\$45.00	7150NSH	\$45.00	7150NRH	\$45.00
Cross Arm.....	7141WPH	39.40	7141WSH	39.40	7141WRH	39.40	7151PH	46.00	7151NSH	46.00	7151NRH	46.00
1½" Slip Fitter.....	7142WPH	40.20	7142WSH	40.20	7142WRH	40.20	7152PH	46.80	7152NSH	46.80	7152NRH	46.80
2" Slip Fitter.....	7143WPH	40.20	7143WSH	40.20	7143WRH	40.20	7153PH	46.80	7153NSH	46.80	7153NRH	46.80
Clamp 1"-2" Pipe.....	7144WPH	40.20	7144WSH	40.20	7144WRH	40.20	7154PH	46.80	7154NSH	46.80	7154NRH	46.80
Standard Base.....	7145WPH	39.40	7145WSH	39.40	7145WRH	39.40	7155PH	46.00	7155NSH	46.00	7155NRH	46.00
Flat Base.....	7147WPH	39.40	7147WSH	39.40	7147WRH	39.40	7157PH	46.00	7157NSH	46.00	7157NRH	46.00
Wall Mounting.....	7148WPH	40.40	7148WSH	40.40	7148WRH	40.40	7158PH	47.00	7158NSH	47.00	7158NRH	47.00

750-1000 Watts With 16½-Inch Heat Resisting Lens Clamp Cover Glass

Mounting	Wide Beam						Narrow Beam							
	No Lens		Plain		Stippled		Ribbed		Plain		Stippled		Ribbed	
	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each
Yoke Only.....	7170W	\$26.60	7170WP	\$35.90	7170WS	\$35.90	7170WR	\$35.90	7180NP	\$43.20	7180NS	\$43.20	7180NR	\$43.20
Cross Arm.....	7171W	27.60	7171WP	36.90	7171WS	36.90	7171WR	36.90	7181NP	44.20	7181NS	44.20	7181NR	44.20
1½" Slip Fitter.....	7172W	28.40	7172WP	37.70	7172WS	37.70	7172WR	37.70	7182NP	45.00	7182NS	45.00	7182NR	45.00
2" Slip Fitter.....	7173W	28.40	7173WP	37.70	7173WS	37.70	7173WR	37.70	7183NP	45.00	7183NS	45.00	7183NR	45.00
Clamp 1"-2" Pipe.....	7174W	28.40	7174WP	37.70	7174WS	37.70	7174WR	37.70	7184NP	45.00	7184NS	45.00	7184NR	45.00
Standard Base.....	7175W	27.60	7175WP	36.90	7175WS	36.90	7175WR	36.90	7185NP	44.20	7185NS	44.20	7185NR	44.20
Flat Base.....	7177W	27.60	7177WP	36.90	7177WS	36.90	7177WR	36.90	7187NP	44.20	7187NS	44.20	7187NR	44.20
Wall Mounting.....	7178W	28.60	7178WP	37.90	7178WS	37.90	7178WR	37.90	7188NP	45.20	7188NS	45.20	7188NR	45.20

Hinged Cover Glass

Yoke Only.....	7170WPH	\$45.70	7170WSH	\$45.70	7170WRH	\$45.70	7180PH	\$53.00	7180NSH	\$53.00	7180NRH	\$53.00
Cross Arm.....	7171WPH	46.70	7171WSH	46.70	7171WRH	46.70	7181PH	54.00	7181NSH	54.00	7181NRH	54.00
1½" Slip Fitter.....	7172WPH	47.50	7172WSH	47.50	7172WRH	47.50	7182PH	55.00	7182NSH	55.00	7182NRH	55.00
2" Slip Fitter.....	7173WPH	47.50	7173WSH	47.50	7173WRH	47.50	7183PH	55.00	7183NSH	55.00	7183NRH	55.00
Clamp 1"-2" Pipe.....	7174WPH	47.50	7174WSH	47.50	7174WRH	47.50	7184PH	55.00	7184NSH	55.00	7184NRH	55.00
Standard Base.....	7175WPH	46.70	7175WSH	46.70	7175WRH	46.70	7185PH	54.00	7185NSH	54.00	7185NRH	54.00
Flat Base.....	7177WPH	46.70	7177WSH	46.70	7177WRH	46.70	7187PH	54.00	7187NSH	54.00	7187NRH	54.00
Wall Mounting.....	7178WPH	47.70	7178WSH	47.70	7178WRH	47.70	7188PH	55.00	7188NSH	55.00	7188NRH	55.00

Revere Economy Line Floodlights

75-100, 150-200, and 300-500 Watts

Weatherproof

Wide Beam—Narrow Beam



No. 5917WP

Made of aluminum with Alzak finish throughout.

Supporting yoke is attached to a clamping ring which encircles neck of the reflector.

Reflector is held in position by wing nuts which permit adjustment in any direction.

Flat base illustrated is of the outlet box cover type, fitting a standard 4-inch square box.

Enclosed type is equipped with lens ring and may be used for indoor or outdoor applications.

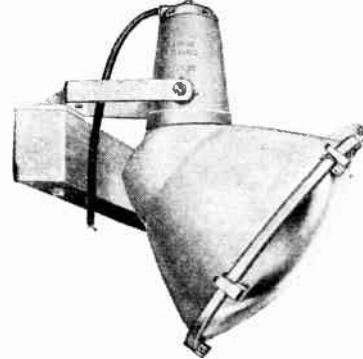
Cord grip is furnished for 3/8-inch O.D. cord. Cord is not furnished.

Revere Enclosed Type Floodlights

Dust-Tight—Weatherproof

750-1000-1500 Watts

Wide Beam—Narrow Beam



Wide beam type has diffuse Alzak aluminum reflector; narrow beam type, specular (polished) Alzak reflector.

Furnished with rotation stop and adjustment device.

Reflector, lens, and housing can be removed for storage by disconnecting wires at the socket terminals.

Lens diameter, 18 inches.

Mounting	Wide Beam		Narrow Beam	
	*No.	Each	*No.	Each
Yoke Only.....	4200	\$43.00	4205	\$50.00
Cross Arm.....	4201	44.00	4206	51.00
1 1/2" Slip Fitter.....	4202	46.00	4207	53.00
2" Slip Fitter.....	4203	46.00	4208	53.00
Clamps 1 and 2-Inch Pipe....	4204	45.00	4209	52.00

*Suffix the following letters to the numbers shown—for plain lens, P; for stippled lens, S; and for ribbed lens, R. Plain, stippled or ribbed lens furnished at no extra cost.

Accessories

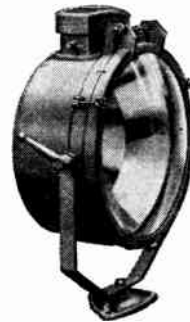
No.	Description	Each
3078	Visor for Redirection of Light.....	\$4.00
4686	Plain Lens, Glass Only.....	12.00
4687	Ribbed Lens, Glass Only.....	12.00
4688	Stippled Lens, Glass Only.....	12.00
4223	Adapter to Use 1000 or 1500-Watt Lamp.....	2.00

For floodlights without rotation stop and vertical adjusting device, deduct \$2.00 from prices.

Revere Heavy Duty Enclosed Floodlights

750-1000 Watts—Ventilated and Weatherproof

Narrow Beam Type—Medium Type



No. 6505P

Made with heavy gage steel spun housing with cast iron front frame and lens ring door with thumb screw and eye bolt latches to secure door frame against an impregnated asbestos gasket in frame casting.

Focusing mechanism is externally operated, enabling rapid and positive setting of the beam spread. Compound parabolic design reflector.

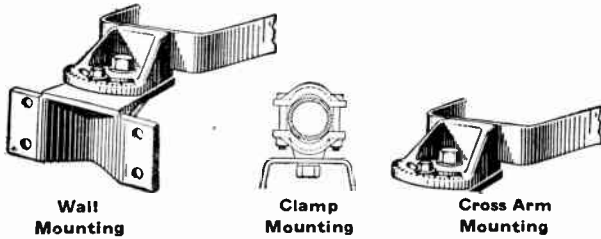
Dimensions: lens diameter, 18 inches; height, 28 inches; width, 22 inches; depth 13 1/2 inches.

Mounting	Narrow Beam Type			Medium Beam Type		
	*No.	Each	Wt. Lb.	*No.	Each	Wt. Lb.
Yoke Only.....	6500	\$83.00	53	6510	\$83.00	53
Cross Arm.....	6501	84.00	54	6511	84.00	54
1 1/2" Slip Fitter.....	6502	86.00	56	6512	86.00	56
2" Slip Fitter.....	6503	86.50	65	6513	86.50	65
Clamps 1" to 2" Pipe.....	6504	86.00	55	6514	86.00	55
Flat Base.....	6505	85.00	55	6515	85.00	55
Wall or Wood Pole.....	6508	89.00	65	6518	89.00	65

*Suffix the following letters to the numbers shown: for plain lens, P; for stippled lens, S; and for ribbed lens, R.

Accessories

No.	Description	Each
4686	Plain Lens, Glass Only.....	\$12.00
4687	Ribbed Lens, Glass Only.....	12.00
4688	Stippled Lens, Glass Only.....	12.00
4223	Adapter to Use 1000 or 1500-Watt G Lamp.....	2.00
6150-1	Plain Reflector Only, Narrow Beam.....	16.50
6150-44	Stippled Reflector Only, Medium Beam.....	16.50



75-100 Watts

With 7 1/16-Inch Lens

Mounting	No Lens		Wide Beam Plain Lens		Narrow Beam Plain Lens	
	No.	Each	No.	Each	No.	Each
Yoke Only.....	5910W	\$7.75	5910WP	\$11.75	5910NP	\$13.20
Cross Arm.....	5911W	9.00	5911WP	13.00	5911NP	14.45
Clamp 1"-2" Pipe..	5914W	8.60	5914WP	12.60	5914NP	14.05
Flat Base.....	5917W	8.10	5917WP	12.10	5917NP	13.55
Wall.....	5918W	10.15	5918WP	14.15	5918NP	15.60

150-200 Watts

With 1 1/4-Inch Lens

Mounting	No Lens		Wide Beam Plain Lens		Narrow Beam Plain Lens	
	No.	Each	No.	Each	No.	Each
Yoke Only.....	5920W	\$10.45	5920WP	\$14.90	5920NP	\$16.10
Cross Arm.....	5921W	11.75	5921WP	16.20	5921NP	16.10
1 1/2" Slip Fitter.....	5922W	12.30	5922WP	16.75	5922NP	17.95
2" Slip Fitter.....	5923W	12.50	5923WP	16.95	5923NP	18.15
Clamp 1"-2" Pipe..	5924W	11.30	5924WP	15.75	5924NP	16.95
Flat Base.....	5927W	10.80	5927WP	15.25	5927NP	16.45
Wall.....	5928W	12.85	5928WP	14.90	5928NP	18.50

300-500 Watts

With 1 1/2-Inch Lens

Mounting	No Lens		Wide Beam Plain Lens		Narrow Beam Plain Lens	
	No.	Each	No.	Each	No.	Each
Yoke Only.....	5950W	\$11.75	5950WP	\$16.60	5950NP	\$17.45
Cross Arm.....	5951W	13.00	5951WP	17.85	5951NP	18.75
1 1/2" Slip Fitter.....	5952W	13.55	5952WP	18.45	5952NP	19.30
2" Slip Fitter.....	5953W	13.80	5953WP	18.65	5953NP	19.55
Clamp 1"-2" Pipe..	5954W	12.60	5954WP	17.45	5954NP	18.30
Flat Base.....	5957W	12.10	5957WP	16.95	5957NP	17.85
Wall.....	5958W	14.15	5958WP	19.00	5958NP	19.90

Revere Incandescent Searchlights With Pilot House Control or Hand Control

250 to 5000 Watts

Designed for ordnance and industrial plants, airports, bridges, arsenals, marine use, and other protective lighting applications.

Wattage capacity: 12-inch, continuous service 600 watts, intermittent service 1000 watts; 18-inch, continuous service 1500 watts, intermittent service 2000 watts; 24-inch, continuous service 1500, 2000, or 3000 watts, intermittent service 5000 watts.

The 12 and 18-inch sizes are made of heavy gage spun steel and the 24-inch is made of cast aluminum.

Reflector is precision mirrored glass, ground and polished.

Has heat resisting plain clear glass lens.

Searchlight mounted in a steel yoke which permits vertical rotation.

Pilot house control type is made to swing a full 360° horizontally, with vertical adjustment to enable tilting the searchlight to 45° above or below horizontal. Permits searchlight to be mounted on roof of guard tower, or other building with control lever extending down through the roof.

Hand Control type is of the same construction as the Pilot House Control type, except for the mounting and control equipment.

Finish: 12-inch and 18-inch finished in standard dark green enamel; 24-inch finished standard aluminum except for Airport Service which is international orange and white or black and yellow striped.

Finish: 12-inch and 18-inch finished in standard dark green enamel; 24-inch finished standard aluminum except for Airport Service which is international orange and white or black and yellow striped.

Lamp Data 12-Inch Searchlights

Watts	Bulb	Volts	Life Hours	Service	Base
250	G-30	115	800	Floodlight	Medium Screw
400	G-30	115	200	Spotlight	Medium Screw
420	G-25	12	100	Aero. Hdt.	Mogul Prefocus
500	G-40	115	800	Floodlight	Mogul Screw
500	T-20	115	800	Aviation	Mogul Prefocus
*1900	T-20	30	100	Projection	Mogul Prefocus
*†1000	T-20	115	50	Projection	Mogul Prefocus
*†1000	T-20	30	500	Aviation	Mogul Bipost

18-Inch Searchlights

420	G-25	12	100	Aero. Hdt.	Mogul Prefocus
*900	T-20	30	100	Projection	Mogul Prefocus
*1000	T-20	115	500	Aviation	Mogul Bipost
*1000	T-20	30	500	Aviation	Mogul Bipost
*1000	T-20	115	50	Projection	Mogul Prefocus
1000	G-40	115	200	Spotlight	Mogul Screw
1500	G-48	115	800	Floodlight	Mogul Screw
*1500	T-24	32	100	Aviation	Mogul Bipost
†2000	G-48	115	200	Motion Pic.	Mogul Bipost

24-Inch Searchlights

1500	G-48	115	800	Floodlight	Mogul Screw
*1500	T-24	32	100	Aviation	Mogul Bipost
2000	G-48	115	200	Spotlight	Mogul Bipost
*2000	T-30	115	200	Spotlight	Mogul Bipost
*3000	T-32	32	100	Aviation	Mogul Bipost
†5000	G-64	115	75	Aviation	Mogul Bipost

Prices

No.	Each	Mounting	Diam. In.	Wt. Lb.
7291	\$600.00	Pilot House Control	24	267
7292	500.00	2½-inch Slip Fitter	24	187
7293	500.00	Flat Base	24	187
†\$4504	280.00	Pilot House Control	18	210
4507	200.00	Hand Control 1½" Slip Fitter	18	145
4508	200.00	Hand Control 2" Slip Fitter	18	145
4509	200.00	Hand Control Flat Base	18	145
†\$4524	220.00	Pilot House Control	12	145
4527	140.00	Hand Control 1½" Slip Fitter	12	80
4528	140.00	Hand Control 2" Slip Fitter	12	80
4529	140.00	Hand Control Flat Base	12	80

*Should not be tipped up or down more than 25°. †Should not be operated continuously. ‡When control stems are desired longer than 18 inches, add \$3.00 per foot to prices.

§For higher pedestal above roof, add \$4.00 per foot.



Revere Champion Aluminum Floodlights Dust-Tight—Weatherproof 750-1000-1500 Watts



Made of Alzak aluminum.

Lens is mounted in a ring hinged to the reflector and is held in place by five C clamps.

The reflector is attached to the cast aluminum housing by means of a heavy die-formed steel ring drawn tight to the housing by four large screws.

Furnished with rotation stop and adjustment device.
Furnished with 18-inch, heat resisting lens.

Mounting	Wide Beam		Narrow Beam	
	*No.	Each	*No.	Each
Yoke Only	2400-W	\$48.00	2400-N	\$55.00
Cross Arm	2401-W	49.00	2401-N	56.00
1½ inch Slip Fitter	2402-W	51.00	2402-N	58.00
2 inch Slip Fitter	2403-W	51.00	2403-N	58.00
Clamps 1-in. to 2-in. Pipe	2404-W	50.00	2404-N	57.00
Wall	2408-W	50.00	2408-N	57.00

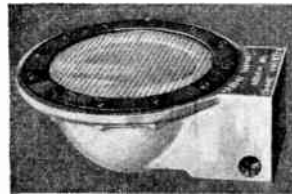
*Suffix the following letters to the numbers shown—for plain lens, P; for stippled lens, S; and for ribbed lens, R. Plain, stippled, or ribbed lens furnished at no extra cost.

Accessories

No.	Description	Each
3078	Visors for Redirection of Light	\$4.00
4686	Plain Lens, Glass Only	12.00
4687	Ribbed Lens, Glass Only	12.00
4688	Stippled Lens, Glass Only	12.00
4223	Adapter to Use 1000 or 1500-Watt Lamp	2.00

For floodlights without rotation stop and vertical adjusting device, deduct \$2.00 from prices.

Revere Service-Lite Lighting Units For 100 or 200-Watt Lamps



No. 3002

Designed for efficient illumination of hoists, greasing pits, washracks, underpasses, tunnels, railroad train-pits, etc. The main body of the unit is a one-piece casting. The lens is of the refracting type ¾ inches thick, and is made of special heat-resisting glass, designed to cast light on an angle of 40°.

A clear glass lens is also available.

Furnished in hinged and non-hinged types. An Alzak aluminum reflector inside the housing is furnished.

A medium screw base receptacle is fixed in position for a 200-watt lamp. If a 150-watt lamp is to be used, a standard socket extension should be added.

With Clamp Cover

Lens	200-Watt		100-Watt		Shipping Wt. Lb.
	No.	Each	No.	Each	
Refracting	3002	\$18.00	3003	\$18.00	11½
*Refracting	3004	19.00	3005	19.00	13
Plain	3006	18.00	3007	18.00	11½
*Plain	3008	19.00	3009	19.00	13

With Hinged Cover

Refracting	3002H	\$27.40	3003H	\$27.40	13
*Refracting	3004H	31.50	3005H	31.50	14½
Plain	3006H	27.40	3007H	27.40	13
*Plain	3008H	31.50	3009H	31.50	14½

*With guard.

Accessories

No. 3000, Parts to Convert Clamp Cover to Hinged Cover	each	\$9.40
No. 3000G, Parts to Convert Clamp Cover to Hinged Cover with Guard	each	11.50
No. 3010, Set of 2 L Brackets	per set	2.00
No. 3011, Clamp Guard Only	each	4.00
No. 3012, Refracting Lens Only	each	5.40
No. 3013, Plain Lens Only	each	5.40

Revere Combination Island Lights and Floodlights

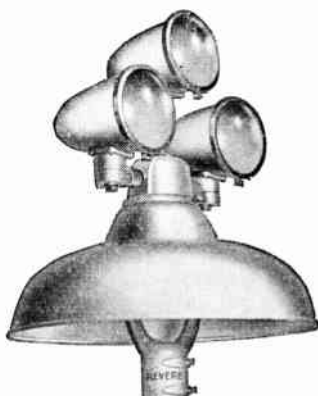
With Alzak or Porcelain Reflectors

200 to 1000 Watts

Used for service station lighting and other areas where efficient illumination is a necessity.

All castings are aluminum and other parts are cadmium plated steel.

Slips over a 2-inch pipe and is secured by two set screws. Bosses provided in the lower fitter align and maintain unit vertical.



No. 3650-S
Combination Area Light
and 3 Top Floodlights



Nos. 3018 and 3481
20-Inch Reflector
Diameter



Nos. 3032 and 3033
16-Inch Reflector
Diameter

Nos. 3017 and 3480—Alzak
Nos. 3018 and 3481—Porcelain

No. 3032—Porcelain
No. 3033—Alzak

Rain and weatherproof. Wireway is located in both arms, therefore wiring is enclosed. Ornamental ball top which, when removed, exposes a 1/2-inch threaded nipple on which enclosed floodlights (Nos. 3160, 3166, 3180, and 3186) and various lighted signs can be mounted.

Alzak reflectors have natural aluminum finish. Porcelain reflector has red, green, or blue outside standard finish.

Smaller lighting units used where a location justifies a 200-watt lamp instead of the customary 300 or 500-watt lamp.

Normally, two units should be used with the pole installed crossway of the island.

Reflector is made of Alzak aluminum or porcelain enameled steel.

Porcelain reflector is finished white inside, red or green outside.

No.	Each	Reflector	Reflector Diameter Inches	Lamp Watts	Shipping Weight Pounds
3017	\$14.50	Alzak	20	300-500	15
3018	12.50	Porcelain	20	300-500	18
3480	15.00	Alzak	20	750-1000	15
3481	12.50	Porcelain	20	750-1000	18

No.	Each	Reflector	Reflector Diameter Inches	Lamp Watts	Shipping Weight Pounds
3032	\$10.00	Porcelain	16	200	9
3033	11.00	Alzak	16	200	11

Combination Alzak Aluminum Units

No.	Description	Complete
3450-R	With Area Light No. 3017 and One Top Floodlight No. 3160	\$26.00
3550-R	With Area Light No. 3017 and Two Top Floodlights No. 3166	37.00
3650-R	With Area Light No. 3017 and One No. 3160 and Two No. 3166 Top Floodlights	48.00

Combination Porcelain Enameled Units

No.	Description	Complete
3450-S	With Area Light No. 3018 and One Top Floodlight No. 3180	\$26.00
3550-S	With Area Light No. 3018 and Two Top Floodlights No. 3186	37.00
3650-S	With Area Light No. 3018 and One No. 3180 and Two No. 3186 Top Floodlights	48.00

Individual Floodlights

Designed to accentuate illumination of any given area such as driveways, approaches, buildings, billboards, parking lots, tourist camps, etc. when mounted on top of an island or area light.

Use 150-watt par 38 Projector Spot or Projector Flood, or 150-300-watt.

Available in Alzak aluminum or porcelain enameled steel. Porcelain floods may be furnished in color matching area or island light on which it is to be mounted.

For Alzak Aluminum Units

No. 3160	each \$11.00
No. 3166	each 11.00

For Porcelain Enameled Units

No. 3180	each \$11.00
No. 3186	each 11.00

Revere Enclosed Low Mounting Floodlights and Top Floodlights



No. 3454D

For use with No. 3018 island light.

Housing is made of porcelain enameled steel. The mounting device is made of aluminum.

Available with or without an Alzak inner reflector and for wide or narrow beam spread. Inner reflector is held in place by means of two screws.

Lens is held to reflector by means of a clamping ring.

For 150 to 200-watt lamps, a medium base socket is used. When using a 150-watt lamp, a standard socket extension should be inserted.

For 300 to 500-watt lamps, a mogul screw socket is used.

Vertical adjustment is obtained through the hollow swivel joint, which accommodates the wiring.

Reflectors furnished in red or green porcelain outside, white inside.

No. 3018 Island Light. A rain and weatherproof unit which accommodates 300 to 500-watt lamps. Castings are made of aluminum and other parts are cadmium plated steel. Reflector is porcelain enameled red or green outside, white inside. Slips over a 2-inch pipe and is secured by two set screws. Has ornamental ball top which, when removed, exposes a 1/2-inch threaded nipple on which enclosed floodlights are mounted.

Series 4100—300-500 Watts

Wide Beam—With Alzak Aluminum Reflector

Lens	With 1 Top Flood		With 2 Top Floods	
	No.	Each	No.	Each
Plain.....	3454D	\$36.50	3554D	\$62.50
Stippled.....	3464D	36.50	3564D	62.50
Ribbed.....	3474D	36.50	3574D	62.50

Narrow Beam—With Alzak Aluminum Reflector

Plain.....	3454DSP	\$41.50	3554DSP	\$72.50
Stippled.....	3464DSP	41.50	3564DSP	72.50
Ribbed.....	3474DSP	41.50	3574DSP	72.50

Series 4130—150-200 Watts

Wide Beam—With Alzak Aluminum Reflector

Plain.....	3453F	\$28.00	3553F	\$45.50
Stippled.....	3463F	28.00	3563F	45.50
Ribbed.....	3473F	28.00	3573F	45.50

Narrow Beam—With Alzak Aluminum Reflector

Plain.....	3453G	\$31.00	3553G	\$51.50
Stippled.....	3463G	31.00	3563G	51.50
Ribbed.....	3473G	31.00	3573G	51.50

Series 4120—300-500 Watts

Wide Beam Only—Without Inner Reflector

Plain.....	3454E	\$32.50	3554E	\$54.50
Stippled.....	3464E	32.50	3564E	54.50
Ribbed.....	3474E	32.50	3574E	54.50

Series 4150—150-200 Watts

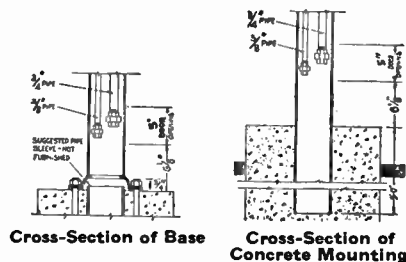
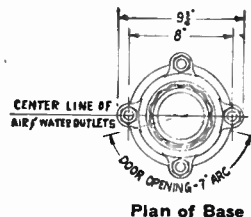
Wide Beam Only—Without Inner Reflector

Plain.....	3454K	\$27.00	3554K	\$42.50
Stippled.....	3464K	27.00	3564K	42.50
Ribbed.....	3474K	27.00	3474K	42.50

Revere Service and Island Light Standards



No. 204



For use on pump islands and other areas in combination with island lights.

Light center of island light is approximately 12 feet above the grade line.

Available with or without air and water dispensing facilities.

Lower section is a 5-inch corrugated steel tube, with an ornamental steel reducer casting welded in place for screwing on the upper shaft which is made of 2-inch steel pipe.

Water and air pipes are furnished with elbows, nipples, and ground joint unions.

Piping is welded in place in the standard, ready to connect to the service piping through a large door near the grade line. Hose and hose fittings are not furnished.

Switch and receptacle are not furnished and must be ordered separately. When ordered with standard, drilling and tapping are furnished without extra charge.

Lights and foundation bolts must be ordered separately.

Service	Base and Bolt Mounting		Concrete Mounting	
	No.	Each Wt. Lb.	No.	Each Wt. Lb.
Light, Water and Air.....	204	\$31.57 68	204O	\$31.46 83
Light and Water..	204A	26.02 64	204P	25.76 85
Light and Air....	204B	25.77 65	204Q	26.03 84
Light and Double Air.....	204BB	31.22 70	204QQ	31.13 89
Light Only.....	204C	20.09 60	204R	20.20 79

Accessories

No. 204D, One Set (4) 5/8x12-inch Foundation Bolts and Nuts.....per set \$1.76

G-E Heavy Duty Floodlights

Type L-38

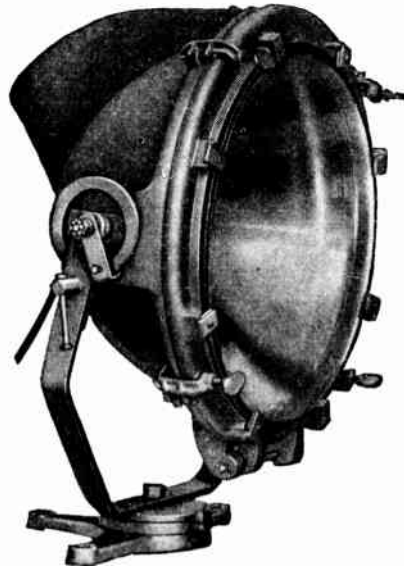


Type L-38-D, for General Service Lamp, 200-250 Watts

Lightly stippled, heavily stippled, and spreadlight—used to widen beam light. Colored glass can be obtained, if desired.

No.	Each	Type of Reflector	APPROX. Wt., Lb.	
			Ship.	Net
A48G42	\$38.00	Silvered Glass	22	16
A48G62	38.00	*Alzak Finished Aluminum	22	16
Type L-38-E, for Floodlighting Service Lamp (G-30)				
A48G52	\$38.00	Silvered Glass	22	16
A48G72	38.00	*Alzak Finished Aluminum	22	16

Type L-34



Types L-34-E and H for General Service Lamp, 1000-1500 Watts

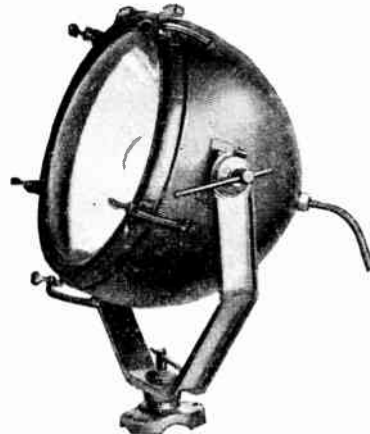
Plain clear door glass furnished, unless otherwise specified. Lightly stippled or spreadlight door glass can be furnished at no additional charge.

Furnished only with crowfoot base as shown. In Type L-34-E, the lamp is supported at 90 degrees to the reflector axis. In Type L-34-H, the lamp is supported at 60 degrees to the reflector axis, to obtain more favorable lamp performance when operated at over voltage and when the projector is tilted downward.

Type	No.	Type of Reflector	Each	APPROX. Wt., Lb.	
				Ship.	Net
L-34-E	A64G1	Silvered Glass	\$140.00	170	72
L-34-E	A64G3	Pol.*Alzak Fin. Aluminum	140.00	168	68
For Sports Lighting Purposes					
L-34-H	A64G4	Pol.*Alzak Fin. Aluminum	\$140.00	168	68
For Floodlight Service Lamp (G-48)					
For Railroad Yards, Sports and General Uses					
L-34-F	A64G11	Silvered Glass	\$140.00	170	72
L-34-J	A64G13	Pol.*Alzak Fin. Aluminum	140.00	168	68

*Manufactured under Aluminum Company of America patents.

Type L-30



Type L-30-K or L Standard Floodlight, 300-500 Watts

For general floodlighting applications, for which maintained high efficiency and long life under exposure to weather justify using the finest quality obtainable. Exceptionally sturdy construction and a variety of beam spreads and mountings adapt it to all common situations.

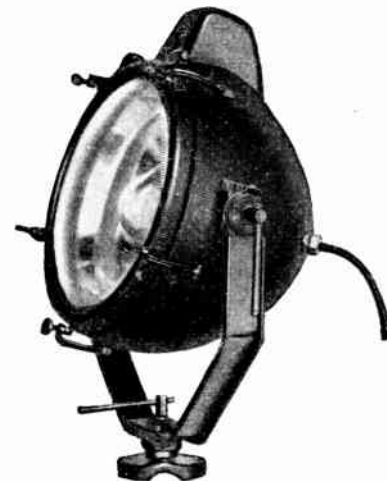
Contains high efficiency, long life reflector made of silvered glass or *Alzak processed aluminum. Strong die-formed steel casing with heat and weather-

resisting molded glass held in place with large spring toggle latches to insure tight seal. Attractive gray enameled finish.

Lamp is not included. Plain door glass is furnished, unless otherwise specified. The following types are available at no additional charge: lightly stippled, heavily stippled, and spreadlight—used to widen light beam. Colored glass can be obtained, if desired.

No.	Each	Type of Reflector	APPROX. Wt., Lb.	
			Ship.	Net
A60G22	\$68.00	Silvered Glass	53	30
A60G82	68.00	*Alzak Finished Aluminum	48	25
Type L-30-L, for Floodlighting Service Lamp (G-40)				
A60G32	\$68.00	Silvered Glass	53	30
A60G92	68.00	*Alzak Finished Aluminum	48	25

Type L-31



Type L-31-K, for General Service Lamp, 750-1000 Watts

For general floodlighting applications, for which maintained high efficiency and long life under exposure to weather justify using the finest quality obtainable. Exceptionally sturdy construction and a variety of beam spreads and mountings adapt it to all common situations.

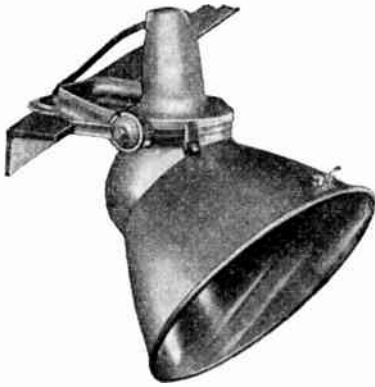
This high quality all-purpose projector features an efficient silvered glass or aluminum narrow beam reflector in a sturdy, attractive steel casing. Several different beam spreads may be obtained with different door glasses.

Lamp is not included. Plain door glass is furnished, unless otherwise specified. The following types are available at no additional charge: lightly stippled, heavily stippled, and spreadlight—used to widen light beam. Colored glass can be obtained, if desired.

No.	Each	Type of Reflector	APPROX. Wt., Lb.	
			Ship.	Net
A61G42	\$85.00	Silvered Glass	56	33
A61G62	85.00	*Alzak Finished Aluminum	51	28
Type L-31-L, for Floodlighting Service Lamp (G-40)				
A61G12	\$85.00	Silvered Glass	53	30
A61G72	85.00	*Alzak Finished Aluminum	48	25

G-E Area Floodlights

Type L-69



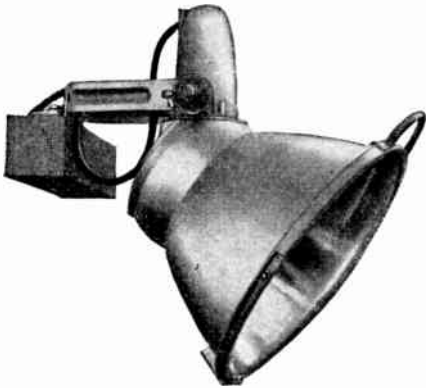
Type L-69 Floodlight for Crossarm Mounting, 1500 Watts

An outstanding floodlight for sports field and recreation areas incorporating every worthwhile feature, from the results of long engineering experience. The floodlight features a front glass made of impact-resisting Tufflex tempered plate glass, spun sealed into the reflector. The socket housing is removable for replacing lamp and cleaning reflector. Die-cast aluminum construction makes the housing lighter and easier to handle than any front door assembly. The reflector is made of *Alzak processed aluminum, either polished or etched, giving this floodlight ideal light control and outstanding beam efficiency. The floodlight is completely sealed to keep out water, dirt, and insects.

Lamp not included; use 1500-watt general service lamp. PS-52 clear bulb, 9½-inch light center length.

No.	Each	Type of Reflector	APPROX. Wt., Lb. (Ship. Net)	
A54G7	\$60.00	Medium Beam, Polished	30	18½
A54G17	53.00	Medium Beam, Etched	30	18½
A54G8	60.00	Narrow Beam, Polished	30	18½

Type L-68



Type L-68 Floodlight for Crossarm Mounting, 750-1500 Watts

A popular floodlight for ground areas, notably sports fields and construction projects, where high candlepower beams will help reach across the area, or where the maintenance savings of an enclosed unit are desired. Features a heat and weather-resisting molded plain glass mounted in a slide-on door with a large handle and safety chain, for easy servicing. Reflector is made of *Alzak processed aluminum, either polished or etched, to widen the light beam. Die-cast aluminum socket housing with heavy duty porcelain shell mogul socket keeps lamp in fixed focus. A medium stippled door glass is available.

Lamp not included. Uses general service lamp. Plain door glass is furnished, unless otherwise specified. A medium stippled type is available at no additional charge. It is used with either polished or etched reflector, to widen the light beam.

Type L-68, Enclosed, for Crossarm Mounting

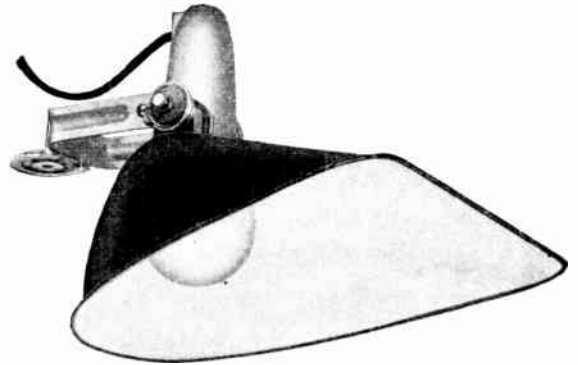
No.	Each	Type of Reflector	APPROX. Wt., Lb. (Ship. Net)	
A52G33	\$51.00	Pol. *Alzak Finished Aluminum	26	14
A52G23	44.00	Etched *Alzak Finished Aluminum	26	14

For omission of door glass and ring, deduct \$15.

*Manufactured under Aluminum Company of America patents.

†For use with 300 or 500-watt lamp, order similar to above number, and deduct \$1.00.

Type L-46



Type L-46 Floodlight for Crossarm Mounting, for 300-1500 Watts

A durable open floodlight for close range illumination of filling stations, and work, storage, parking, and sports areas. This floodlight has a porcelain enameled reflector. It may be equipped with an auxiliary reflector, to provide increased illumination of areas or buildings that require special emphasis. Die-cast aluminum socket housing with heavy duty, porcelain shell, mogul socket. Used general service lamp. Lamp not included.

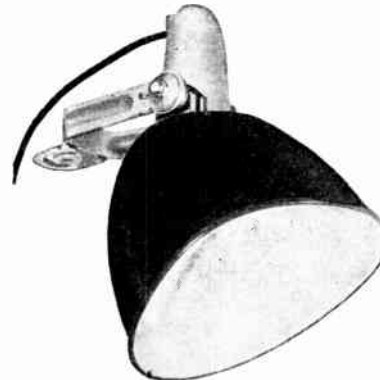
†Type L-46, Crossarm Mounting; 750-1500 Watts

No.	Each	Type of Auxiliary Reflector Included	APPROX. Wt., Lb. (Ship. Net)	
A43G13	\$28.00	None	30	21
A43G23	31.00	Etched *Alzak Fin. Aluminum	30	21
A43G33	34.00	Pol. *Alzak Fin. Aluminum	30	21

Type L-46, Slip Fitter Mounting on 2-Inch Pipe; 750-1500 Watts

A43G15	\$30.00	None	32	23
A43G25	33.00	Etched *Alzak Fin. Aluminum	32	23
A43G35	36.00	Pol. *Alzak Fin. Aluminum	32	23

Type L-45



Type L-45 Floodlight for Crossarm Mounting, 300-1500 Watts

Lamp not included.

An inexpensive, durable, open floodlight with porcelain enameled reflector, for close range illumination of filling stations, and work, storage, parking, and sports areas. Auxiliary *Alzak processed aluminum reflectors provide increased illumination of areas or buildings that require special emphasis. Construction similar to Type L-46 floodlight.

†Type L-45, Crossarm Mounting; 750-1500 Watts

No.	Each	Type of Auxiliary Reflector Included	APPROX. Wt., Lb. (Ship. Net)	
A41G13	\$17.00	None	26	17
A41G23	20.00	Etched *Alzak Fin. Aluminum	26	17
A41G33	23.00	Pol. *Alzak Fin. Aluminum	26	17

Type L-45, Slip Fitter Mounting on 2-Inch Pipe; 750-1500 Watts

A41G14	\$19.00	None	28	19
A41G25	22.00	Etched *Alzak Fin. Aluminum	28	19
A41G35	25.00	Pol. *Alzak Fin. Aluminum	28	19

G-E General Purpose Floodlights

Type L-49



Type L-49 Floodlight with Oval Base, 300-500 Watts

A lightweight floodlight for general application, which with narrow beam or wide beam reflectors, plus a variety of mountings, meets all common requirements. Reflector is made of *Alzak processed aluminum; either polished for narrow beam or etched for wide beam. Heat and weather-resisting molded glass held in place with an aluminum ring. Die-cast aluminum socket housing with mogul socket.

Lamp is not included.

Plain door glass is furnished,

unless otherwise specified. A heavily stippled type is available at no additional charge. Colored glass can be obtained, if desired.

Type L-49, Enclosed, with Oval Base for Surface Mounting

No.	Each	Type of Reflect	APPROX.	
			WT., LB.	Net
A44G62	\$31.00	Pol. *Alzak Fin. Aluminum . . .	24	13½
A44G52	26.00	Etched *Alzak Fin. Aluminum . . .	24	13½

Type L-49, Enclosed, for Crossarm Mounting

A44G63	\$30.00	Pol. *Alzak Fin. Aluminum . . .	22	11
A44G53	25.00	Etched *Alzak Fin. Aluminum . . .	22	11

For omission of door glass and ring, deduct \$6.00.

Type L-43



Type L-43 Floodlight with Oval Base, 750-1000 Watts

A lightweight floodlight for general application. Similar to the Type L-49 floodlight, except larger in size and uses larger lamp.

Lamp is not included.

Plain door glass is furnished, unless otherwise specified.

The following types are available at no additional charge: lightly stippled, heavily stippled, and spread light—used with polished reflector to widen light beam. Colored glass can be obtained, if desired.

Type L-43, Enclosed, with Oval Base for Surface Mounting

No.	Each	Type of Reflector	APPROX.	
			WT., LB.	Net
A40G82	\$40.00	Pol. *Alzak Fin. Aluminum . . .	28	15
A40G72	34.00	Etched *Alzak Fin. Aluminum . . .	28	15

Type L-43, Enclosed, for Crossarm Mounting

A40G83	\$39.00	Pol. *Alzak Fin. Aluminum . . .	26	12½
A40G73	33.00	Etched *Alzak Fin. Aluminum . . .	26	12½

For omission of door glass and ring, deduct \$11.

G-E Handy Floodlights

Type L-65



Type L-65 Handy Floodlight, 100 Watts

A handy floodlight with wide angle beam, for lighting around homes, gardens, garages, farm buildings, etc., offering convenience, protection and aid to work or business at night. Low cost, durable and compact, and has a large variety of uses. Reflector is constructed of one-piece die-formed aluminum etched on the inside. Weather-resisting molded door plain glass held in place by U-

shaped band. A 150-watt lamp may be used for short burning periods.

Lamp not included.

Packed 6 in a standard package; approximate weight, shipping, 22 pounds; net, 10½ pounds.

Type L-65, (No. A168G1) each \$3.95

Type L-66



Type L-66 Handy Floodlight, 200 Watts

For work lighting or protective lighting around substations, home and farm buildings, construction jobs—either temporary or permanent. Powerful wide angle beam illuminates a large area. Inexpensive, durable, thoroughly practical for general use. Reflector constructed of die-formed aluminum with etched inner surface. Heat and weather-resisting molded clear glass held in place by U-shaped clamping band with gasket. A 300-watt medium base general service lamp can be used in intermittent service.

Lamp not included.

Approximate weight, shipping, 7 pounds; net, 4 pounds.

Type L-66, (A175G4) each \$12.50

No. 4815510G1, Renewal Door Glass, Plain Clear, each \$2.70

9½-Inch Diameter each \$2.70

For omission of door glass and ring, deduct \$4.00.

Red, amber, blue, or green door glass furnished in place of clear at \$4.00 additional.



G-E Form 92 Luminaire for Gasoline Pump Islands

300-500 Watts

An attractive enclosed type luminaire for lighting gasoline pump islands and surrounding areas. Fits 2-inch pipe. Easily installed, offering even distribution of light without objectionable glare. Reflector constructed of *Alzak processed aluminum which snugly fits over strong crystal clear rippled glass globe, giving an attractive appearance. Sturdy galvanized cast iron base, heavy duty porcelain mogul base socket.

Lamp not included. Use 300 or 500-watt mogul screw base lamp.

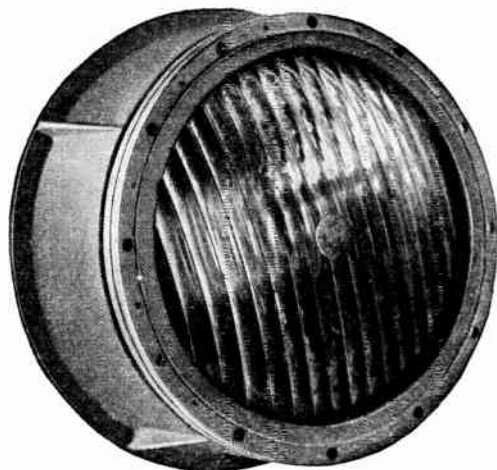
Approximate weight, shipping, 20 pounds; net, 14 pounds.

Form 92, (No. A100G1) each \$14.00

*Manufactured under Aluminum Company of America patents.

G-E Underwater Floodlights

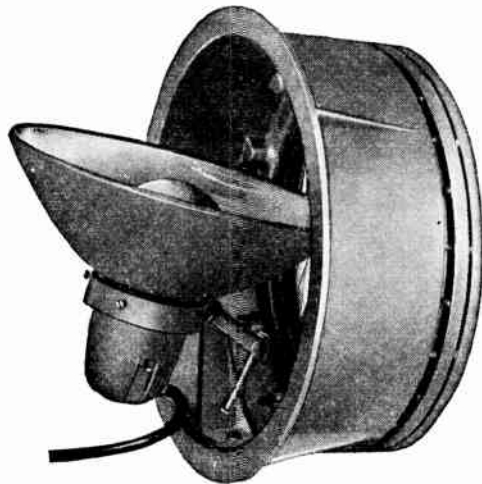
Type L-39



Type L-39 Underwater Floodlight, 500-1000 Watts

This high quality dry-niche underwater floodlight is used principally in swimming pools. It offers high efficiency, a variety of beam angles, easy maintenance, and long life. Cast bronze construction is especially recommended for best results and should be used to prevent deterioration in chemically treated water. Strong, durable, and easy to install.

Highly efficient silvered glass or polished *Alzak processed aluminum reflector, correctly positioned for best results.



Type L-39, Rear View, Showing Reflector In Position for Servicing

*Type L-39, Complete Floodlight—Bronze— Door Ring with Natural Bronze Finish				*Type L-39, Complete Floodlight—Aluminum— Door Ring with Chrome-Plated Finish			
No.	Each	Type of Reflector	APPROX. Wt., Lb. Ship. Net	No.	Each	Type of Reflector	APPROX. Wt., Lb. Ship. Net
A47G4	\$95.00	Silvered Glass.....	140 77	A47G5	\$100.00	Silvered Glass.....	140 77
A47G7	90.00	Pol. *Alzak Fin. Aluminum...	140 77	A47G8	95.00	Pol. *Alzak Fin. Aluminum...	140 77

Equipment above consists of:

Door Assembly				Niche Lining				Projector with Support			
Above No.	No.	Each	Ship. Wt. Pounds	No.	Each	Ship. Wt. Pounds	No.	Each	Ship. Wt. Pounds		
A47G4	4830141G9	\$30.00	30	4830753G8	\$30.00	56	5556513G1	\$35.00	55		
A47G7	4830141G9	30.00	30	4830753G8	30.00	56	5556513G5	30.00	45		
A47G5	4830141G6	35.00	30	4830753G8	30.00	56	5556513G1	35.00	55		
A47G8	4830141G6	35.00	30	4830753G8	30.00	56	5556513G5	30.00	45		
A47G6	4830141G8	20.00	20	4830753G7	20.00	36	5556513G3	35.00	26		
A47G9	4830141G8	20.00	20	4830753G7	20.00	36	5556513G6	30.00	26		

*Spreadlight door glass furnished, unless otherwise specified.

1000-watt lamp, unless otherwise specified.

Lamp not included. Use floodlight lamp only—500-1000 watts.

Floodlight furnished with socket positioned for use with

Type L-33



Type L-33 with Angle Brackets, 100-200-400 Watts

A cast bronze, watertight floodlight used principally in fountains and swimming pools, offering high efficiency and long life, a variety of beam angles, clear or colored lighting effects, and assurance against deterioration in chemically treated or salt water. Also recommended for general floodlighting in atmosphere too wet for ordinary weatherproof units, or where vapor-proof equipment is needed.

Heavy bronze casing and door rings, and highly efficient silvered glass reflector.

Lamp not included. Use floodlight service lamp only: 250-400 watts submerged, 100 watts in air.

Be sure to specify type of door glass when ordering. Price includes plain, heavily stippled, or spreadlight clear glass.

Colored door glass furnished instead of clear glass at \$3.00 additional. Plain or heavily stippled pattern only—not spreadlight. Colors available—red, amber, green, or blue.

Type L-33 with Angle Brackets			
No.	Each	Type of Reflector	APPROX. Wt., Lb. Ship. Net
2AL33FDL1	\$58.00	Silvered Glass.....	45 37
Type L-33 with Suspension Hooks and Arms			
AL33FDK1	\$60.00	Silvered Glass.....	45 37
Type L-33 for Conduit Support (No Brackets)			
2AL33FDX1	\$55.00	Silvered Glass.....	45 37

*Manufactured under the Aluminium Company of American patents.

Type L-41



Type L-41, with Oval Base and Trunnion Bracket, 500-1000-1500 Watts

The Type L-41 construction and use is similar to the Type L-33. The Type L-41 is larger in size and uses a larger lamp, giving more light.

Lamp not included. Use floodlight service lamp only: 500-1000-1500 watts submerged, 500 watts in air.

Be sure to specify type of door glass when ordering. Price includes plain, heavily stippled, or spreadlight clear glass.

Colored door glass furnished instead of clear glass at \$13 additional. Plain or

heavily stippled pattern only—not spreadlight. Colors available—red, amber, green, or blue.

Type L-41 with Oval Base and Trunnion Bracket			
No.	Each	Type of Reflector	APPROX. Wt., Lb. Ship. Net
2AL41EAA1	\$130.00	Silvered Glass.....	113 68
Type L-41 with Suspension Hooks and Arms			
2AL41EAK1	\$127.00	Silvered Glass.....	113 68

Crouse-Hinds Incandescent Searchlights

Types DCE, DCY, DCX and DCXR



Type DCX



Type DCE



Type DCY

Designed to project a concentrated high intensity beam of light for long range illumination. Particularly recommended for shipboard use, industrial plants, airport control towers, public utilities, ordnance plants, and prisons.

A complete line, ranging from the 8-inch, 250-watt searchlight, to the 36-inch, 5000-watt searchlight. Available with a number of different mounting bases for different applications.

Type DCE is used as a fixed searchlight for spotting objects or small areas from a distance. This type can be used as a hand-controlled searchlight, but where unit is to be frequently redirected, type DCY is recommended.

Type DCY is arranged for direct hand control. Pedestal provides height of 48 inches to light center. Pedestals of special heights can be furnished.

Type DCX is furnished with a pilot house lever control for mounting on the roof of a pilot house or watch tower, to be controlled from below. Automatic brake holds searchlight in position desired in both rotation and elevation when brake lever is released. Brake release lock allows free control when desired.

Type DCXR is similar to type DCX, except that it is arranged for remote control by means of wire ropes and pulleys.

Type	Each	Description	Diam. of Reflector Inches	MAXIMUM WATTAGE	Intermittent
DCE-8	Standard Flange	8	250	250
DCX-8	Lever Control			
DCE-12	Standard Flange	12½	600	1000
DCY-12	Pedestal Base			
DCX-12	Lever Control			
DCXR-12	Remote Control			
DCE-18	Standard Flange	19¾	1500	2000
DCY-18	Pedestal Base			
DCX-18	Lever Control			
DCXR-18	Remote Control			
DCE-24	Standard Flange	25¼	2000	3000
DCY-24	Pedestal Base			
DCX-24	Lever Control			
DCXR-24	Remote Control			
DCE-36	Standard Flange	37¼	3000	5000
DCY-36	Pedestal Base			
DCX-36	Lever Control			
DCXR-36	Remote Control			

Crouse-Hinds Aviation Lighting

Type DCB-36 Rotating Beacons

36-Inch Diameter



A rotating beacon of high efficiency which projects beams of light in two directions, 180° apart.

The optical system consists of a lens combination in each end of the housing, with a single lamp in the center.

Each combination consists of an 18-inch inner doublet lens and a 36-inch outer lens. The outer lens is made of a one-piece bulls-eye lens, 20 inches in diameter, surrounded by twelve 30° sectors of an annular ring.

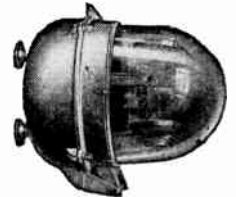
When color is required in either or both ends of the beacon, the inner doublet lens is furnished in red or green.

Equipped with one end clear and one end green, 115 volts, 60 cycles A.C.

No. 41281.....each

Type DCB-10 Rotating Beacons

Designed to meet requirements of small airports with no regular scheduled air transport activities. Provides alternate clear and green flashes from an optical system rotating at 6 rpm, indicating the location of a lighted airport with same beam characteristics as standard Type DCB-36 airport beacon.



Constructed with a large Pyrex glass dome which completely encloses rotating optical system.

A magnetic lamp changer provides a spare lamp which is automatically moved to the correct focal position and switched on when the first operating lamp fails. An indicating circuit is included which may be wired to an indicating lamp on the beacon tower, in the control room, or any remote point to show failure of the operating lamp. For 115 volts, 60 cycles, A.C.

No. 44035.....each

Type DCE-24 Airport Floodlights

1500 or 3000 Watts



Designed for the illumination of large landing fields. Can be used in banks of from three to fourteen units with the beams overlapped for the illumination of level fields, or in groups of two at each end of each runway for runway floodlighting.

Main reflector is 25-inch diameter, parabolic, silvered glass.

Description	1500 Watts		3000 Watts	
	No.	Each	No.	Each
With Plain Clear Lens...	43170B	.....	43171B	.....
With 10° Spread Lens...	429381B	.....	42482B	.....
With 30° Spread Lens...	429391B	.....	40775B	.....
With 80° Spread Lens...	42940B	.....	40783B	.....

Catalog numbers do not include incandescent lamps. Prices and information upon request.

Crouse-Hinds Aviation Lighting

Type FCB-12 Fresnel Beacons

For Airport Identification and Hazard Marking
200 or 500 Watts



Designed for use as an auxiliary green code flashing beacon at airports, and as a red marker light for major obstructions to air navigation.

When used at airports, it is usually equipped with green color screens, two 500-watt lamps, and connected to a special code flasher to produce a Morse code signal, designating the airport. Code signal consists of from one to three letters, and must be approved by the Civil Aeronautics Administration. Should be mounted high enough to allow its beam to clear surrounding obstacles.

Housing is cast aluminum alloy.

Lamps: 500-watt, 115-volt, PS-40 bulb or 200-watt, 115-volt, PS-30 bulb, mogul prefocus base.

Description	200 Watts		500 Watts	
	No.	Each	No.	Each
With Red Hazard Beacon...	42197C	.....	41257C	.....
With Green Code Beacon...	42198C	.....	41258C	.....

Type TSS Flashing Switches

110 Volts, 60 Cycles, A.C.

Used to flash on-off signals as required for Type FCB-12 red hazard beacons, and to flash code signals as required for Type FCB-12 green airport identification beacons.

All Type TSS standard flashers are arranged to flash on-off 40 times per minute in accordance with CAA requirements for hazard beacons. Type TSS-18 (No. 46397) code flasher is furnished with the cam made to order to flash the code assigned to the airport by the CAA. The code flasher will flash most two-letter codes and some three-letter codes.

No. of Circuits	Type of Flasher	No.	
		No.	Each
1	TSS-21 Standard	46777A	.....
2 Simultaneous	TSS-21 Standard	46778A	.....
2 Alternate	TSS-21 Standard	46779A	.....
3	TSS-18 Standard	46440	.....
4	TSS-18 Standard	46441	.....
5	TSS-18 Standard	46442	.....
1	TSS-18 Code	46397	.....

Contacts of Type TSS-21 are mercury tube, rated 35 amp. Contacts of Type TSS-18 are metal, rated 10 amperes.

Type APB Boundary and Threshold Lights

Disconnecting Type



Fixture consists of prismatic globe, cast aluminum fitting, 30° diameter metal cone and disconnecting cutout. Function of cutout is to disconnect fixture immediately from the high voltage underground cutout when struck by a plane.

Available for 6.6-ampere series circuits and for 115-volt multiple circuits.

Description	Series		Multiple	
	No.	Each	No.	Each
Boundary Light, Clear Globe.....	43625	.....	44332	.....
Boundary Light, Yellow Globe....	43627	.....	44333	.....
Threshold Light, Green Globe....	43720	.....	44334	.....
Boundary Obstruction Light, Red Globe.....	43629	.....	44335	.....

Catalog Nos. do not include incandescent lamps. Prices and information upon request.

Type ERL Marker Lights



For use on both large and small airports as runway lights (clear globe), threshold lights (green globe), and taxi lights (blue globe). Globes are available in both asymmetric style as used on runway and threshold lights and symmetric style as used for taxi lights at some locations.

Complete ERL fixture includes globe, fitting with lamp receptacle, cone, column with breakable coupling, wiring in column, disconnecting plug and receptacle, and mounting base.

Mounting bases are available in three different styles designated as A, B, and C. Style A mounting consists of surface flange, 30-inch angle iron anchor, and isolating transformer; Style B mounting includes base plate and gasket to fit type CPD base housings; Style C mounting consists of junction box with hub cover on top and two squeeze connectors for through-feed cables at bottom.

New runway marker light installations use Style A mounting in most cases, with a series circuit and an individual isolating transformer for each light. Style C mounting with 115-volt multiple circuit is also used. Style B mounting is used particularly where it is desired to provide for a change-over to semi-flush CPD top assemblies. At some airports cone type markers such as Type ERL are used during snow weather, these being replaced on the base housings by Type CPD top assemblies during the summer. Type ERL with Style B mounting is used for converting existing semi-flush CPD fixtures to elevated lights.

Mounting	Circuit	Runway Lights Clear Asymmetric		Threshold Lights Green Asymmetric		Taxi Lights Blue Asymmetric		Taxi Lights Blue Symmetric	
		No.	Each	No.	Each	No.	Each	No.	Each
A Series		44376	.....	44377	.....	44378	.....	44386	.....
B Series, or Multiple		44379	.....	44380	.....	44381	.....	44387	.....
C Multiple		44370	.....	44371	.....	44372	.....	44384	.....

Type HIRL Marker Lights

200 Watts



Type HIRL, 200-watt high intensity runway marker light is recommended for instrument landing runways.

Outlines a runway to a pilot under poor visibility conditions as encountered in fog, rain or snow, either day or night.

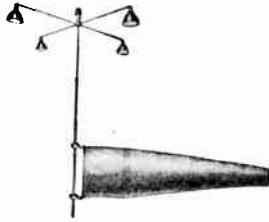
High lighting efficiency is obtained through the use of a double reflector system with a single light source.

Consist essentially of the reflector optical system, column with breakable coupling, wiring with disconnecting plug and receptacle, and base housing. An isolating transformer is required to be installed in the base.

Description	No.	Each
Clear Runway Marker Light	44382	.....
Green Threshold Marker Light	44383	.....

Crouse-Hinds Aviation Lighting

Type WC Illuminated Wind Cone Fixtures



Type WC-36 wind cone is new heavy duty fixture equipped with a 36-inch diameter 12-foot fabric wind sock.

Type EC-18 wind cone is designed particularly for use at small airports. Also recommended as an auxiliary wind cone at larger airports.

Both Type WC-36 and WC-18 fixtures include ball bearings for the wind cone swivel support and four lighting reflectors, which are 200 watts for Type WC-36 and 150 watts for Type WC-18.

Description	No.	Each
Type WC-36 for Beacon Tower Mounting...	44622	.....
Type WC-36 for Roof or Ground Mounting..	44621	.....
2½-Inch Slip Fitter for Mounting WC-36....	FL623	.....
Hinged Standard for WC-36.....	FL624	.....
Type WC-18 with 2-Inch Slip Fitter Base...	44036	.....

Type WT Illuminated Wind Tees



Serves as a continuous day and night indication of the true wind direction, gives the appearance of a single green "T" when viewed from above at night and a single stroke chrome yellow "T" when viewed from above in the daytime.

Furnished as a standard wind tee responsive to and affected by the wind only. or can be furnished with any of several different combinations of accessories to make it completely automatic or controlled by a remote operator. No. 43339C.....each

Type DCE-16 Ceiling Projectors



Consists of a powerful searchlight, the beam of which is directed upward to the clouds. The height of the clouds is then determined by an indicator known as a clinometer. Projector is usually located 1000 feet from the normal observation point.

No. 43900, with Transformer and Slip-Fitter...each

Type CL Clinometers

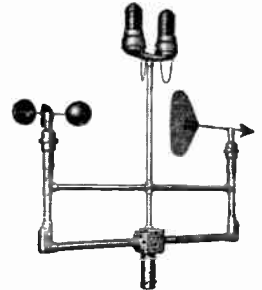


Furnished complete with wood box, instructions, and a set of tables with altitudes for base line of 100 feet.

No. 44173.....each

Catalog Nos. do not include incandescent lamps. Prices and information upon request.

Wind Instruments



Wind Transmitter Assembly

These instruments provide instant information on outside wind conditions to the operator in the control tower, hangar or office.

Wind direction transmitter consists of a balanced metal arrow and a self-synchronous motor assembly totally enclosed in a weatherproof housing. Mounts on standard 1¼-inch pipe support.

Wind velocity transmitter is a wind-powered type, consisting of a 3-cup rotor which drives a high grade direct current generator, totally enclosed in a weatherproof housing. No outside power source is needed. Mounts on standard 1¼-inch pipe support.

Wind indicator is 3¼-inch outside diameter with 2¾-inch luminous aircraft dial.

Wind transmitter assembly consists of the two transmitters, duplex pipe support, and double obstruction light. Transmitter support has slip-fitter for 2½-inch pipe.

Description	No.	Each
Wind Direction Transmitter.....	FL101	.....
Wind Velocity Transmitter.....	FL102	.....
Wind Direction Indicator with 2¾-Inch Dial.....	FL103	.....
Wind Velocity Indicator with 2¾-Inch Dial	FL104	.....
Support for Wind Transmitters.....	KL3093	.....
VAW Double Obstruction Light, Red Globes.....	43961	.....

Type PTS Air Traffic Control Signals

Designed for projecting a high intensity beam of light for clear, green or red signals to planes in the air and on the ground.

By means of concentrating type parabolic searchlight reflector, a powerful beam is produced which has been used to signal at distances of over eight miles in the daytime and twelve miles at night.

Pistol grip handle at the rear contains a trigger switch with which the light signals can be flashed as desired. Signals in Morse Code can be flashed. Front handle is rotated to change the color of the base.

The B-2 assembly is the type generally provided for airport control tower use. The B-3 assembly includes a carrying case and spare parts.

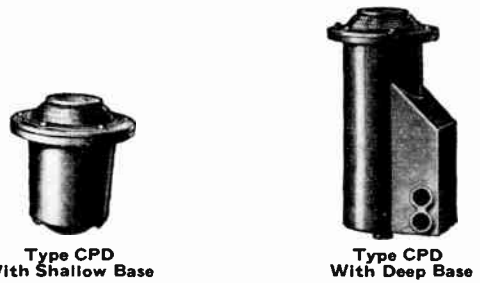
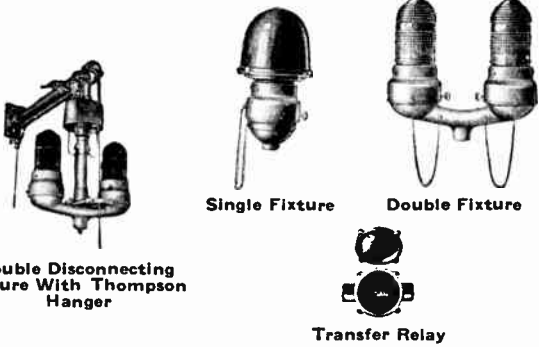


Description	No.	Each
B-2 Assembly, with Transformer and Auxiliary Battery Cord.....	44280A	.....
B-3 Assembly, with Carrying Case, Connector Cords and Spare Parts.....	44279	.....

Crouse-Hinds Aviation Lighting

Type VAW Marker Lights

Type CPD Flush Marker Lights



Double Disconnecting
Fixture With Thompson
Hanger

Single Fixture

Double Fixture

Type CPD
With Shallow Base

Type CPD
With Deep Base

Transfer Relay

Used as boundary lights (clear globe), threshold lights (green globe), and obstruction lights (red globe). Fixtures with yellow or blue globes can also be furnished.

Made of cast aluminum with 1-inch bottom hub. Available in two styles: multiple units for use on standard 115-volt circuits and series units for use on 6.6-ampere series circuits.

Transfer relay is designed to complete the circuit to the spare lamp upon failure of the operating lamp. Relay listed will operate with 60 or 100-watt lamps; relays for other lamps can be furnished. Relay is mounted in weatherproof housing.

Double disconnecting fixtures are used to mark obstructions to air navigation such as poles, towers, smoke stacks and water tanks where it is desirable to lower the fixtures for cleaning and relamping.

Used as runway contact lights, flush threshold lights, flush boundary lights, taxi guidance lights, and flush traffic control lights.

Designed to withstand a minimum dead load of 100,000 pounds applied on the top. Type CPD bases with blank iron cover are used as underground transformer housings.

Type I units are equipped with asymmetric style prismatic lens. Most of the light from an asymmetric unit is concentrated into two narrow beams approximately 180° apart and 4° above the horizontal, which for contact lights is directed up and down the runway to provide a high intensity indication toward a plane landing on the runway.

Type II units are equipped with symmetric style prismatic lens. The light distribution is symmetrical throughout the full 360° in the horizontal plane.

With Shallow Base

Description	Multiple Circuits	
	No.	Each
Single Fixture with Clear Globe	43956	.....
Single Fixture with Green Globe	43957	.....
Single Fixture with Red Globe	43958	.....
Double Fixture with Red Globes	43961	.....
Transfer Relay, for Use with Double Multiple Obstruction Light with 60 or 100-Watt Lamps	43902	.....
Disconnecting Double Multiple Fixture with Red Globes, for Use with Thompson Hanger	43658	.....
Series Circuits		
Single Fixture with Clear Globe	43923	.....
Single Fixture with Green Globe	43927	.....
Single Fixture with Red Globe	43623	.....
Double Fixture with Red Globes	43624	.....

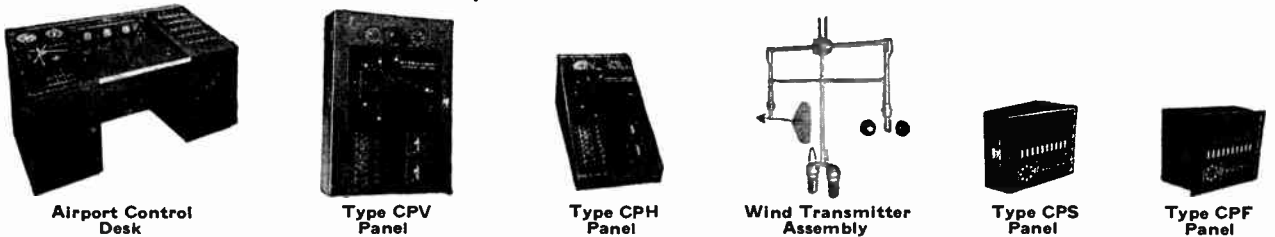
Description	Type I Asymmetric		Type II Symmetric	
	Class A Multi-ple	Class B Series	Class A Multi-ple	Class B Series
Clear Lens, No Color Screen	43651A	43643A	43648A	43640A
With 180° Yellow Screen	43652A	43644A	43649A	43641A
With 360° Yellow Screen	43653A	43645A	43650A	43642A
With 360° Blue Screen	43654A	43646A	43873A	43872A
With 360° Green Screen	43701A	43700A	.....	.....

With Deep Base

Clear Lens, No Color Screen	43714A	43705A	43711A	43702A
With 180° Yellow Screen	43715A	43706A	43712A	43703A
With 360° Yellow Screen	43716A	43707A	43713A	43704A
With 360° Blue Screen	43717A	43708A	43875A	43874A
With 360° Green Screen	43719A	43710A	.....	.....

Prices upon application.

Airport Control Desks and Panels



Airport Control
Desk

Type CPV
Panel

Type CPH
Panel

Wind Transmitter
Assembly

Type CPS
Panel

Type CPF
Panel

The airport control desk provides the airport operator in the control tower with (1) convenient centralized control of all lighting circuits at the airport; (2) indicating devices for giving wind direction, wind velocity, barometric pressure, outside air temperature, and time; (3) desk space with drawer for records.

Types CPV and CPH panels include a facsimile map, wind instruments, and control switches for all lighting equipment. Type CPV is arranged for wall mounting and Type CPH, with sloping top, is designed for table or shelf mounting.

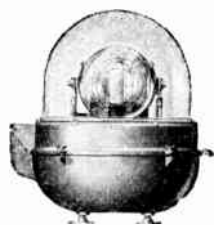
Types CPS and CPF primary control panels are simple and compact and provide a means for controlling the basic lighting circuits. Type CPS is for shelf mounting. Type CPF has a flange for flush mounting.

Type I panels provide control for runway marker lights. Type II panels provide control for runway marker lights, runway floodlights, and approach lights. Type III panels are designed for airports with dual runways.

Description	No.	Each
Desk, with Wind Transmitter Assembly	44109	.....
CPV Panel, with Wind Transmitter Assembly	46813	.....
CPH Panel, with Wind Transmitter Assembly	46814	.....
CPS Panel, Type I	43727	.....
CPS Panel, Type II	43728	.....
CPS Panel, Type III	46798	.....
CPF Panel, Type I	46799	.....
CPF Panel, Type II	46800	.....
CPF Panel, Type III	46801	.....

Catalog numbers do not include incandescent lamps. Prices and information upon request.

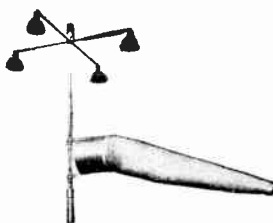
Crouse-Hinds Complete Lighting Sets for Small Airports



Rotating Beacon



Runway Marker Light



Illuminated Wind Cone



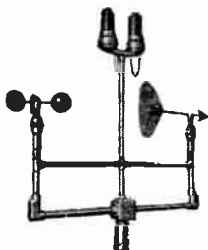
Single Obstruction Light



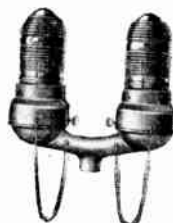
Ceiling Projector



Traffic Signal Gun



Wind Direction and Velocity Instruments



Double Obstruction Light



Control Panel



Clinometer

The Crouse-Hinds line includes everything in airport lighting for the small airport. This equipment is designed to meet the requirements of the Civil Aeronautics Administration. It is an easy matter to prepare a complete material list for any particular airport lighting installation by checking the requirements of the airport against the basic and supplementary material lists.

Basic Material List. Covers the basic lighting materials for an airport, including the rotating beacon, illuminated wind cone, and runway marker lights.

Supplementary Material List. Covers additional airport lighting items such as obstruction lights, ceiling projector, etc., wanted for ultimate installation in most cases.

Runway Lighting Sets. Includes runway and threshold lights, lamps, and enough cable to connect fixtures around edge of runway. One set should be ordered for each runway. Cable for connecting runway loop circuit to regulator supply is not included in these sets, and is specified separately in basic material list. Sets are designed for lighting unpaved strips, using two rows of lights spaced 150 feet apart. However for strips of greater width or different dimensions, lighting sets can be altered as required.

Rotating Beacon. Constructed per CAA Specification L-801 with cast aluminum housing and clear Pyrex glass dome enclosing optical system and rotating mechanism. Projects one clear and one green beam 180 degrees apart which rotates at 6-rpm capacity. Has automatic lamp changer with spare lamp. Beacon is visible at night from any angle above the horizon with either main operating lamp or spare lamp burning. Tell-tale circuit provides indication of failure of operating lamp.

Wind Cone Fixture. Constructed per CAA Specification L-807. Cone is externally lighted with four 150-watt reflectors. Includes 60-watt obstruction light; 18-inch nylon wind sock rotates on heavy-duty enclosed ball bearings around main vertical support. Fixture is installed on hinged pole for easy reclamping and servicing.

Runway Marker Lights. Constructed in accordance with CAA Specification L-802, to meet new airport lighting requirements for elevated fixtures. For use on both large and small airports as runway lights (clear globe), threshold lights (green globe) and taxi lights (blue globe). Globes are available in both asymmetric style, as used on runway threshold lights, and symmetric style as used for taxi lights at some locations.

Complete fixtures include a globe, fitting with medium pre-focus lamp receptacle, cone, column with breakable coupling, wiring in column, disconnecting plug and receptacle and mounting base. The column is standard 1-inch thinwall conduit. Height of fixture can be varied from 16 inches to 30 inches above ground level to meet local snow conditions. Breakable coupling at the bottom of the column is designed

to withstand static loads from high winds or propeller blasts but will break when struck horizontally with an impact of two foot-pounds or more.

Control Panel. Consists of steel cabinet with sloping top. Provides control for the basic airport light circuits, including runway and brightness selection, and 10 circuit breakers for other lights. Flush mounting panel with flange cabinet may be furnished.

Obstruction Lights. Standard AN-L-10 type either single or duplex with red prismatic globes, cast aluminum fitting, and medium screw lamp receptacles for 60 or 100-watt lamps. Fittings have 1-inch bottom conduit hub.

Traffic Signal Gun. Standard type used by CAA and Army Air Corps. Projects a high candlepower beam visible for 10 miles in the daytime and 15 miles at night. Has 8-inch diameter searchlight type parabolic rear reflector. Front handle changes beam to clear, red or green as desired. Signaling is done by means of rear trigger switch.

Ceiling Projector and Clinometer. Projector is stationary vertical type constructed as required by U.S. Weather Bureau and Army Signal Corps Specifications. Projector utilizes 420-watt, 12-volt lamp. A 115-volt transformer is included in cast metal base housing. Clinometer measures angle of light spot on cloud layer for calculation of ceiling height.

Runway Lighting Sets

Quantities of Materials and Kw. Load for Runway Sets

See Items 8A through 8D in Basic Material List for description of materials.

No.	Size of Runway Light Circuit Feet	Item				5	Kw. Load
		BA	BB	BC	BD		
44311	1800x150	16	12	28	0	4290'	1.4
44312	2000x150	18	12	30	0	4730'	1.5
44313	2200x150	20	12	32	0	5170'	1.6
44314	2400x150	22	12	34	0	5610'	1.7
44315	2600x150	24	12	36	2	6050'	1.8
44316	2800x150	26	12	38	2	6490'	1.9
44317	3000x150	28	12	40	2	6930'	2.0
44318	3200x150	30	12	42	2	7370'	2.1
44319	3400x150	32	12	44	2	7810'	2.2
44320	3600x150	34	12	46	2	8250'	2.3
44321	3800x150	36	12	48	2	8690'	2.4
44322	4000x150	38	12	50	4	9130'	2.5
44323	4200x150	40	12	52	4	9570'	2.6
44324	4400x150	42	12	54	4	10010'	2.7
44325	4600x150	44	12	56	4	10450'	2.8
44326	4800x150	46	12	58	4	10890'	2.9
44327	5000x150	48	12	60	4	11330'	3.0

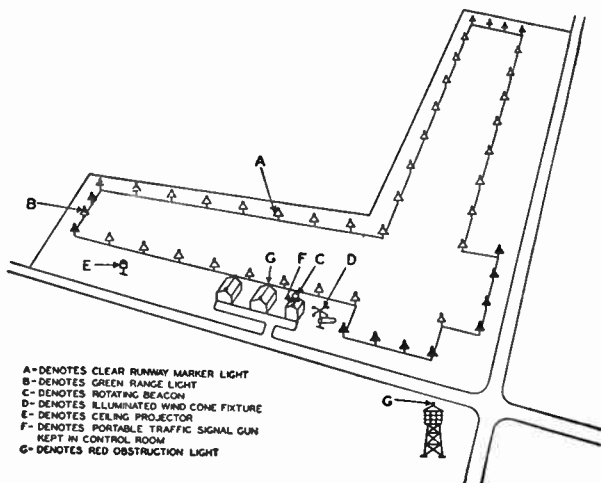
To find cable required for any runway circuit, take actual measured perimeter and add 10 per cent.

Kilowatt loads as listed above include allowance for power losses in cable, with a maximum feeder cable run of approximately 1000 feet from regulator to runway loop.

Crouse-Hinds Complete Lighting Sets for Small Airports

Supplementary Material List

This list includes additional items which will be desired in most cases for a complete lighting installation.



Basic Material List

Includes Beacon, Wind Cone and Runway Lights

Item.	Qty.	Description
1	1	Rotating Beacon, DCB-10 No. 44035.
2	2	Lamps for Item 1, 500-Watt, 115-Volt, T-20 Bulb, Medium Bipost Base, Aviation Service. Lamp No. 500T20/13.
3	1	Illuminated Wind Cone WC-18 No. 44036.
4	1	Hinged Pole for 18-Inch Diameter Wind Cone Fixture; Height, 14 Feet, 8 Inches.
5	4	Lamps for Wind Cone Reflectors, 150-Watt, 115-Volt Medium Screw Base, General Lighting Service. Lamp No. 150.
6	1	Lamp for Wind Cone Obstruction Light, 60 Watt, 115-Volt, A-21 Bulb, Medium Screw Base, Traffic Signal. Lamp No. 60A21/TS.
7	*	Underground Cable for Wind Cone Power Supply, No. 10, 1 Conductor 600 Volt (Same as Item 8D). Take Twice Measured Length of Circuit and Add 10%.
8		Consists of Items 8A through 8D: Materials for Runway Lighting Sets. Add up Total Materials for Each Runway as Listed under Standard Runway Lighting Sets or Take Actual Quantities Required from Specific Lighting Layout of Airport.
8A	*	Runway Marker Light ERL, No. 44376, Clear Globe, with Isolating Transformer.
8B	*	Threshold Marker Light, ERL, No. 44377, Green Globe with Isolating Transformer.
8C	*	Lamps for Items 8A and 8B, 30 Watt, 6.6-Ampere, T-10 Bulb Medium Prefocus Base, Aviation Service. Lamp No. 6.6A/T10/1P.
8D	*	Underground Cable for Runway Circuits, No. 10, 1-Conductor, 600-Volt, Rubber Insulated with Chloroprene Jacket. (Jacket Can be Reduced to 1/4-Inch if Vulcanized to Insulation.)
9	*	Main Feeder Cables from Regulator to Each Runway Loop Circuit, No. 10, 1-Conductor, 600-Volt (Same as Item 8D). Take Twice the Measured Distance and Add 10%.
10	1	Static Regulator, (±2 1/2, 4) Kilowatts, 240-Volt Primary, 6.6-Ampere Secondary, for Remote Operation, per CAA Specification L-812.
11	1	Control Panel, CPS, No. 43727.
12	1	Runway Selector Cabinet, 3-Circuit, per CAA Specification L-816. Not Required where Only One Runway is to be Lighted.

Alternate Equipment—Direct Operation Regulator Replaces Items 10, 11 and 12

10A	1	Static Regulator, (±2 1/2, 4) Kw., 240 Volt Primary, 6.6-Ampere Secondary, for Direct Operation. Includes Runway and Brightness Selector Switches and 4 Extra Breakers, per CAA Specification L-811.
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Item.	Qty.	Description
13	1	PTS No. 44280, Portable Traffic Control Projector Complete with 115-Volt Transformer.
14	1	Lamp for Item 13, 50-Watt, 6-Volt, T-8 Bulb, D.C. Prefocus Base. Lamp No. 50T8/83.
15	1	DCF-16 No. 43900 Ceiling Projector, Model 3.
16	1	Lamp for Item 15, 420-Watt, 12 Volt, G-25 Bulb, Mogul Prefocus Base, Aviation Service. Lamp No. 420G25P.
17	1	Standard for Item 15, 3-Foot Length of 4-Inch Galvanized Pipe.
18	1	Base for Item 17, Flange for 4-Inch Pipe.
19	*	Underground Cable for Item 15, No. 10, 1-Conductor, 600-Volt (Same as Item 8D). Take Twice Measured Length of Circuit and Add 10%. (Approximately 2200 Feet Usually Needed.)
20	1	Clinometer Set No. 41173.
21	1	Set of Wind Velocity and Direction Instruments Including FL101 and FL102 Transmitters and FL107 Panel with FL103 and FL104 Indicators.
22	2	Floodlights for Hangar Apron or Loading Area, MDB-16, No. 43676, 70° Spread, with Hinged Door and Standard Base for Mounting on Flat Surface.
23	2	Lamps for Item 22, 1000-Watt, PS52 Bulb, 115-Volt. Lamp No. 1000.
24	*	Single Multiple Obstruction Light for Buildings and Other Locations near Central Control Plant, VAW, No. 43958.
25	*	Double Multiple Obstruction Light, VAW, No. 43961.
26	*	Lamp for Items 24 and 25, 60-Watt, 115-Volt (flame as Item 6).
27	*	Single Series Obstruction Light, for Connecting to Runway Lighting Circuit, VAW, No. 43623.
28	*	Lamp for Item 27, 1020-Lumen, 6.6-Ampere, Medium Prefocus Base, A-21 Bulb, Aviation Service. Lamp No. 1020/66/A21.
29	*	Isolating Transformer for Item 27, 100-Watt, Series-to-Series, Direct Burial Type, per CAA Specification L-803.
30	*	Underground Cable to Connect Primary of Item 29 into Runway Lighting Circuit, No. 10, 1-Conductor, 600-Volt (Same as Item 8D).
31	*	1/2-Inch Conduit for Obstruction Light Wiring to Fixtures.
32	*	No. 12 R.C., 600-Volt Wire for Obstruction Light Wiring to Fixtures.

*Quantity depends on local conditions. Specify for each installation.

†To determine size of regulator, take load of longest runway, add 100 watts for each 1020-lumen obstruction light lamp (with transformer) in runway circuit. Only one runway at a time is switched on.

Add wiring materials as required for rotating beacon, using 3 No. 10 or No. 12 wires. Extra conductor is for lamp-failure indicating light. Also add conduit (if needed) for bringing wiring in from field to control panel and regulator.

Wherever possible, use same size and type cable as used for runway lighting circuits (Item 8D), since this will simplify procurement of cable.

These material lists include only quantities of lamps as required to use in equipment. Spare lamps should be ordered with initial installation, based on a minimum of 25 per cent of lamps installed and at least one spare lamp of each type. Lamp abbreviation numbers shown are standard ordering abbreviations.

Add wiring materials as required to Items 21, 22, 24 and 25 and miscellaneous small hardware, tape, etc., as required.

G-E Street Lighting Equipment



Before: Business street in Dixon, Illinois, before installation of new G-E luminaires



After: Same business street in Dixon, Illinois, after installation of new G-E Form 79-S luminaires. Note how this luminaire directs the light upon the street, thereby effectively utilizing more of the light from the lamp

When selecting a luminaire, the first consideration is the amount and quality of illumination needed. Appearance is important, too—not only the appearance of the lighted street, but also the daytime appearance of the equipment itself. Other factors of importance are the mechanical and electrical features of construction which relate to continuity of service, operating and maintenance expense, and the initial investment.

The "before and after" photographs of a street-lighting installation shown above show how G-E modern luminaires meet the basic needs for better street lighting. They show conclusively that much more light is properly distributed—without objectionable glare—than is the case with older types of units.

Daytime appearance is affected mainly by the means chosen to support the luminaires, and nature of the wiring.

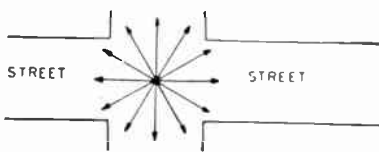
Modern luminaires are of simple functional design and are of relatively small size. Generally speaking, they are designed to be inconspicuous and unobtrusive, rather than to convey any particular artistic or decorative effect; and it is believed that if this idea is carried out in selecting the supporting brackets, standards, and method of wiring, the most satisfactory result will be obtained.

The illumination requirements of many kinds of streets, and users' individual preferences as to methods of installation and operation, result in many variations of G-E modern luminaires. This introduces the problem of selecting the construction best suited to any particular project. In addition to the discussion and examples that follow, we provide General Electric luminaires for all conditions of modern street lighting.

Types of Light Distributions

Symmetrical or Circular Distribution

I. E. S. Type V



Luminaires with this distribution are best-adapted for center suspension over intersections or streets where an all-around spread of light is desired.

Narrow Asymmetrical Distributions

I. E. S. Types II and III



Luminaires with these distributions are recommended for most situations where as much of the light as possible is to fall on the pavement area. Side-of-street mounting is advised.

Wide Asymmetrical Distribution

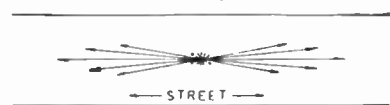
I. E. S. Type IV



Luminaires with this distribution are preferred for very wide streets or intersections where several units will be used or for streets which should have a spread of light considerably beyond the pavement area. Side-of-street mounting is recommended.

2-Way Narrow Asymmetrical Distribution Obtained

I. E. S. Type I



Luminaires with this distributions give best results where they can be placed well out over the paved surface. Side-wise shielding of light is outstandingly good. This, together with a high angle of maximum candlepower which permits long spacings, makes this distribution especially well-suited to residential streets.

For definition of I.E.S. light-distribution types, refer to *Recommended Practice of Street and Highway Lighting*, The Illuminating Engineering Society, 51 Madison Ave., New York 10, N.Y.; or ask our representative.

G-E Street Lighting Equipment
Designation of Pendent Luminaires

The Form numbers which designate G-E pendent luminaires consist of a basic number (such as 79, 72, 45H7, 45L) which signifies the hood or insulator construction, and a suffix letter (such as S, D, R, VR) which signifies the type of reflector equipment. This provides a concise identification for any combination of standard hood or insulator with a standard reflector that may be desired to meet specific requirements for mounting, wiring, insulation values, light control, and appearance.

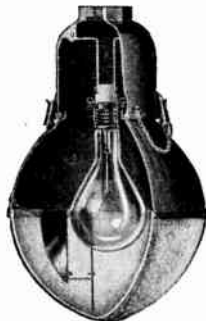
Form 79 hood is a die-cast aluminum hood for series or multiple circuits. It is normally wired internally through the supporting bracket, but may also be provided with bushings for external wiring. These die-cast aluminum hoods are preferred by many users for their attractive appearance and resistance to breakage.



Form 79R



Form 79S or 79P



Form 79D



Form 79AS, AD, or AR

The Form 79R is General Electric's most modern and efficient luminaire for street and highway lighting. The reflector is made of high-efficiency *Alzak processed aluminum with spun-sealed G-E Holophane refractor globe. This luminaire has asymmetric light distribution (IES Type III) and is particularly suited for illuminating light to heavy traffic streets, arteries, and highways where highest efficiency is desired. Reflector and hood may be obtained either with natural aluminum finish or with glossy green Glyptal enamel finish. This luminaire will accommodate lamps up to 10,000 lumens series or 575 watts multiple.

The Form 79S is an attractive luminaire having symmetrical light distribution (IES Type V). It is used for lighting intersections or very wide light traffic streets where luminaires may be center-suspended; or business streets where high-level illumination is desired on sidewalks and building fronts. The reflector is made of *Alzak processed aluminum with spun-sealed, clear rippled or light alabaster globe. This luminaire will accommodate lamps up to 10,000 lumens series or 575 watts multiple.

The Form 79D luminaire is same as the Form 79S with deflectors added. This luminaire having asymmetrical light distribution (IES Type IV) is used mainly for illuminating light to heavy traffic streets and arteries, particularly those over 40 feet wide. This luminaire will accommodate lamps up to 10,000 lumens series or 575 watts multiple.

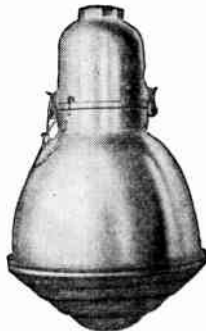
Two types of detachable globe holders are available in place of spun-sealed globes for the Types S, D, and R reflector assemblies. The roller-latch type may be relamped from the ground with a lamp picker, while the clamp-band type is serviced from the pole, in the same manner as the spun-sealed design.

Form 79AS is an attractive large-lamp luminaire having symmetrical light distribution (IES Type V). Recommended for lighting business streets where high-level illumination is desired. This luminaire is large and ornamental, and provides highly efficient light control and glare suppression.

The Form 79AD luminaire is similar to Form 79AS with deflectors added. The Form 79AD has asymmetrical light distribution (IES Type IV) and is particularly suited for lighting medium to heavy traffic arteries, express highways, and business streets.

Form 79AS, AD, and AR will accommodate lamps up to 15,000 lumens series or 820 watts multiple.

Form 79AR is similar to Form 79AS except that it includes a small house-side auxiliary reflector and the new No. 4090 Holophane refractor globe. Its light distribution is I.E.S. Type IV; its application the same as Form 79AD, but utilization efficiencies are much higher.



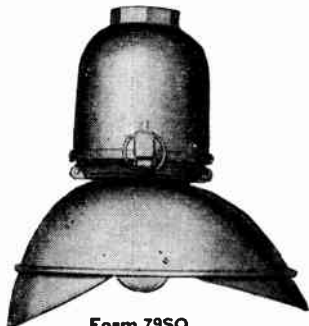
Form 79VR



Form 79CR

Form 79VR is highly efficient, having two-way narrow asymmetrical distribution (IES Type I), practical for illuminating residential and very light traffic streets where economy of 4000 and 6000-lumen lamps at long spacing is desired. Reflector is made of *Alzak processed aluminum with G-E Holophane refractor globe spun-sealed. Accommodates lamps up to 10,000 lumens series, or 575 watts multiple.

The Form 79CR is an enclosed luminaire having asymmetrical light distribution (IES Type III). This luminaire is well-suited for lighting residential and very light traffic streets and alleys where attractive appearance and easy maintenance of lighting efficiency are desired at low cost. The reflector is made of *Alzak processed aluminum with G-E Holophane refractor spun-sealed. Either 1000 or 2500-lumen lamps are recommended, available for 4 $\frac{3}{8}$ -, 5 $\frac{1}{4}$ -, and 5 $\frac{3}{8}$ -inch light-center lengths. A similar unit with 4-way distribution for intersections is available.



Form 79SO

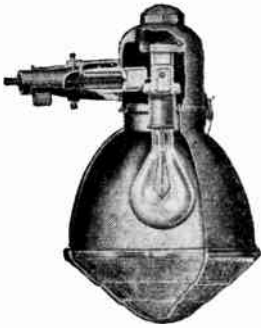
1000 or 2500-lumen lamps are used, available for 4 $\frac{3}{8}$ -, 5 $\frac{1}{4}$ - and 5 $\frac{3}{8}$ -inch light-center lengths.

The Form 79SO is an advanced design open suburban luminaire having asymmetrical light distribution (IES Type II). It is used for lighting residential and very light traffic streets and alleys requiring exceptional durability and low cost. Reflecting shields shade nearby residences. Either or both shields may be omitted for use at intersections. The reflector is made of *Alzak processed aluminum protected against deterioration by a dichromate finish. Either

*Manufactured under Aluminum Company of America patents.

Continued

G-E Street Lighting Equipment
Concluded
 Designation of Pendent Luminaries



Form 101VR



Form 72R, D, or S



Form 45H7R



Form 45H7CR

Form 101 series of luminaires are similar to the Form 79 luminaires except with either plain or heat-insulated slip fitter added. The heat insulated slip fitter allows adjustment of the luminaire for proper alignment. The porcelain heat insulator prevents grounds in series circuit bracket cable that may be caused by high-temperature operation. The porcelain is in the region of critical temperatures. This time and temperature-defying protection against insulation breakdown deserves serious consideration.

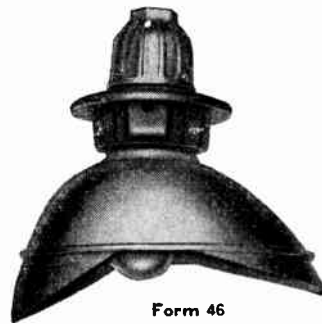
Form 72 luminaire differs from the conventional insulator in that it is supported under compression by a clamp around the middle of the insulator. Porcelain, being weak in tension but very strong in compression, will by this method of support better resist breakage. Short circuits and grounds are avoided on the Form 72 because of the strong two-conductor cable, the large radius of bend, and the snubbing action of the cable in its channel which relieves strain on the binding posts. The cable enters a long porcelain channel and is split well within, so there is no chance of grounding against the metal parts or pipes.

This porcelain hood is used for series circuits up to 11,000 volts and will support nearly all of the G-E modern reflector assemblies.

dial-wave reflector, enclosed suburban-reflector assembly, and a variety of globes and refractors.

Form 45H7 luminaires have wet-process porcelain insulators for series circuits up to 11,000 volts. This insulator is equipped with tie lugs and either external terminals or ports and internal terminals for line wire. It is constructed of standardized parts of highest quality for long life and low maintenance cost. This insulator is supported by a top-tapped galvanized cast iron hood.

Nearly all of the G-E modern reflector assemblies may be used with this insulator.



Form 46

Form 46 is a dry-process porcelain insulator for luminaires commonly used on residential and light traffic streets. It is used on series circuits, preferably under 2500 volts. The Form 46 may be wired either internally or externally. It is equipped with integral porcelain tie lugs which remove the strain from the terminals when wired externally. Two holes through the top of the insulator are used when

wired internally. The insulator is shipped with cork plugs in these openings to prevent condensation from entering when wired externally. Either wing-screw clips or hinged-clamp adapter may be used with the open-type reflectors.

The illustration shows the Form 46 insulator with the open suburban reflector. It may also be used with the ra-



Form 45L

Form 45L is a low-priced, galvanized cast iron hood used for multiple or medium-voltage series circuits, preferably under 2500 volts. This hood can be furnished either internally wired or externally wired. On all multiple luminaires, the socket is mounted on an adjustable support, so that the light center can easily be set to give the best distribution for various sizes of lamps. The Form 45L is best suited for series circuits using Type IL transformers. For maximum safety on circuits over 2500 volts, an insulator type of luminaire, such as the Form 72 or Form 45H7, is recommended.

The Form 45L is most often used with the open suburban and radial-wave-type reflectors, although it may be obtained with cast reflectors and a variety of globes and refractors.

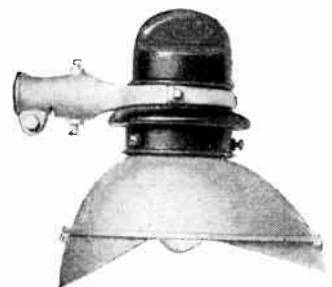
The 45L with a radial-wave reflector, as illustrated, makes a practical minimum price luminaire for general-purpose lighting.



Form 101AR

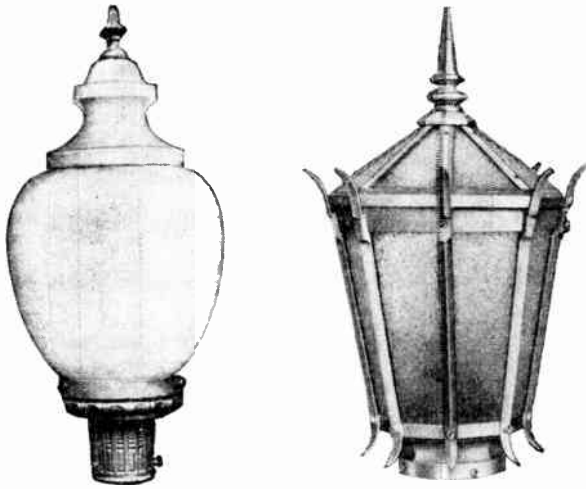


Form 101R



Form 7250

G-E Ornamental Luminaires



Ornamental luminaires are used where their particular styling appears more suitable for the environment in which they are to be installed, or when a liberal proportion of upward light is desired to illuminate building fronts along business streets or to illuminate trees, as in parks. The illustrations show two distinctive designs. Many other designs are available to harmonize with different types of architecture.

The G-E ornamental luminaire consists of a cast iron casing with series or multiple socket, rippled glass globe, and a canopy and canopy holder. It may also be furnished with a refractor, ornamental ribs and bands, or in the lantern-type unit.

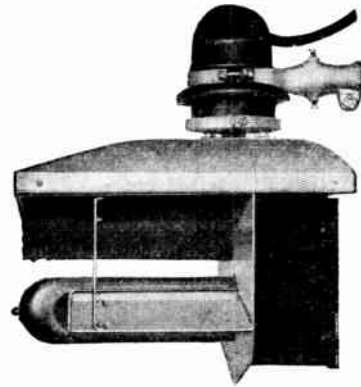
Metal parts of lantern units are made of cast aluminum with natural finish. The casings are designed to harmonize with architectural treatment of the lighting standards. Each unit includes a series-circuit porcelain receptacle and socket or a multiple socket.

Rippled glassware, for these luminaires, has high mechanical strength, efficiency of light transmission, and immunity from the effect of abrupt changes in temperature. It gives an incandescent-light source the appearance of sparkling light. The small irregular vertical ridges give excellent diffusion.



G-E Sodium Luminaires

Type M-2



Straight Series Luminaire with Form 72 Insulator for Externally Wired Bracket

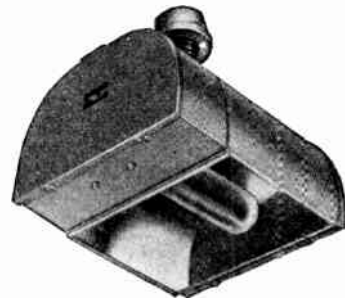
This luminaire is used for lighting highways, urban and rural traffic arteries, bridges, intersections, traffic circles, grade crossings, underpasses, and industrial yards. It operates from either standard a.c. multiple or constant-current series circuit.

The reflectors are polished *Alzak finished aluminum with a dichromate and plastic finish and methacrylate lacquer seal to give them long life and maintain initial high efficiency.

Auxiliary equipment for operating the luminaire is self-contained and includes a radio-interference suppressor. Lamp and vacuum flask are held securely, but can be removed easily. Flask breakage is negligible because the lamp can be replaced without moving the flask.

Uses 10,000-lumen sodium lamp. Type NA-9, and No. 71-G vacuum flask.

Type M-3



This luminaire is used for lighting tunnels. It may be suspended from the ceiling over the pavement. In new tunnels, it is desirable to recess the luminaires with the glass door approximately flush with the ceiling surface. For one-way-traffic tunnels, a swivel mounting can be furnished with the luminaire which permits further shielding of the light source.

A 10,000-lumen Type NA-9 sodium lamp is used in this luminaire. This sodium lamp results in excellent overall economy on continuous burning tunnel-illumination circuits. Because of the resulting saving in wattage consumption, cable and circuit expense, the use of sodium lamps on 6.6-ampere series circuit should be carefully considered for longer traffic tunnels.

The Type M-3 sodium luminaire is totally enclosed. The reflector is constructed of *Alzak processed aluminum of high reflectivity. The required control and protective equipment is located in a housing in the back of the luminaire which is easily accessible by opening a hinged door.

*Manufactured under Aluminum Company of America patents.

G-E Form 79D Mercury Luminaires



Form 79D



Ballast

Type F-H1
Mercury Lamp,
400 Watts,
16,000 Lumens

More light is obtained on the street for each dollar spent when mercury lamps are used in modern G-E pendent luminaires because:

1. Mercury lamps produce more lumens per watt of power consumed, than do filament lamps.
2. Maintenance costs will be lower since longer-life lamps makes it necessary to visit the luminaire for relamping only once every 12 to 15 months.

The characteristic bluish-white color of mercury lighting attracts the attention of the public, thereby giving those responsible credit for a modern and progressively lighted street.

Mercury lamps for street lighting find their best application on main business streets where high levels of illumination are desired. Mercury lighting should be considered only where 0.6-foot-candle average, or higher, is desired. This will include, in addition to the above, primary traffic arteries.

Mercury lighting is easily included in standardization programs, as the addition of a mercury ballast will convert a standard multiple fixture for mogul-based 7-inch light-center filament lamp into a fixture for operating the 400-watt, 16,000-lumen F-H1 mercury lamp.

Best appearance is obtained with mercury lighting when light alabaster glassware is used. Refractor-type glassware, for mercury luminaires, should be of comparable size to those specified for filament lamps of the same lumen output.

Operating experience indicates that available mercury lamps have longer life and more stable operation when burned in the vertical position.

Mercury lamps may be operated from either series or multiple circuit; a suitable ballast is required in both types of operation.

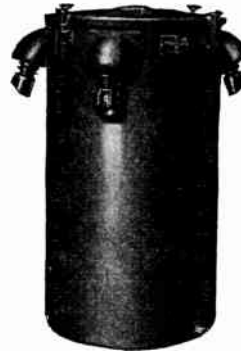
The rated life of the G-E F-H1 mercury lamp is 6000 hours—based on specified test conditions with the lamp turned off and restarted no oftener than every 10 hours.

The new type ILH high-power-factor multiple ballast is small, lightweight, and efficient. This ballast has a power factor of 0.91. Starting current is less than operating current, and the dangers of high inrush current are eliminated. This ballast will operate over a wide range of voltages without taps.

G-E Type RO Pole-Type Constant-Current Transformers

For 6.6-Ampere Series Lighting Loads

2400 Volts (With 2150-Volt Tap)—60 Cycles



The Type RO is an oil-cooled constant-current transformer which operates automatically. It can be mounted on poles in remote districts or where subdivided downtown lighting circuits are desired. It can be controlled by Type E-1 controller and time switch or photo electric relay.

Built in sizes ranging from 1 to 30 kw., to operate at any commercial primary voltage and frequency or secondary current, but the standard transformer is for 60 cycles, 2400 volts on the primary and 6.6 amperes on the secondary.

The 2400-volt transformer will operate satisfactorily on from 2300 to 2500 volts, and a tap is provided on the primary for operation at 2150 volts without reduction of output.

These features are combined with the same current regulation through as wide a range as offered by the best station-type constant-current transformer. This feature alone practically guarantees the normal life of the lamps operating on a circuit controlled by such a transformer. The efficiency is the same as for the station-type transformer and the primary power factor is 75 per cent at maximum load.

The high internal reactance of the transformer serves to protect the lamps at starting and acts instantaneously to check surges on the line which would otherwise tend to shorten the life of the lamps.

The moving secondary coil with its high repulsion and the compound balancing lever, gives regulation within ± 1 per cent from full load to dead short circuit. This feature not only protects the lamps from changes in current, because of changes in secondary load, but also protects the lamps from fluctuations in primary voltage.

Ball bearings are used throughout for immediate response to small changes of load.

Lightning arresters are recommended on both primary and secondary overhead lines for protection.

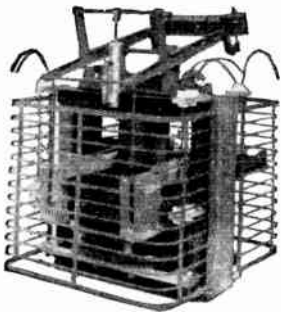
The Type RO transformer is also available in subway type for mounting in subways or manholes. This transformer is almost identical with the pole-type transformer, except that it is enclosed in a specially designed sheet steel waterproof tank. Since poles carrying circuits are being removed from many of the city streets, this transformer may be mounted underground and thereby connected directly to the underground feeder circuits and lighting circuits.

Subway transformers are equipped with oil indicating plugs installed in the tanks to indicate the oil level without requiring the removal of the cover.

If the primary circuit leads into the subway from overhead, pole-type cutouts can be used. If, however, the primary circuit is entirely underground, the D & W subway fuse cutouts must be used.

Similar transformers available with built-in power-factor correction—Type ROC. Information on request.

G-E Type RF Automatic Station Type Constant-Current Transformers For Operating A.C. 6.6-Ampere Series Lighting Loads 24,000 Volts (No Taps)—60 Cycles



With Band Iron Casing

Designed for use in an unattended substation. Can be used for any indoor installation.

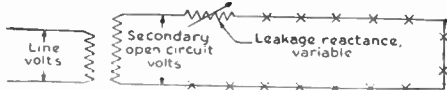
Built in practically any capacity and for any commercial voltage, frequency, and secondary current, but it is recommended that, on account of the high secondary voltage, capacities not exceeding 20 kw. be operated with single-circuit secondary. Sizes from 40 kw. are furnished with multicircuit secondary, and can be operated either single-circuit or multicircuit.

Can be started up automatically with coils together and with only one lamp on circuit, regardless of capacity of transformer. Current surge not sufficient to destroy lamp.

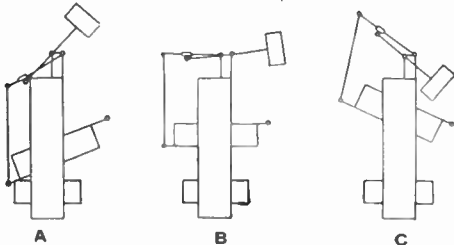
Transformers are not provided with any taps, either for voltage or for partial-load operation. Because constant voltage is maintained in the stations, no primary voltage tap is necessary.

Equipped with protective low-loss band iron casing. Balancing mechanism supported on ball bearings.

How the Constant-Current Transformer Regulates



$$\text{Load current} = \frac{\text{Secondary open circuit volts}}{\text{Total impedance}}$$



The moving-coil, constant-current transformer is a variable-impedance device for regulating output current to a constant value through a large range of load impedance and with a limited variation in primary supply voltage.

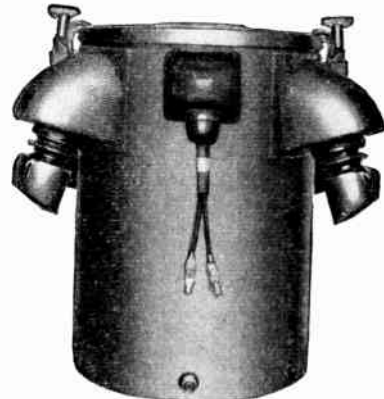
Fundamentally, its equivalent circuit may be considered as a conventional, low-reactance, distribution transformer with an external, self-adjusting variable series reactance.

This reactance is magnet-leakage reactance and always adjusts itself to a value, which, when added to the load impedance, permits constant current to flow. The amount of reactance is determined by the moving-coil position, which in turn is maintained by the force of repulsion between coils.

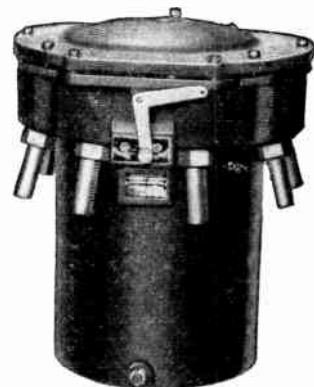
The desired output current sets up a definite corresponding force of repulsion which floats the moving coil in the position which produces this current. For any given set of conditions, a state of mechanical equilibrium is attained whereby the force of repulsion, aided by the counterbalancing weights, exactly balances the weight of the moving coil.

Where the transformer is fully loaded and minimum series reactance is needed, the moving coil floats near the bottom of the core window (Fig. A). As load is removed and more reactance is required to regulate current, the coil floats higher. Fig. C shows it in the position corresponding to no-load (short-circuited) operation. Changes of load tend to unbalance the equilibrium of forces by increasing or decreasing the force of repulsion. In a freely moving, well balanced mechanism, these are immediately counteracted by the movement of the floating coil to a new position which restores the mechanical-electrical balance.

G-E Type E-1 Street Lighting Controllers



Type E-1-F, for Pole Mounting



Type E-1-C, for Subway Use

Designed to control Type RO pole or subway transformers by means of an adjacent series circuit, a multiple pilot-wire control circuit, or a local time switch or photoelectric relay. With either series operating coil rated from 6.6 to 20 amperes at any frequency, or with shunt operating coil at 120, 240 volts, 50, 60, or 25 cycles; in two types — normally open or normally closed. Also furnished for subway mounting when necessary. Switch is for use on any voltage up to and including 7620 volts, 15 amperes, and the most popular voltages with current ratings are as follows: At 7500 volts, switch will break 15 amperes; 6600 volts, 25 amperes; 4500 volts, 35 amperes; or 2300 volts, 50 amperes. Carrying capacity 60 amperes at any voltage above 500. Operates at any frequency.

The wattage of operation coil is such that enough heat is generated to overcome any congealing effect, and switch may be used in any weather condition which will be encountered in the northern hemisphere without sluggish operation. The high-potential test on this controller is 25,000 volts from power to control from power to ground, or from control to ground.

Pole-type switch is mounted in steel tank with sheet steel cover which is not connected to switch mechanism. Wet-process bushings have clamp-type terminals.

Subway-design switch is same as pole-type in respect to electrical characteristics, but has cast-iron tank and wiping sleeves for cables.

G-E Type SL Series Transformers**Subway and Aerial Types**

For 60-Cycle, 6.6-Ampere Constant-Current Circuits,
6.6-Ampere Secondaries



Pole Type, Oil-Filled,
4 and 5 Kva.



Subway Type, Compound-Filled, 2 to 4 Kva

An insulating transformer, the primary winding of which is energized from a series circuit, and the secondary of which is used for supplying current to a small number of lamps connected in series and located where the high potential of the main series circuit would be objectionable—for 6.6 amperes primary and secondary.

At certain locations it is sometimes desirable to have a lower potential than prevails on large capacity series-lighting circuits, and yet, since they function similarly, it is desirable to control these branch circuits simultaneously with the main circuit.

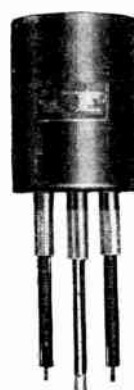
The SL transformer affords an ideal method for this control, as the low-voltage branch circuit is turned on and off with the closing or opening of the main constant-current-transformer circuit. Fixtures with series sockets and film cutouts must be used on these transformers.

Both the aerial and subway types are available in output sizes from 0.25 to 5 kva. They are mounted in casings made of drawn copper-bearing steel. The aerial-type transformers of 0.25 to 3-kva. sizes are compound-filled, and the 4 and 5 kva. sizes are oil-filled. The subway-type transformers of 0.25 to 4-kva. sizes are compound-filled, and the 5 kva. sizes is oil-filled. For both the aerial and subway types, the secondary current regulation is within ± 1 per cent for the 0.25 and 0.5-kva. sizes for loads between 80 and 100 per cent, and for the 1 to 5-kva. sizes for loads between 80 and 108 per cent.

All transformers are tested with 22,000 volts applied to the primary with the secondary, core, and casing grounded. Also, 4000 volts is applied to the secondary with the primary, core, and casing grounded.

G-E Type IL Series Transformers**Pole-Base and Aerial Types**

For Use on 60-Cycle, 6.6-Ampere Constant-Current Circuits



Pole-Base
Type



Aerial Type

Series-Series, Single-Lamp

For operating one 6.6, 15, or 20-ampere series lamp from 6.6-ampere constant-current series circuit.

Allow the use of high efficiency series lamps where high potential is impracticable and unsafe. No film cutout is required; each lamp is independent of the others in circuit. In case of an accident to one or more, remainder of lamps on circuit burn without interruption.

For use with pendent units, transformers can be mounted on the crossarms of poles.

When lamp wattage varies between 8 per cent above and 20 per cent below normal, secondary current will not vary more than 1 per cent with normal primary current and frequency.

Available in either pole-base or aerial type.

Series-Multiple, Single-Lamp

For operating one 115-volt, 40 to 1000-watt multiple lamp from 6.6-ampere constant-current series circuit.

Allow the use of series circuits to feed floodlights, small signs, safety islands, illuminating roads, and warning signs. This permits simple control of multiple lamps, so that they may be turned on with street lights. Series socket or other protective device using a film cutout must be used with all series-multiple, single-lamp transformers. Available in either pole-base or aerial type.

Series-Multiple, Multilamp

For operating groups of 115-volt multiple lamps from a series circuit. Available in three sizes, 350, 500, and 750 watts full-rated capacity. Used principally for lighting airport wind tees and obstruction lights, power being supplied from series boundary or runway-lighting circuits. Close voltage regulation from full load to open circuit. No open-circuit protection device is necessary. Available in either pole-base or aerial type.

Special Features

All Type II transformers are given a one-minute insulation test of 22,000 volts between primary and all parts. Also a 1500-volt insulation test between secondary and all parts.

The current regulation is within 1 per cent with load variations from 80 to 108 per cent of normal rating.

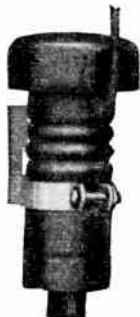
Internal construction of pole-base type is the same as aerial type. Leads are brought out through wiping sleeves welded into the cover. Soft-rubber bushings are provided to effectively seal leads passing through the casing into the wiping sleeves. Wiping sleeves are of tinned steel to aid in making a wiped joint.

The core is made of carefully annealed, high-permeability, nonaging, cold-rolled silicon steel. High and low-voltage windings are wound and insulated separately, then impregnated under vacuum before assembling to the core. Insulation is for 10,500-volt circuit. Entire casing is filled with high quality insulating compound. Case is constructed of one-piece drawn copper-bearing steel.

G-E Pellet Lightning Arresters

For Types RO and ROC Constant-Current Transformers

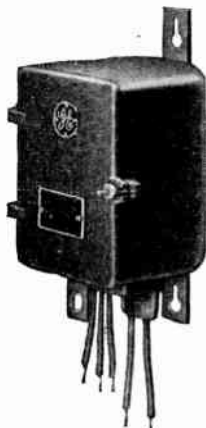
Pole and Subway Type—Outdoor Service Only



Recommended for protection of both the primary and secondary sides of constant-current transformers.

Pellet arresters are single-pole, for outdoor use on both the constant-potential side and the load side of constant-current transformers. Each design has a minimum and maximum voltage rating and, under no circumstances, should it be applied to a circuit the voltage of which can exceed the arrester's maximum rating. Where selection of arresters for the protection of the load side of the transformer is to be made, the arresters should never be applied to a transformer of a larger kilowatt rating than specified for the arrester.

G-E Protectors



Pole Type for Multiple-Control Circuit

Open circuits in series-street-lighting systems are unavoidable, especially on aerial circuits, and it is desirable from the standpoint of safety first, that when an open circuit does occur, the primary of the main transformer be de-energized. This protector has been developed to operate in conjunction with a Type E-1 controller, and its function is to open the controller as soon as an open circuit takes place.

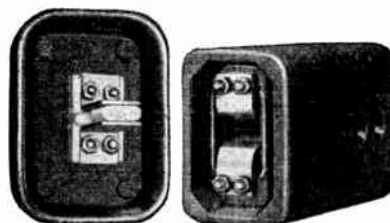
The mechanism of the protector consists of two small transformers, a thermal switch, relay, set of disconnecting contacts, and a timing resistor. One of the two small transformers is energized by the control circuit and the other by the load circuit. Under normal operating conditions, the disconnecting contacts are closed on the multiple-control type, and on the series-control type they are open.

When an open circuit occurs in the load circuit, the relay becomes de-energized, closes, and completes a circuit so that the thermal switch will operate and open the disconnecting contacts on the multiple type (close on the series type) to de-energize the controller operating coil. This allows the controller contacts to open and de-energize the primary of the constant-current transformer.

After the open circuit in the load circuit has been repaired, the protector can be reset (reconnecting the transformer to the main system) by means of a reset lever conveniently located in the bottom of the casing. This protector operates entirely in air and is housed in an attractive drawn steel case. It is isothermic in function.

G-E Form F-100-B Pothead Cutouts

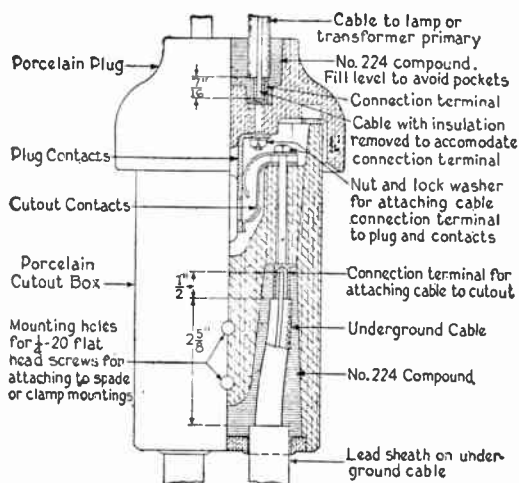
For Ornamental Street Lighting Units



Pothead Cutout Only



Cutout with Spade Bracket and Cable Clamp. For Mounting Inside Base of Standard



Sectional View of Form F-100-B Cutout

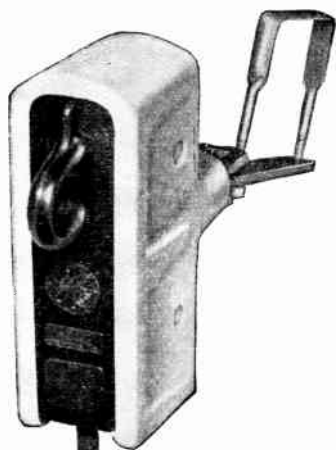
For use with straight series street-lighting circuits for mounting in the base of ornamental lighting standards.

Consists of two sections, the box and plug, both made of wet-process porcelain. Plug is equipped with flat contact strips, insulated from each other. Provision is made at top part of plug so that insulating compound can be poured in around the leads. Box contains four flat phosphor-bronze springs. Contacts are assembled within an air-expulsion chamber.

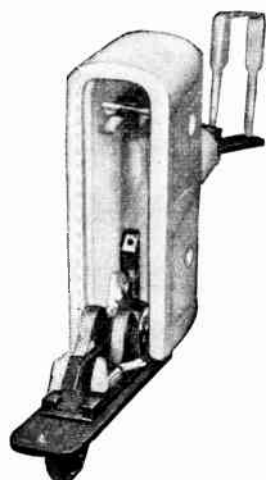
At the top of box, a hole is provided through which insulating compound can be poured. Two holes are provided in bottom of contact of cutout for parkway cable.

G-E Disconnecting Dropout Cutouts

For Type SL Transformers and Loop Sectionalizing Application



Dropout Cutout



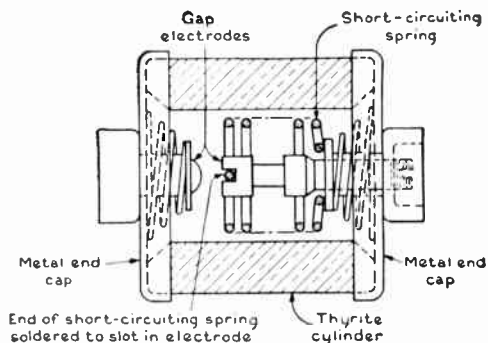
Cutout with Door Open

A disconnecting switch for Type SL transformers and loops of series-lighting circuits, with automatic open-circuit trip protected from accidental operation by a surge-voltage by-pass. It keeps the main circuit closed, prevents unnecessary breakdown of luminaire film cutouts by voltage surges, removes voltage from broken wires, protects transformers and cables from sustained overvoltage of open-circuit operation, provides convenient and positive means for disconnecting the transformer or loop for servicing. For aerial mounting on crossarm.

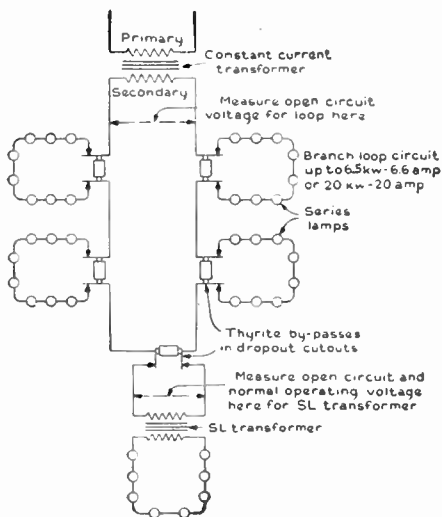
Used for series loops having a drop of not more than 1000 volts, all currents to and including 20 amperes. Open-circuit voltage must not exceed 10,000 volts.

Used for Type SL transformers up to 10-kw. rating in 6.6, 7.5, and 20-ampere primary rating.

G-E Thyrite By-Pass



Cross Section View of Thyrite By-Pass



Typical Application of Dropout Cutout on Type SL Transformer or Loop Circuits

The Thyrite by-pass, the detector and trip element of the dropout cutout, is the means for automatically releasing the door in event of open circuit—thus allowing the door to be thrown open, disconnecting as well as short-circuiting the protected loop or transformer.

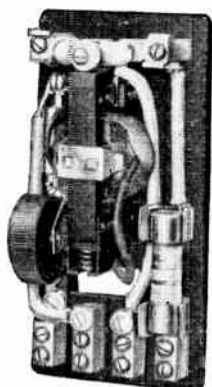
The Thyrite by-pass is shunted across the load, inside the cutout. It is able to detect the difference between surge overvoltage and open-circuit voltage; and will pass the former through it harmlessly, but close upon the latter.

The impedance of a properly selected Thyrite by-pass to normal voltage is sufficiently high that leakage current and heating are negligible. A surge voltage encounters (because of the inherent properties of Thyrite) relatively low impedance, and will therefore pass readily through the Thyrite material or spark across the internal gap; but the properties of the Thyrite will prevent a power follow. A sustained overvoltage resulting from open-circuit operation, however, will produce sufficient current flow (either through the Thyrite material or across the arc gap, or both) to develop the heat necessary to melt the solder holding the short-circuiting spring. The release of the short-circuiting spring forces out the metal knobs projecting from the end caps, allowing the Thyrite by-pass to slide down into the slots in which it is normally held, thus causing the slider to be released and allowing the door to be thrown open. Only a fraction of a second is required for this operation.

G-E CR7843-A 30-Ampere Remote Control Multiple Switches

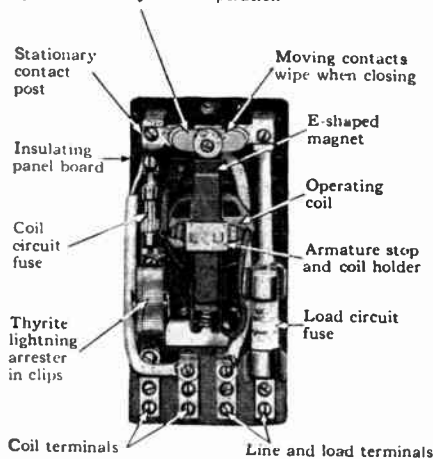


Multiple Switch



Internal Mechanism Normally Open Type

Silver-alloy heavy-duty contacts designed for full 30-amp. lamp load, reversible for normally-open or normally-closed operation



All terminals, clips, etc. of brass, cadmium plated

This remote control switch is a single pole, single throw magnetic switch for operating one or more lamps on one low-voltage multiple circuit. Its application is for remote control by pilot wire or cascade connection, for mounting on a pole or in the base of an ornamental standard. The capacity of this multiple switch is 30 amperes normal lamp current at 125 volts, any frequency. Normally open or normally closed with an inrush capacity up to 15 times normal current. The operating coil consumes about 2 watts at 125 volts a.c., 60 cycles.

Switch is supplied with or without the following optional equipment: 30-ampere load circuit fuse; 2-ampere coil circuit fuse; carbon-block lightning arrester in coil circuit; Thyrite arrester in coil circuit, alternative with carbon-block arrester for surge voltage protection.

Switch is also available with a 6.6-ampere operating coil for operation from series lighting circuits with Type IL transformer.

Another variation of this switch is furnished with 10-ampere contacts at a slight reduction in price.

G-E Film Cutouts

Enclosed Copper-Oxide Film Cutouts

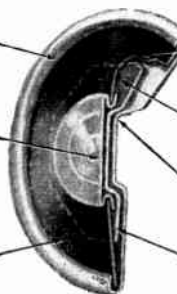


Copper-Oxide Disc Cutouts Are Supplied in This Handy Plastic Screw-Top Container, Clearly Labeled

Rolled metal edge makes cutout strong and easy to install.

Smooth flat surfaces insure good electrical contact.

Stiff fiber insulation, securely clamped makes cutout mechanically sturdy; it will not fall apart.



Fiber insulation excludes moisture; colored for identification of rating.

Oxidized copper disc gives excellent uniformity of dielectric value.

Indentation centers copper insert.

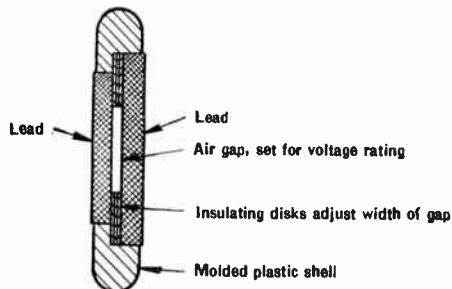
"All-round" contact makes cutout pressure-proof.

Enlarged Cutaway View of Enclosed Copper-Oxide Film Cutout

Used with individual lamps in series circuits to provide circuit continuity when the lamp fails.

G-E copper-oxide film cutouts are outstanding for their dependable operation and sturdy construction. The dielectric value of copper oxide is carefully controlled for uniformity, and the film is not affected by heat or pressure. The oxidized disc is securely enclosed in a moistureproof aluminum and fiber casing which resists damage and will not separate. Carefully controlled production of this standardized cutout in large quantities makes its high quality, reliable protection available at low cost.

Air-Cap (Lead-Disc) Cutouts

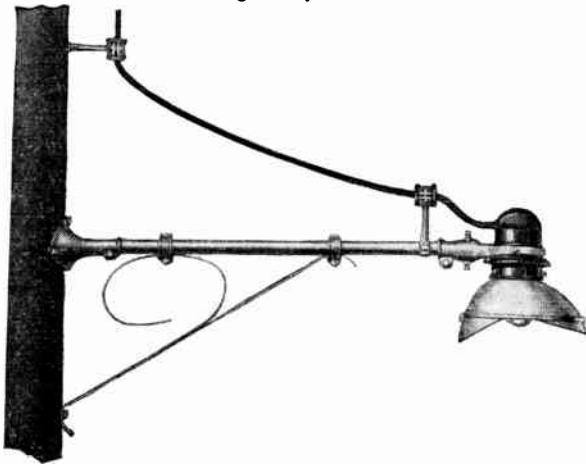


Air-gap cutouts are high-voltage types for use with Type SL series transformers for the protection of the transformer itself. Two lead inserts are separated by an air gap (variable according to voltage rating). Open-circuit voltage breaks down the dielectric of the gap, and the resulting current flow softens the lead sufficiently to cause the two inserts to fuse together through the gap.

Cutouts of this type should not be used for lamp protection; a branch series circuit supplied by a Type SL transformer should have its lamps protected by copper-oxide disc cutouts of proper rating, so that the transformer protective cutout will operate only if the circuit itself goes open.

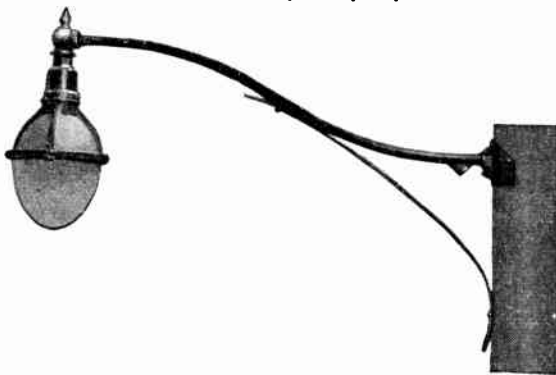
G-E Pipe Brackets for Street Lighting

Straight Pipe Brackets



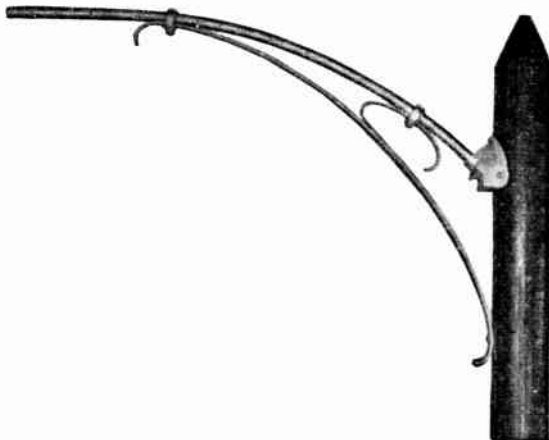
Popular straight pipe bracket for hanging all types of luminaires for street lighting. Strong, durable, and easy to install; offered in a wide variety of types and lengths to meet all kinds of installation problems.

Union Metal Curved Upsweep Pipe Brackets



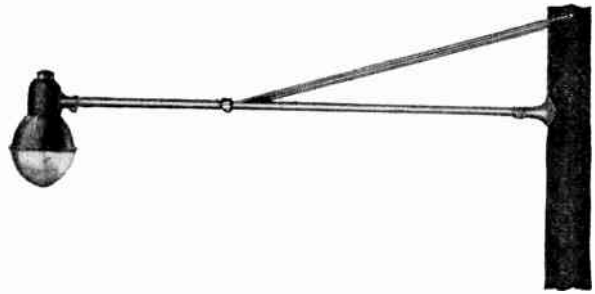
A popular, ornamental-type upsweep pipe bracket for mounting pendent-type luminaires. Strong, durable, easy to install, offering higher mounting height and a variety of lengths to fit all installation problems. Includes plumbizer (leveling adjustment) in head.

Curved Upsweep Pipe Brackets



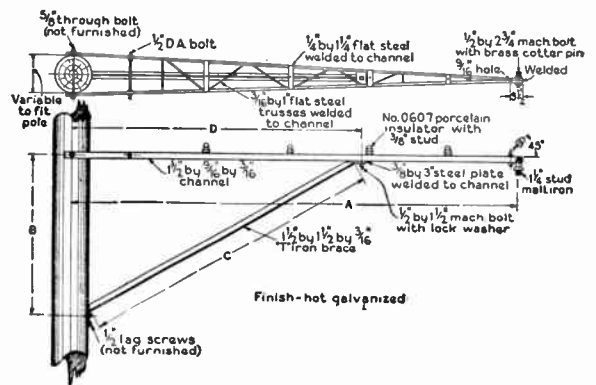
A new style upsweep street lighting bracket for wooden poles, featuring the attractive single-curve arm. Exceptionally easy to wire, with long radius bending of cable to prevent insulation cracking. Takes slip-fitter luminaire.

Straight Overbraced Mast Arms



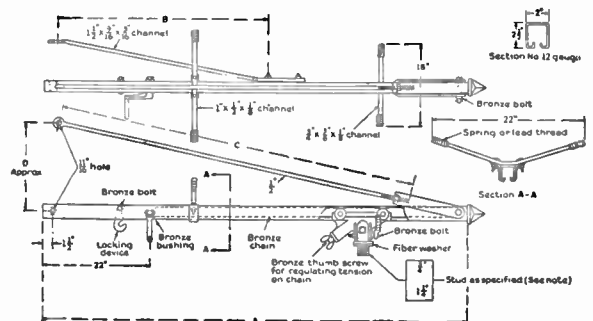
For supporting lightweight luminaires, such as Form 101, where conditions require a longer extension than that provided with ordinary brackets. For wood-pole mounting, with braces attached to both sides of pole, to provide strength and rigidity. Neat appearing, easy to install, and requires very little pole space. Also available with under braces and or right-angle bend.

Channel Mast Arms, Bottom-Braced



For supporting all types of street lighting luminaires, where conditions require longer extension and greater strength than the pipe brackets. Twin-channel arm construction offers greater resistance to side sway. Underbraced to provide maximum mounting height. Choice of end fittings for slip-fitter or top-tapped luminaires. Available in a variety of lengths, either overbraced or underbraced.

Channel Mast Arms, Chain-Operated Trolley Type



Preferred type retractable trolley mast arm, crank-operated. For supporting all types of street lighting luminaires where conditions require luminaire be serviced from pole. Side brace offers greater resistance to sway. Uses top-tapped luminaires.

G-E Hangers and Wiring Accessories for Street Lighting

Spreader Arm



To clamp to bracket (3500 volts or less). Sizes for 2, 1 1/4, or 1/2-inch pipe.

Spreader Arm



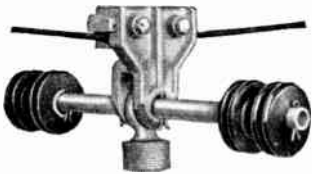
To mount on bracket end (3500 volts or less). For 1 1/4-inch top tap, with 1 1/4-inch bottom pipe thread.

Eye Suspension Hanger

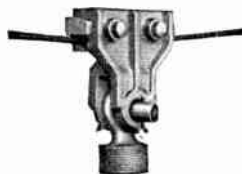


With 1 1/4-inch stud and spreader arm (3500 volts or less).

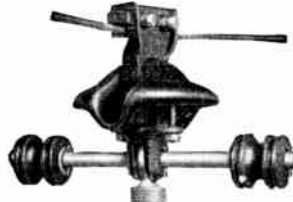
Span-Wire Clamp Suspension Hangers



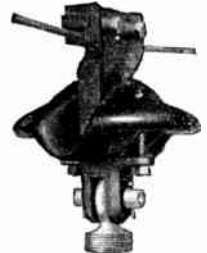
With 1 1/4-inch stud and spreader arm (3500 volts or less).



With 1 1/4-inch stud, without spreader arm.



With 1 1/4-inch stud and spreader arm (for all series circuits).



With 1 1/4-inch stud, without spreader arm (for all series circuits).

Miscellaneous Suspension Devices



Plumbizer



Eye-Suspension Stud



Cable Inlet

Plumbizer. Sizes, 1 1/4-inch upper tap, 1 1/4-inch lower nipple; 2-inch upper tap, 1 1/4-inch lower nipple; 2-inch upper tap, 2-inch lower nipple. Green paint finish.

Eye-Suspension Stud. Sizes, with 1 1/4-inch thread and with 3/4-inch thread.

Cable Inlet. 1 3/4-inch top and bottom thread.

Insulated-Wire Holders 3/4-Inch Opening



For Mounting 1 1/4-Inch Pipe



For Mounting to Wood Pole

G-E Sockets and Receptacles for Street Lighting Multiple Sockets



Mogul Screw Base, Skeleton Type



Medium Bi-Post Base, Maximum Rating of 10 Amperes



Medium Screw Base, Porcelain Type



Medium Screw Base, with Cast Binding Posts

Series Sockets

Series Receptacles



Mogul Screw Base, Straight Shell, Porcelain or Black Textolite



Mogul Screw Base, Flared Shell, Porcelain or Black Textolite



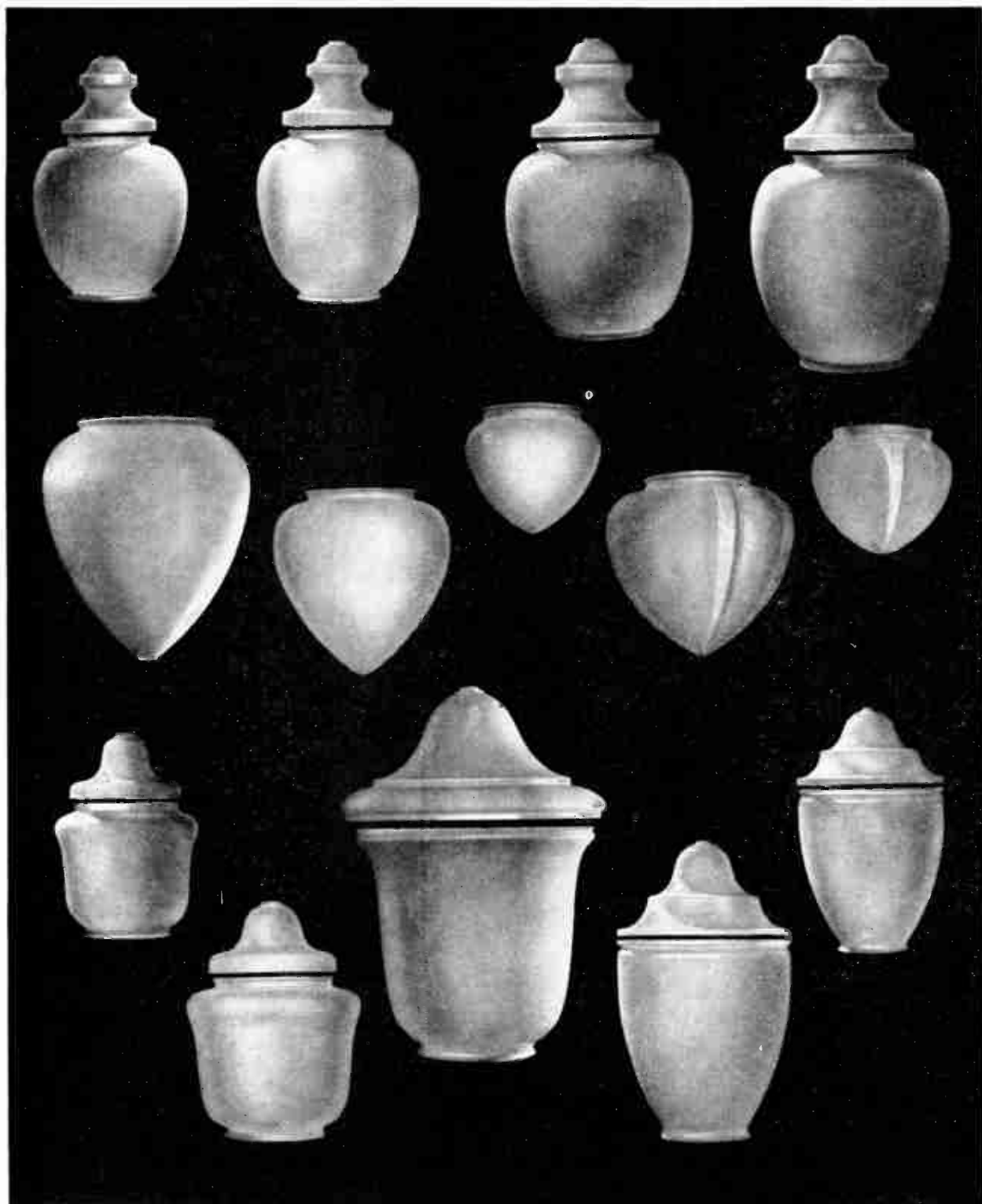
Dry Process Porcelain, Vertical Binding Posts for Post-top Luminaire



Wet Process Porcelain for Form 79 and 101 Hoods

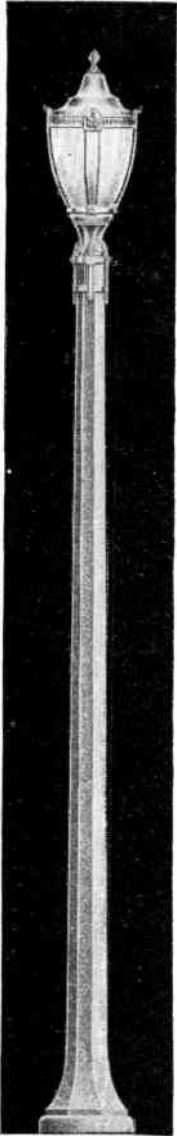
G-E Street Lighting Glassware

We can supply renewal glassware for all types of G-E luminaires. Some of the many shapes available are illustrated below.

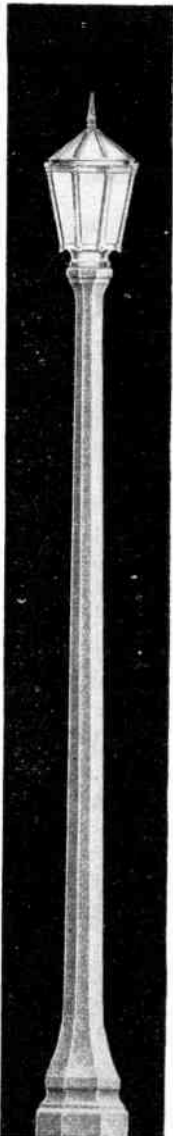


American Concrete Lighting Standards

Union Metal Steel Lighting Standards Columbian Design

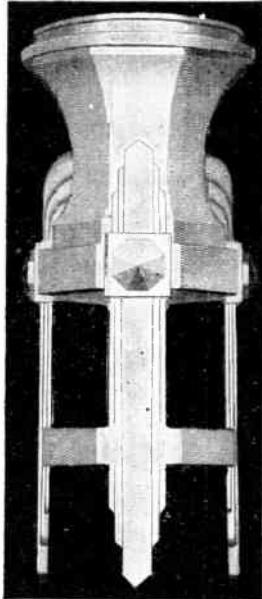


Colonial Design
with Type S
Fitter and
Folium Casing



Urban Design
with Type P
Fitter

G-E Folium
Casing



The folium casing is used on poles with the Type S fitter. Cast aluminum is standard but bronze can also be furnished. Two other types of fitters are available as shown below. The Type P is preferred.



Pole Adapter



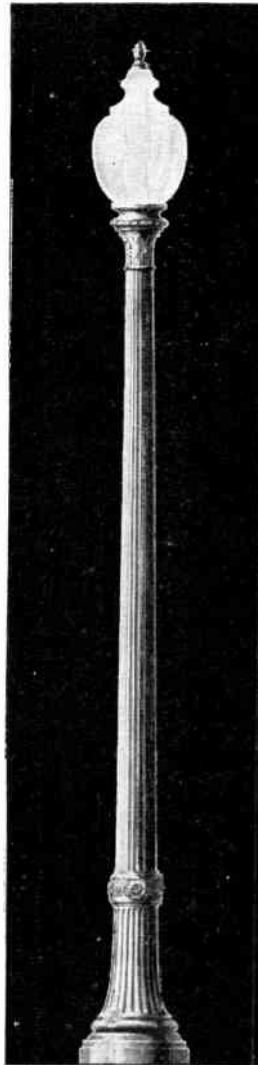
Type P
Fitter



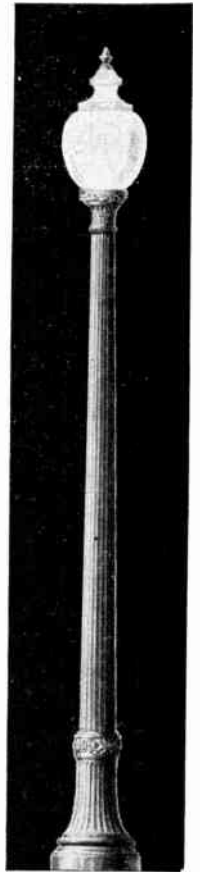
Type I
Fitter



Type S
Fitter

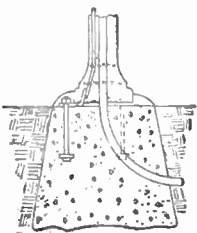


Design No. 807

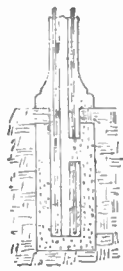


Design No. 1571

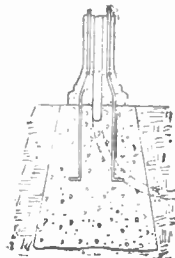
Base Construction



Bolting Spider
Base



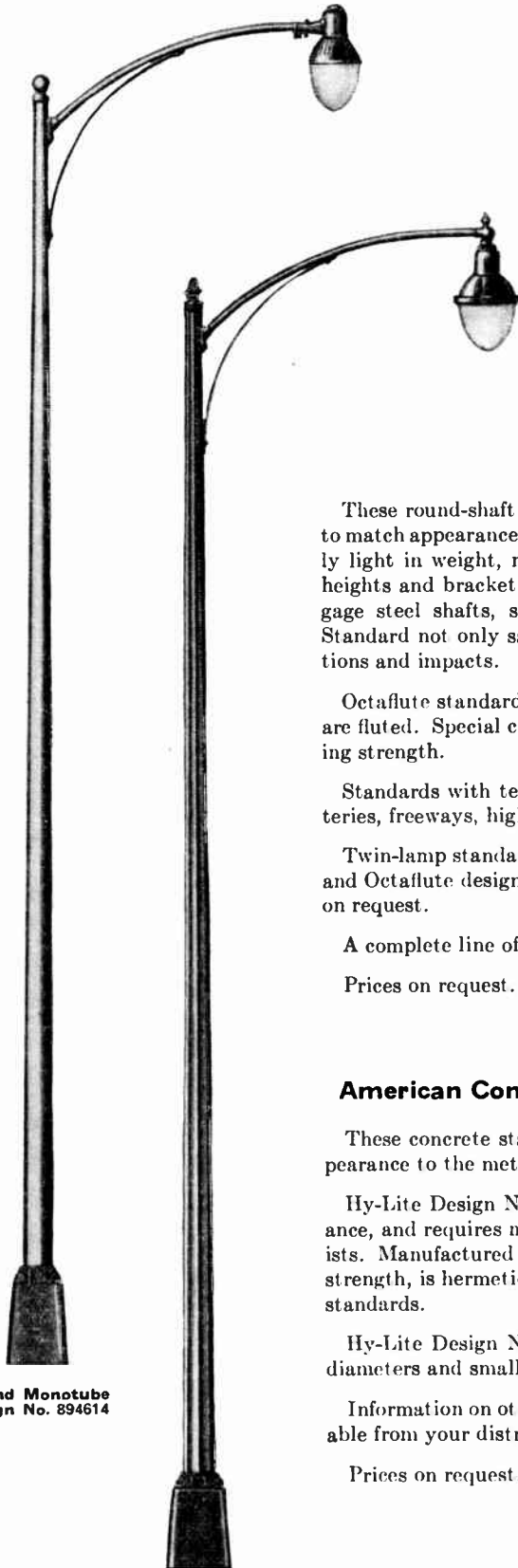
Precast Butt
Base



Extended Rod
Base

Bulletins Giving Complete Information Gladly
Furnished on Application

Union Metal Heavy Duty Steel Lighting Standards for Pendent Luminaires



Round Monotube
Design No. 894614

Octafute Monotube
Design No. 894615

These round-shaft Monotube standards with four to eight foot brackets are designed to match appearance and performance of today's traffic safety luminaires. Comparatively light in weight, making handling and erection of shaft relatively easy. Mounting heights and bracket lengths conform to I.E.S. code requirements. Cold-rolled No. 11 gage steel shafts, strong castings, welded-on fittings. Fabricated sheet-steel base. Standard not only safely supports the luminaire, but also absorbs severe traffic vibrations and impacts.

Octafute standards are constructed in same fashion as round standards, except poles are fluted. Special cold-rolled process provides sharp fluted corners, materially increasing strength.

Standards with ten to eighteen foot brackets, especially suited for use on traffic arteries, freeways, highways, etc., can also be furnished.

Twin-lamp standards with two opposing bracket arms can be furnished in both round and Octafute designs. Information on any other type of pole desired will be furnished on request.

A complete line of pole accessories is available. Ask your distributor for details.

Prices on request.

American Concrete Hy-Lite Standards for Pendant Luminaires

These concrete standards with four to eight foot brackets are similar in general appearance to the metal standards illustrated.

Hy-Lite Design No. 655 is strong, long-lasting, easy to install, attractive in appearance, and requires no painting. Meets recommendations of street and highway specialists. Manufactured from ageless granite. Steel reinforcing cage, which provides tensile strength, is hermetically sealed in standard. Finest quality cement meets all A.S.T.M. standards.

Hy-Lite Design No. 609 and 610 differ from Design No. 655 by having smaller pole diameters and smaller foundation dimensions, thus reducing the cost.

Information on other designs, twin-bracket arrangements, pole accessories, etc., available from your distributor.

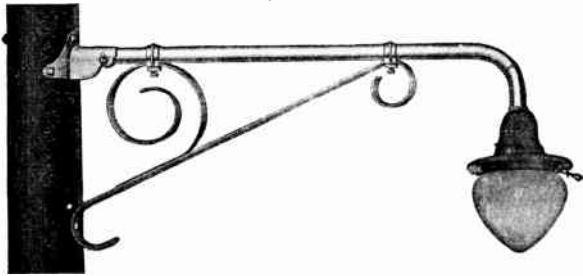
Prices on request.

Hubbard Street Hood Brackets

Hot Galvanized

Luminaires and mounting bolts are not included and must be ordered separately.

Bent Arm Type



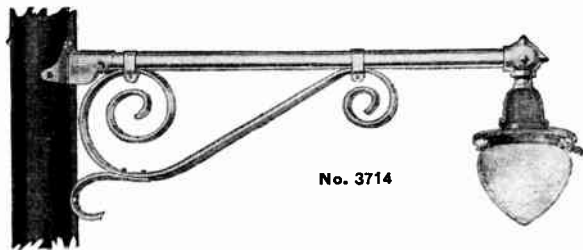
No. 23710

By interchanging scrolls, pole plates, pipes, and clips, practically any form of bent arm type bracket desired may be assembled.

Made of 1 1/4-inch pipe. Pipe thread attachment, 1 1/4 inches. Extension from pole, 48 inches.

Assembly No.	Per 100	Pole Plate No.	Pipe No.	Scroll No.	End Fitting No.	Ship. Wt. Lb. per 100
23710	\$1090.00	3901	23518	4550	3691	2625
23711	1120.00	3907	23518	4550	3691	2695

Straight Arm Type

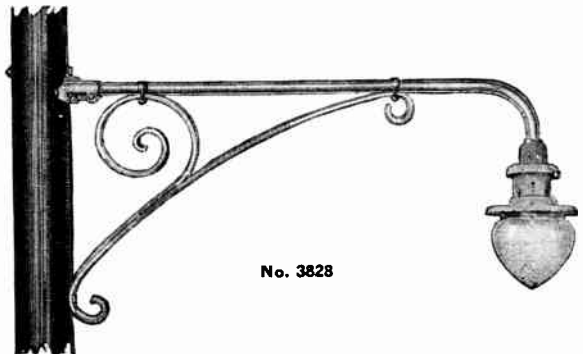


No. 3714

Made of 1 1/4-inch pipe. Pipe thread attachment, 1 1/4 inches. Extension from pole, 48 inches.

3714	\$1215.00	3901	23505	4556	3691	3386	2780
3716	1245.00	3907	23505	4556	3691	3386	2850

Municipal Type

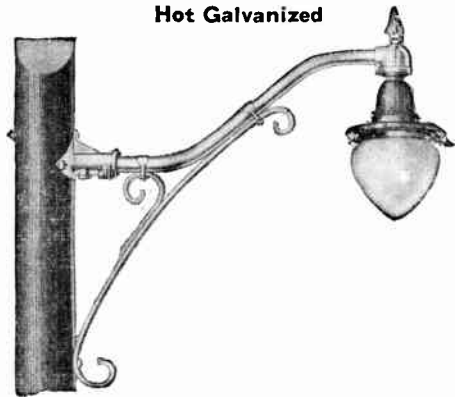


No. 3828

Assembly No.	Per 100	Extension from Pole In.	Nom. Pipe In.	Thrd. Attach. In.	Pole Plate No.	Pipe No.	Scroll No.	Scroll Clip No.	Ship. Wt. Lb. per 100
3804	\$1435.00	48	1 1/4	1 1/4	4752	23618	4581	3696	2970
3808	1975.00	96	1 1/4	1 1/4	4752	23620	4583	3696	4620
3824	2035.00	48	2	2	4755	23625 1/2	4583 1/2	3697	4400
3828	2730.00	96	2	2	4755	23627	4585	3697	7000

Hubbard Upsweep Street Hood Brackets

Hot Galvanized



Made of 1 1/4-inch and 2-inch pipe bent to a graceful upsweep to obtain greater road clearance.

The type with the Hubbard Levelite end fitting allows an adjustment of 17° in any direction from the vertical for leveling the luminaire, which is permanently locked in place after adjustment.

Levelite Adjustable End Fitting Type

No.	Per 100	Extension From Pole, Ft.	DIMENSIONS, INCHES			Pipe Size	Approx. Ship. Wt. Lb. per 100
			Bolt Spacing	Up-Lift	Uplift		
22654	\$2065.00	4	28	14	1 1/4	2970	
22656	2510.00	6	36	16	1 1/4	3895	
22658	2730.00	8	44	18	1 1/4	4825	
22674	3030.00	4	28	14	2	3932	
22676	3380.00	6	36	16	2	4998	
22678	3730.00	8	44	18	2	6204	
22680	4080.00	10	52	20	2	8013	
22682	4430.00	12	60	20	2	9820	

Rigid End Fitting Type

23654	\$1625.00	4	28	14	1 1/4	2970
23656	2070.00	6	36	16	1 1/4	3895
23658	2290.00	8	44	18	1 1/4	4825
23674	2490.00	4	28	14	2	3932
23676	2840.00	6	36	16	2	4998
23678	3190.00	8	44	18	2	6204
23680	3540.00	10	52	20	2	8013
23682	3890.00	12	60	20	2	9820

No. 3303 Hubbard Spear Point Rigid End Fittings



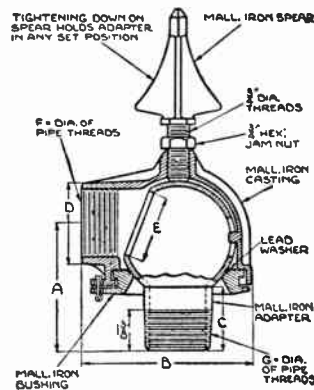
Durable and decorative.

Thread for attachment to 1 1/4-inch pipe and for 1 1/4-inch luminaire attachment.

Shipping weight per 100, 300 pounds.

No. 3303 per 100 \$250.00

Hubbard Levelite End Fittings



Designed to provide a much needed flexibility on street lighting installations.

The ball and socket movement is sealed from moisture by a lead gasket and rigid setting of position is maintained by tightening the spear-head bolt and lock nut.

The ball is prevented from rotation in the socket while attaching the luminaire by a lug.

An adjustment of 17° from vertical, in any direction, is possible.

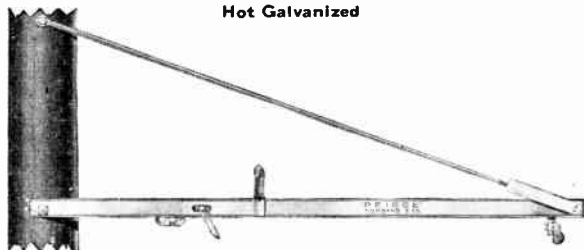
No.	Per 100	DIMENSIONS, INCHES							Approx. Ship. Wt. Lb. per 100
		A	B	C	D	E	F	G	
3279	\$690.00	3 13/16	4 11/16	2	2 1/16	1 19/32	1 1/4	1 1/4	563
3282	890.00	4 13/32	5 13/16	2 7/32	2 13/16	2 3/8	2	2	944

Hubbard Presteel Trolley Mast Arms

PATENTED

Type 28—Chain Operated

Hot Galvanized



Carriage on arm is operated by a continuous bronze chain which is protected by a 12-gage steel arm housing. All movable parts equipped with brass bushings. Tension on chain is provided for by rod and thumb serew at pole end. Sprocket mechanism, consisting of crankshaft and sprocket in movable frame, operates freely under varying conditions.

A non-ferrous sprocket wheel is constructed with teeth specially formed to follow the chain. Locking device holds mechanism against any movement from undesirable sources.

Chain is pre-stretched to 175 pounds. Chain rides in guides which have been placed at top of carriage.

Pipe thread attachment, 3/4 inch.

No.	3606	3608	3610	3612	3614	3616
Per 100	\$2080.	2300.	2590.	2865.	3140.	3510.
Length ft.	6	8	10	12	14	16
Ship. Wt. per 100 lb.	3800	4500	5200	5900	6600	7300

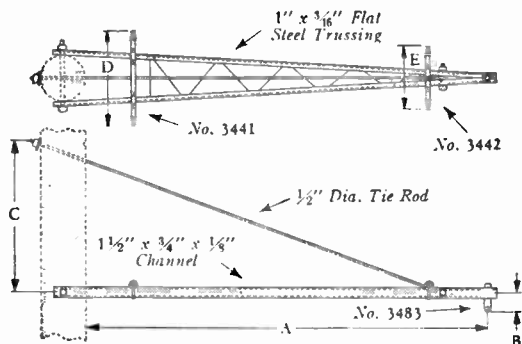
Type 29—Rod Operated

The main difference between Type 29 and Type 28 arms is that the chain mechanism is replaced by a rod. To pull lamp toward pole, rod is lifted out of gravity lock by its handle and drawn out of arm housing. This operation reversed moves lamp forward again, locking it in place. Pole mounting bolts are not included.

No.	3406	3408	3410	3412	3414	3416
Per 100	\$1800.	2060.	2200.	2500.	2900.	3320.
Length ft.	6	8	10	12	14	16
Ship. Wt. per 100 lb.	3800	4500	5100	6200	7200	7900

Type 34 Hubbard Truss Type Mast Arms

Hot Galvanized

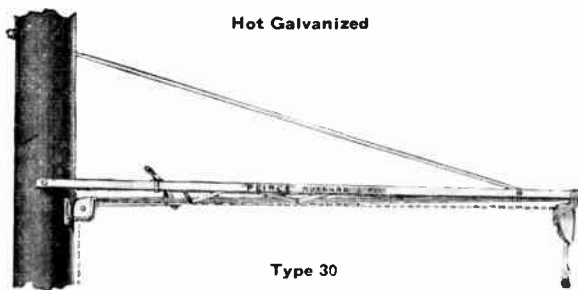


Type No. 34

No.	Per 100	Approx. Extension A Feet	Pipe Thread Attachment Size, In.	DIMENSIONS, IN.				Approx. Ship. Wt. Lb. per 100
				B	C	D	E	
3519	\$1275.00	6	3/4	21 1/2	30	18	14	3100
3520	1540.00	8	3/4	21 1/2	36	18	14	3700
3521	1840.00	10	3/4	21 1/2	42	18	14	4400
3522	2180.00	12	3/4	21 1/2	48	18	14	5200
3523	2555.00	14	3/4	21 1/2	54	18	14	6100
3524	2960.00	16	3/4	21 1/2	60	18	14	7100
3525	3370.00	18	3/4	21 1/2	66	18	14	8100

Hubbard Truss Type Mast Arms

Hot Galvanized



Type 30

TYPE 30. Furnished with two sleet-proof pulleys. The end pulley is the interlocking type which supports luminaire in position without putting tension on the chain.

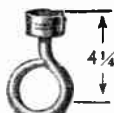
TYPE 31. Same as Type 30 except for outer end pulley.

TYPE 33. Equipped with flexible mounting brass stud with 3/4-inch pipe threads. Fits any average diameter pole.

Approx. Extension Feet No.	Type 30 Lock Pulley Ship.		Type 31 Standard Pulley Ship.		Type 33 Flexible Mounting Ship.				
	Per 100	Wt. Lb. per 100	No.	Per 100	Wt. Lb. per 100	No.	Per 100	Wt. Lb. per 100	
6	3526	\$1760.00	4180	3506	\$1490.00	3850	3546	\$1305.00	3300
8	3528	2025.00	4840	3508	1755.00	4510	3548	1570.00	3960
10	3530	2325.00	5610	3510	2055.00	5280	3550	1870.00	4730
12	3532	2665.00	6490	3512	2395.00	6160	3552	2210.00	5610
14	3534	3040.00	7480	3514	2770.00	7150	3554	2585.00	6600
16	3536	3445.00	8580	3516	3175.00	8250	3556	2990.00	7700
18	3538	3855.00	9680	3518	3585.00	9350	3557	3400.00	8800

Hubbard Hook Adapters

Hot Galvanized



No. 3340 No. 3341

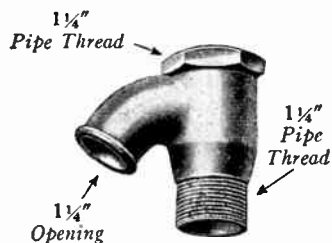
No. 3340 is a hook adapter used either on the mast arm stud for hanging insulators similar to Nos. 1504 and 1531, or on the bottom of insulators such as No. 1524 for hanging the lamp. The pipe cap has standard 3/4-inch pipe thread and the hook is formed to allow the entrance of 1/2-inch stock or smaller. Inside diameter of the hook is 1 3/8 inches.

No. 3341 is similar to No. 3340 except that the pipe cap is tapped for 1 1/4-inch pipe thread.

No.	Per 100	Hanger Attachment Inches	Lamp Attachment Inches	Approx. Ship. Wt. Lb. per 100
3340	\$100.00	3/4 Thrd.	Hook—1/2-In. Open.	67
3341	100.00	1 1/4 Thrd.	Hook—1/2-In. Open.	78

No. 3399 Hubbard Cable Inlets

Hot Galvanized



No. 3399

Used when an internally wired luminaire is used to replace an externally wired arm or bracket.

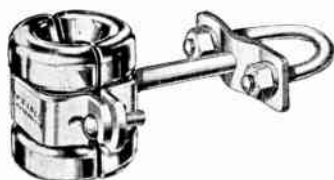
No.	Per 100	Nom. Diam. of Pipe Used on Inches	Nom. Diam. Thread for Luminaire Inches	Approx. Ship. Wt. Lb. per 100
3399	\$250.00	1 1/4	1 1/4	185

Hubbard Lamp Lead Brackets

Hot Galvanized



No. 1660
With Lag Screw



No. 157 With U-Bolt



No. 174 With Plate

All brackets shown above are furnished with plate, lag screw, U-bolt or stud in accordance with the listings below.

Types No. 157 through No. 164 have a split insulator which allows the insertion of lamp heads without threading. Nos. 416 through 419 are of similar design.

With Insulator Shown on No. 157

Wire Hole Adjustment, $\frac{5}{16} \times 1\frac{1}{2}$ to $1 \times 1\frac{1}{2}$ Inches

No.	With Insulators per 100	Type of Attachment	Extension from Base Inches	Ship. Wt. Lb. per 100
157	\$323.56	U-Bolt for $1\frac{1}{4}$ -Inch Pipe	5	280
158	338.79	U-Bolt for 2-Inch Pipe	5	285
163	321.35	$\frac{1}{2} \times 3$ -Inch Lag Screw	5	275
163A	321.35	$\frac{5}{8}$ -Inch Diam. x $1\frac{1}{16}$ -Inch Stud	5	275
163B	321.35	$\frac{1}{2}$ -Inch Diam. x $2\frac{1}{2}$ -Inch Stud	5	285
164	323.56	Plate	5	330

With Insulator Shown on No. 174

Wire Hole, $1\frac{1}{2} \times 1\frac{1}{2}$ Inches

No.	With Insulators per 100	Type of Attachment	Extension from Base Inches	Ship. Wt. Lb. per 100
133	\$233.80	U-Bolt for $1\frac{1}{4}$ -Inch Pipe	5	300
134	249.40	U-Bolt for 2-Inch Pipe	5	305
173	208.53	$\frac{1}{2} \times 3$ -Inch Lag Screw	5	300
173A	208.53	$\frac{5}{8}$ -Inch Diam. x $\frac{3}{4}$ -Inch Stud	5	300
173B	208.53	$\frac{1}{2}$ -Inch Diam. x $2\frac{1}{2}$ -Inch Stud	5	300
174	208.53	Plate	5	300

Wood Pole Type

With Insulator Shown on No. 1660
Diameter Wire Hole, 1 Inch

No.	1640	1650	1660	1662
Extension.....inches	$3\frac{1}{2}$	$3\frac{1}{2}$	$5\frac{1}{2}$	5
Attachment Screw.....Galv.	*	*	Lag	Stud
Ship. Wt. per 100....pounds	220	220	265	265

*No. 22x2-inch Everdur screw.

Prices upon application.

Hubbard Insulated Lamp Hangers

Hot Galvanized

With Suspension Type Insulators



No. 1504



No. 1505



No. 1514



No. 1524

No. 1504. A standard 6000-volt metal cap insulator with safety hook arrangement for locking arc lamp in place.

No. 1505. Similar to No. 1504 except that clevis with $\frac{3}{4}$ -inch opening replaces safety hook.

No. 1514. Furnished with hook attachment for the lamp. For making attachments to a $\frac{3}{4}$ -inch stud.

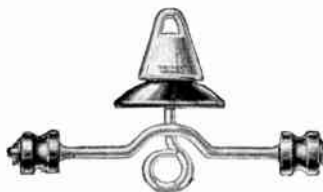
No. 1524. Similar to No. 1514 except that lamp attachment is a $\frac{3}{4}$ -inch stud.

No.	Per 100	Hanger Attachment Inches	Lamp Attachment Inches	Ship. Wt. Lb. per 100
1504	\$675.00	$1\frac{1}{16}$ Hole	Safety Hook— $\frac{1}{2}$ " Opening	360
1505	675.00	$1\frac{1}{16}$ Hole	Clevis— $\frac{3}{4}$ " Opening	380
1514	675.00	$\frac{3}{4}$ Thrd.	Hook— $\frac{1}{2}$ " Opening	360
1524	675.00	$\frac{3}{4}$ Thrd.	$\frac{3}{4}$ "—Pipe Thread	320

With Spreaders

Nos. 1515 and 1516. Suspension insulators with channel spreaders.

Nos. 1534 and 1544. Combination spreaders and suspension insulators with hook attachment for the luminaire.



No. 1534

1515	\$790.00	$1\frac{1}{16}$ Hole	Clevis $\frac{3}{4}$ " Opening	480
1516	790.00	$\frac{3}{4}$ Thrd.	Clevis— $\frac{3}{4}$ " Opening	530
1534	800.00	$1\frac{1}{16}$ Hole	Hook— $\frac{1}{2}$ " Opening	575
1544	800.00	$\frac{3}{4}$ Thrd.	Hook— $\frac{1}{2}$ " Opening	585

With Pin Type Insulators

Consists of a 6600-volt pin type insulator fitted with a cap for the mast arm attachment and a fitting for the lamp attachment.

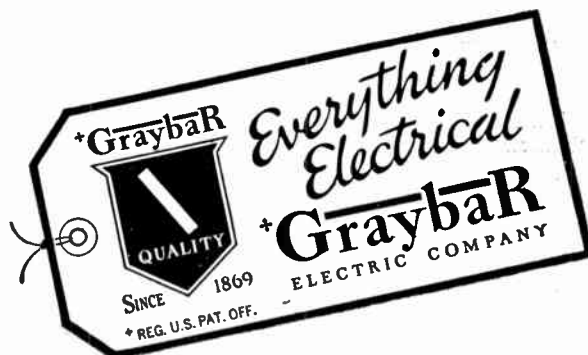


No. 1591



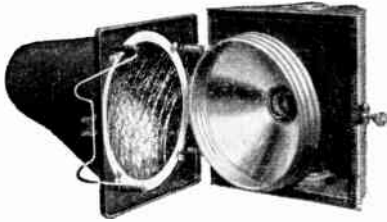
No. 1592

1591	\$350.00	$\frac{3}{4}$ Thrd.	$\frac{3}{4}$ " Pipe Thread	355
1592	350.00	$\frac{3}{4}$ Thrd.	Hook— $\frac{1}{2}$ " Opening	370



G-E Traffic Signals

Optical Units



Optical Unit with Reflector Swung Open

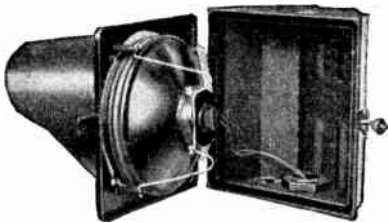
General Electric traffic signals all use the same interchangeable high efficiency optical unit.

The reflector is of high quality silvered glass protected with a coating of electrolytically deposited copper. The design is phantom-proof, thus eliminating the illusion that the signal is lighted which sometimes occurs when the sun is shining directly into a traffic signal.

Eight-inch lens is made according to I. T. E. specifications. The convex outer surface is smooth to prevent accumulation of dirt or snow, while prisms, designed to distribute the light outward and downward into the field of vision, are on the concave inner surface sealed from dust and dirt.

Channel shaped extruded rubber lens gasket keeps the entire assembly permanently dust-tight.

Fixed focus lamp socket insures the signal always being in correct focus. All traffic signal lamps today have the same accurate light center position, eliminating the need for adjustable sockets.



Optical Unit with Reflector Closed Against Lens

Aluminum visor shields lens.

Spring wire bail holds reflector firmly against gasket.

Scientifically designed reflector eliminates internal sun phantom.

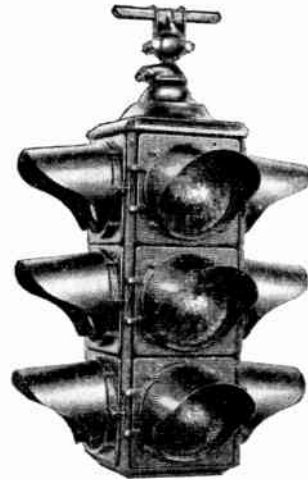
Die cast aluminum door for long life.

Single latch screw provides adequate gasket pressure and easy accessibility.

Dark green baked enamel finish resists atmospheric conditions.

Combined socket and reflector holder assures that optical system is always in proper adjustment.

Fixed Type



Three-Color, 4-Way Fixed Type, Span Wire Mounted

G-E fixed type signals have a light but strong aluminum framework which withstands shocks and minimizes the strain on span wires and mast arms. Like the adjustable type, the fixed signal doors are accurately die-cast from aluminum. The exact forming of the doors makes them easily interchangeable after accidents. The corner bars are held firmly in place by large screws and are shaped to form seats with the top and bottom castings for the felt gaskets against which the optical units are clamped.

The complete General Electric optical unit with its high candlepower, phantom-proof characteristics is used in the fixed signal. Since the signal door forms part of the optical unit, the whole assembly can easily be unhinged from the housing and moved to any desired new location. This flexibility is a great advantage when either the framework or an optical unit is damaged from accident. The hinge and latch lugs are solidly riveted to the corner bars.

The signals may be suspended from a span wire as illustrated, or they may be hung from mast arms or mounted on poles. Standard span wire and mast arm hangers and post top adapters are available, as well as ornamental pinnacles for the post type and base floodlights for the suspension type.

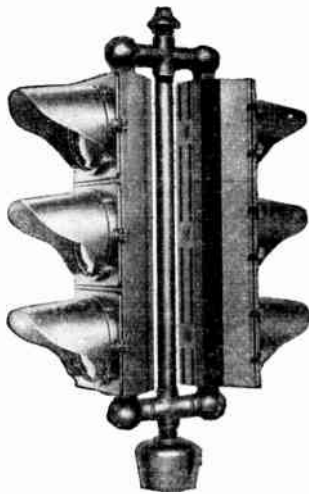
For streets which do not intersect at right angles, adjustable signals are recommended.

Important Features

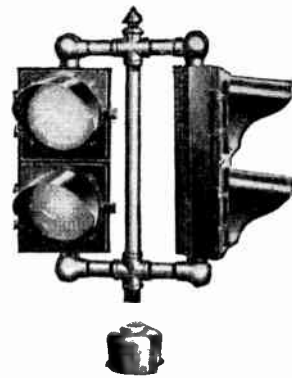
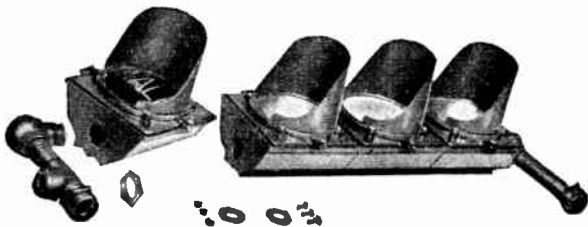
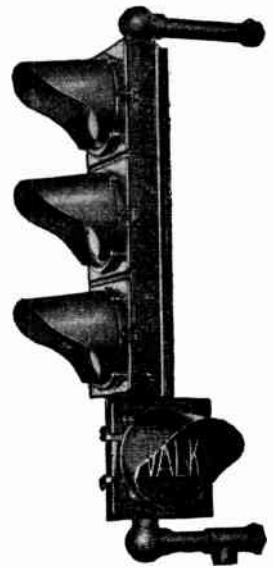
1. High candlepower, phantom-proof distribution through wide visual angle to reduce confusion and accidents.
2. Strong and light for long life of signals, span wires, and mast arms.
3. Fixed focus correct for all traffic signal lamps—cannot get out of adjustment.
4. Attractive, compact appearance with smooth painted finish.

G-E Traffic Signals

Adjustable Type



Three-Color, 2-Way Steel Post Top Adjustable Signal



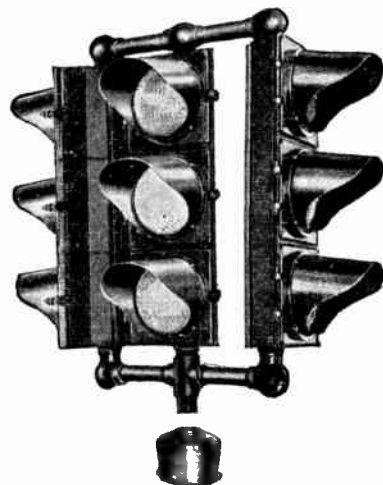
G-E traffic signals are designed to meet the demands of all traffic conditions and to comply fully with the specifications of the Institute of Traffic Engineers.

The adjustable signal consists of single sections which are joined together by means of clamping plates and short bolts to form an attractive and highly efficient signal assembly. Each section has a strong weatherproof die-cast housing in which is mounted the famous General Electric optical unit.

The housing is strong so as to withstand the shocks of traffic accidents, and the light weight facilitates suspension mounting. These qualities mean low maintenance and replacement costs and save the time and expense of frequent repairs.

Each signal may have any desired number of complete sections, and only a small open-end wrench is required to add or subtract these units. The clamping device for holding the sections together consists of two flat plates through which three short bolts are passed. A large hole through the center of the plates provides plenty of room for wiring.

Two orienting bosses are provided so that the signals are perfectly aligned. The bosses can be removed so that the sections may be rotated with respect to each other. This method of assembling the signals has the advantage over tie rods or other commonly used arrangements in that it is not necessary to disturb the original signal if it is desired to add a walk light or arrow signal. New tie rods are not required, and the change is much more easily made with the short bolts and clamping plates.



G-E Type DH Traffic Signal Controllers



Type DH Traffic Signal Controller Cabinet

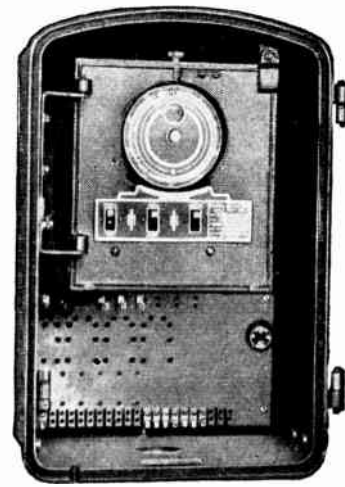
The Type DH traffic controller is a simple, flexible, economical, and scientifically designed equipment for the control of traffic signals. It can be used equally well for operating isolated intersections or interconnected systems. It is the logical answer to modern traffic control problems.

The Type DH controller can have as many as 15 signal circuits and 16 color intervals per total time cycle and can be arranged for any desired color sequence. The length of any interval is quickly changed from a minimum of 2 per cent up to any desired percentage of the total time cycle. The total time cycle itself can be varied from 30 seconds to 2 minutes. Relays may be included for the remote control of shutdown, flashing caution, or emergency all-red signals. A manual controller may be added for personalized control. If it is desired to interconnect the system, either single or triple-automatic reset may be employed for co-ordinated timing of the intersections. A remote cycle change attachment is available for increasing the total time cycle length of the entire system during periods of heavy traffic. In general, the Type D is the most adaptable type of traffic controller available.

Note Particularly—

No. 1—Constant time keeping speed is assured by the synchronous motor.

No. 2—The total length of the time cycle is determined by the size of the gear on the end of the timing dial shaft.



Noninterconnected Type DH Controller for 2-Street Intersection

No. 3—The percentage of time of the total time cycle allotted to each interval is determined by the spacing of the keys in the front of the dial.

No. 4—The particular color sequence desired is determined by the particular segments which have been broken out of the Textolite drum cams.

Cabinet

The Type DH traffic controller is enclosed in an attractive weatherproof cast-aluminum cabinet. Pole clamps for metal pole or pole plates for wooden pole mounting are included. A lock and key make the installation tamper-proof. The finish is an attractive green that blends well with surroundings.

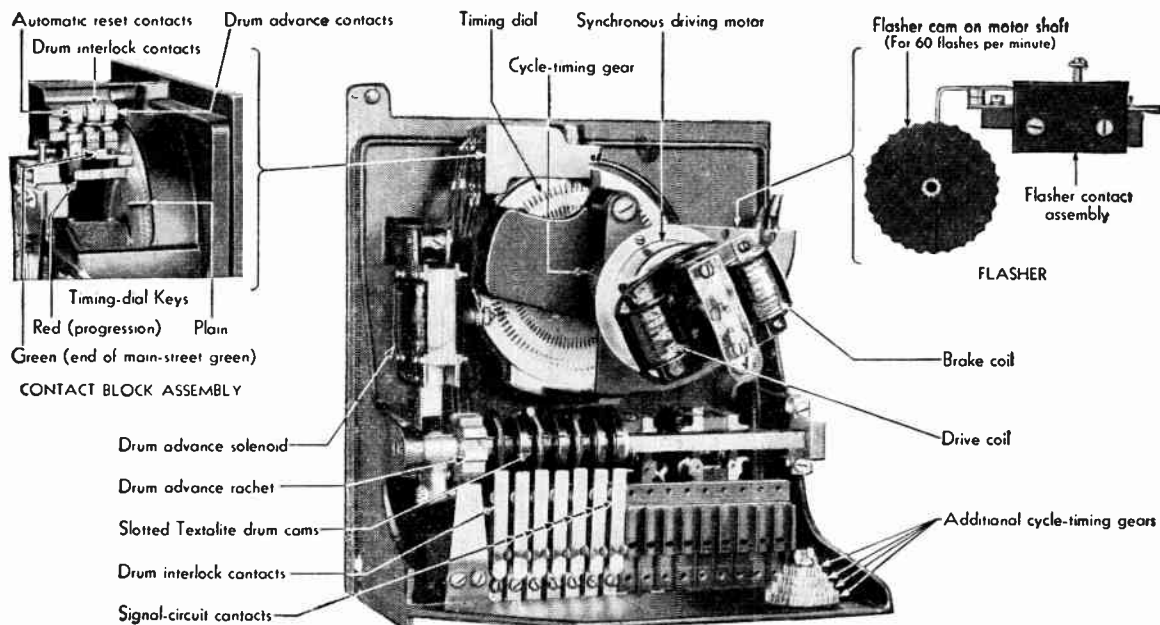
The equipment inside the cabinet consists principally of two parts, the timer and the panel. The timer hangs on a bracket so that it can be swung out of the cabinet for inspection purposes while in operation. All connections to the timer are made by means of a jack connection block. By disconnecting the jack connection block and lifting the timer off its supporting bracket, the entire timer may be removed from the cabinet and another timer substituted, if it is desired to make any major changes. The panel is rigidly mounted in the lower part of the cabinet and is used for mounting connection terminals, switches, relays, etc.



Front of Type D Timer

Note how the timing adjustments and basic control switches are conveniently grouped for quick and easy operation.

G-E Type DH Traffic Signal Controllers Type DH Timer



Interior of 6-Circuit Timer

Note simplicity of construction and full accessibility for inspection and servicing.

The Type DH timer is the basic element of this complete line of controllers. It consists essentially of four fundamental parts—(1) the motor, (2) the timing dial, (3) the solenoid, and (4) the drum and contact assembly.

Motor

A telechron synchronous motor provides the driving power. Because the motor is of synchronous design, it is possible to keep adjacent intersections in step with each other according to any predetermined plan without the necessity of interconnecting cable. Sealed-in lubrication is provided for the life of the motor. The power consumption is only 6 watts. The pinion gear on the motor shaft revolves at 2 rpm.

Timing Dial

The timing dial on the front of the timer is driven at one revolution per total time cycle by a single spur gear which is mounted on the end of the timing dial shaft and which meshes with the pinion gear on the motor shaft. The total time cycle of the timer is determined by the size of this single spur gear. The motor is swung out of the way temporarily to make this simple adjustment. Standard cycle timing gears are available in 5-second increments from 30 to 90 seconds and in 10-second increments from 90 to 120 seconds. Any five of these gears will be furnished with each controller.

On the front face of the timing dial are 100 slots dividing the total time cycle into 1 per cent steps. Keys which are inserted in these slots divide the total time cycle into various intervals. The total time cycle may thus be split into intervals which take up as much of the total time cycle as is desired. As the dial revolves, these keys pass through the zero position which is marked by an arrow in the casting directly above the timing dial. They momentarily close the drum advance contacts and the impulse produced by the closing of these contacts energizes the solenoid which, in turn, raises the solenoid armature. When the impulse is cut off, the armature falls and the ratchet on the end of the drum assembly is turned forward one position.

Drum and Contact Assembly

On the drum shaft are slotted discs of Textolite, one for each contact. Signal contact arms ride on the edges of the slotted drum cams, and open or close the various circuits as the drum advances, according to the way the cams are broken out. In so doing, they switch the signal lamps on or off. Six signal contacts are furnished as a minimum, but provision is made for adding up to a total of 15 signal circuits. The large 10-ampere contacts are made from fine sil-

ver and are fastened on a rigid arm. Constant pressure is maintained on the contacts by means of a helical spring. Because of the hinge-type design, there are no pigtail connections or leaf springs to become broken or lose their tension. This timer has ample capacity for extra signal circuits, walk lights, arrows, bells, etc.

Standard ratchets and corresponding slotted Textolite cams are available for 6, 9, 12, or 16 intervals. If a color sequence is desired with an intermediate number of intervals, this is achieved by making two or more succeeding intervals on the drum assembly the same. The total number of keys in the outside row of slots in the timing dial must be the same as the number of intervals on the ratchet of the drum assembly, in order that the dial and drum will keep in step.

As a further assurance that the timing dial and drum assembly always will be in step, the first contact on the drum assembly is used as an interlock. When the drum assembly is turned to mainstreet green, the interlock contact opens, thus making all of the short timing keys on the timing dial inoperative. However, the special green key inserted at the end of the main-street green interval is arranged so that it will operate the solenoid even with the interlock open. Thus, the drum assembly will hold up on main-street green until released by the green key, at which time all parts of the timer are in step.

Flashing Mechanism

A flashing mechanism for producing 60 flashes per minute, regardless of the time cycle on which the controller is operating, can be mounted on the motor support. The large fine silver contacts provide full 10-ampere a.c. flashing duty rating.

Switches

On the face of the timer are three tumbler switches. The first is used for signal shutdown. The motor, however, continues to operate, so that the signals will be in step with adjacent intersections when the signals are turned on again. The second is used when it is desired to operate the controller manually for special circumstances, such as around schoolhouses, etc., where the personal supervision of a traffic officer is required during certain periods. The third switch is for control of the motor. By means of this third switch, it is possible to start noninterconnected controllers operating in a definite relationship to each other. By virtue of the synchronous motor drive, they will remain in that relationship.

Just below the dial is an indicator which automatically shows on what total time cycle the timer is operating.

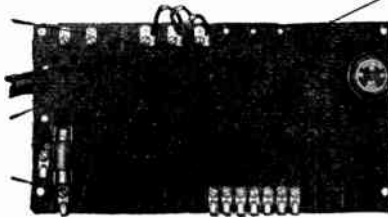
G-E Type DH Traffic Signal Controllers

Removal of timer from housing is easy, because of this jack connection block.

The hand-switch accessory is attached to these terminals (standard equipment).

Transfer terminals (standard equipment) provide for flashing either amber or red, as preferred, on the cross street.

Power - supply terminals - "hot" side fused.



Excellent insulation and long life are features of the strong, molded Textolite panel.

Transfer to flashing operation is made with a convenient push-pull switch.

Relay jacks installed here when required. All relays are jack-mounted for easy removal.

These heavy brass terminals are easy to wire. They are furnished with soldering lugs. Insulation barriers are between the terminal blocks.

The Equipment Panel

Panel

The molded Textolite panel is mounted in the control cabinet below the timer. A standard panel is furnished in all controllers with provision for accommodating up to 15 signal circuits, flash and shutdown relays, etc. On the right-hand side of the panel is a manually operated switch used for transferring the controller from regular stop-and-go operation to a flashing warning signal.



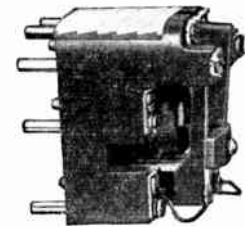
Manual Control

At top of the panel are transfer terminals which can be arranged so that when the controller is flashing, either the cross-street amber or the cross-street red signals will be flashing together with the main-street amber signals.

On the upper left-hand corner of the panel are terminals for attaching a manual control. With this accessory, a traffic officer can operate the signals after flipping the automatic to manual transfer switch on the front of the timer. It consists of a simple grip switch enclosed in soft vulcanized rubber, with sufficient cord to enable the officer to move about freely and take positions where he can see traffic to best advantage. The sequence of colors is the same as that obtained with automatic timing, the changes being made simply by squeezing the handle. Power terminals for the controller are located on the lower left-hand corner of the panel with the hot side of the line fused. Along the bottom of the panel are terminals for the signal circuits.

Relays

Relays can be furnished for mounting on the panel for remote control of special features throughout an interconnected system from a central point.



Flash and Shutdown Relay

A remote shutdown relay accomplishes the same purpose as the manual shutdown switch on the face of the timer. Relays for remote control of flash may be used to eliminate the necessity of having policemen assigned to the duty of transferring signals from "stop-and-go" to "flashing" operation each evening and morning. One double-pole relay is required for each two circuits to be flashed. The operation of an all-red emergency fire control indication is accomplished in exactly the same manner as the remote control of flash. In this case, it is likewise necessary to include a double-pole relay for each two red circuits to be operated.

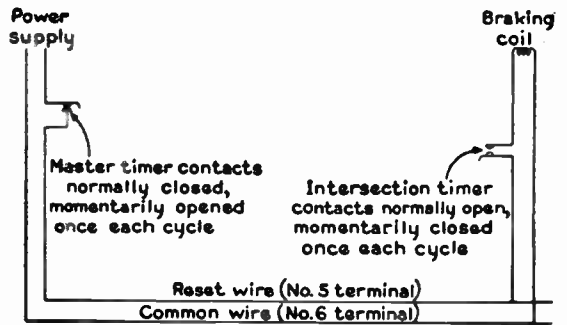
Automatic

Time switch control of certain features is used in some cases in preference to manual or remote control. For signal shutdown, the contacts in the time switch itself can be used for shutting down the signal. For time switch operation of flashing amber, it is necessary, in addition to installing the time switch, to also include remote control relays used in the same manner as for remote control of flash.



Automatic Time Switch

Automatic Single Reset Equipment



Wiring Diagram for Single Reset

Automatic single reset equipment in Type DH controllers consists essentially of a pair of normally open contacts, which are momentarily closed once each cycle, plus a braking coil in each of the intersection controllers. The master timer includes a pair of normally closed contacts which are momentarily opened once each cycle. These are connected as shown in the accompanying diagram. The operation is such that, when the braking coil is energized, the timing dial stops until the braking coil is again de-energized by the opening of the master contacts.

In those interconnected controllers which do not have remote cycle change, the braking coil takes the form of a second motor mounted on the same shaft as the driving motor. When this is energized, a torque equal and opposite to that of the main driving motor is applied to the armature, and the motor shaft comes to a dead stop, as well as the timing dial.

With interconnected controllers having remote cycle change, this braking coil takes the form of a magnetically operated clutch which disconnects the motor from the timing dial, thus stopping the dial, although the motor continues to operate.

The master timer applies a potential to the interconnecting reset wire, except for a brief instant at the beginning of its own main-street green interval.

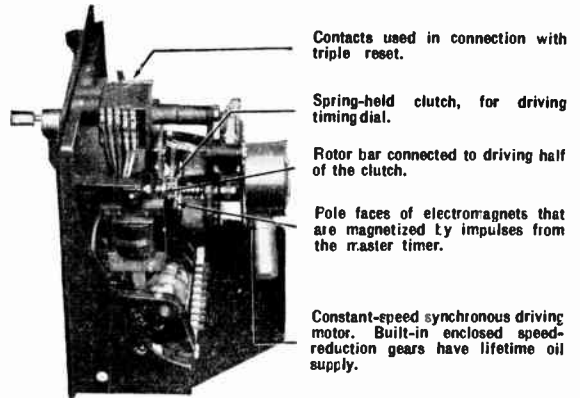
A reset key is inserted in the inner row of slots on the timing dial of each timer. This key occupies the zero position on the master timer dial, but is offset on the various intersection timer dials by the amount of time each receiver is supposed to lag the master, expressed as a percentage of the total time cycle that is being used. For example, if an intersection timer were required to lag 15 seconds behind the master on a 60-second total cycle value, its reset key would occupy the 25 per cent lag position.

A system equipped for automatic reset will get into step within two cycles after it is started. Any intersection timer that is out-of-step, or that happens to become out-of-step later, will be stopped as soon as its reset key closes its reset contacts, and will remain stopped until the master timer momentarily de-energizes the reset interconnecting conductor. When all timers are in step, the closing of the intersection contacts and the opening of the master contacts occur simultaneously, and all timers, operate without interruption. This system does not require a "dwell" period in each cycle, so that the timing of each cycle and the timing of each color interval is precisely that for which the timer is set.

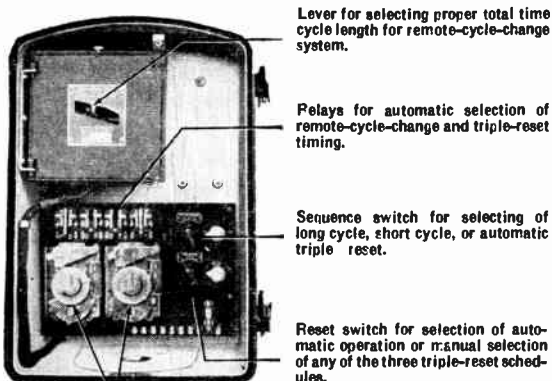
G-E Type DHR Traffic Signal Controllers



Type DHR Interconnected Synchronous Controller



Interior of Type DHR Controller



Two time switches make it possible to have the selection of all three triple-reset circuits completely automatic when traffic conditions warrant.

Typical Type DHR Master Controller

To provide a means of handling more traffic per hour, General Electric has developed the Type DHR controller—a timer flexible enough to be adapted to varied conditions.

The Type DHR controller is similar to the Type DH controller, equipped with Type SMY synchronous motor and electric-impulse-operated clutch, to provide control of time cycle from a master controller. Usually equipped with triple reset equipment and flash and shutdown relays.

Remote Cycle Change

A total time cycle that is of the correct length for average traffic flow may be too short to handle peak conditions during rush hours or icy weather. When traffic becomes heavier vehicles cannot move at the speed for which the system is set, and traffic jams at every intersection. The timing must be lengthened to accommodate the increased volume by lengthening the total time cycle, so that more vehicles can clear the intersection without stopping.

General Electric remote-cycle-change equipment is specially designed to meet this requirement in cases where the volume of vehicles varies considerably during the day. It consists of a master timer, a 2-wire interconnecting cable, and interconnected synchronous controllers.

Type DHR Master Timer

The master timer sends out impulses by means of a ratchet wheel which alternately opens and closes a pair of contacts. The rate at which these impulses are emitted depends upon the speed of the ratchet, and this speed is determined by a shift lever and a cone of gears. Since the total time cycle is determined by 16 gears, it can be adjusted in 5 or 10-second

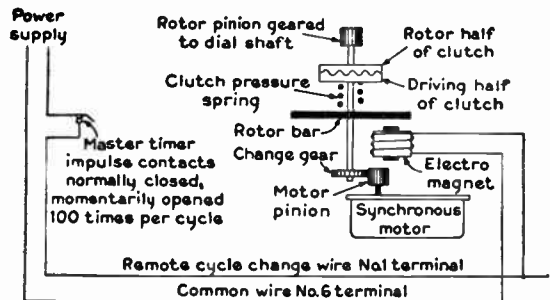


Diagram of Clutch Mechanism

increments between the limits of 30 and 120 seconds. The master timer—with either manual control or automatic time-switch control—can be installed in any central location.

The impulses from the master timer actuate a magnetically controlled clutch in the intersection controllers. This slows down the timing dials without affecting the constant speed characteristics of the synchronous motors. There is no "dwell" period at the end of each cycle.

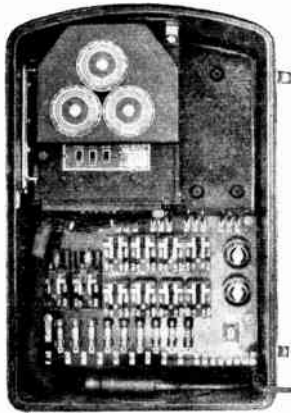
Diagrammatically the clutch mechanism is shown above.

Timing-dial speed is controlled by a simple clutch which is spring-mounted on the end of the rotor shaft and connected to a rotor bar. The rotor shaft is geared to the synchronous motor. As the rotor bar revolves, it passes by the pole face of an electromagnet. Should the magnet be energized, the bar will be moved toward it to open the clutch teeth and prevent the timing dial from turning. If the magnet is de-energized, the rotor bar will be released to re-engage the clutch and revolve the timing dial.

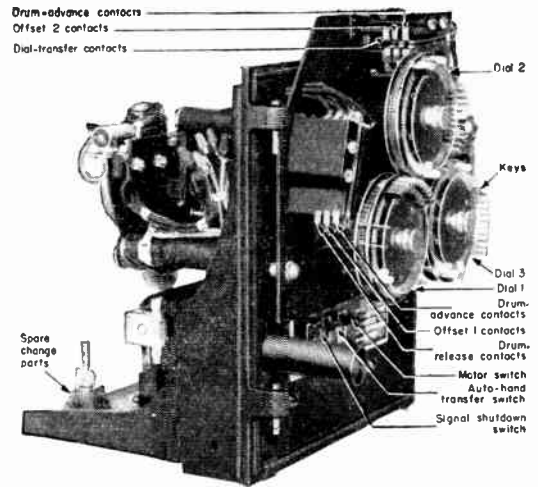
When the magnet is repeatedly energized and de-energized by a series of impulses from the master timer, the timing dial will revolve at a lower speed than if no impulses are present to operate the clutch. When no impulses are being sent out, the intersection timers operate at their conventional speed, which depends upon the size of the time-cycle gear in each timer. Normally, a system will operate at base speed most of the day, the remote cycle change being used only during periods of heavy traffic or wet or icy weather.

In the interconnected systems, installing remote-cycle-change equipment is simple. Attachments can be made to existing intersection controllers with serial numbers over 19,000 or included in the new Type DH timers.

G-E Type DHM Triple Dial Controllers



Type DHM, 3-Dial Traffic Controller, without Front Door



Type DHM, 3-Dial Traffic Timer, without Covers

Construction Details

The Type DHM is essentially the same as the Types DH or DHR in its construction and operation, using the same kind of a driving motor, solenoid and ratchet mechanism, and the same type of drum and contact assembly. It can be furnished either as a noninterconnected or interconnected controller with remote cycle change and triple reset.

The multidial controller contains two or three separate timing dials, each with its own dial contact block. All dials are geared together and rotate simultaneously at the same speed. The dials are driven by one synchronous motor, the speed of rotation depending, as in other controllers, upon the size of the time cycle gear mounted in the timer.

The multidial controller has greater flexibility than a single dial controller for coping with changing traffic conditions. It is extremely useful in straightening out problems both at isolated intersections and in interconnected systems.

If, at some time during the day, conditions change so that main-street traffic increase while cross-street traffic decrease, a different "percentage split" of the total time cycle, making the green interval length correspond to the volume of traffic, is desirable to minimize waiting time on the cross street. This arrangement, with the main-street green lengthened and cross-street green correspondingly shortened, can be set up on Dial No. 2. If a third percentage split is required, it can be set up on Dial No. 3.

Since these different splits can be preset on the dials, then, by means of external switching (manual switches, time switches, or a program drum), the correct percentage split can be selected simply by switching to the dial with the proper lengths of green intervals.

In a complete interconnected system with remote cycle change and triple reset, the use of one or more Type DHM multidial controllers can greatly increase the system's flexibility. For example suppose one had been installed in the system at an intersection where traffic conditions change about the same as those at the isolated intersection just discussed. Here, in addition to using remote cycle change for long and short total time cycles and the triple-reset feature for controlling the "in" and "out" traffic along a main thoroughfare, it is also possible to take care of the change in percentage of cross-street and main-street traffic.

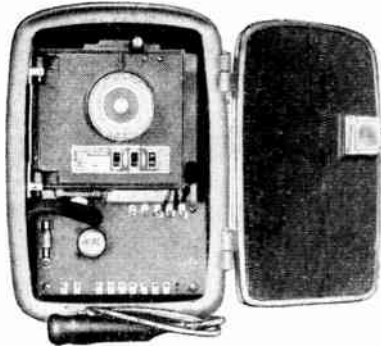
If all the controllers in the interconnected system were multidial controllers, it would be possible to take care of a multiplicity of conditions—practically any of a predetermined nature, because, with the Type DHM, it is possible to switch to any of the three resets when the controller is operating from any dial. It is also possible to switch to any of the dials when using any one of the resets. In other words, the selection of resets is entirely independent electrically from the selection of dials, though some traffic conditions may require both to be changed at the same time.

Similarly, it is possible to select different system time cycle lengths by the remote-cycle-change equipment while using any or all of the previously mentioned combinations of dials and resets. This increases the flexibility still more.

Manual or automatic selection of dials can be made along with selection of system resets and system time cycles at the master controller. This is particularly true if more than one multidial controller is used in the system.

If there is only one multidial controller in the system or the Type DHM is to be used as an isolated intersection controller, automatic dial selection can be done locally by time switches.

G-E Type DJ Traffic Controllers



The Type DJ is a condensed model of the standard Type DH traffic controller. It is especially designed for isolated intersections because it does not contain the space for accessories necessary for interconnected operation. The timer and panel are enclosed in a weatherproof cabinet 16 inches high by 12 inches wide by 8½ inches deep. The

timer is driven by a synchronous motor which provides for progressive traffic movement without requiring interconnecting cable between intersections.

Five gears are furnished, giving a choice in total time cycle of 40, 50, 60, 70, or 80 seconds. Optional gears are available for any cycle lengths between 30 and 180 seconds in 5-second steps, and between 80 and 120 seconds in 10-second steps.

The controller contains six independent signal circuits which can be individually adjusted to give any desired color sequence by breaking out Textolite cam segments.

The lengths of all color intervals can be adjusted to any desired values by moving keys in a calibrated dial in 1 per cent steps.

Manual switches are provided for separate control of the signals, the motor, the flashing operation, and the transfer from automatic to manual operation. When the controller is furnished without flasher contacts, the flash switch becomes a steady caution switch. Terminal changes can be made so that the signals will flash either red or amber to the cross-street with amber to the main-street.

In general, the Type DJ is a flexible, compact controller especially suited to isolated intersections where interconnection is not necessary.

If, however, there is any possibility of future interconnection or future additions of features, such as pedestrian control, the Type DH controller is recommended.

Triple Reset

A triple reset system should be considered whenever the traffic controlled section of a thoroughfare is quite long and the traffic volume varies greatly in direction during different periods of the day. The equipment consists of a master timer, a 4-wire interconnecting cable, and an intersection receiver timer. Even though the system is similar to a remote cycle change system, triple reset is designed for a different purpose. If the system has both triple reset and remote cycle change, one 5-wire cable is sufficient.

By providing three different schedules of co-ordinated timing, it is possible to move inbound peak traffic, normal traffic, and outbound peak traffic on any arterial street more efficiently. Manual or automatic control can be used to select any one of the three predetermined schedules of green light lag.

During morning traffic hours, the master timer selects the inbound reset that favors movement toward the business and factory area. Green lights are then timed to move inbound traffic faster with but slight delay to the lighter outbound movement.

During the normal traffic part of the day, signals operate on an average sequence to move traffic with smooth, progressive flow in both directions.

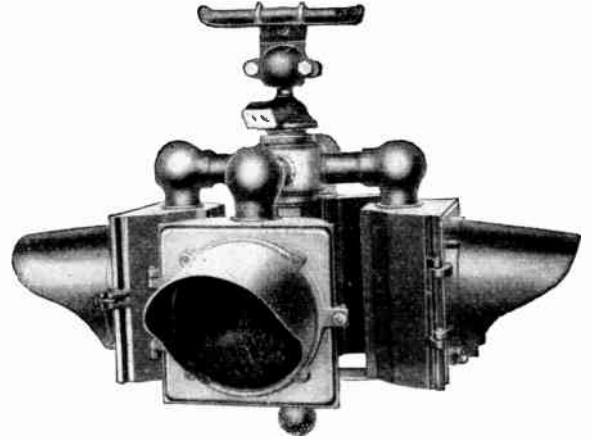
To handle afternoon and early evening peak traffic, the master timer selects the third schedule of co-ordinated timing—a green light timing scheme that speeds up the outbound movement.

The equipment in the master timer is the same as in the intersection timers, with the addition of supervisory contacts and a single-pole, triple-throw switch. In the intersection controllers, the equipment is the same as in the noninterconnected controllers, except that there are three pairs of reset keys—red, white, and yellow—which are so slotted that each key will close only one pair of contacts.

G-E Traffic Beacons

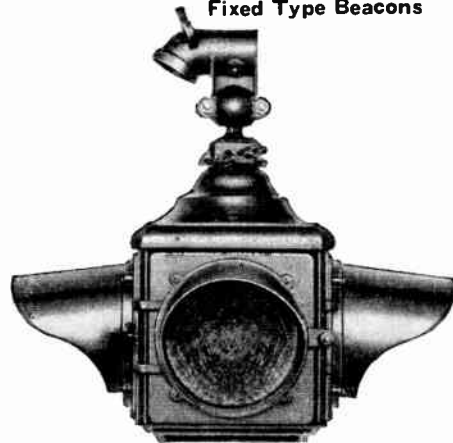
Beacons are used as a visual warning of danger points to motorists and pedestrians. Brilliant flashes of light from these beacons capture the attention, warning the motorist that caution is necessary. They use the same high efficiency optical unit as G-E traffic signals.

Adjustable Type Beacons



The adjustable beacon uses one or more of the standard G-E signal section units. These are held by bracket assemblies that can be arranged for turning separate units in whatever directions are required. Can be supplied for mounting from a span wire, mast arm, or post top.

Fixed Type Beacons



Fixed type beacon uses a rigid frame mounting, giving a warning indication in two, three, or four directions, as may be desired.

Can be supplied for mounting from a span wire, mast arm, or post top.

Red or amber lenses may be used.

Weatherproof Flasher Mechanisms

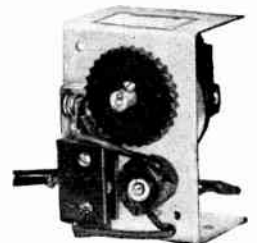


Complete in enclosing case.

Can be mounted on the pole from which the beacon is suspended. This arrangement gives best accessibility for servicing the flasher. A synchronous motor drive is used to operate the same heavy duty flashing contacts used in the G-E Type DH controller.

Fuse protection and a key-operated switch which can be turned without opening the housing are included.

Special Flasher Mechanisms

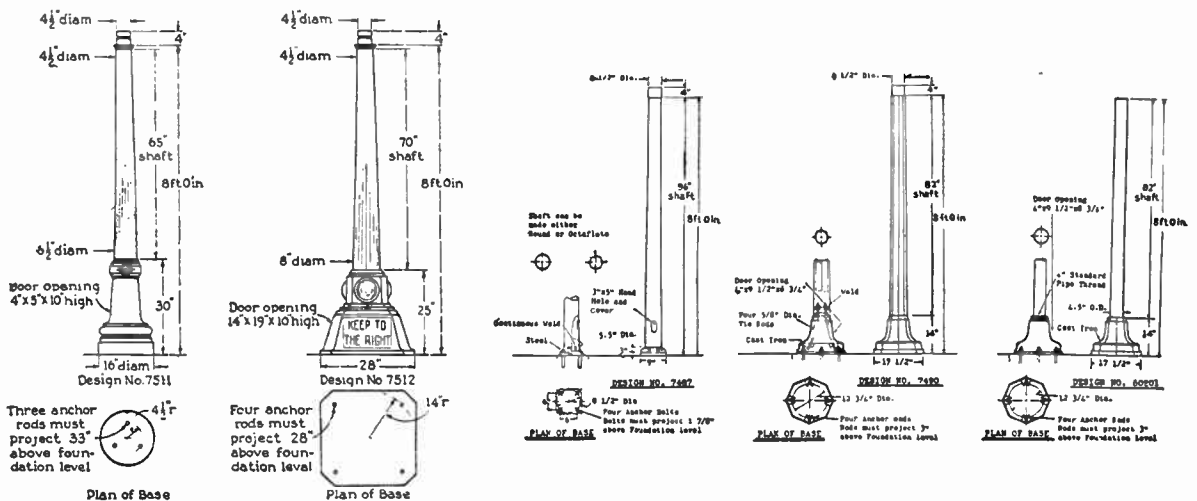
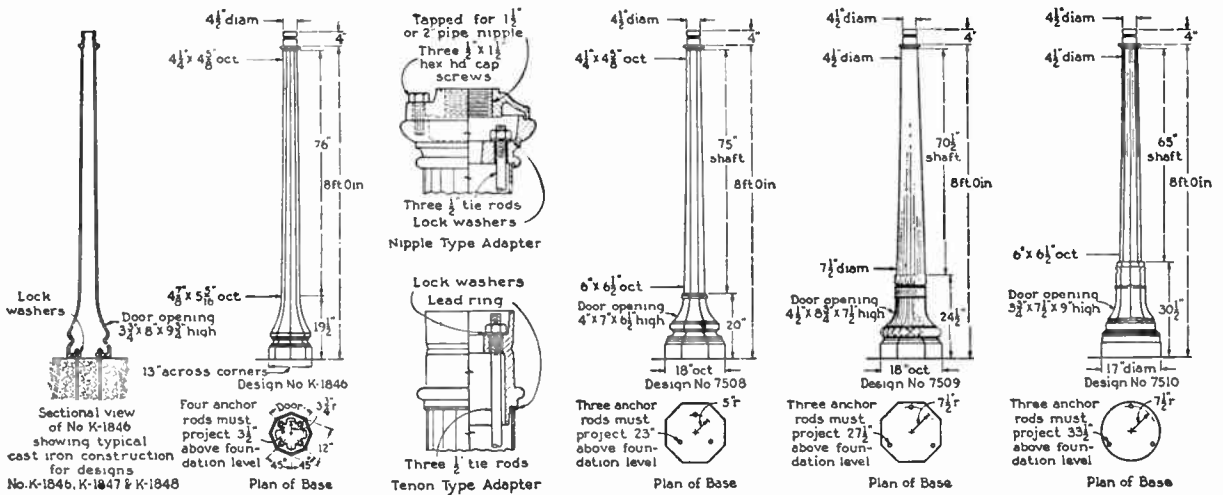
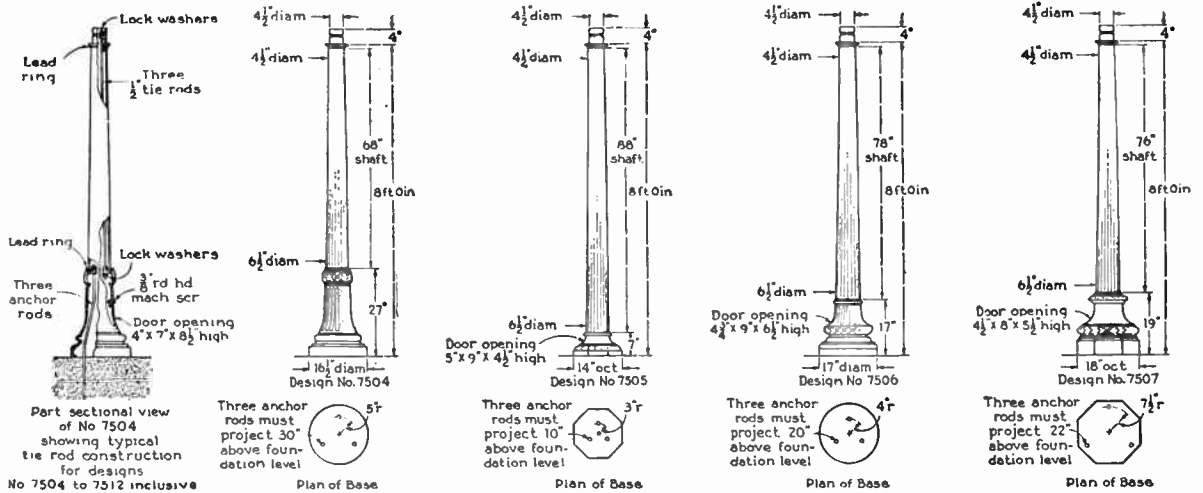


Will fit in the fixed type beacon only. May be used to make an installation complete in one unit.

Radio interference suppressors are included in both flashers.

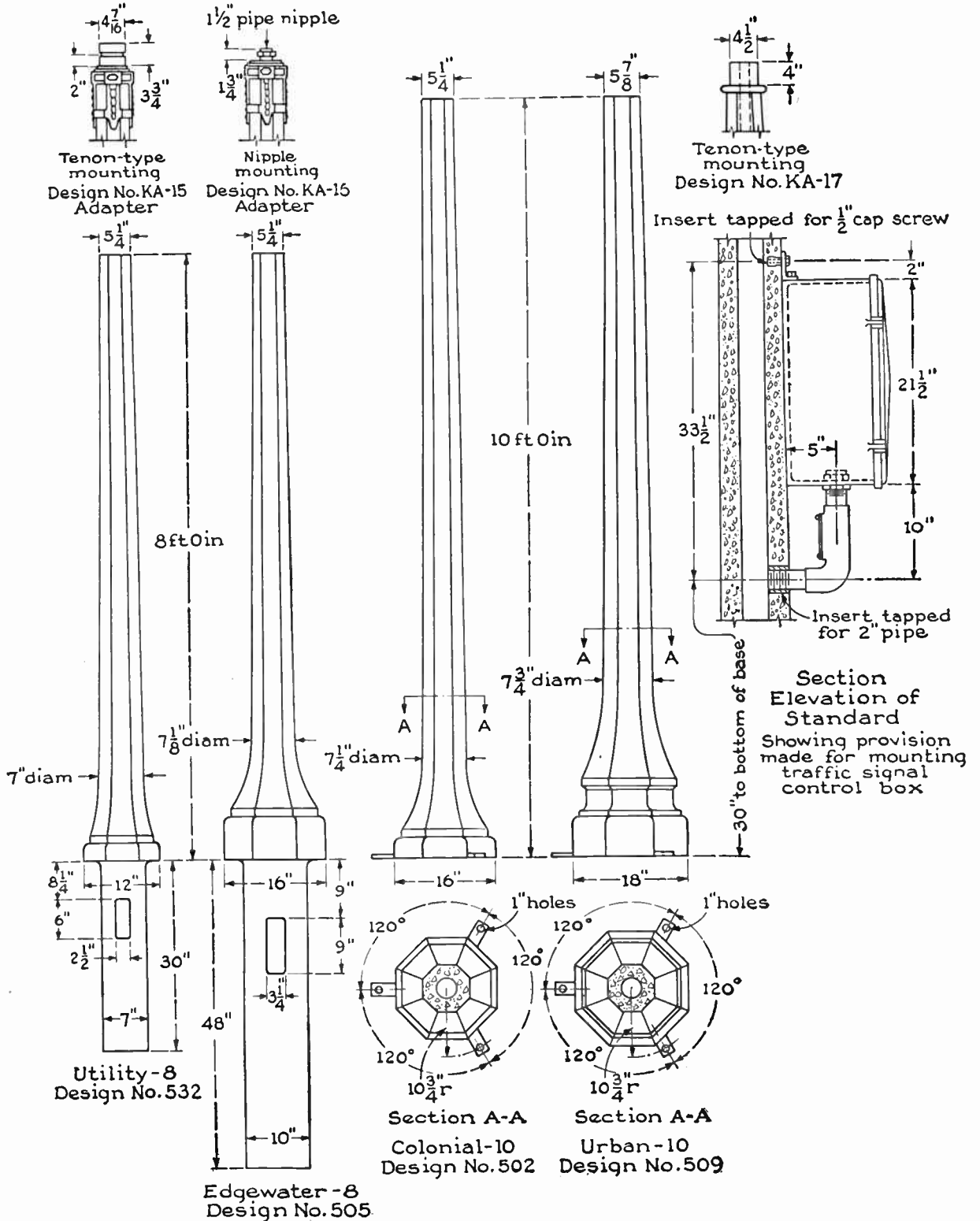
Union Metal Traffic Signal Poles

Traffic signal poles are available in a variety of designs constructed of steel or cast iron. One may be chosen which matches or harmonizes with local lighting standards. These poles can have a 4½-inch diameter tenon top to accommodate a slip fitter type of signal or have a pipe nipple mounting.



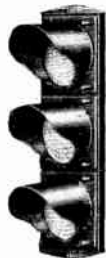
American Concrete Traffic Signal Poles

Concrete traffic signal poles are available in a variety of designs. One may be chosen which matches or harmonizes with local lighting standards. These poles can be furnished with 4½-inch diameter tenon top to accommodate a slip fitter type of signal or with a pipe nipple mounting.



Crouse-Hinds Traffic Signals

Design



Front View

Crouse-Hinds offers a complete line of newly designed traffic signals which is in keeping with the trend of modern design. The modern straight line motif is carried out in the entire design.

Every detail of design has been carefully considered, not only from the artistic standpoint, but also for efficiency and durability. Particular care has been given to the optical system, with the result that the light output or strength of signal indication is much greater than that of competitive signals.

Materials

The casing, door, and hood are made of special silicon aluminum alloy, cast in steel dies under great pressure. Such construction insures a uniform and homogeneous casting of great strength, capable of resisting corrosive atmospheres, including salt air. Castings are extremely accurate and similar parts are interchangeable on all signals.

The red, amber, and green lenses are selected especially for purity of color and high transmission. The outer surface of the lens is smooth, which makes cleaning easy, while on the inner surface there are prisms for distributing the light downward and to the sides.



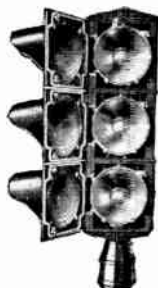
Rear View

Body Construction

The bodies of the new Crouse-Hinds signals are of unit sectional construction, which features an individual body casting for each optical system. This insures a rigid, compact casing which is dust-tight and watertight. Signals of two, three, four, or five sections may be built up as desired.

Unit construction, with complete interchangeability of parts, is of great benefit to cities using any quantity of signals, since any desired combination and arrangement of signal bodies can be made up locally.

Door and hood are cast in one piece, which saves assembly on the job. Doors with separate hoods of sheet aluminum can be furnished on special order.



Type TSP-113D
One Way Signal
Door Open
Showing Interior

Reflector Assembly

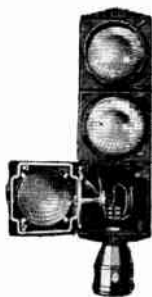
The reflector used in the new Crouse-Hinds signal is an extremely accurate, parabolic reflector made of polished glass, silvered to form the reflecting surface, which in turn is protected by a heavy layer of electrolytically-deposited copper. Over this copper are placed the protective backings which completely seal the reflecting surface.

Instead of glass reflectors, Crouse-Hinds is prepared to furnish high-efficiency Alzak finish aluminum reflectors at no increase in price. The reflectors used in Crouse-Hinds signals are the finest and most efficient available.

The reflector is mounted in a spider which also holds the lamp receptacle, and is hinged to the casing. The lamp receptacle is adjustable so that lamps of varying light center lengths may be used. The receptacle is equipped with a lamp grip to prevent the lamps from loosening due to vibration.

In a normal position, the reflector assembly is rigidly fastened to the casing and does not have to be disturbed for relamping. This eliminates breakage due to repeated handling. When access to the rear is wanted, it is only necessary to loosen the single catch and swing the door outward on its hinges.

The lamp receptacles are equipped with wires having colored, coded braids, which greatly simplifies installation.



Type TSP-113D
Door Open,
Reflector
Swung Out
Showing
Terminal Block

Crouse-Hinds Adjustable Traffic Signals

Schedule T

†With Red, Amber, and Green Unlettered Combination Lenses

*Three-Section, One-Way Signals

Type	No.	¢Each	Mounting
TSO-113D	46404	\$48.00	Without any Mounting Attachments
TSW-113D	42224	53.20	Span Wire
TSM-113D	42225	57.80	Mast Arm
TSV-113D	42230	54.00	Vertical-Bracket Arm, less Pole Clamps
TSH-113D	42231	61.60	Horizontal-Bracket Arm, less Pole Clamps
TSB-113D	42232	69.20	Horizontal-Bracket with Fuse Compartment, less Pole Clamps
TSP-113D UG	42226	54.20	4-Inch Post, Underground Feed
TSP-113D OH	42227	57.60	4-Inch Post, Overhead Feed
TSU-113D UG	42228	49.80	1½-Inch Nipple, Underground Feed
TSU-113D OH	42229	53.20	1½-Inch Nipple, Overhead Feed

*For two-section signals, deduct \$16 from above prices. For four-section signals, add \$16 to above prices.

‡Three-Section, Two-Way Adjustable Signals

Type	No.	¢Each	Mounting
TRW-223D	42286	\$114.00	Span Wire
TRM-223D	42287	118.60	Mast Arm
TRV-223D	42288	116.00	Vertical-Bracket Arm, less Pole Clamps
TTV-223D	42705	116.00	Tandem-Bracket Arm, less Pole Clamps
TRP-223D UG	42289	115.00	4-Inch Post, Underground Feed
TRP-223D OH	42290	119.60	4-Inch Post, Overhead Feed
TRU-223D UG	42293	110.60	1½-Inch Nipple, Underground Feed
TRU-223D OH	42294	115.20	1½-Inch Nipple, Overhead Feed

‡For two-section signals, deduct \$32 from above prices. For four-section signals add \$32 to above prices.

‡Three-Section, Three-Way Adjustable Signals

Type	No.	¢Each	Mounting
TRW-333D	42297	\$169.00	Span Wire
TRM-333D	42298	173.60	Mast Arm
TRV-333D	42299	171.00	Vertical-Bracket Arm, less Pole Clamps
TRP-333D UG	42300	170.00	4-Inch Post, Underground Feed
TRP-333D OH	42301	174.60	4-Inch Post, Overhead Feed
TRU-333D UG	42304	165.60	1½-Inch Nipple, Underground Feed
TRU-333D OH	42305	170.20	1½-Inch Nipple, Overhead Feed

‡For two-section signals, deduct \$48 from the above prices. For four-section signals, add \$48 to above prices.

§Three-Section, Four-Way Adjustable Signals

Type	No.	¢Each	Mounting
TRW-443D	42308	\$224.00	Span Wire
TRM-443D	42309	228.60	Mast Arm
TRV-443D	42310	226.00	Vertical-Bracket Arm, less Pole Clamps
TRP-443D UG	42311	225.00	4-Inch Post, Underground Feed
TRP-443D OH	42312	229.60	4-Inch Post, Overhead Feed
TRU-443D UG	42315	220.60	1½-Inch Nipple, Underground Feed
TRU-443D OH	42316	225.20	1½-Inch Nipple, Overhead Feed

§For two-section signals, deduct \$64 from above prices. For four-section signals, add \$64 to above prices.

Also available in five-way and six-way adjustable signals.

Prices do not include incandescent lamps.

Special detachable hoods not exceeding 8 inches in length will be furnished without extra charge. Hoods exceeding 8 inches in length, add \$3.00 per hood.

‡Price does not include pole clamps.

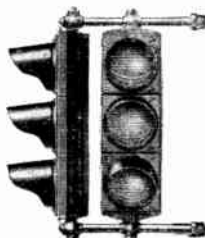
¢Prices include unlettered lenses in all sections. For each unlettered lens changed to a lettered lens or to an arrow lens, add \$1.00 to the prices. For each lens omitted, deduct \$1.00 from the prices.



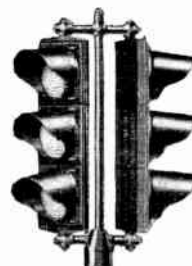
Type TSP-113D
One-Way Signal
4-Inch Post
Mounting
Underground
Feed



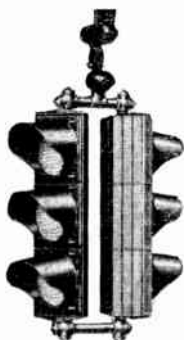
Type TSV-113D
One-Way Signal
Vertical
Bracket-Arm
Mounting
Without Wire
Outlet



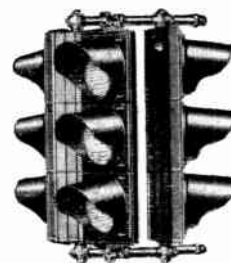
Type TTV-223D
Two-Way Signal
Tandem
Bracket-Arm
Mounting
Without
Wire Outlet



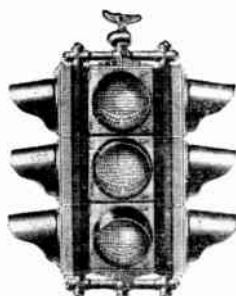
Type TRP-223D
Two-Way Signal
4-Inch Post
Mounting
Underground
Feed



Type TRM-333D
Three-Way Signal
Mast-Arm
Mounting



Type TRV-333D
Three-Way Signal
Vertical
Bracket-Arm
Mounting
Without
Wire Outlet



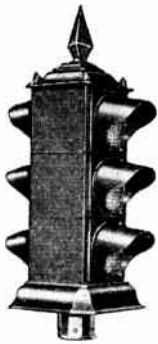
Type TRW-443D
Four-Way Signal
Span-Wire
Mounting

Crouse-Hinds Non-Adjustable Square Traffic Signals

Schedule T

§With Red, Amber, and Green Unlettered Combination Lenses

***Three-Section, Two-Way Non-Adjustable Signals**

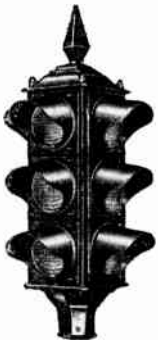


Type TIP-223D
Two-Way (180°)
Signal with
Base Light,
4-Inch Post
Mounting,
Underground
Feed

Type	90° No.	180° No.	§Each	Mounting
TSW-223D	42553	42566	\$114.00	Span Wire
TIW-223D	42554	42567	126.00	Span Wire with Base Light
TSM-223D	42555	42568	118.60	Mast Arm
TIM-223D	42556	42569	130.60	Mast Arm with Base Light
TSV-223D	42557	42570	||116.00	Vertical-Bracket Arm, less Pole Clamps
TSP-223D UG	42558	42571	117.20	4-Inch Post, Underground Feed
TSP-223D OH	42559	42572	120.60	4-Inch Post, Overhead Feed
TIP-223D UG	42560	42573	133.20	4-Inch Post with Base Light, Underground Feed
TIP-223D OH	42561	42574	136.60	4-Inch Post with Base Light, Overhead Feed
TSU-223D UG	42562	42575	111.80	1½-Inch Nipple, Underground Feed
TSU-223D OH	42563	42576	115.20	1½-Inch Nipple, Overhead Feed
TSA-223D UG	42564	42577	227.20	Pedestal with Base Light, Underground Feed
TSA-223D OH	42565	42578	230.60	Pedestal with Base Light, Overhead Feed

*For two-section signals, deduct \$32 from above prices. For four-section signals, add \$32 to above prices.

†Three-Section, Three-Way Non-Adjustable Signals



Type TSP-443D
Four-Way Signal
with 4-Inch Post
Mounting, Under-
ground Feed

Type	No.	§Each	Mounting
TSW-333D	42579	\$135.00	Span Wire
TIW-333D	42580	147.00	Span Wire with Base Light
TSM-333D	42581	139.60	Mast Arm
TIM-333D	42582	151.60	Mast Arm with Base Light
TSV-333D	42583	||137.00	Vertical-Bracket Arm, less Pole Clamps
TSP-333D UG	42584	138.20	4-Inch Post, Underground Feed
TSP-333D OH	42585	141.60	4-Inch Post, Overhead Feed
TIP-333D UG	42586	154.20	4-Inch Post with Base Light, Underground Feed
TIP-333D OH	42587	157.60	4-Inch Post with Base Light, Overhead Feed
TSU-333D UG	42588	132.80	1½-Inch Nipple, Underground Feed
TSU-333D OH	42589	136.20	1½-Inch Nipple, Overhead Feed
TSA-333D UG	42590	248.20	Pedestal with Base Light, Underground Feed
TSA-333D OH	42591	251.60	Pedestal with Base Light, Overhead Feed

†For two-section signals, deduct \$39 from above prices. For four-section signals, add \$39 to above prices.

‡Three-section, Four-Way Non-Adjustable Signals



Type TSW-443D
Four-Way Signal
Span-Wire
Mounting

Type	No.	§Each	Mounting
TSW-443D	42592	\$156.00	Span Wire
TIW-443D	42593	168.00	Span Wire with Base Light
TSM-443D	42594	160.60	Mast Arm
TIM-443D	42595	172.60	Mast Arm with Base Light
TSV-443D	42596	||158.00	Vertical-Bracket Arm, less Pole Clamps
TSP-443D UG	42597	159.20	4-Inch Post, Underground Feed
TSP-443D OH	42598	162.60	4-Inch Post, Overhead Feed
TIP-443D UG	42599	175.20	4-Inch Post with Base Light, Underground Feed
TIP-443D OH	42600	178.60	4-Inch Post with Base Light, Overhead Feed
TSU-443D UG	42601	153.80	1½-Inch Nipple, Underground Feed
TSU-443D OH	42602	157.20	1½-Inch Nipple, Overhead Feed
TSA-443D UG	42603	269.20	Pedestal with Base Light, Underground Feed
TSA-443D OH	42604	272.60	Pedestal with Base Light, Overhead Feed

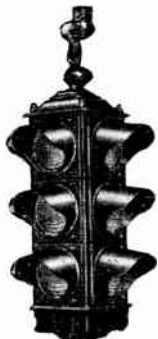
‡For two-section signals, deduct \$46 from above prices. For four-section signals, add \$46 to above prices.

Prices do not include incandescent lamps.

Special detachable hoods not exceeding 8 inches in length will be furnished without extra charge. Hoods exceeding 8 inches in length, add \$3.00 per hood.

§Prices include unlettered lenses in all sections. For each unlettered lens changed to a lettered lens or to an arrow lens, add \$1.00 to the prices. For each lens omitted, deduct \$1.00 from the prices.

||Price does not include pole clamps.



Type TIM-443D
Four-Way Signal
with Base Light,
Mast-Arm
Mounting

Crouse-Hinds One-Section Beacons

Without Motor Flashing Switch

Schedule T

{With Amber Unlettered Combination Lenses

*One-Section, Four-Way Adjustable Beacons



Adjustable

Type	No.	Each	Mounting
TRW-441D	46237	\$86.80	Span Wire with Top Arm Assembly Only
TRM-441D	46238	91.40	Mast Arm with Top Arm Assembly Only
TRV-441D	46239	98.00	Vertical-Bracket Arm, less Pole Clamps
TRP-441D UG	46240	97.00	4-Inch Post, Underground Feed
TRP-441D OH	46241	101.60	4-Inch Post, Overhead Feed
TRU-441D UG	46244	92.60	1½-Inch Nipple, Underground Feed
TRU-441D OH	46245	97.20	1½-Inch Nipple, Overhead Feed
TRA-441D UG	46246	212.00	Pedestal with Base Light, Underground Feed
TRA-441D OH	46247	216.60	Pedestal with Base Light, Overhead Feed



Non-Adjustable

*One-Section, Four-Way Non-Adjustable Beacons

Type	No.	Each	Mounting
TSW-441D	42694	\$64.00	Span Wire
TIW-441D	42695	76.00	Span Wire with Base Light
TSM-441D	42696	68.60	Mast Arm
TIM-441D	42697	80.60	Mast Arm with Base Light
TSP-441D UG	42698	†67.20	4-Inch Post, Underground Feed
TSP-441D OH	42699	†70.60	4-Inch Post, Overhead Feed
TSA-441D UG	42702	177.20	Pedestal with Base Light, Underground Feed
TSA-441D OH	42703	180.60	Pedestal with Base Light, Overhead Feed



Non-Adjustable

*Write for additional information on two, three, five, and six-way beacons.

Crouse-Hinds One-Section, Four-Way Beacons and Signals

Without Motor Flashing Switch

Schedule T

{With Amber Unlettered Type T or Special Lenses

Crouse-Hinds one-way, one section beacons and signals are similar in all respects to standard traffic signals, except that they have only one section instead of the usual three.

All beacons except TSE-111D are regularly equipped with amber, unlettered combination lenses. Type TSE-111D is equipped with WALK or ARROW lenses and is used for mounting beneath existing signals. They are furnished complete with ¼-inch diameter pipe nipple, lead gasket, and check nuts.

Type TST-111D beacons are equipped with an auxiliary reflector and receptacle for illuminating an information or warning sign mounted on the supporting standard immediately below. Auxiliary reflector is designed to take any lamp not exceeding 3½ inches in diameter or 6½ inches in length. A standard 100-watt lamp is recommended. On the bottom of the type TST-111D beacon, there is a slip fitter for 2-inch pipe, cast as part of the beacon base. Set-screws are provided for fastening it to the 2-inch supporting pipe.



Type	No.	Each	Mounting	Lens
TSO-111D	46402	\$16.00	Without any Mounting Attachments	Amber
TSW-111D	42657	21.20	Span Wire	Amber
TSM-111D	42658	25.80	Mast Arm	Amber
TSP-111D UG	42659	22.20	4-Inch Post, Underground Feed	Amber
TSV-111D	42663	20.20	Vertical-Bracket, with Top Arm Only, less Pole Clamps	Amber
TSE-111D	46372	18.80	1¼-Inch Nipple in Top with Hood	WALK
TSE-111D	46373	18.80	1¼-Inch Nipple in Top with Hood	Vertical Arrow
TSE-111D	46374	18.80	1¼-Inch Nipple in Top with Hood	Right Arrow
TSE-111D	46375	18.80	1¼-Inch Nipple in Top with Hood	Left Arrow
TST-111D UG	46380	30.20	2-Inch Post with Sign Reflector and Glass Door	Amber



Prices do not include incandescent lamps, motor flashing switches, or radio interference suppressors.

If hoods are required, they will be furnished without extra charge.

†Lenses of any standard color can be obtained without extra charge. Lettered lenses can be furnished at an advance of \$1.00 per lens in the price. For each lens omitted, deduct \$1.00 from the prices.

‡Beacons for 1½-inch nipple mounting can be furnished, instead of 4-inch post mounting at a decrease of \$5.40 in the prices.

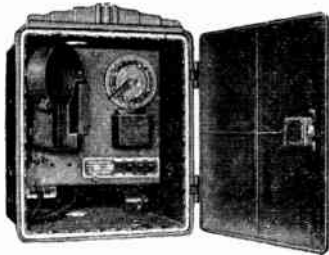
Crouse-Hinds Automatic Synchronous Controllers

Schedule T

Jack Mounted—Weatherproof Cabinets

*With Gear-Shift—Adjustable Time-Cycle, 40, 50, 60, 70, and 80 Seconds

†10 Amperes, 115 Volts, 60 Cycles A.C.—6 to 15 Color Circuits, 16 Intervals



Type KS-1
Mounted in Size 16 Cabinet



Type GS-4
Mounted in Size 22 Cabinet

Types KS-1 and GS-4 Non-Interconnected Synchronous

The non-interconnected type should be used at adjacent isolated intersections. Such controllers will keep in step with each other and provide a limited progressive traffic movement. They can be left running 24 hours a day or can be shut down or turned to flashing by means of time switches. All non-interconnected controllers are equipped with manual reset circuits. At the time of installation of such controllers, it is well to consider the possibility of future interconnection; and, if this is likely, the future-interconnected type should be purchased since the small additional cost would easily be justified.

Type GS-4 Future-Interconnected Synchronous

Often cities desire to install a signal system, but lack sufficient money for the purchase of cable. The future-interconnected type of controller solves the immediate problem since the signals and controllers may be installed and the interconnecting cable purchased later. Such controllers are similar to the non-interconnected type except that they are designed and wired for interconnection later.

The terminal board is designed for interconnection; fuse clips for the interconnecting cable are furnished and the remote-control relay subbases for signal shut-down and flashing are installed and wired complete. The automatic reset circuit is also added. Only the remote-control relays are not supplied with future interconnected controllers. They may be purchased at the time of interconnection and mounted on the relay subbases.

Type GS-4 Interconnected Synchronous

The interconnected type GS controller is the one most generally used in the congested portions of cities and on long thoroughfares leading thereto. Such a system permits progressive signal operation and provides all of the necessary features for perfect control except control of the time-cycle from the master.

By running an interconnecting cable between the controllers, the following additional features may be incorporated in the system: automatic reset, remote shut-down, remote flashing, and remote emergency all-red. In addition to the common wire, one positive wire in the cable for each remote-control feature.

Timing Units For Synchronous Controller



The timing-unit motors of both controllers are of the low-speed, disc type, revolving at approximately 300 revolutions per minute.

All shafts are equipped with ball bearings.

The magnetic circuit of the motors is of laminated construction, and the result is a highly efficient motor, having a very high torque with a low wattage input.

This type of motor has proven successful in traffic signal controller operation for more than 20 years.

The synchronous timing-unit for Type KS-1 and GS-4 is the same.

If cabinet is not desired, deduct \$25 from the price of complete controller.

Prices include brackets for wood-pole mounting or adjustable pole bands for steel-pole mounting. Standard 4-inch pedestal adapter, \$8.00 additional.

*May be furnished with gears for other time-cycles.

†For 25, 40, and 50 cycles, add \$10 to the prices. Write for information on special voltages that are available.

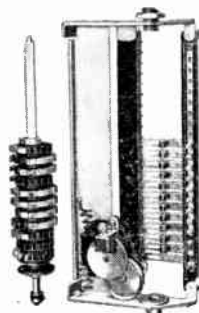
Cam Units For Color Sequence Flexibility

Features excellent design, simplicity, and accessibility.

The cam-unit motor receives impulses from the dial contacts and drives the cam-shaft forward one position at a time.

Has a powerful, ball-bearing type motor equipped with an electro-dynamic brake to prevent coasting.

Provides a maximum of 16 intervals, but any lesser number may be used by resetting the cam-lobes. This can be done in the field without tools.



Cam-Unit with
Cam-Shaft Removed.

The cam-unit of KS-1 controller is limited to 6-color circuits while that of the GS-4 controller will accommodate 15-color circuits. These color circuits are in addition to the necessary control circuits for interlock and interval indexing.

Crouse-Hinds Automatic Synchronous Controllers

Schedule T

Jack Mounted—Weatherproof Cabinets

*With Gear Shift—Adjustable Time Cycle, 40, 50, 60, 70, and 80 Seconds

†10 Amperes, 115 Volts, 60 Cycles A.C.—6 to 15 Color Circuits, 16 Intervals

Type KS-1 for Non-Interconnected Operation

With Hand Reset Switch

With 2 vehicle movements. Minimum number of signal circuits, 6.
Not available in 3, 4, or 5 vehicle movements.

No.	Without Flashing Mechanism	With Flashing Mechanism
Type KS-1.....	each \$160.00	each \$166.00

Type GS-4 for Non-Interconnected Operation

With Hand Reset Switch

	NUMBER OF VEHICLE MOVEMENTS							
	2		3		4		5	
	MINIMUM NUMBER OF SIGNAL CIRCUITS							
	6		9		12		15	
	No.	Each	No.	Each	No.	Each	No.	Each
Type GS-4, without Flashing Mechanism.....	each 46488	\$180.00	each 46490	\$192.00	each 46492	\$204.00	each 46494	\$216.00
Type GS-4, with Flashing Mechanism.....	each 46489	186.00	each 46491	198.00	each 46493	210.00	each 46495	222.00

Type GS-4 for Future-Interconnected Operation

With Hand Reset Switch, Automatic Reset Circuit, and Relay Subbases Wired Complete

Type GS-4 with Flashing Mechanism	WITH RELAY SHUT-DOWN	TYPE GS-4 WITH RELAY SUBBASES WIRED FOR EMERGENCY ALL-RED	NUMBER OF VEHICLE MOVEMENTS							
			2		3		4		5	
			MINIMUM NUMBER OF SIGNAL CIRCUITS							
			6		9		12		15	
			No.	Each	No.	Each	No.	Each	No.	Each
X	X	X	46620	\$207.00	46624	\$222.00	46628	\$234.00	46632	\$249.00
..	X	..	46621	201.00	46625	216.00	46629	228.00	46633	243.00
X	..	X	46622	207.00	46626	225.00	46630	237.00	46634	255.00
X	X	X	46623	210.00	46627	228.00	46631	240.00	46635	258.00

Type GS-4 for Interconnected Operation

With Hand Reset Switch, Automatic Reset Circuit, and Jack Mounted Remote Control Relays Wired Complete

Type GS-4 with Flashing Mechanism	WITH REMOTE CONTROL SHUT-DOWN	TYPE GS-4 WITH REMOTE CONTROL RELAYS WIRED FOR EMERGENCY ALL-RED	NUMBER OF VEHICLE MOVEMENTS							
			2		3		4		5	
			MINIMUM NUMBER OF SIGNAL CIRCUITS							
			6		9		12		15	
			No.	Each	No.	Each	No.	Each	No.	Each
No Relays Furnished			46636	\$201.00	46644	\$216.00	46652	\$228.00	46660	\$243.00
..	X	..	46637	210.00	46645	225.00	46653	237.00	46661	252.00
X	..	X	46638	216.00	46646	240.00	46654	252.00	46662	278.00
..	..	..	46639	210.00	46647	234.00	46655	246.00	46663	270.00
X	X	X	46640	225.00	46648	249.00	46656	261.00	46664	285.00
..	X	..	46641	219.00	46649	243.00	46657	255.00	46665	279.00
X	..	X	46642	225.00	46650	261.00	46658	273.00	46666	309.00
X	X	X	46643	237.00	46651	273.00	46659	285.00	46667	321.00

If cabinet is not desired, deduct \$25 from the price of complete controller.

Prices include brackets for wood-pole mounting or adjustable pole bands for steel-pole mounting. Standard 4-inch pedestal adapter, \$8.00 additional.

*May be furnished with gears for other time-cycles.

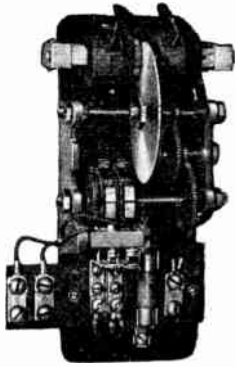
†For 25, 40, and 50 cycles, add \$10 to the prices. Write for information on special voltages that are available.

Type TSS-18 Crouse-Hinds Motor Flashing Switches

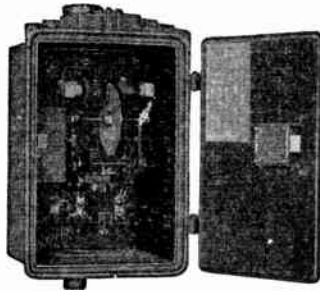
Schedule T

20 to 60 Flashes per Minute

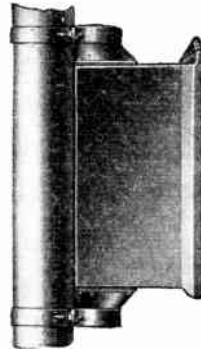
***10 Amperes, 115 Volts, 60 Cycles A.C.**



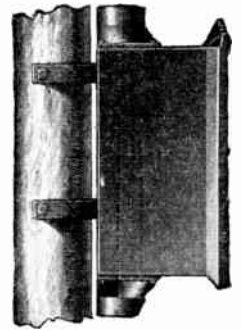
Switch Only



Switch in Size 12 Cabinet
(Door Open)



Size 12 Cabinet
Steel-Pole Mounting
With Adjustable Pole Bands



Size 12 Cabinet
Wood-Pole Mounting
With Wood Pole Straps

Type TSS-18 has large diameter, widebreak, non-corrosive metal contacts and will handle an incandescent lamp load of 10 amperes. It is driven by a variable speed induction-disc motor, the magnetic circuit of which is laminated throughout, thus giving high torque at low wattage input.

The speed of flash may be varied between 20 times a minute and 60 times a minute.

In addition to the motor flashing switch itself, a terminal block with properly identified terminals for all field connections is provided. A set of fuse clips for the hot side of the power line is mounted on the terminal block.

The entire switch assembly may be removed as a unit from the cabinet to facilitate installation.

Cabinet: Type TSS-18 motoring flashing switch is mounted in a cast aluminum, weather-proof cabinet, equipped with a heavy duty brass lock. The hinged door of the cabinet is equipped with a gasket to exclude dust and moisture.

Radio Interference Suppressor: Type TSS-18 motor flashings switches are listed below with and without radio interference suppressors.

	†STEEL-POLE MOUNTINGS		†WOOD-POLE MOUNTINGS	
	Single-Circuit No. Each	Two-Circuit No. Each	Single-Circuit No. Each	Two-Circuit No. Each
Type TSS-18, with Suppressor.....	42719 \$46.00	42720 \$52.00	46411 \$46.00	46413 \$52.00
Type TSS-18, without Suppressor..	42717 38.00	42718 42.00	46412 38.00	46414 42.00

Crouse-Hinds Traffic Signal Lenses

For All Types of Signals

8 3/8-Inch Type T Combination Lenses—Standard

(Meets Specifications of Institute of Traffic Engineers)

No. KL3842, Type T Red Lens.....	each	\$2.00
No. KL3843, Type T Amber Lens.....	each	2.00
No. KL3844, Type T Green Lens.....	each	2.00



Combination Lens
Green, Amber,
or Red



Clear WALK Lens
I. T. E. Standard

8 3/8-Inch Lettered Prismatic Diffusing Lenses

No. KL3185, I.T.E. Arrow, Black Field, Clear Lettering.....	each	\$3.00
No. KL3825, Lettered WALK, Black Field, Clear Lettering.....	each	3.00
No. KL3829, Lettered WAIT, Black Field, Clear Lettering.....	each	3.00



Green Prismatic
Diffusing Lens
I.T.E. Arrow



Clear WAIT Lens

*Can be furnished for 230-volt, 60-cycle operation without extra charge. Write for information on other voltages and frequencies.

†Prices include straps for wood-pole mounting or adjustable pole bands for steel-pole mounting.

Crouse-Hinds Pedestals and Poles

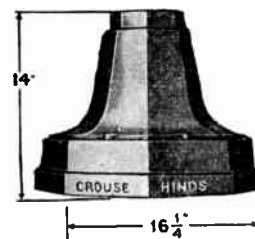
Schedule P

The poles and pedestals listed on this page consist of an ornamental cast Feraloy base with a shaft of tubular steel.

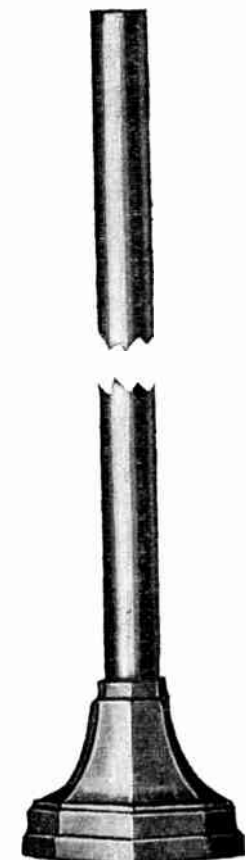
The short 34-inch pedestal is equipped with a shaft of either 3 or 4-inch diameter pipe, and is designed for mounting control cabinets. The longer poles, for mounting signals, have a tubular steel shaft of 4-inch pipe and are furnished with an overall height of from 5 to 10 feet.

These poles and pedestals should, of course, be mounted on concrete foundations. They require four foundation bolts, $\frac{3}{4}$ -inch in diameter and 16 to 18 inches long. The foundation bolts are not included in the catalog numbers listed below.

In the ornamental base, there is a door which is fastened to the base with machine screws. The opening of this door is $8\frac{1}{16}$ inches high, $2\frac{1}{2}$ inches wide at the top and $10\frac{3}{4}$ inches wide at the bottom. This large opening provides ample room for making splices.



Ornamental Base For Pedestals and Poles



Pole with Ornamental Base and 4-Inch Pipe Shaft



34-Inch Pedestal with 3-Inch Pipe Shaft

Height Feet	1 1/2-Inch Nipple Mounting		4-Inch Tenon Mounting	
	No.	Each	No.	Each
5	46091	\$42.40	45670	\$42.40
6	46092	44.40	45671	44.40
7	46093	46.40	45672	46.40
8	46094	48.40	45673	48.40
9	46095	50.40	45674	50.40
10	46096	52.40	45675	52.40

Control Box Pedestals

No.	45870	46391
Each	\$38.40	38.40
Size Pipe Shaft.....inches	3	4
Height.....inches	34	34

No. 45669 Ornamental Bases

No. 45669, Height, 14 Inches.....each \$34.40

Crouse-Hinds Pole Clamps and Mounting Attachments For Signals and Control Boxes

Pole Clamps for 1 1/2-Inch Bracket Arms with 1 1/4-Inch Downward Hub

DIMENSIONS, INCHES	Single Hub		Double Hub	
	Nominal Inside	Actual Outside	No.	*Each
3	3 1/2		KL3134	\$3.20
4	4 1/2		KL3135	3.60
5	5 5/16		KL3136	4.00
6	6 5/8		KL3137	4.40
7	7 5/8		KL3138	5.00
8	8 5/8		KL3139	5.80
9	9 5/8		KL3140	6.80
10	10 3/4		KL3141	9.00
			KL3161	\$4.20
			KL3162	4.60
			KL3163	5.00
			KL3164	5.40
			KL3165	6.00
			KL3166	6.80
			KL3167	7.80
			KL3168	10.00



Single Hub



Double Hub

Wood-Pole Plates

For All Wood Poles

No. KL2428, 1 1/4-Inch Downward Hub.....each \$2.00
 No. HL9062.....each 2.00



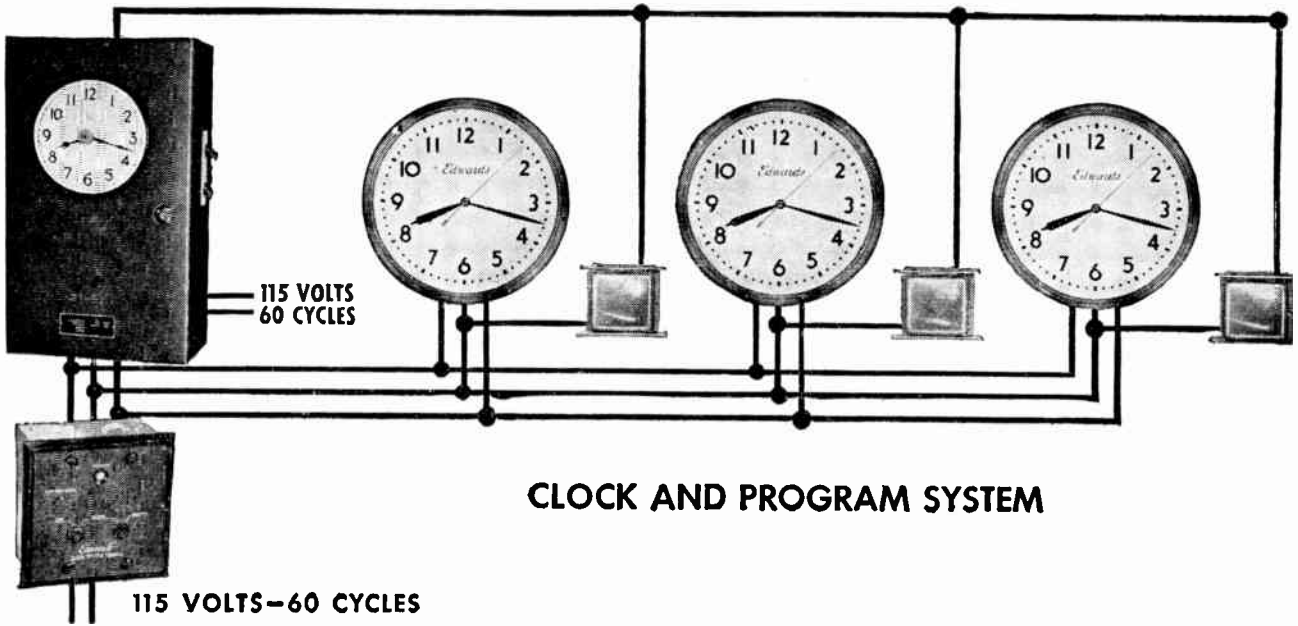
No. KL2428, For 1 1/2-Inch Arms



No. HL9062, For 2-Inch Mast Arms

*For intermediate sizes, use price of next size larger clamp.

Edwards Centrally Controlled Program Clock Systems



CLOCK AND PROGRAM SYSTEM

A Typical System

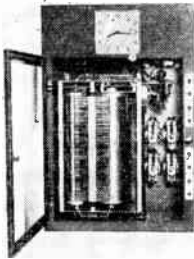
Edwards complete clock systems feature Telechron dual-motored, self-starting synchronous movement which operates without contacts, rectifiers, master clocks, relays, pendulums, keys or switches.

All clocks, program instruments, and signals listed are approved by the Underwriters Laboratories for 115 volts a.c. Edwards units are designed for operation on 115 volts, 60 cycles a.c. operation, but, when specially wound, may be used on other voltages and frequencies.

The clock and program system illustrated consists of a program instrument, for single circuit or multiple circuit as required, and a resetting device (manual or automatic) built with dual-motored clocks and audible signals.

It is important that a resetting device be used in this clock and program system in order to permit convenient time correction after power service failure, daylight saving adjustment, etc.

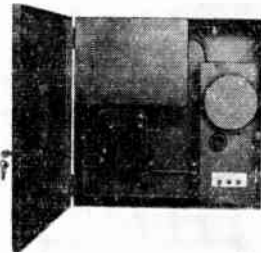
Program Instruments



No. 1918

Multiple Circuit Program Instrument

Resetting Units



No. 1902

Automatic Dual-Motor Reset Unit

If every room in the school operates on the same schedule of program every day of the week, a one-circuit program instrument will suffice. An additional circuit is necessary for every day that the schedule differs and when any grade operates a different daily schedule.

When the school that has only daytime sessions operates on any night schedule, a 24 hour program is standard. The multiple circuit program instrument is available in two, four, and six circuit sizes. Program is set by inserting pin in cylinder hole.

Signal duration is adjustable from two to six seconds.

The multiple circuit device No. 1918 (four circuit) is enclosed in a metal cabinet.

Single circuit program instrument No. 1910 is available for smaller installations.

No. 1910 each \$255.00
 No. 1918 each 560.00

When clocks, signals, and instruments operate as a system with common current supply, the central control permits easy, accurate correction for power interruptions. The automatic power control measures length of power interruption and causes clocks to operate from a second motor at an accelerated rate to correct time.

Unit includes manual switches for daylight saving time corrections.

No. 1902 automatic control is enclosed in a metal cabinet with lock and key. Also available in manual control type No. 1900.

No. 1900 each \$54.00
 No. 1902 each 430.00

Edwards Centrally Controlled Program Clock Systems

Edwards & Company manufactures a wide selection of signaling equipment. The purpose of this listing is to show the best, the most practical, and the most dependable recommendation based on years of research.

In explanation: Synchronous clocks show the correct time at each second of the day and night, are noiseless, and are dependable. They are a logical and modern advance over the old "minute-jumper" clocks which were noisy and only changed time at each minute interval.

Automatic resetting with dual-motored clocks is certainly a modern necessity. It represents a minute fraction of the cost of any up-to-date building. A janitor, traveling from room to room with a step ladder, is a long and undependable process.

Manual correction from a central push button is a poor substitute.

Correction by overspeeding a single-motored clock is an unnecessary strain on wearable parts.

A program instrument is the only way to assure smooth, systematic, and punctual change of classes in any school, no matter how small.

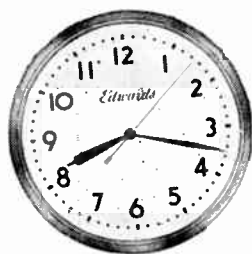
Flush, 12-inch clocks are recommended. They cost no more than surface clocks and a well designed building deserves their neater appearance. The 12-inch size has proved to be best for all locations.

Room signals should be loud enough but not startling. The old idea of very loud corridor signals (and no room signals) is distinctly outmoded, first, because noisy schools are inefficient schools, and, secondly, because all rooms do not change at the same time. A chime is best, a buzzer in the clock case next best.

Loud signals should be used in such locations as gymnasiums, lavatories, swimming pools, vocational rooms, and outdoors. A 6-inch bell is best, a horn second best. Outdoor signals should be watertight and built to stand abuse. For added protection to outdoor signals, a hood is recommended.

Avoid confusion. There is no economy in trying to make one system do three jobs poorly, instead of one job well. Don't try to make program bells call the teacher to the telephone; don't risk lives by having "three rings" on the classroom bells warn a fire instead of having a fire alarm system designed for the job.

No. 1962 Flush Wall Clock



Has 12-inch dial for classrooms, corridors, etc.

Furnished with red sweep second hands, clear white dial, convex crystal glass.

Black Arabic numerals permit easy visibility from a distance.

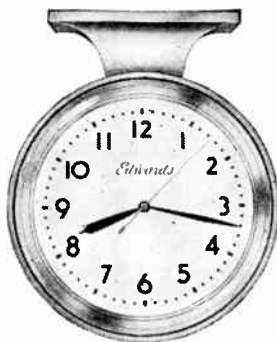
Powered by Telechron synchronous, noiseless dual-motored movement.

Metal case has satin aluminum finish.

Can be used with No. 1900 manual reset or No. 1902 automatic reset control unit.

No. 1962.....each \$30.00

No. 1978 Double Dial Clock



Has 12-inch dial and is used in corridors, etc.

Can be suspended from ceiling or side wall as desired.

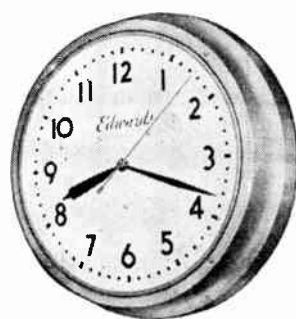
Especially desirable for use where time is to be seen from opposite direction.

Consists of two round, surface type clocks mounted by standard hangers to a center suspension unit.

Metal case has satin aluminum finish.

No. 1978.....each \$100.00

No. 1972 Surface Clock



Has 12-inch dial.

Furnished with red sweep second hands, clear white dial, and convex crystal glass.

Black Arabic numerals permit easy visibility from a distance.

Powered by Telechron synchronous, noiseless dual-motored movement.

Metal case has satin aluminum finish.

Can be used with No. 1900 manual reset or No. 1902 automatic reset control unit.

No. 1972.....each \$30.00

Edwards Audible Signals

Edwards & Company has pioneered in the development and manufacture of audible signals since 1872.

Audible systems include surface or flush chimes for classrooms; buzzers for classrooms; adaptable for corridors, playrooms, lavatories, vocational rooms, and gymnasiums. For outdoor use, horns in locations where a bell signal is not desirable.

Edwards Hospital Signaling Systems and Equipment

Hospital signaling systems are an absolute necessity in every modern hospital.

Nurses' Calling Systems

Nurses' calling systems may be of either one of the following three types:

LOCKING-BUTTON TYPE in which the locking push button, suspended from a flexible, rubber-covered cord contains all the mechanism to actuate the audible and visible signals and to reset these when call has been answered.

PULL-CORD-SWITCH TYPE consisting of special toggle-type switch installed in the wall and operated by a pull-cord. This system is used in hospitals where low initial cost is a deciding factor; the operation of the pull-cord switch requires more effort on the part of the patient, and is sometimes not favored because of this.

Psychopathic Alarm Systems

This type system is tamper proof so that the deranged patients cannot operate the system. By means of a switch outside the corridor, the attendant can make the calling station in each room operative before he enters the room. Then he can call for assistance in the event of an unruly patient.

Doctors' Paging System

The services of the permanent medical staff and of visiting physicians are in constant demand in all hospitals. It is, therefore, important that a doctor be reached as soon as possible. When visiting in a hospital, he may have several patients requiring his attention, during which time a demand for his services may arise elsewhere.

To meet such a condition, the Edwards doctors' paging system enables three doctors to be paged at one time on any number of annunciators without disturbing patients.

Nurses' Home-Calling Systems

These systems provide communication between office and the nurses' and attendants' rooms at their homes. Two types of systems may be used, viz.:

Return-Call Annunciator Type

Intercommunicating Telephone Type

In the return-call annunciator systems, nurses' or attendants' rooms are provided with a combination buzzer and push-button-station while at building office, a combination annunciator and push button board is installed. In this way the office may call the nurse and the nurse may answer the call by operating the corresponding push buttons.

Doctors' In and Out Systems

In both large and small hospitals where the visiting doctors are likely to arrive at all hours of the day or night, it is important to know when a certain doctor is in or out of the building. To accomplish this, an electrical reset annunciator, with the required number of indications, is located in view of the telephone operator. In the main entrance or doctors' cloak room is located a similar annunciator with switches. The doctor, by throwing the switch opposite his name, lights the indicator, showing his name on both annunciators. Throwing the switch in the opposite direction extinguished the lights opposite his name in both instruments.

Ambulance and Entrance Signaling Systems

Consist chiefly of the necessary push button, located at doors leading out of the building and a lamp-annunciator having a lamp signal for each location with buzzer as audible signal. Useful for night service.

Room stations may be provided with indicating drops which in nurses' absence remains visible until reset, indicating that a call as been made.

In the telephone call system the combination annunciator and push button board is provided with an operator's telephone and the room stations are replaced by telephones. The room telephone may be provided with indicating drop for the same purpose as stated above.

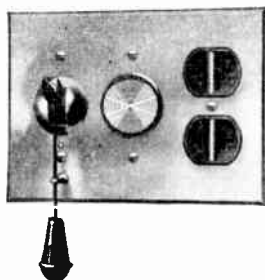
Hospital signaling equipment is approved by the War Department for Army Hospitals; Bureau of Yards and Docks for Navy Hospitals; and Department of The Interior for Indian Hospitals.

Engineering Advice

Our engineering department—specialists in this particular field of signaling—will gladly co-operate with architects, engineers, hospital superintendents, etc., in charge of operation to lay out systems and make recommendations.

There is no charge for this service.

Bryant Hospital Signal Devices



Bedside Calling Station



No. CS56 Switch



No. CS258 Switch

Bedside Calling Stations

Operated by the patient; calls can only be cancelled at the bedside. Designed for use on 125 volts.

Furnished single gang or in combination with bull's eye, switch, power and radio outlets, etc.

Station switches, Nos. CS56 and CS256 (2 cords) with audible signal contact; and Nos. CS58 and CS258 (2 cords) without audible signal contact.

No. CS50 Dome Lights

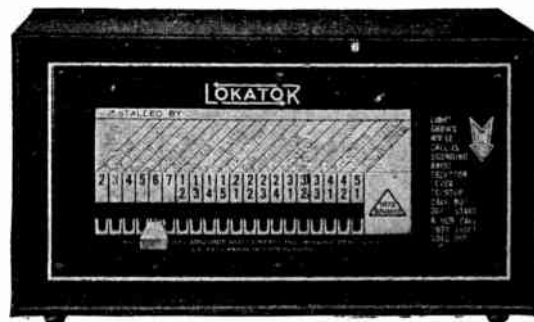


For use over private room or ward doors, corridor intersections, diet kitchens, etc.

Single dome with one light. Dome light has solid brass plate, 4½ inches square.

Requires one gang box not less than 1 inch deep.

Edwards Lokator Systems Standard Twenty Call Lokator



The Edwards Lokator is an inexpensive, dependable system which through the medium of various signals located throughout a plant, store or office enables the telephone operator to quickly locate any person for a telephone call, etc.

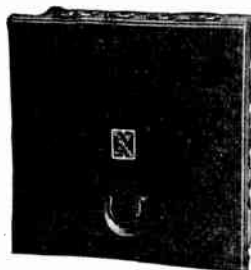
The Lokator is operated entirely by low voltage irrespective of the voltage used to operate the signals. Its mechanism is driven by a small synchronous motor.

Crackled black finish is relieved in dull chromium.

The Lokator may be placed on the key shelf, on top of the switchboard or, preferably, on a shelf or table at the side of the board. It is light and portable. No mechanical or electrical connections to the switchboard. It is not necessary for the operator to remember code numbers. All names are typed on a cellophane protected strip directly above the selector lever.

The easiest, least expensive and most convenient method of wiring the devices may be used. Conduit, molding, etc., are not necessary.

Power Units



The Power Units are standardized to provide the most desirable voltage operation of the system from either a.c. or d.c. lighting circuit.

A simple chart in the Edwards Lokator bulletin shows the quantity of signals one power unit will operate over a given distance and wire size. The system is unlimited as additional power units may be inserted into the line where needed.

Sounding Devices



No. 552-3 Bell Signal



No. 5001 Chime Signal



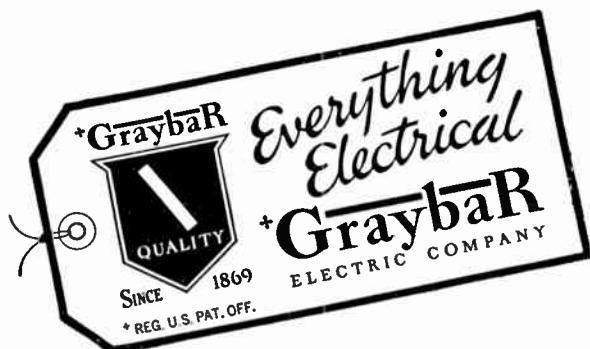
No. 5031 Light Signal

A wide variety of sounding devices is offered to cover all conditions; a soft musical note, a louder note, a sharp tone bell, a silent light flash, a blasting horn. Each one, however, is designed, rated and standardized for operation together. Again, there are no special problems.

The most commonly used of the sounding devices for all systems are the chimes. They have a pleasant musical tone to which the ear responds subconsciously, but which is not annoying.

The light signal is ideal for locations where no noise whatsoever is required and then the call is shown by the flashing light.

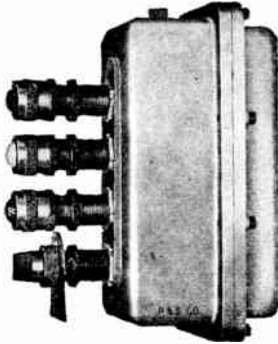
The specially designed bells give a clear, crisp tone and will stand many years of hard service.



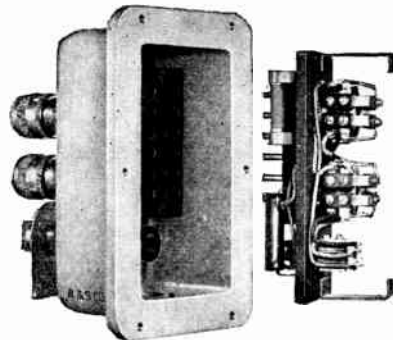
R & S Unilarm Systems

Explosion-Proof and Dust-Tight—Class 1, Groups C and D

Vaportight and General Purpose



No. AEP3 Assembled



No. AEP2, Showing Plug-In Unit Removed

A standardized unit alarm system for the supervision of equipment and process operations. Provides, in one compact enclosure, the many features essential for complete, unflinching supervision.

All contact making devices are assembled on a novel plug-in panel that can easily be removed when relay adjustments or other maintenance problems arise. Spare plug-in unit may be inserted immediately to insure continuous operation.

What Unilarm Does

1. Eliminates cost of designing and checking alarm circuit and elaborate wiring diagrams. The Unilarm circuit was standardized after exhaustive study and test, making it as simple to connect as wiring a switch.
2. Eliminates back of panel conduit and wiring required between separately mounted indicator lights, relays, reset switches, etc.
3. Eliminates failure to operate. Standard circuit normally is energized; completely supervised. Any failure in circuit causes alarm to operate.
4. Permits instant testing. Operation of test switch gives instant proof of the Unilarm readiness to function under alarm conditions.
5. Saves valuable space. Compact design requires no more space than the conventional pilot light.
6. Reduces installation costs to a minimum. Only one hole in panel per indicating light and switch is required for mounting.
7. Cuts maintenance to a minimum. No need of troubleshooting in cramped back of panel areas. Replace plug-in unit with spare—servicing of unit removed is performed safely and efficiently in the maintenance shop.

Unilarm Operation

Operation of two and three-light Unilarm systems is fundamentally the same. When conditions are normal, the contacts of the alarm initiating device (thermostat, pressure switch, etc.) are closed*, Unilarm relays are energized, and normal light is burning. If conditions become abnormal, the alarm initiating contacts open, Unilarm relays are de-energized, and the proper alarm light flashes rapidly on and off; also, an external howler, if used, is sounded.

The operator acknowledges the alarm by turning the acknowledgement switch of the proper Unilarm. This action silences the howler and causes the alarm light to stop flashing and to assume steady-state illumination.

When conditions return to normal, the alarm light goes out, normal light comes on, and Unilarm is reset automatically for another cycle of operation.

The system is primarily designed to indicate departure from a predetermined normal condition of temperature, pressure, level, etc. Many stages of indications can be arranged to suit conditions to be supervised.

Each Unilarm is completely independent. The functioning of one does not affect or impair the subsequent operation of another. Any number may be connected to a single howler circuit without the possibility of feed-backs occurring.

For Panel Mounting

Description	Standard 2-Light		3-Light		Three-Stage 2-Light		Five Stage 3-Light		Vital Motor Alarm 2-Light	
	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each
Explosion-Proof.....	AEP2	\$160.00	AEP3	\$190.00	AEP23	\$190.00	AEP35	\$250.00	MAEP24	\$225.00
Vaportight.....	AVT2	140.00	AVT3	165.00	AVT23	165.00	AVT35	225.00	MAVT24	200.00
General Purpose.....	AU2	125.00	AU3	150.00	AU23	150.00	AU35	210.00	MAU24	185.00
Replacement Parts										
Plug-In Unit.....	PU2	\$85.00	PU3	\$95.00	PU23	\$95.00	PU35	\$145.00	MPU24	\$120.00
Lens Assembly:										
Explosion-Proof.....	ELA	2.50								
Vaportight.....	VLA	1.50								
General Purpose.....	LA	1.50								

*Can also be supplied for initiating devices with normally open contacts.

Standard lens colors are white (normal), green (low alarm), and red (high alarm). Specify color of lenses when ordering. Other colored lenses will be supplied when specified.

Furnished with lamps S6, 6-watt, 120-volt bulbs.

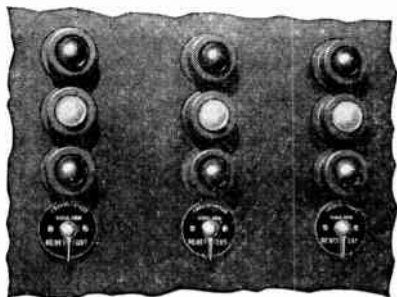
Unilarm can be furnished for surface mounting. Information and prices on request.

Type EKP Crouse-Hinds Visularms

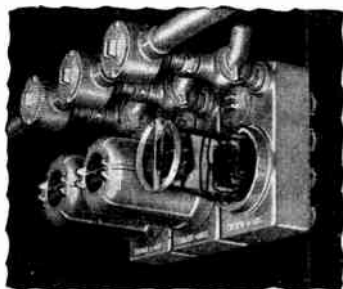
Explosion-Proof, Dust-Tight, and Weather Resistant (Raintight)

Class I, Group D (NEMA Type VII); Class II, E, F, and G; and Class III (NEMA Types IX, V and III)

Schedule CE



Three Horizontally Mounted Visularms
Front View of Panel



Three Horizontally Mounted
Visularms, Back Feed Conduit
Arrangement, Rear View of Panel.



Separated View

Type EKP Visularm is a complete compact unit used to supervise and control manufacturing processes in chemical plants, oil refineries, synthetic rubber plants and in other locations where constant control is necessary. The Visularm will indicate, by means of pilot lights, normal and abnormal temperature, liquid level, speed, load or any other condition which can be electrically coupled to the circuit. It is desirable to provide an audible indication of abnormal conditions and, therefore, the units listed are arranged to operate a howler signal such as one of the type ETH howlers.

Auxiliary circuits can be furnished to interlock with other devices or control process equipment. The Visularm includes the following electrical features as standard: 1. Jack-mounted panel completely factory wired and tested. 2. High speed flasher on alarm light. 3. Independent howler circuit. 4. Reset switch. Silences howler and changes alarm light from flashing to steady until fault is corrected. 5. Test switch. Permits periodic check of every device in the Visularm insuring proper operation under abnormal conditions.

Two-Light Two-Position Visularm For Normal and Abnormal Indications

Signal Indications:

1. Normal—Bottom green light on. Top red light off.
2. Abnormal—Red light flashing. Howler on. Green light off.
3. Reset—Howler silenced. Red light on steady until conditions return to normal.

Initiating Device Contacts
Normally Open Normally Closed

*Description	No.	No.	Each
†Complete Visularm	EKP32-1-J1-3	EKP32-6-J1-3	\$130.00
Jack-Mounted Panel	EKPU32-1	EKPU32-6	68.00

Three-Light Three-Position Visularm For Normal and High-Low Abnormal Indications

Signal Indications:

1. Normal—Center green light on. Top and bottom red lights off.
2. Abnormal Low—Bottom red light flashing. Howler on. Green and top red lights off.
3. Reset—Howler silenced. Bottom red light on steady until conditions return to normal.
4. Abnormal High—Top red light flashing. Howler on. Green and bottom red lights off.
5. Reset—Howler silenced. Top red light on steady until conditions return to normal.

Initiating Device Contacts
Normally Open Normally Closed

*Description	No.	No.	Each
†Complete Visularm	EKP43-3-J1-3-1	EKP43-7-J1-3-1	\$154.00
Jack-Mounted Panel	EKPU43-3	EKPU43-7	77.00

Two-Light Three-Position Visularm For Normal, Intermediate and Abnormal Indications

Signal Indications:

1. Normal—Bottom white light on. Top red light off.
2. Intermediate—White and red lights on.
3. Abnormal—Red light flashing. Howler on. White light off.
4. Reset—Howler silenced. Red light on steady until conditions return to normal.

Initiating Device Contacts
Normally Open Normally Closed

*Description	No.	No.	Each
†Complete Visularm	EKP32-2-J1-12	EKP32-8-J1-12	\$154.00
Jack-Mounted Panel	EKPU32-2	EKPU32-8	77.00

*Standard unit arranged for 115 volts a.c., 60 cycles. Visularm can be supplied for other voltages and frequencies or other circuit arrangements. Prices on application.

†Visularm does not include howler. Type ETH howlers recommended. Pilot light jewels of colors other than those listed can be supplied. Information on request.

Three-Light Five-Position Visularm

For Normal, High-Low Intermediate and Abnormal Indications

Signal Indications:

1. Normal—Center white light on. Top and bottom red lights off.
2. Intermediate Low—White and bottom red lights on steady. Top red light off.
3. Minimum Low—Bottom red light flashing. Howler on. White and top red lights off.
4. Reset—Howler silenced. Bottom red light on steady until conditions return to normal.
5. Intermediate High—White and top red lights on steady. Bottom red light off.
6. Maximum High—Top red light flashing. Howler on. White and bottom red lights off.
7. Reset—Howler silenced. Top red light on steady until conditions return to normal.

Initiating Device Contacts
Normally Open Normally Closed

*Description	No.	No.	Each
†Complete Visularm	EKP43-4-J1-12-1	EKP43-9-J1-12-1	\$170.00
Jack-Mounted Panel	EKPU43-4	EKPU43-9	91.00

Two-Light Four-Position Visularm For Essential Motor Alarm

Signal Indications:

1. Motor Off—Bottom green light on. Top red light off.
2. Motor On—Red light on. Green light off.
3. Thermostat on motor indicates high temperature—Red light flashing. Howler on. Green light off. Motor continues to run.
4. Reset—Howler silenced. Red light on steady. Motor running.
5. If motor temperature continues to rise—Magnetic starter trips. Green light flashing. Howler on. Red light off. Motor stopped.
6. Reset—Howler silenced. Green light on steady. Motor stationary until restarted.
7. Motor stopped intentionally—Green light on. Red light off. Howler silent.

Initiating Device Contacts
Normally Open Contacts on Thermostat
Extra NC Interlock Contact or Motor Starter

*Description	No.	Each
†Complete Visularm	EKP32-5-31-3	\$185.00
Jack-Mounted Panel	EKPU32-6	92.00

Viking Type M Pressure and Temperature Controls



Type MPC Pressure Control



Type MTC Temperature Control

Viking pressure and temperature controls are extremely accurate, dependable, and thoroughly service-tested control instruments for general application in connection with fluids not injurious to copper or brass.

Sturdily constructed with a small number of moving parts. Straight line operation insures consistent accuracy. Effectively withstands excessive vibration and shock. Free from damaging effects of corrosion due to special corrosion-resisting treatments.

May be installed in any position without effect on accuracy or certainty of operation.

Factory calibrated in accordance with requirements, and controls are sealed against tampering to prevent any unauthorized changes in the control settings.

Installation is simple. No tools or special parts are needed.

Electrical Ratings

Non-inductive loads: 1200 watts at 110-460 volts alternating current; 100 watts at 110-220 volts direct current.

Inductive loads: 300 watts at 110-460 volts alternating current; 50 watts at 110-220 volts direct current.

Furnished with single pole double throw switch contacts.

Type MPC Pressure Control. Designed for oil, water, and air pressures up to 100 pounds per square inch.

Type MTC Temperature Control. Designed for temperatures up to 250°F.

When ordering, specify type control desired, voltage of electrical circuit in which control will be connected, circuit current, and the pressure or temperature at which control is to operate.

Type MPC, Pressure Control.....	each \$30.00
Type MTC, Temperature Control.....	each 30.00

Viking Types M-3-B and M-3-BA Safety Controls

For Stationary Internal Combustion Engine Installations

Provides an audible and visual signal in case of insufficient lubricating oil pressure or excessive circulating water discharge temperature.

Self-supervising and fully automatic.

Both types include an indicator unit (with lubricating oil pressure control integral); a temperature control (for circulating water temperature); a warning howler; and an automatic throttle switch (if required). All parts are dust, fume, and moisture-proof.

Where warning howler may be mounted close to indicator unit, Type M-3-BA is recommended. Where conditions require that warning howler be mounted some distance from indicator unit, Type M-3-B is recommended.

Indicator unit includes pilot light (blue); two trouble source indicator lights (green), one each for oil pressure and water temperature; a pressure control (lubricating oil pressure); a test switch to provide a convenient means for testing warning howler at will; and a cutout switch for de-energizing the system manually to silence the warning howler in cases where it is desired to continue engine operation for a short period despite low oil pressure or high water temperature.

Indicator unit also serves as a junction box, and is furnished with a terminal block for electrical connections to other parts of the system and to the electrical power supply. All terminals are color coded to facilitate identification and to insure that connections are made in accordance with circuit diagram which is part of the installation instructions furnished with all Type M safety controls.

Temperature control Type MTC (see above) is installed in engine circulating water discharge line and is electrically connected to terminal block of indicator unit.

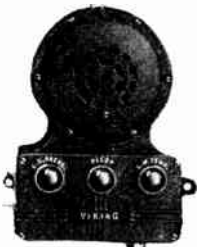
Warning howler is furnished as a separate unit in Type M-3-B. It may be mounted where convenient and is electrically connected to the terminal block of the indicator unit. In Type M-3-BA, the warning howler is integral with the indicator unit.

The warning howler provides a clear, unmistakable signal in case of low oil pressure or high water temperature.

For engine-generator sets having an output voltage of 250 volts or less, fully automatic operation is provided by connecting safety control system directly across generator terminals. Otherwise, fully automatic operation requires the use of an automatic throttle switch to automatically energize safety control system when engine is started up and to de-energize the system automatically when engine is shut down. The automatic throttle switch is mechanically connected to engine throttle control or to some other associated engine part providing the necessary minimum movement of 1/8-inch when engine throttle is advanced from the stop position to any run position. Fully automatic operation is necessary to eliminate the disadvantage and danger of dependence upon a manually operated switch for energizing the safety control system when the engine is started up and de-energizing the system when the engine is shut down.

When engine is in operation, and lubricating oil pressure and circulating water temperature are in the normal range, all lights of indicator unit are on and warning howler is silent. If lubricating oil pressure drops below operating point of pressure control or the circulating water temperature rises above the operating point of the temperature control, the pilot light and trouble source indicator light of affected circuit go out and warning howler sounds simultaneously.

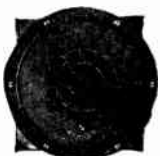
Type M-3-B, With Automatic Throttle Switch.....	each \$144.00
Type M-3-B, Without Automatic Throttle Switch.....	each 121.00
Type M-3-BA, With Automatic Throttle Switch.....	each 148.00
Type M-3-BA, Without Automatic Throttle Switch.....	each 125.00



Type M-3-BA Safety Control (Indicator and Warning Howler)



Type M-3-B (Indicator)



Type M-3-B (Warning Howler)



Automatic Throttle Switch

Edwards Industrial Fire Alarm Systems

Industrial fire alarm systems are particularly designed and suitable for factories, schools, colleges, public institutions, hotels, theatres, office buildings, department stores, warehouses, apartment houses, etc. in fact for every class of building where life and property should be protected from fire hazard, but with full consideration that such a fire alarm system must be dependable, yet simple and economical, both as to initial cost and maintenance.

Industrial fire alarm systems may be classified in 2 general types:

Electrically-Supervised Closed-Circuit Code and Non-Code Ringing for local drill alarm purpose and for connection to municipal fire alarm systems.

Non-Supervised Open-Circuit Code and Non-Code Ringing Systems.

Closed-Circuit Systems

Under the closed-circuit systems the following may be furnished:

PLAIN CODE SYSTEMS in which the operation of a station lever causes all audible devices such as gongs, horns, etc. to sound a pre-determined code indicating the point of origin of the alarm.

PRE-SIGNAL CODE SYSTEMS in which the first operation of a station lever causes a code to be sounded on certain audible signals, known as pilots. The second operation of the station by means of a special key will cause the code to be sounded on all audible devices, both pilots and general.

POSITIVE NON-INTERFERING CODE SYSTEM features may be included in either the plain or pre-signal code systems mentioned above. These features prevent the jumbling of the code signal in the event of more than one station being operated at or about the same time.

MASTER CODE SYSTEMS in which one standard code is used this code indicating "Fire" but where the exact location of fire is not required.

INSTITUTIONAL AUXILIARY SYSTEMS in which the operation of a station lever by a person, equipped with the proper key, causes a code to be sounded on all audible signals within the building for drill purposes. In the event of an actual fire the operation of the station lever will cause an alarm to be sounded on all audible devices within the building, and at the same time will transmit a signal over the municipal fire alarm circuits indicating the building on fire.

GROUP-TYPE SYSTEMS are for use where several buildings are to be protected by one system. On such systems the operation of any station lever causes the code-number of that particular station to be sounded 4 times on all local fire alarm signaling devices in that particular building only and also on all pilot signals in that building or any other building in the group. If specified, a general alarm feature arranged to sound all local signals in all buildings can be furnished. Where required, these systems can also be arranged to auxiliariize the Municipal Fire Alarm Systems, through a selective relay, so that, in addition to the signals indicated above, the system will also provide for simultaneously and automatically summoning the Municipal Fire Department.

THERMOSTATIC TYPE SYSTEMS in which stations of the thermostatic-type, which operate automatically in case of fire or excessive heat, are used. Such stations normally provide for continuous signal only on all sounding devices until the fire is extinguished, or cause of excessive heat removed, but, when combined with code-ringing boxes of electric-trip type they will, upon operation, trip the code-ringing box-mechanism, thereby causing the predetermined code of that box to be sounded on audible signal devices on the system. Such thermostatic systems or circuits, can be combined with any of the systems outlined in the foregoing paragraphs.

GENERAL ALARM NON-CODE SYSTEMS on which the breaking of glass in the station operates all signals continuously until glass is replaced or circuit switch is opened.

Open-Circuit Systems

Under the open-circuit systems the following may be furnished:

PLAIN CODE SYSTEMS in which the operation of a station lever causes all audible devices to sound a pre-determined code indicating point of origin of the alarm.

MASTER CODE SYSTEMS in which one standard code is used, this code indicating "Fire" but where the exact location of fire is not required.

GENERAL ALARM NON-CODE SYSTEMS in which the breaking of glass in station operates all audible signals continuously until glass is replaced or circuit switch is opened.

ANNUNCIATOR ALARM SYSTEMS in which the breaking of glass in station operates a corresponding drop on an annunciator indicating point of origin of alarm and also operating audible signals.

Fire Alarm Boxes

Fire alarm boxes for industrial fire alarm systems are manufactured in 9 types, to meet all conditions of fire alarm service as follows:

Plain Type Code-Ringing Closed Circuit.
Pre-Signal Type Code-Ringing Closed Circuit.
Double-Code-Ringing Type Closed-Circuit.
Shunt Non-Interfering Code Systems may be included in the Plain or Pre-Signal Systems mentioned above. These features prevent the jumbling of the code signals in the event of more than one station being operated at or about the same time and for the same fire.

Code-Ringing, Electric Trip, Closed-Circuit, Pre-wound Type.

Code-Ringing Electric Trip, Closed-Circuit, Self-Propelling Type.

Closed-Circuit Type, Non-Code Ringing.
Thermostatic Type, Open or Closed Circuit, Non-Code-Ringing.

Open-Circuit Type Non-Code-Ringing.
Code ringing closed-circuit fire alarm boxes are subdivided into the following groups:

Enclosed Pull-Lever Surface and Semi-Flush.
Break-Glass Pull-Lever Surface and Semi-Flush.
Weatherproof Pull-Lever Surface.
Weatherproof Break-Glass Pull-Lever Surface.

Sounding Devices

Sounding devices for fire alarm systems are designed with the utmost care to afford the maximum of protection through dependable operation. Dependability is the more important as fire alarm sounding devices may remain idle for long periods of time and yet must be so constructed that, when the need arises, they function instantly and satisfactorily.

Sounding devices are divided into 2 general classes, viz.:
Electrical Sounding Devices.
Mechanical Sounding Devices.
Electrical sounding devices are predominant for use in fire alarm systems and comprise:
Straight Electric Signal Gongs—Single Stroke and Vibrating.
Small Electric Sirens.
Motor-Driven Horns and
Vibrating Horns.
Mechanical sounding devices consist of compressed air horns.

Fire Alarm Control Cabinets

For regular, pre-signal or dual-operated and double code fire alarm systems.

Fire alarm control cabinets are designed for the control and supervision of Fire Alarm Circuits. They consist of ebony asbestos or slate panels having mounted thereon necessary controller-relays. Trouble-relays, time-limit-cut-outs, meters, terminals, fuses, etc., all being enclosed in heavy pressed steel fireproof cabinets with Yale locked doors. Glass windows are provided in doors to permit ready reading of meters without opening the doors.

Fire Alarm Apparatus

Fire alarm apparatus is steadily being improved in quality and design from year to year and is guaranteed to be electrically and mechanically perfect. Particular attention, however, is called to the necessity of proper installation and maintenance if every day in the year satisfactory service is to be obtained. Installation suggestions are furnished with each system.

Engineering Advice

Our engineering department will promptly advise and cordially co-operate with anyone contemplating the installation or use of fire alarm apparatus.

Edwards Hammerless Break-Glass Non-Code Fire and Emergency Stations

6-125 Volts

Schedule C



First pull of lever breaks glass, allowing plunger to come into alarm position. Lever falls down, displaying arrow danger signal and words, "Replace Glass" on reverse side—immediately indicating which station has been operated and a constant warning to reset it.

Eliminates lost or stolen hammers, marred walls, etc. With hammer type stations, person may not completely break glass. In this station, glass must break completely with first easy pull. Hitting or leaning against lever will not break glass and accidental or mischievous operation is minimized.

Hinged front, unlocked with key, for test or fire drill. Size, 3 1/16 x 1 1/8 inches. Standard finish, red with raised aluminum letters.

Open circuit non-code stations are Underwriters' approved. Laboratories will not grant approval for non-code closed circuit stations.

- No. 227, Flush-Open Circuit, Fits Std. Switch Box, Etc., Wt., 3 Lb. each **\$13.50**
- No. 227C, Flush-Closed Circuit, Fits Std. Switch Box, Etc., Wt., 3 Lb. each **13.50**
- No. 228, Surface-Open Circuit, Cast Fitting for 1/2-Inch Pipe, Wt., 5 Lb. each **16.00**
- No. 228C, Surface-Closed Circuit, Cast Fitting for 1/2-Inch Pipe, Wt., 5 Lb. each **16.00**

Perfection Teletypewriter Papers

A sensitized coated paper that copies from pressure without carbon.

It is ideal for duplication; gives more yardage and assures clear, distinct and positive copies.

8 7/16-Inch Teletypewriter

Furnished for single copies, 2, 3, or 4 copies, carbon interleaved and 2, 3 or 4 copies blue carbonless.

Shipped in rolls 5 inches in diameter, weighing approximately 4 pounds, and packed 12 rolls to carton.

1 1/16-Inch Oiled Perforator Tape

Shipped in rolls of 1040 feet, 8 inches in diameter, weighing approximately 1 1/3 pounds, and packed 50 rolls to carton.

3/8-Inch Teletype Tape

Gummed or Ungummed

Shipped in rolls of 1050 feet, 8 inches in diameter and packed 50 rolls to carton.

Gummed rolls weigh 0.65 pound, and ungummed rolls weigh approximately 0.54 pound.

Fire Alarm Tape

Width, 1/2 inch, 4 1/2 to 5 inches diameter, weighs 4 to 5 ounces per roll, 36 rolls to package, 288 rolls to carton.

Width, 1 inch, 4 1/2 to 5 inches diameter, weighs 8 to 10 ounces per roll, 18 rolls to package, 144 rolls to carton.

Police Register Tape

Width, 1 1/16 inches; 6 inches diameter, weighs 1 1/2 pounds per roll.

Wrapped 10 or 12 rolls to package, 40 or 48 rolls to carton.

We are also in a position to furnish rolls for any type automatic machines.

Edwards Fire Alarm Stations

Schedule C



Nos. 1275-2, 1275-2-DO, 1275-2-M

Nos. 1276, 1276-DO, 1276-M

Closed Circuit Code Ringing Stations

For Systems SS, 110-120 V.D.C.; SSA, 110-120 V. A.C.; EMB, Battery Open Door Pull Lever Type

Open door and pull down lever to sound alarm. Lever automatically disengages from mechanism, and subsequent pulling has no effect on proper operation of system. May be run for test without operating system by use of a test key. Finish is red enamel with raised aluminum letters.

No. 1275.—Surface type for surface conduit. Overall dimensions, 7 5/8 inches high, 5 7/8 inches wide, 5 inches deep. Approximate weight, 10 pounds.

No. 1275. each **\$55.00**

No. 1276.—Semi-flush for concealed conduit. Overall dimensions, 8 1/2 inches high, 7 5/16 inches wide; including wall box, 7 3/4 inches high, 5 3/4 inches wide, 3 3/8 inches deep. Approximate weight, 12 pounds.

No. 1276. each **\$55.00**

Approximate weight wall box only, 3 3/16 pounds.

Break Glass Pull Lever Type

Breaking glass unlatches door, which springs open and remains so. Pulling down lever causes sounding of alarm. Door may be opened for test without breaking the glass by use of special key, otherwise station is same as Nos. 1275 and 1276.

No. 1275-2.—Break-glass surface type for surface conduit. Overall dimensions same as No. 1275. Approximate weight, 10 pounds.

No. 1275-2. each **\$65.00**

No. 1276-2.—Break-glass semi-flush type for concealed conduit. Overall dimensions same as No. 1276. Approximate weight, 12 pounds.

No. 1276-2. each **\$65.00**

Approximate weight wall box only, 3 3/16 pounds.

Closed Circuit Pre-Signal Code Ringing Stations

For Systems PSS, 110-120 V. D.C.; PSSA, 110-120 V. A.C.; PEMB, Battery

Designed and constructed the same as stations described above, except that the pre-signal alarm is sounded four times at pre-determined places only. If upon investigation it is found desirable to sound a general alarm to clear the building, this may be done by inserting a special key in any box and pulling lever.

No. 1275-DO, Same as No. 1275. each **\$65.00**

No. 1276-DO, Same as No. 1276. each **65.00**

No. 1275-2-DO, Same as No. 1275-2. each **72.00**

No. 1276-2-DO, Same as No. 1276-2. each **72.00**

Special Features for Code Stations

220-240 volts operation, when specified, no extra charge. Two sets of contacts, 1 code wheel, add, \$2.75. Two sets of contacts, 2 code wheels, add \$8.00. Shunt type arrangement, add, \$9.50.

Federal Pull Lever Type Alarm Boxes



Automatically sounds the siren up and down the scale a predetermined number of times and then cuts out at the conclusion of the alarm.

Pulling down the lever winds a clockwork mechanism which rotates a cam (or code wheel). This cam opens and closes the circuit a given number of times on each revolution or round.

The box is set at the factory, usually to give two or three blasts per round.

It may be quickly adjusted in the field to repeat this signal two, three, or four times, as desired. Special signals can be blown by use of the telegraph key in the box.

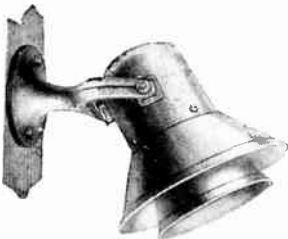
Where fire alarm boxes are to be mounted outside, exposed to the weather, the weatherproof type is recommended.

Controls for A.C. Only

Remote Control for No. 2 Siren.....	each	\$25.00
Remote Control for No. 3 Siren.....	each	35.00
Remote Control for Nos. 5 or 7 Siren.....	each	50.00
Push Button Switches.....	each	5.00
Push Button in Break Glass Weatherproof Box.....	each	15.00
Fire Alarm Box (As Illustrated).....	each	45.00
Fire Alarm Box, Weatherproof.....	each	55.00
Standard General Alarm Control.....	each	40.00
Predetermined (Automatic Stop) General Alarm.....	ea.	55.00

Specify voltage and type of current when ordering.

Federal Industrial Sirens



Type A

For many applications, such as start-and-stop signal for workers, fire alarm, emergency warning, buglar alarms, etc. Used in factories, warehouses, yards; on ships, cranes, drawbridges, and other harbor services; on large construction projects, plantations, and ranches; at public and private institutions; and in mines and quarries.

Type A Weatherproof Siren. Equipped with a specially constructed siren motor to provide 1/2 hp. performance with minimum current consumption. Has swivel bracket for mounting at any desired angle.

Red lacquer finish.

Type L Weatherproof Siren. Similar in general detail to Type A but is larger, more powerful, and with lower tone. Especially designed for unusually heavy duty applications particularly on higher voltages. Swivel bracket.

Red lacquer finish.

Type A Weatherproof Code Siren. A modification of standard Type A siren, for code signals. A time saver for calling key employees. Short up-scale blasts permit distinctive penetrating signals. Coding controlled by control of air supply and not by reversal or destructive braking. Has swivel bracket. Red lacquer finish.

Type.....	A	L	A-Code
Each.....	\$46.00	60.00	75.00
Voltage.....	*6 to 110	*110,220,250	*110
Current and Cycle.....	Universal	Universal	†
Length.....inches	11	13	12 1/4
Diameter.....inches	10 1/2	11 1/2	7 1/2
Height.....inches	12 3/4	13 1/2	11
Weight.....pounds	13	16 1/2	14

*Specify definite voltage; Universal motors operate on d.c. or any cycle a.c. from 25 to 60.

†Specify definite voltage, cycle, and type of current.

Federal Vertical Electric Sirens



Vertical general alarm and code sirens provide effective signals for industries and municipalities. The vertical design distributes the sound equally in all directions over a radius of from 1/4 to 3 miles. Grease sealed ball bearings and heavy duty construction assure maximum durability and performance. The heavy galvanized sheet metal housing makes the siren completely weatherproof but does not muffle tone.

Large sirens should be operated through a remote control to which any number of push buttons, or pull lever boxes may be connected.

Hp.	Each	Remote Control	Volts	Motor Current	Cycles Phase	Ship. Wt. Lb.
2	\$225.00	\$25.00	110-220	A.C., D.C.	Any 1	90
3	360.00	35.00	220-440	A.C.	60 3	385
3	450.00	35.00	220	A.C.	60 1	450
5	400.00	50.00	220-440	A.C.	60 3	485
5	500.00	50.00	220	A.C.	60 1	505
7 1/2	425.00	50.00	220-440	A.C.	60 3	515
7 1/2	525.00	50.00	220	A.C.	60 1	525

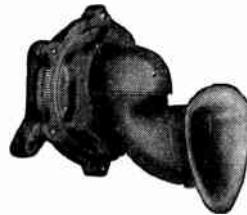
Specify definite voltage on order.

Federal Vehicle Sirens

A complete line of powerful sirens, with or without flashing lights for fire apparatus, ambulances, police cars, and other emergency vehicles, ranging in price from \$19 to \$130.

Write for complete bulletins.

Federal Standard Vibratory Horns



Ideal for use in mills, mines, yards, warehouses, public buildings, and in any location where a distinct code signal or long warning blast is desired. Whether for interior or exterior use, this horn is weatherproof and watertight. Constructed throughout of non-corrodible materials.

The housing is tapped at top and bottom for 1/2-inch conduit.

Die cast from special non-corrodible alloy.

Projectors on Models, 30, 40, 50 and 51 can be rotated.

Gray lacquer finish. Packed 1 to a carton.

Surface Type

No.	Each	*Voltage	Current	†Cycles	‡Length Inches	Finish	Ship. Wt. Lb.
30A	\$14.00	6 to 250	A.C.	60	4 3/8	Gray	4 1/4
40A	17.00	6 to 250	D.C.	..	4 3/8	Gray	4 1/4
30	18.75	6 to 250	A.C.	60	8 1/2	Gray	6 1/2
40	21.75	6 to 250	D.C.	..	8 1/2	Gray	6 1/2
50	25.00	6 to 250	A.C.	60	8 1/2	Gray	7
51	28.00	6 to 250	D.C.	..	8 1/2	Gray	7

Flush Type

No.	Each	*Voltage	Current	†Cycles	‡Watts	Description	Ship. Wt. Lb.
F30B	\$22.75	6 to 250	A.C.	60	18	Wall Box	6 1/2
F30H	17.25	6 to 250	A.C.	60	18	Housing	6 3/4
F40B	25.50	6 to 250	D.C.	..	18	Wall Box	6 1/2
F40H	20.00	6 to 250	D.C.	..	18	Housing	6 3/4

Available for concealed conduit mounting, if specified, at no extra cost.

*Definite voltage must be specified on order.

†Also available for 25 cycle at no extra charge.

‡Dimensions given are for overall length; mounting diameter between bolt hole centers is 6 inches.

§Average wattage for estimating line loads and power requirements.

Federal High Power Vibratory Horns



Similar in all details to the standard model, but provides almost double the sound volume. Where maximum volume is required, it has an advantage over motor driven units because it can be coded much more rapidly. This horn which is also weatherproof, watertight, and non-corrodible fills a definite need in applications where an ordinary horn is not satisfactory.

Die cast from special non-corrodible alloy. Projector on Models 32, 42, 33 and 43 can be rotated. Lacquer finish. Packed 1 to a carton.

Surface Type

No.	Each	Voltage	Current	Cycles	Length Inches	Ship. Wt. Lb.
31	\$18.00	6 to 250	A.C.	60	4 ³ / ₈	4 ¹ / ₂
41	21.00	6 to 250	D.C.	..	4 ³ / ₈	4 ¹ / ₂
32	22.00	6 to 250	A.C.	60	9 ¹ / ₂	6 ¹ / ₂
42	25.00	6 to 250	D.C.	..	9 ¹ / ₂	6 ¹ / ₂
33	27.00	6 to 250	A.C.	60	9 ¹ / ₂	7 ¹ / ₄
43	30.00	6 to 250	D.C.	..	9 ¹ / ₂	7 ¹ / ₄

Flush Type

No.	Each	Voltage	Current	Cycles	*Watts	Description	Ship. Wt. Lb.
F31H	\$27.00	6 to 250	A.C.	60	30	Wall Box	7
F31H	21.00	6 to 250	A.C.	60	30	Housing	7 ¹ / ₄
F41H	30.00	6 to 250	D.C.	..	30	Wall Box	7
F41H	24.00	6 to 250	D.C.	..	30	Housing	7 ¹ / ₄

Available for concealed conduit mounting at no additional charge. Also available in any specified voltage from 6 to 250 with no increase in price for 25 cycle.

Dimensions given are overall lengths; mounting diameter between bolt hole centers is 6 inches.

*Average wattage for estimating line loads and power requirements.

Model AX Federal Explosion-Proof Sirens

For Service in Hazardous Locations

Approved by Underwriters' Laboratories, Inc.



Used as time or start and dismissal signaling. Also used as positive alarm in mines, on tankers, at refineries, and in grain elevators, arsenals, and chemical plants.

Equipped with a high speed universal motor suitable for either a.c. or d.c. current.

Available for 110, 220, or 250 volts as specified.

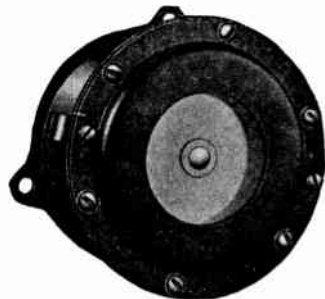
Mounting diameter between bolt hole centers is six inches.

Shipping weight, 19¹/₄ pounds.

Each..... \$140.00

No. 318 Edwards Lightweight Horns

For general use in schools, factories, warehouses, and all other interior locations where a loud signal may be used.



Tests show a range of 102 to 105 decibels on d.c. and 98 to 100 decibels on a.c.

Cover and mounting rings are made of aluminum.

Case is made of sheet steel.

Diaphragm is made of a special formula steel.

Has grey finish.

For low voltage only. Can be furnished in any voltage from 6 to 48 volts a.c. or d.c. Specify when ordering.

No. 318, Weight, 8 Ounces..... each \$6.75

Federal Resonating Horns



A powerful electric horn with pleasant but penetrating trumpet tone. Overcomes unusual noise levels.

Horn is of die cast non-corrodible alloy with a projector of spun metal, complete with swivel bracket. Weatherproof and watertight. Specify definite voltage and cycle desired. Packed one to a carton. Shipping weight, 11 pounds.

No.	Each	Voltage	Current	Cycles	Housing Dimensions Inches	Length Inches
55	\$56.00	12 to 250	A.C.	60	7 ¹ / ₂ x7 ¹ / ₂ x4	20 ¹ / ₂
55	56.00	12 to 250	A.C.	25	7 ¹ / ₂ x7 ¹ / ₂ x4	20 ¹ / ₂
56	56.00	6 to 250	D.C.	..	7 ¹ / ₂ x7 ¹ / ₂ x4	20 ¹ / ₂

Specify voltage and cycle when ordering.

Federal Motor Driven Horns

No.	Each	Voltage	Projector	Current	Cycles	Overall Dimensions Inches	Ship. Wt. Lb.
20	\$50.00	110,220,250	Single	A.C.	25 to 60	7 ¹ / ₂ x6 ¹ / ₄	12
21	53.00	24,110,220,250	Single	D.C.	.....	7 ¹ / ₂ x6 ¹ / ₄	12
60	53.00	110,220,250	Double	A.C.	25 to 60	19 ³ / ₄ x6 ¹ / ₄	15
61	56.00	24,110,220,250	Double	D.C.	.....	19 ³ / ₄ x6 ¹ / ₄	15

Specify voltage and cycle when ordering.

Federal Explosion-Proof Horns

For Hazardous Locations



Meets all Underwriters' requirements.

Wires extend to a splicing conduit tapped for 3/4-inch conduit.

Available in Standard or Hi Power types with grille, single, or double projectors.

Standard Type

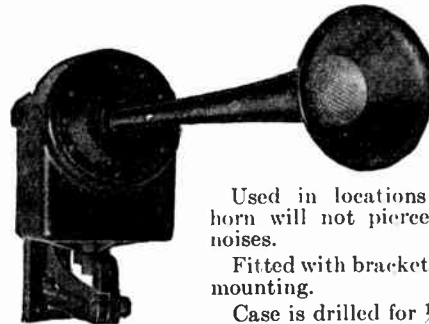
No.	Description	Each
30-AX	With Grille Front, A.C.	\$42.50
40-AX	With Grille Front, D.C.	52.50
30-X	With Single Projector, A.C.	45.00
40-X	With Single Projector, D.C.	55.00
50-X	With Double Projector, A.C.	49.50
51-X	With Double Projector, D.C.	59.50

Hi Power Type

No.	Description	Each
31-X	With Grille Front, A.C.	\$59.50
41-X	With Grille Front, D.C.	69.50
32-X	With Single Projector, A.C.	62.00
42-X	With Single Projector, D.C.	72.00
33-X	With Double Projector, A.C.	67.50
43-X	With Double Projector, D.C.	77.50

No. 5420 Edwards Screech Horns

120 Volts, 60 Cycles



Used in locations where ordinary horn will not pierce loud machinery noises.

Fitted with bracket for wall or ceiling mounting.

Case is drilled for 1/2-inch conduit.

When used on a signal circuit of 120-volt units, watt rating must be figured at 144 watts. Where all other signal units are on 24-volt a.c. signal circuit, No. 5304 relay, drawing 2 watts, must be inserted into the signal circuit. From the relay, two wires are taken to the 120-volt a.c. lighting circuit and two wires to the screech horn.

No. 5420..... each \$50.00

Edwards Industrial Horns

Schedule S



No. 311



No. 312

A backplate mounts directly on wall for non-conduit wiring, or on 4-inch square box, standard switch box, any outlet box with single gang cover, any single gang conduit or wiremold type fitting. An envelope containing all the necessary mounting screws is supplied with each horn. For open wiring, washers are supplied to raise back plate from wall enough for wires to pass underneath it. Wires are brought through entrance holes in plate and connections made to binding posts in front of plate where there is plenty of room to work. The horn is then hung on two strong lugs and pressed home, where it snaps solidly into place and is held securely. To prevent tampering, a few turns on a set screw at bottom of each device locks it in place.

Indoor Types

No. 311.—Powerful signal for all indoor uses. Grille front affords pleasing appearance which recommends it for schools and better buildings. Easily installed flush. Size of horn, 5½ inches diameter, 3½ inches deep.

No. 310.—Equipped with megaphone projector to allow greater volume than grille type. Adaptable for indoor use where machinery noises must be overcome. Size, 6 inches high, 6 inches deep, 10¾ inches long.

No. 314.—Indoor 2 direction type. Size, 6 inches high, 7½ inches deep, 18 inches long.

No. 312 Weatherproof—Outdoor Types

Powerful signal, for average outdoor uses. Single megaphone. Thoroughly weatherproofed. Equipped with cast iron back box. Size, 5½ inches high, 5½ inches deep, 10¾ inches long.

No.	24 V., A.C.	115 V., A.C.	240 V., A.C.	Approx. Weight Pounds
	60 Cy. Each	60 Cy. Each	or D.C. Each	
310	\$15.60	\$15.60	\$18.75	8
311	14.00	14.00	17.15	7
312	18.75	18.75	21.75	8

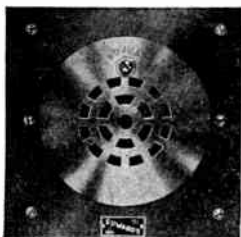
Standard frequency 60 cycles; 25 cycles supplied at no extra charge if specified.

Series Operation: Divide full available voltage by number of horns per circuit to find voltage per horn for pricing. Give full details when ordering. D.C. horns cannot be operated in series.

No. 309 Edwards Flush Horns

24, 115, 240 Volts, A.C., 60 Cycles

Schedule S



For flush installations particularly in new buildings such as schools and other public institutions.

Tone adjustment may be made after horn is installed in wall.

Standard face is steel, finished black.

Size of faceplate, 6½x6½ inches. Wall cut size, 5⅞x5⅞x2¾ inches deep.

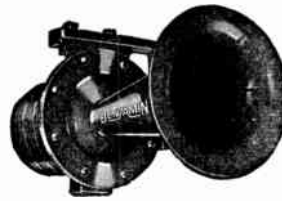
No. 309, 24 or 115 Volts, A.C., Specify.....each \$22.75
 No. 309, 240 Volts, A.C.....each 25.50

Price includes steel wall box with combination ½ and ¾-inch knockouts on 4 sides. Sprayed bronze or prime white no extra charge, if specified. Bronze plate add \$3.25.

The 25 to 40 cycles can be supplied at same price when specified. For d.c. specify No. 3091), add \$2.75 and specify voltage.

Benjamin Motor Driven Signals

Listed by Underwriters' Laboratories



No. 8175

A weatherproof signal of unusual tone and penetration. Used indoors or out where service requirements are exacting. For use in steel mills, railroad shops, foundries, and all locations where noise is excessive.

Pitch of signal is correct for cutting through conflicting noise. Suited for coding as

there is no lag or coasting of motor to blur the coded signal.

Signal has heavy cast body, weatherproof rubber gaskets, drop-forged, heat-treated alloy steel ratchet and diaphragm anvil, phosphor bronze armature bearings, and automatic wick-feed lubrication. Motor is series wound for starting power, and has correct r.p.m. to produce penetrating tone. A set screw at rear of housing controls volume and pitch.

Standard voltage: 110 and 220 volts, 60 cycles a.c. or 110 and 250 volts, d.c. Power consumption, 55 watts.

The double projector type motor-driven signal is used where sound is to be projected in opposing directions from a central location.

Conduit connection, ½ inch.

Finished in battleship gray enamel. Red enamel furnished at an advance of \$1.25.

Weight, 15¼ pounds.

With 8½-Inch Single Bell Type Projector

No.	*A. C.		No.	†D. C.	
	Each	Volts		Each	Volts
8175-110V	\$50.00	110	8176-110V	\$53.00	110
8175-220V	50.00	220	8176-250V	53.00	250

With Double Bell Type Projector

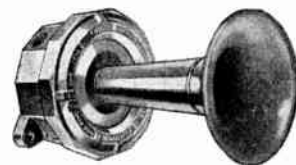
8180-110V	\$53.00	110	8181-110V	\$56.00	110
8180-220V	53.00	220	8181-250V	56.00	250

*Also operates on 50, 40 or 30 cycles.

†Also operates on 25 cycles, a.c.

Benjamin Weatherproof Fire Alarm Howlers

Listed by Underwriters' Laboratories



For use on fire alarm systems operating under stringent regulations.

The threaded ring separable construction, and plug-in type of wiring connection assures quick, simple installation.

D.c. howler has interrupter with coin silver contacts protected by condensers against arcing. A.c. howler has no contact; vibrations follow cycles of a.c.

The horn assembly consists of a 7½-inch seamless bell type steel projector permanently attached to a pressed steel cover on which is mounted the horn mechanism.

Baked red enamel finish.

Shipping weight, 6¾ pounds.

No.	D. C.		No.	*A. C., 60 Cycles	
	Each	Volts		Each	Volts
8560-110V	\$21.75	110	8564	\$18.75	8
8560-220V	21.75	220	8565	18.75	14
.....	.....	.....	8566-110V	18.75	110
.....	.....	.....	8566-220V	18.75	220

*Standard, 60 cycles, 25 cycles furnished when specified.

Benjamin Heavy-Duty Weatherproof Howlers

Listed by Underwriters' Laboratories

Ideal for effective calling or warning in industrial and commercial locations.

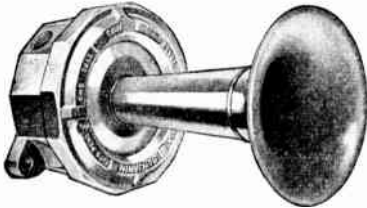
The threaded ring separable construction and plug-in type of wiring connection assures quick, simple installation. Operates on either series or multiple circuits.

Housings are regularly tapped on one side only for 1/2-inch conduit entrance but can be tapped for 3/4-inch conduit, when specified. Housings can also be tapped straight through for either 1/2 or 3/4-inch conduit at an advance of 5 cents in list price.

Baked battleship gray enamel finish; red enamel finish, when specified.

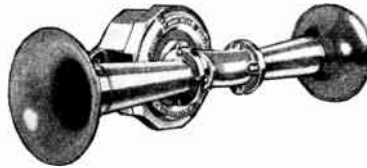
With 7 1/2-Inch Bell Type Projector

*A.C., 60 Cycles		Volts
No.	Each	
8546-12V	\$18.75	†12
8546-24V	18.75	†24
8546-110V	18.75	110
8546-220V	18.75	220
D.C.		
8526-6V	\$21.75	6
8526-110V	21.75	110
8526-220V	21.75	220
8526-250V	21.75	250



With Double Bell Type Projector

*A.C. 60 Cycles		Volts
No.	Each	
8590-12V	\$25.00	†12
8590-24V	25.00	†24
8590-110V	25.00	110
8590-220V	25.00	220
D.C.		
8599-6V	\$28.00	6
8599-110V	28.00	110
8599-220V	28.00	220
8599-250V	28.00	250



*Supplied 25 cycles when specified.
†When used with low voltage signals, transformers required.

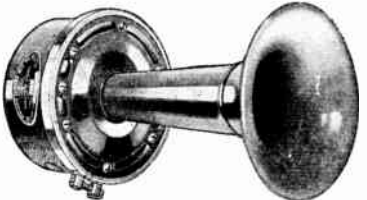
Benjamin Factory Non-Weatherproof Howlers

Listed by Underwriters' Laboratories

Housing has one 1/2-inch size conduit knockout at the back and one at the side and two sets of mounting holes, spaced on 2 3/4 and 3 1/2-inch centers. Baked battleship gray enamel finish; red enamel finish, when specified.

With 7 1/2-Inch Bell Type Projector

*A.C. 60 Cycles		Volts
No.	Each	
8755-12V	\$15.60	†12
8755-24V	15.60	†24
8755-110V	15.60	110
8755-220V	15.60	220
D.C.		
8726-6V	\$18.60	6
8726-110V	18.60	110
8726-220V	18.60	220
8726-250V	18.60	250



With Double Bell Type Projector

*A.C., 60 Cycles		Volts
No.	Each	
8795-12V	\$21.75	†12
8795-24V	21.75	†24
8795-110V	21.75	110
8795-220V	21.75	220
D.C.		
8794-6V	\$24.75	6
8794-110V	24.75	110
8794-220V	24.75	220
8794-250V	24.75	250



Use with No. 8731 adapter plate.

Projector-Less Type with Grille Front

*A.C., 60 Cycles		Volts
No.	Each	
8741-12V	\$14.00	†12
8741-24V	14.00	†24
8741-110V	14.00	110
8741-220V	14.00	220
D.C.		
8740-6V	\$17.00	6
8740-110V	17.00	110
8740-220V	17.00	220
8740-250V	17.00	250



*Or 25 cy. †Transformer needed with low voltage signals.

Benjamin Industrial Buzzers

Listed by Underwriters' Laboratories

Recommended for use on calling and warning systems where the volume of competitive noise is not excessive.

The buzzer mechanism is attached directly to the removable metal cover of the case and it is the armature striking this metal cover which produces the sound.

Heavy Duty Mine Type Buzzer—Tapped 1/2 Inch



For use in tunnels, subways and etc.
Separable construction, with heavy cast metal housing and a steel cover, held in place by a metal threaded union ring.

Housings regularly tapped 1/2-inch, one side only.
Baked battleship gray enamel finish.

*A.C., 60 Cycles			D.C.		
No.	Each	Volts	No.	Each	Volts
8699-12V	\$15.60	†12	8698-6V	\$18.60	6
8699-24V	15.60	†24	8698-110V	18.60	110
8699-110V	15.60	110	8698-220V	18.60	220
8699-220V	15.60	220	8698-250V	18.60	250

Mine Type Buzzer—8-Inch Leads



Weatherproof, with separable construction. Has pressed steel casings with gasketed steel cover, held in place by a metal clamping band.

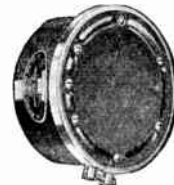
Sealed assembly, with 8-inch insulated wire leads which feed through a water tight bushing.

Casings have two sets of gasketed attaching holes spaced on 2 3/4 and 3 1/2-inch centers.

Baked battleship gray enamel finish with sprayed aluminum band.

*A.C., 60 Cycles			D.C.		
No.	Each	Volts	No.	Each	Volts
8679-12V	\$11.25	†12	8678-6V	\$14.25	6
8679-24V	11.25	†24	8678-110V	14.25	110
8679-110V	11.25	110	8678-220V	14.25	220
8679-220V	11.25	220	8678-250V	14.25	250

Office and Factory Type Buzzer



Non-weatherproof. Separable construction, with pressed steel housing and steel cover, held in place by a metal clamping band.

Housing has one 1/2-inch size knockout at the back and one on the side; attaches to 3/4 and 4-inch standard outlet box. Supplied with No. 8731 adapter plate for attachment to 4-inch square or standard switch boxes, when specified. Baked battleship gray enamel finish, sprayed aluminum band.

*A.C., 60 Cycles			D.C.		
No.	Each	Volts	No.	Each	Volts
8797-12V	\$9.05	†12	8796-6V	\$12.05	6
8797-24V	9.05	†24	8796-110V	12.05	110
8797-110V	9.05	110	8796-220V	12.05	220
8797-220V	9.05	220	8796-250V	12.05	250

*Supplied 25-cycles, when specified.
†Signal transformers to be used with this type.

Benjamin Signaling Single Stroke Bells and Chimes

For Series or Multiple Operation

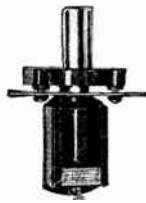
Listed by Underwriters' Laboratories, Inc.



3-Inch Bell



8-Inch Bell



Chime

Simple in design and positive in operation.

Mechanism is of the solenoid type with only one moving part, the plunger, which responds instantly when the coil is energized. This type of construction practically eliminates maintenance costs and assures operation with a minimum current consumption.

The tone volume of both bells and chimes is adjustable. Soft, medium, or loud tones may be obtained by turning the set screw at the bottom, which regulates the plunger stroke.

Installation is simplified by a special mounting plate which provides a means of direct attachment to Gem type outlet boxes or to any switch or outlet box cover having mounting holes space on 3/4-inch centers. In installation, the mounting plate is first attached to the outlet box or cover by two screws. The wires are then brought through the large center hole in the plate, and looped around the binding screws, which are easily accessible with ample space for wiring. After wiring, the device is securely attached by two screws threading into the mounting plate.

The plunger is of magnetic iron with a bakelite tube.

The magnet coil is layer wound, impregnated.

Chimes are identical in construction to the bells except that a metal chime bar with a metal resonating chamber is provided in place of a gong.

Bell housings are cast iron.

Bells are highly polished; housings are battle-ship gray.

Housings for chimes are cast iron, finished in crackle lacquer.

Chime bar and resonating chamber are chromium plated.

Standard cycles, 60. When specified, 25-cycle bells and chimes are available in all voltages at no extra cost.

Type	Current	*24 Volts		*110 Volts		*220 Volts	
		No.	Each	No.	Each	No.	Each
3-Inch Bell	A.C.	8110	\$9.40	8110	\$11.95	8110	\$14.10
3-Inch Bell	D.C.	8111	9.40	8111	11.95	8111	14.10
4-Inch Bell	A.C.	8112	10.25	8112	12.85	8112	15.00
4-Inch Bell	D.C.	8113	10.25	8113	12.85	8113	15.00
6-Inch Bell	A.C.	8115	12.85	8115	16.25	8115	18.35
6-Inch Bell	D.C.	8116	12.85	8116	16.25	8116	18.35
8-Inch Bell	A.C.	8117	16.25	8117	19.65	8117	21.80
8-Inch Bell	D.C.	8118	16.25	8118	19.65	8118	21.80
Chime	A.C.	.....	.....	†8120	18.45	8120	20.50
Chime	D.C.	.....	.....	8121	18.45	8121	20.50

*Bells up to 48 volts take 24-volt prices; from 48 to 110 volts take 110-volt prices; and bells and chimes over 110 volts take 220-volt prices.

†Chimes up to 110 volts take 110-volt prices.

For series operation, prices are determined by dividing full line voltage by number of signals in circuit to find voltage of each signal.

Edwards Vibrating Adaptabels

For All A.C. and D.C. Voltages

Schedule S



This is a compact bell of the Underdome, Turtle or Monitor type.

As the electrical connections are made to the mounting plate only, the whole electrical installation can be made, tested and completed before painting and finishing.

The maintenance problem in hard service work, like traffic signals, railroads, etc. is simplified with a few spare Adaptabels. The Adaptabel is easily detached and a new one attached—instead of repairing on the job or installing a new bell.

The movement is completely enclosed in a cast aluminum housing. Protected against dirt, bugs, etc. When weather-proof is specified, it is protected with gaskets.

The a.c. vibrating mechanism is the polarized, no contact type. The d.c. vibrating mechanism is also of the straight line plunger type. Gongs are hot pressed steel, Parkerized to prevent rust.

All 6- and 10-inch Adaptabels mount directly on wall, 4-inch square box, standard switch box or any outlet box with single gang conduit or Wiremold type fitting.

All 4-inch Adaptabels have separable plate for mounting same as above and will also fit 3/4-inch octagon boxes. In ordering, specify voltage desired.

For A.C. Operation

Size Inches	24 Volts		115 Volts		For Other Voltages Up to 250 Volts	
	No. 560 Each	No. 562 Each	No. 560 Each	No. 562 Each	No. 560 Each	No. 562 Each
4	\$15.00	\$13.60	\$20.00	\$18.00	\$23.00	\$21.00
6	20.00	18.00	25.00	22.75	28.00	25.45
10	30.00	27.25	35.00	31.80	38.00	34.50

For D.C. Operation

Size Inches	9 Volts		24 Volts		115 Volts		For Other Voltages Up to 250 Volts	
	No. 561 Each	No. 563 Each	No. 561 Each	No. 563 Each	No. 561 Each	No. 563 Each	No. 561 Each	No. 563 Each
4	\$15.00	\$15.00	\$17.50	\$17.50	\$20.00	\$20.00	\$23.00	\$23.00
6	20.00	20.00	22.50	22.50	25.00	25.00	28.00	28.00
10	30.00	30.00	32.50	32.50	35.00	35.00	38.00	38.00

Edwards Single Stroke Bells

For Approved Coded Fire Alarm Systems

No. 23 for D.C., No. 24 for A.C.

Schedule C



Solenoid construction approved by State, Insurance and Underwriters' Boards for closed circuit fire alarm systems. Mounts on wall or 4-inch square box, or standard switch box, or any outlet box with single gang switch cover, or on any single gang conduit or wire-mold type fitting. Prices for series operation on 110 volts from control panel.

Size.....inches	4	6	10
Each.....	\$20.00	25.00	35.00
Approximate Weight.....pounds	3	6	9

No. 17 Edwards Economy Bells

Schedule S



A covered two-magnet bell for low cost burglar alarm and similar work.

- Adjustable.
- Bakelite insulation.
- Black finish.
- Standard package, 5. May be assorted.

Size.....inches	4	6
No. 17, Std. 8-10 V. A.C., 6-8 V. D.C.....each	\$8.60	\$10.20
Other Voltage to 48 V.....each	10.30	12.50
Approximate Weight.....pounds	3	5

No. 55 Edwards Bells

Schedule S



Designed for burglar alarm and other work of that character.

- Has a single magnet bell.
- Adjustable, non-weatherproof.
- Finished in black with nickel gong.
- Standard package, 5. May be assorted.

Size.....inches	4	6
Std. 8-10 V. A.C., 6-8 V. D.C.....each	\$4.10	\$5.20
Other Voltage to 48 Volts, Specify When Ordering.....each	5.80	7.50
Approximate Weight.....pounds	2	4

No. 156 Edwards Monitor Bells

Schedule S



An entirely self-contained bell that presents a neat appearance.

The hammer rod moves on a straight line and strikes the inside of the gong. This allows the bell to be made bug and dust proof.

The springs are phosphor bronze, the contacts pure hard-drawn silver. Has a 3-inch gong.

- Cadmium finished gong with black base.
- Standard package, 1; approximate weight, 2 pounds.
- Standard 8-10 V. A.C., 6-8 V. D.C.....each \$2.25
- Other Voltage to 48 Volts (Specify When Ordering).....each 3.85
- For 24 V., D.C. or A.C.....each 3.00

Edwards Doorbells and Buzzers

Standard 8-10 Volts 60 Cycle A.C., 6-8 Volts D.C.

Schedule S

Bell movement has straight hammer rod and solid hammer ball, giving more power and smoother action on battery or transformer.



No. 730

Arranged for surface or concealed wiring.

The Dixie doorbell and the Buzabel combined bell and buzzer are enclosed. Cover snaps on with a slight pressure, with no screws necessary. These models are only 1 inch deep to allow for mounting in out-of-the-way places where other models will not fit. The Nubel has enclosed binding posts and the snap-on type cover and exposed gong.

Large magnet, correctly designed phosphor-bronze springs, silver contacts, and fine workmanship.

Buzzer case is 1 3/4 x 2 3/4 inches, fully insulated.

Dixie Bell

No.	Each	Description	Approx. Std. Wt., Lb. Pkg.	Std. Pkg.
720	\$.75	Aluminized, Covered, Non-Adjustable	12	6

Buzabel

730	\$ 1.20	Aluminized, Covered, Non-Adjustable Combination Bell and Buzzer.....	12	6
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Nubel

740	\$.67	Aluminized, Enclosed Binding Posts, Non-Adjustable, 2 1/2-Inch Gong.....	12	5
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Dixie Buzzer

725	\$.63	Aluminized, Covered, Non-Adjustable	12	3
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Large and Fancy Type Bells

Standard 8-10 Volts 60 Cycles A.C., 6-8 Volts D.C.

744	\$ 1.20	4-Inch Type, Non-Adjustable.....	1	1
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No. 13 Edwards Lungen Bells

Schedule S



Designed for use in offices, residences, hospitals, etc., where a device for harder service than the ordinary iron box type is desired. Covers fit tightly making them bug and dust proof. Phosphor bronze springs and double adjustment, pure hard-drawn silver contacts. Surface types available in five sizes varying in tone and volume to meet all conditions.

Rust-proof, polished chrome finish. Standard package, 10 assorted sizes.

Size.....inches	1	1 3/4	2 1/2	3
Std. 8-10 V. A.C., 6-8 V. D.C. each	\$3.10	\$2.85	\$3.00	\$3.10
24 V., 60 Cycles or D.C.....each	3.50	3.25	3.40	3.50
Other Voltages up to 48 V.....each	4.80	4.50	4.70	4.80
Approx. Wt. Std. Pkg.....lb.	3/16	1/4	1/2	11/16

Specify voltage when ordering.

No. 115 Edwards A.C. Lungen Buzzers

Schedule S



Volume of sound increases and pitch of tone lowers in each size from Size No. 1 and up. Sound volume may be adjusted over a 100 per cent range.

Completely insulated with internal binding posts, bug and dust proof. Wire entrances provided for concealed or surface wiring. Polished chrome finish. Standard package, 100 assorted.

Size No.....	1	2	3	4
Std., 8-12 V., A.C. each	\$2.20	\$2.35	\$2.50	\$3.40
24 Volts, A.C.....each	2.35	2.50	2.60	3.50
Other Voltages to 48V., 60 Cycles.....each	3.90	4.00	4.15	5.00
Size.....inches	2 1/4 x 1 3/16	2 3/8 x 1 3/4	3 x 2	3 1/2 x 2 1/4
Weight.....pounds	1 3/16	2 1/16	3 1/4	4 3/8



No. 15 Edwards Lungen Buzzers

Schedule S



Designed for use in offices, residences, hospitals, etc., where a device for harder service than the ordinary iron box type is desired. Covers fit tightly making them bug and dust proof.

Phosphor bronze springs and double adjustment, pure hard-drawn silver contacts. All types available in five sizes varying in tone and volume to meet all conditions.

Rust-proof, polished chrome finish.

Standard package, 10 assorted sizes.

Size No.	0	1	2	3
Std. 8-10 V. A.C., 6-8 V. D.C.				
each	\$2.50	\$2.35	\$2.50	\$2.60
24 V., 60 Cycles or D.C.				
each	2.90	2.70	2.90	3.00
Other Voltages to 48 V.				
each	4.20	4.00	4.20	4.30
Size.....inches	1 5/8x1 1/8	2 1/8x1 1/16	2 5/16x1 3/4	3x2

Specify voltage when ordering.

No. 503 Edwards Bus Signaling Equipment

6-12 Volts D.C.

Schedule T



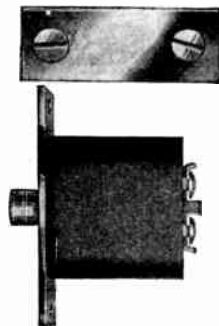
No. 503

Precision made, adjustable sturdy and dependable. Rust-proof throughout, insulated. Most dependable for hard service transportation work.

No. 503.....each \$8.20

No. 504 Edwards Bus Door Step Light Switches

Schedule C



No. 504 Switch and Bumper Plate

A ruggedly constructed door switch for operating step lights.

Built to stand up under the constant operation found in bus service.

Face plate is of heavy gage brass with polished nickel finish. Head of plunger is stainless steel.

Contacts are enclosed in bakelite base.

Operates on battery voltage.

Bumper plate and mounting screws supplied with each switch.

Approximate weight, 1 pound.

No. 504.....each \$3.15

Edwards Flushcall Signaling Devices



Flushcall Device



Buzacall



Togelpush

Signaling and calling devices for residence, apartment, or any place old-fashioned bells, buzzers, and transformers were heretofore used. Each device fits standard gang boxes and takes standard switch or receptacle plates. Can be ganged together with 110-volt receptacles, etc., in standard box and finished with standard plate.

Each device is designed and built for a.c. operation only on 8 to 12 volts—with absolutely no adjustment before, during, or even after installation. The uncertainty as to proper resistance, voltage, etc., for various uses has been eliminated.

CONSTRUCTION DETAILS: Large, accessible binding posts. frame and louvre front plate combine to completely surround and protect gong and mechanism from wires in box. Inclined construction of frame and shallow design leaves ample room for lock nuts and wires. Elliptical hole permits a plumb adjustment. Mechanism completely insulated from frame. Rust-proof metals or finish throughout.

Ringcall

No.	Each	Schedule	A.C. Volts	Cycles	Std. Pkg.	Approx. Wt. Lb.
660	\$1.06	S	8-10	60	6	2
760	1.20	C	24	60	6	..
1060	5.45	C	115	60	6	1

Melocall

663	\$1.25	S	8-10	60	1	..
763	1.48	C	24	60	1	..

Buzacall

661	\$1.02	S	8-10	60	6	2
761	1.15	C	24	60	6	..
1061	5.30	C	115	60	6	1

Togelpush

664	\$.25	S	6	..
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Tucall

662	\$1.52	S	8-10	60	6	2
762	1.75	C	24	60	6	..

Powacall

Underwriters' approved. Fits any standard box or outlet box with cover, 2 3/8 inches deep if placed in second gang of any combination, taking 110 volts from same line as receptacle, switch, etc., in first gang. Binding posts for easy installation.

666	\$1.30	S	10V.-5W.	..	6	12
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Push, Bell, Buzzer Combination

For walk-up apartments, a two-gang box is used with the Tucall for front door and rear door or dumbwaiter signals. and the Togelpush for door opener operation, using a standard two-gang toggle plate. For narrow spaces, however, several different combinations for this type installation can be furnished to fit a single gang box. A special brushed brass plate is included.

Standard package.

Approximate weight per standard package, pounds.

No.	Each	Description	Use	A.C. Volts
770	\$2.60	Ring and Push.....	General	8-10
771	2.60	Buzz and Push.....	General	8-10
772	2.75	Ring, Buzz and Push...	General	8-10

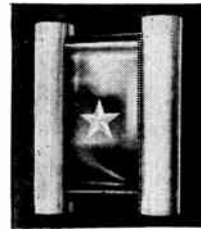
Complete engineering data on application.

Edwards Door Chimes

Schedule F



No. 1605, Captain



No. 1606, Major



No. 1608, Empress Eugenie

No. 1620, Colonial

Light ivory finish on metal with bright brass eagle on blue ground.

Sonoscope tested 1-inch diameter brass tubes.

Sounds two-note signal for front entrance and a single note for rear entrance.

Standard package, 6.

Overall dimensions: length, 43⁵/₈ inches; width, 8¹/₄ inches; depth, 2¹/₄ inches.

No. 1620.....each \$7.95

No. 1605, Captain

A neat attractive metal case, finished in light ivory with contrasting chrome decoration.

The tone bars are Sonoscope tested for perfection of tone.

Sounds the two-note melody for front entrance and the single note for rear entrance.

Standard package, 10.

Overall dimensions: height, 6³/₄ inches; width, 3 inches; depth 2¹/₄ inches.

No. 1605.....each \$3.50

No. 1606, Major

Polished chrome shield flanked on either side by white resonators.

The Sonoscope tested tone bars have the improved tone that comes with individual resonators.

Standard package, 10.

Overall dimensions: height, 7³/₄ inches; width, 6 inches; depth, 2¹/₄ inches.

No. 1606.....each \$4.95

No. 1608, Empress Eugenie

Antique white bracket shelf enclosing individual resonators and Sonoscope tested bars.

The Sylvite case reproduces the depth and tone of old wood.

Sounds the two-note melody for front entrance and the single note for the rear entrance.

Standard package, 6.

Overall dimensions: height, 6⁷/₈ inches; width, 8⁵/₈ inches; depth, 5 inches.

No. 1608.....each \$7.95

No. 1600 Edwards Non-Electric Door Knocker Chimes

Schedule F

Designed by Lurelle Guild.

Outside door knocker is made of bright, weather-resistant solid brass with an ivory knob. Complement to any style of architecture.

Inside unit has beveled, hand-polished mirror and is framed in light ivory. Mirror conceals the compact chime mechanism, which is accurately tested for perfect tone-pitch and tone quality on the Sonoscope.

Standard package, 6.

Shipping weight, 17 pounds per standard package.

No. 1600.....each \$6.95



Outside



Inside

Kirkland Indicating Lamps

All units on this page are for single-hole panel mounting. All lens caps are removed from the front of the panel, permitting lamp bulb servicing. For 220-440-volt service see resistor recommendations.

No. 590 Indicating Lamps

Underwriters' approved unit for 120-volt service. Uses T4 tungsten or T4½ neon candelabra base bulb. Smooth plastic lens, in small lens cap 1⅙ inches in diameter. Mounts in ⅞-inch diameter hole. Overall depth behind front of panel, 2⅙ inches.

No. 590.....each \$.90

No. 555 Indicating Lamps

No. 555 LV for low voltage G6 bulb and No. 555 HV for S6-120-volt bulb. Double-contact bayonet type. Mounts in ⅞-inch diameter hole. Overall depth behind front of panel, No. 555 LV, 1⅞ inches, No. 555 HV, 2⅙ inches.

No. 555.....each \$1.25

No. T2SLC Indicating Lamps

A super-fine unit for use with the low current T2 slide base bulb, .038 maximum amperes on 24 volts. A molded bakelite lamp holder in a lathe-machined metal housing. Screw type lens cap of metal with plastic lens. Mounts in ⅞-inch diameter hole. Overall depth behind front of panel, 2½ to 2 inches. Resistors for 120-220-440-volt service.

No. T2SLC, Black Finish each \$1.65

No. 600 Indicating Lamps

Underwriters' approved unit for 120-volt service. Uses S6, 3 or 6-watt tungsten bulb, with candelabra screw base. Smooth cupped lens, interior sand-blasted. Mounts in 1⅜-inch diameter hole. Overall depth behind front of panel, 2¼ inches. Special flat lens for letters or numbers; three letters or numbers, 15 cents.

No. 600.....each \$1.65

No. 170 SP Indicating Lamps

Underwriters' approved unit for 120-volt service. Uses the S6 candelabra screw base bulb. Flat glass 2-inch diameter lens for letters and numbers. Any color effect. Mounts in 1⅜-inch diameter hole. Overall depth behind front of panel, 2⅙ inches. Chrome lens cap.

No. 170 SP, less markings each \$2.00

No. 590 D/E Indicating Lamps

Underwriters' approved unit for 120-volt service. Uses S6 tungsten or T4½ neon candelabra base bulb. Deeply cupped glass lens. Interior sand-blasted. Mounts in ⅞-inch diameter hole. Overall depth behind front of panel, 2⅙ inches. Lamp protrudes into lens providing wide range of visibility.

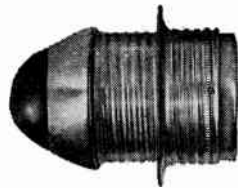
No. 590 D/E.....each \$1.25

No. 659 D/E Deluxe Indicating Lamps

A unit of extra heavy duty construction for use with 120-volt S6 tungsten or T4½ neon candelabra screw base bulbs. Extremely shallow depth, only 1¼ inches behind the front of the panel. Mounts in 1⅜-inch diameter hole. Heavy glass deeply cupped lens. Chrome finish on hexagon holding lip, (⅙-inch wide), with black finish on metal lens cap.

No. 659 D/E.....each \$2.20

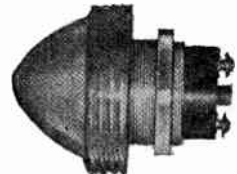
No. G10 and G11 Indicating Recessed Lamp Receptacles



Units that so house the bulb that the effect of a lens is created. Standard screw socket. No. G10 uses G10 neon bulb, No. G11 uses 7-watt tungsten G11 bulb, both on 120 volts. Ideal when lights are on constantly, due to good ventilation. Mounts in 1⅝-inch diameter hole. Overall depth behind front of panel, 1¾ inches. Highly polished chrome finish.

No. G10 and G11.....each \$1.80

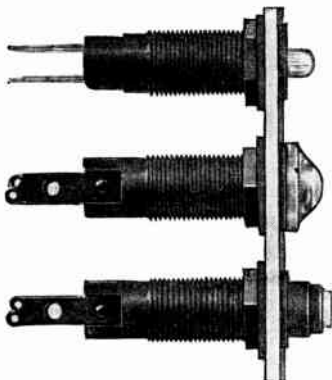
No. 180 SP Indicating Lamps



Underwriters' approved unit for 120-volt service. Uses S6 tungsten candelabra screw base bulb. Has 2-inch diameter beehive lens, deeply cupped. Wide visibility range. Ideal for panels, with heavy apparatus. Overall depth behind front of panel, 1¼ inches. Mounts in 1⅜-inch diameter hole. Chrome plated metal lens cap.

No. 180 SP.....each \$2.00

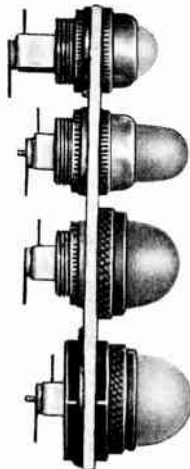
No. T2 Indicating Lamps



No. T2 lampholder molded of bakelite. Mounts in ¾-inch diameter hole. Overall depth behind front of panel, 2¾ to 2¼ inches. Uses T2 slide base low current bulb, .038 maximum amperes on 24 volts. Resistors for 120-220-440 volts. Slip-fit lens caps used; No. T2PC plastic cap, No. T2MC glass lens in metal cap, or No. T2WE cap (a metal cap housing No. 2 WE caps). An ideal unit where panel space is limited.

No. T2 Lamp-holder.....each \$.50
No. T2PL Cap each .20
No. T2MC Cap ea. .50
No. T2WE caps quoted on request.

Series S/C Indicating Lamps



For use with single-contact miniature bayonet base bulbs. Type T3¼ S/C low voltage bulbs and NE51 neon bulbs.

No. S/C 59 P/L. Overall diameter, 1⅙ inches. Mounts in ⅞-inch diameter hole. Overall depth behind front of panel, 1⅜ inches.

No. S/C 59 P/L.....each \$.80

No. S/C 59 G/L. Overall diameter, 1⅙ inches. Mounts in ⅞-inch diameter hole. Overall depth behind front of panel, 1 inch.

No. S/C 59 G/L.....each \$1.00

No. S/C 59 D/E. Overall diameter, 1⅜ inches. Mounts in ⅞-inch diameter hole. Overall depth behind front of panel, 1 inch.

No. S/C 59 D/E.....each \$1.25

No. S/C 65 D/E. Overall diameter, 1⅜ inches (tips of hexagon nuts). Mounts in 1⅝-inch diameter hole. Overall depth behind front of panel, ⅞ inch.

No. S/C 65 D/E.....each \$2.20

Kirkland Indicating Lamps

No. 170SW Low Wattage Switchplate Units

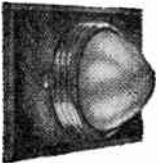


Has 2-inch diameter flat lens for markings. The plate fits a standard outlet box. Uses the S-6 120-volt, 3 or 6-watt bulb.

Overall depth behind front of plate, 2 1/4 inches.

No. 170SW, Less Markings.....each \$2.20

No. 180SW Low Wattage Switchplate Units

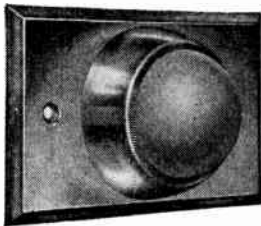


An ideal over-door light, closet light, and elevator signal. Has 2-inch beehive lens. Furnished with plate for single gang box. Uses the S6 120-volt, 3 or 6-watt bulb.

Overall depth behind front of panel, 1 1/4 inches.

No. 180SW.....each \$2.20

Exit Lights—Neon Type



These units use neon bulbs in such a manner that the lamp effects the appearance of a lens. Reduces lamp theft and breakage to a minimum. Neon lamps have 3000 hours or more lamp life.

No. G10-SW. A switchplate unit using the G10 neon bulb. Overall depth, 1 3/4 inches.

No. S14-SW. A switchplate unit using the S14 neon bulb. Overall depth, 2 1/2 inches.

Special Lamp Bulbs for Signaling Service

As long life is the prime requisite of an indicating lamp bulb, care must be taken in the choice of the bulb. Ordinary lamp bulbs are made to produce illumination, whereas brilliant light is not required in use with Kirkland Bulls-I-Units. Kirkland signal lamp bulbs are designed especially for indicating light service.

It is recommended that a bulb be of a higher rated voltage than that it is to be operated on; for example, it is wise to use a 150-volt lamp for 120-volt service, or a 32-volt lamp for 24-volt service, etc. The actual results of this practice will be a satisfactory visibility with a greatly increased lamp life.

Type No.	Rated Lamps	Voltage	Type of Lamp Base	Each	Type No.	Rated Lamps	Voltage	Type of Lamp Base	Each
SA	S6	12	Candelabra	\$.55	TA	T4	12	Candelabra	\$.60
SB	S6	18	Candelabra	.55	TB	T4	18	Candelabra	.60
SC	S6	24	Candelabra	.55	TC	T4	24	Candelabra	.60
SD	S6	32	Candelabra	.55	TD	T4	32	Candelabra	.60
SE	S6	40	Candelabra	.55	TE	T4	40	Candelabra	.60
SF	S6	55	Candelabra	.70	TF	T4	55	Candelabra	.75
SG	S6	150	Candelabra	.45	TM	T4	150	Candelabra	.50
					TN	T2	24	Friction	.50

Other Low Voltage T2 Bulbs.....each \$.60

Bayonet base, double or single contact lamps (U. S. Automobile standard base) available in S6 and T4, (T4 1/2) types at same prices as above.

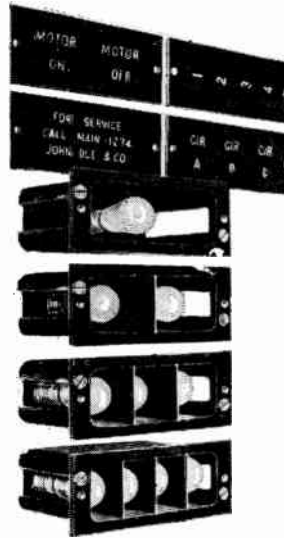
Signal Lamp Resistors

A resistor is used in series with a lamp, for the purpose of operating 120-150-volt lamp on 220-440 volts; 32-volt lamp on 120 volts, etc. These resistors are of the highest quality and made with this particular service in view.

Type No.	Description	Each
220	120-150-Volt Lamps on 220-Volt Service (S6-T4-C7 Type Lamps).....	\$.60
440	120-150-Volt Lamps on 440-Volt Service (S6-T4-C7 Type Lamps).....	.80
120	32-Volt Lamps on 120-Volt Service (T4-T3 Type Lamps).....	.70
T1DR	For Use with T2 24-Volt Lamp on 120-Volt Service, with Assembly.....	.50
TER	For Use with T2 24-Volt Lamp on 220-Volt Service, with Assembly.....	.50
TFR	For Use with T2 24-Volt Lamp on 440-Volt Service with Assembly (2).....	1.50
DB	Dim-Brite Split Resistor, for 120-220 Volts with Assembly (T2 Type).....	.80

Type ML Multiple Lamp Holder Units

With Illuminated Message Plates



This unit is molded of bakelite, and is provided with slots to hold removable light barriers when two, three, or four S6 120-volt bulbs are used. The message plates are of laminated plastic, with a black opaque front, the inner core is of a translucent white material. When the bulb behind the plate is lighted, the message is brilliantly indicated. The message can be produced in any color. Size of light chamber, 1 1/2x3 inches. Overall size of unit, 3 3/4x1 1/2 inches. Overall depth behind front of panel to wire terminal, 2 3/4 inches.

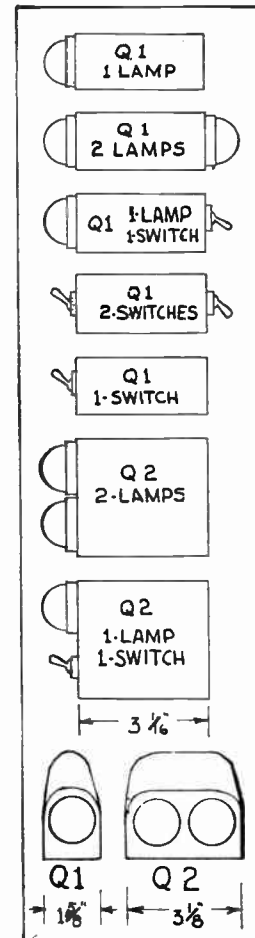
Provided with a V-tip and an inverted V-slot to permit easy alignment, when used one over the other for lamp annunciators and for large groups of messages, such as

used on automatic control devices, etc.

If it is necessary to have extreme side visibility, small bulbs-eyes can be placed as required on the plates.

Requires only a small space for installation. For instance, a 40-lamp annunciator, using ten ML4 units would measure only 17x5 inches.

Special units can be furnished with plates for mounting on single and double-gang standard boxes.



Quonset Fittings for Use with Indicating Lights and Toggle Switches

Quonset Q1—Single Unit
Quonset Q2—Double Unit

Modern in appearance and ideal for use on machine shop bench legs, desks, etc. Also affords protection against breakage when used on posts for indicating light service, etc.

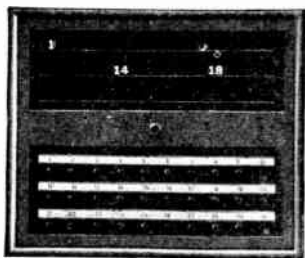
A die casting base with a brass slip-over cover, permits easy mounting and wiring. The Q1 and Q2 units can be wired through the bottom of the base or on order through the base end. They can be mounted on single and double gang plates.

The Q1 unit can be furnished with Nos. 590 and 590 D/E units for 120-volt service. No. S/C 59 P/L for low voltage service can be used on each end for elevator floor signals. Stock toggle switches can be used on one end or on both ends.

Edwards Return Call Annunciators

Electromanual Reset
 No. 412 Flush Type with Metal Face Plate and Wall Box
 No. 410 Surface Type with Metal Case
 8-12 Volts A.C. or 6-8 Volts D.C.

Schedule C



For return call systems. Resets all drops at once from a remote point. Individual reset of drops not possible. Also manual, mechanical reset in case of emergency.

Rooms may be called from the office or central station, or vice versa, and the call may be acknowledged.

Needs only one transformer.

Standard black finish. Special finishes, features, etc., complete installation data upon application.

No. 410 Surface Type

No.	Each	No. of Drops	ARRANGEMENT		Ht. In.	Width In.	Depth In.
			ACROSS	DOWN			
410-25	\$270.00	25	9	3	11	12	3 1/2
410-30	305.00	30	8	4	13 3/8	11	3 1/2
410-36	350.00	36	9	4	13 3/8	12	3 1/2
410-42	405.00	42	11	4	13 3/8	14	3 1/2
410-49	460.00	49	10	5	15 3/4	13	3 1/2
410-56	510.00	56	12	5	15 3/4	15	3 1/2

No. 412 Flush Type

No.	Each	No. of Drops	ARRANGEMENT		Ht. In.	Width In.	Depth In.
			ACROSS	DOWN			
412-25	\$295.00	25	9	3	13 1/8	14 1/8	4 1/8
412-30	330.00	30	8	4	15 1/2	13 1/8	4 1/8
412-36	375.00	36	9	4	15 1/2	14 1/8	4 1/8
412-42	430.00	42	11	4	15 1/2	16 1/8	4 1/8
412-49	490.00	49	10	5	17 7/8	15 1/8	4 1/8
412-56	535.00	56	12	5	17 7/8	17 1/8	4 1/8

For overall of trim, add one inch to height and width.

Mahogany, walnut or oak finish, no extra charge.

For up to 24 volts a.c. or d.c. no extra charge.

Larger sizes, prices upon application.

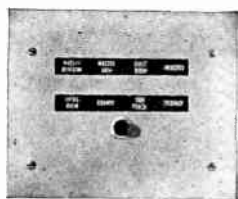
Edwards Flush Annunciettes

8-12 Volts A.C.

Schedule T

No. 672 Manual Reset Type

With Wall Box



Drops and reset mechanism will stand up indefinitely under most severe service. Mounts easily in wall box allowing plumb adjustment. Front connectors in full view allow complete installation, test, and operation before face plate is fastened.

Buzz audible signal with marked connectors for adding extension

signals if desired. Furnished with 100 separate name and number cards.

No. of Drops	Each	ARRANGEMENT		WALLCUT DIMEN.		Approx. Wt., Lb.
		ACROSS	DOWN	Height Inches	Width Inches	
4	\$20.75	4	1	4 5/8	5 7/8	6
8	29.50	4	2	4 5/8	5 7/8	7
12	42.00	6	2	4 5/8	7 7/8	9
16	54.00	6	3	6 1/4	7 7/8	10
20	67.00	5	4	7 7/8	7 7/8	12
24	79.00	6	4	7 7/8	7 7/8	13

For each additional 6 drops, add \$30.

Depth, 3 inches for all sizes. Add 3/8 inch all around for overall size of trim. Standard: Wrinkle grey finish and for 8-12 volts a.c. operation. Any solid spray finish, add 10%.

For up to 24 volts a.c. or d.c., no extra charge.

Special finishes, etc.; installation data on application.

Wall Boxes Only for No. 672

For satisfactory installation wall boxes should be used.

No. 671A, For 4-8 Drop Annunciettes. each \$1.25

No. 671B, For 12 Drop Annunciettes. each 1.25

No. 671C, For 11 Drop Annunciettes. each 6.25

No. 671X, For Larger Sizes (Specify Size) each 6.25

When wall box has been shipped and annunciette without wall box is desired, specify No. 670 instead of No. 672.

Edwards Surface Annunciettes

8-12 Volts A.C.

Schedule S

No. 82 Manual Reset Type



Drops and reset mechanism are thoroughly reliable, and will stand up indefinitely under most severe service. Buzz audible signal with marked connectors for adding extension signals if desired.

Envelope included with 100 separate name and number cards for drops allowing definite, correct indications in residence, bank, office or any installation.

No. of Drops	Each	ARRANGEMENT		Over-all Ht. In.	Over-all Width In.	Approx. Wt. Lb.
		ACROSS	DOWN			
4	\$16.75	4	1	4 3/8	5 1/4	1 1/16
8	25.50	4	2	4 3/8	5 1/4	1 15/16
12	38.00	6	2	5	7 3/16	2 5/8
16	50.00	4	4	7 3/16	7 3/16	7 3/16
20	63.00	5	4	7 3/16	7 3/8	5 1/8
24	75.00	6	4	7 3/16	8 3/8	6

For each additional 6 drops add \$30.

Standard: Wrinkle grey finish and for 8-12 volts a.c. operation.

Special finishes, features, etc., complete installation data on application.

No. 673 Edwards Desk Manual Reset Annunciettes

8-12 Volts A.C.

Schedule C



Smooth, positive reset push on top of case assures efficient operation. Base is felt covered to prevent scratching. Buzz audible signal is standard. For convenience in installation, a complete assortment of 100 name and numerical indications for drops is furnished with each annunciette.

Furnished complete with 6-foot cord and connector block.

No. of Drops	Each	ARRANGEMENT		Overall Height Inches	Overall Width Inches	Approx. Weight Pounds
		ACROSS	DOWN			
2	\$34.00	2	1	2 1/2	4	4
4	47.25	4	1	2 1/2	5	4
6	60.00	6	1	2 1/2	7	5
8	75.00	8	1	2 1/2	9	8

For each additional 6 drops add \$40.

Standard: Mahogany, walnut, or oak finish and for 8-12 volts a.c. operation. Special finishes, features, etc., complete installation data on application.

No. 81 Edwards Dixie Surface Annunciators

Schedule S
8-10V. A.C. or 12V. A.C.



All metal case, finely finished. The No. 80 drop which is used, is locked in place and cannot be released by shaking or jarring. Indications are black on white background and cards are changeable. Buzz audible signal is standard.

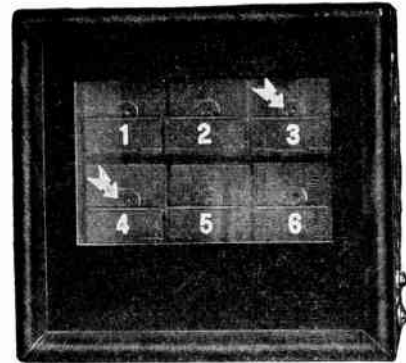
Standard finish; wrinkle grey. Special finishes, features, etc., installation data on application.

No. of Drops	Each	ARRANGEMENT		Height Inches	Width Inches	Approx. Wt. Lb.
		Across	Down			
4	\$16.75	4	1	5	7 ³ / ₁₆	1
8	25.50	4	2	7 ³ / ₁₆	7 ³ / ₁₆	1
12	38.00	6	2	7 ³ / ₁₆	9 ⁷ / ₈	1
16	50.00	6	3	9 ³ / ₈	9 ⁷ / ₈	1
20	63.00	7	3	9 ³ / ₈	11 ¹ / ₄	1
24	75.00	8	3	9 ³ / ₈	12 ⁵ / ₈	1

For each additional 6 drops, add \$30.

No. 403 Edwards Electric Reset Surface Annunciators

12-14 Volts A.C. or 8-10 Volts D.C.
Schedule C



All metal case. No. 4 drop uses less current for indicating and resetting and gives a far better indication. The audible signal is a double adjustment buzzer. One reset button regularly furnished on case for every 10 drops. Connectors also provided for remote resetting as

Standard. All drops reset at once.

Standard finishes are black, mahogany, oak or walnut.

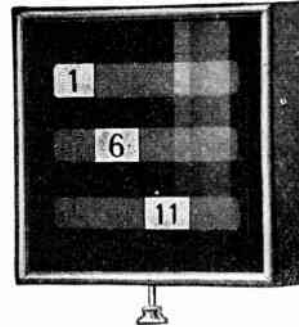
Special finishes, features, etc., complete installation data on application.

No. of Drops	Each	ARRANGEMENT		Height Inches	Width Inches	Approx. Wt. Lb.
		Across	Down			
4	\$29.50	2	2	6 ¹ / ₈	5 ¹ / ₈	6
8	43.00	4	2	6 ¹ / ₈	8 ¹ / ₈	9
12	59.00	4	3	8 ¹ / ₈	8 ¹ / ₈	10
16	77.00	6	3	8 ¹ / ₈	11 ¹ / ₈	12
20	95.00	5	4	10 ¹ / ₄	9 ⁵ / ₈	14
24	115.00	6	4	10 ¹ / ₄	11 ¹ / ₈	16

For additional 6 drops, add \$35.00.

No. 807 Edwards High Voltage Surface Manual Reset Annunciators

115 Volts A.C. or 115 Volts D.C.
Schedule C



Has a metal case with double Micarta backboard on which are mounted No. 80 drops. Care has been given to the insulation of all current-carrying parts, eliminating all materials affected by heat or moisture.

A 3-inch bell is included which may be installed adjacent to the annunciator or where desired. The annunciator is wired with marked connectors for this purpose.

Standard black finish. Any solid spray finish no extra charge.

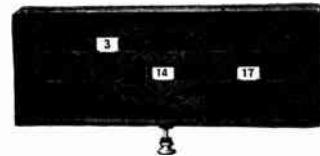
No. of Drops	Each	ARRANGEMENT		Ht. In.	Width In.	Depth In.	Approx. Wt. Lb.
		Across	Down				
4	\$70.00	4	1	5 ¹ / ₄	7 ⁵ / ₈	3 ¹ / ₄	9
6	85.00	3	2	7 ³ / ₄	6 ¹ / ₈	3 ¹ / ₄	10
8	105.00	4	2	7 ³ / ₄	7 ⁵ / ₈	3 ¹ / ₄	12
10	115.00	5	2	7 ³ / ₄	9 ¹ / ₄	3 ¹ / ₄	12
12	140.00	6	2	7 ³ / ₄	10 ⁵ / ₈	3 ¹ / ₄	16

Larger sizes, add \$14.00 per drop. For 230 volts, add \$2.25 per drop.

For flush type, add \$25.00.

No. 813 Edwards Railway Annunciettes

8-12 Volts A.C. or 6-8 Volts D.C.
Schedule C



All metal case. For flush types, details on application. Shallow design especially adaptable to sleepers, parlor and dining cars, and is standard equipment with many railroads.

No. 156 monitor bell is furnished as the audible signal for mounting anywhere desired. Also available with chime signal. Details on application.

Mahogany, oak, walnut or any solid spray finish. Special finishes, features, etc. on application.

No. of Drops	Each	ARRANGEMENT		Height Inches	Width Inches	Approx. Wt. Lb.
		Across	Down			
10	\$50.00	5	2	3 ³ / ₄	7 ⁷ / ₁₆	7
12	58.00	6	2	3 ³ / ₄	8 ⁹ / ₁₆	9
14	68.00	7	2	3 ³ / ₄	9 ⁹ / ₁₆	10
16	78.00	8	2	3 ³ / ₄	10 ⁹ / ₁₆	10
18	88.00	9	2	3 ³ / ₄	11 ⁹ / ₁₆	11
20	98.00	10	2	3 ³ / ₄	12 ⁹ / ₁₆	12
22	108.00	11	2	3 ³ / ₄	13 ⁹ / ₁₆	14
24	118.00	12	2	3 ³ / ₄	14 ⁹ / ₁₆	14

Larger sizes, add \$6.25 per drop.

Depth, 2¹/₂ inches.

Edwards Surface Elevator Manual Reset Annunciettes

8-12 Volts A.C. or 6-8 Volts D.C.

Schedule S

Buzz audible signal.
Smooth, sturdy, reliable reset.
Up and down type equipped with reset push for each column of indications.
Standard black finish.
Special finishes, features, etc. on application.
Order and price by number of drops not by number of floors.
For up to 24 volts a.c. or d.c., no extra charge.



No. 130

No. of Drops	Each	No. 130—Single Row				No. 130-D—Up and Down Type			
		ARRANGEMENT Across Down	Over-all Ht. In.	Over-all Width In.	Approx. Wt. Lb.	ARRANGEMENT Across Down	Over-all Ht. In.	Over-all Width In.	Approx. Wt. Lb.
3	\$23.00	1 3	7 ³ / ₈	2 ¹ / ₂	4	.....	.....	.....	.....
4	24.25	1 4	7 ³ / ₈	2 ¹ / ₂	4	.....	.....	.....	.....
5	26.75	1 5	9 ³ / ₄	2 ¹ / ₂	6	.....	.....	.....	.....
6	29.00	1 6	9 ³ / ₄	2 ¹ / ₂	6	\$33.50	2 3	7 ³ / ₈	4 8
7	31.50	1 7	12 ¹ / ₄	2 ¹ / ₂	7	.....	.....	.....	.....
8	34.00	1 8	12 ¹ / ₄	2 ¹ / ₂	7	40.25	2 4	7 ³ / ₈	4 9
10	39.00	1 10	14 ³ / ₄	2 ¹ / ₂	8	45.25	2 5	10 ¹ / ₈	4 10
12	43.75	1 12	17 ¹ / ₄	2 ¹ / ₂	9	53.00	2 6	10 ¹ / ₈	4 11

For larger sizes, add \$5.00 per drop. Depth, 2¹/₂ inches.

Edwards Annunciator Drops

Schedule C

No. 8 Manual Reset Drop

An efficient drop used in all annunciettes. Its compact design gives just as clear an indication but allows smaller, neater annunciators.
Positive Locking.



No. 8

No. 8.....each \$4.50

No. 80 Manual Reset Drop

The older design used in all hand reset annunciators except the new annunciettes.



No. 80

Positive locking.

No. 80.....each \$4.50

No. 4 Electric Reset Drop

Used in all electric reset annunciators. Uses much less current for both indicating and resetting. The indication is a white arrow which points directly at the name card. When reset, the arrow drops out of sight behind the name card.



No. 4

The front is of plain glass and as the arrow is between the glass and a dull black background, it can be seen from any angle. Cannot shake or jar out of adjustment. Locked in normal position and cannot indicate until current is passed through magnets.

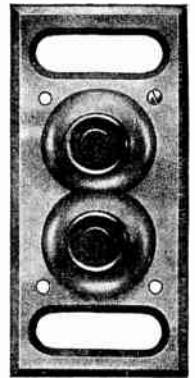
No. 4.....each \$6.80

Edwards Bronx Entrance Push Buttons

Schedule S



Nos. 600 & 603



No. 602



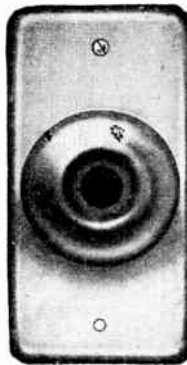
No. 605



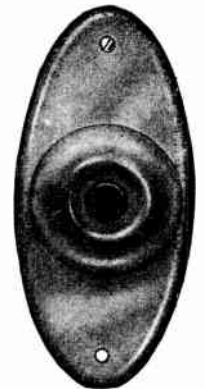
No. 606



No. 607



No. 608



No. 609

One piece type entrance push designed to cover all general needs. Sturdy mechanism is fully insulated. Binding posts and screws are large enough for No. 14 wire.

Standard finish satin brass.

Packed with screws in individual boxes for convenient shelf use.

No.	Each	Size Inches	Std. Pkg.	Approx. Wt. Lb. Std. Pkg.
600	\$.20	2 ⁵ / ₁₆	2	1
602	.45	2 x 4 ⁹ / ₁₆	6	1
603	.20	1 ³ / ₄	12	1
605	.35	1 ¹ / ₄ x 3 ¹ / ₂	12	1
606	.25	1 ⁹ / ₁₆ x 2 ³ / ₈	12	1
607	.30	2 ¹ / ₁₆ x 2 ⁵ / ₈	12	1
608	.40	2 ¹ / ₁₆ x 4 ¹ / ₂	12	2
609	.40	2 ¹ / ₁₆ x 4 ¹ / ₂	12	2

Benjamin Heavy Duty High Voltage Push-Buttons

Non-Locking Type, Watertight

Listed by Underwriters' Laboratories
5 Amperes, 125 Volts

Recommended for use with industrial signals but suitable for most any kind of electrical signaling.

Has quick make-and-break mechanism, positive acting, mounted on base of high heat molded insulating material for use with circuits carrying inductive loads.

Plunger is normally below the surface of the cap so the button cannot be operated accidentally. Waterproof rawhide gasket seals the plunger opening. All joints are watertight. Natural brass finish.

Furnished with unmarked name plate.



No. 8493

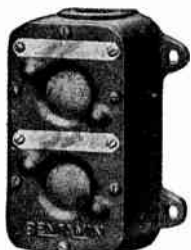
Single Button

Has cast brass casing, with two mounting lugs, and one end boss tapped 1/2 inch.

Casing will be tapped for 1/2 or 3/4-inch pipe one way or two way if specified, without extra charge.

No.	Each	Description	Wt., Lb.
8493	\$4.25	Open Circuit Type.....	2
8874	4.25	Closed Circuit Type.....	2
6998	1.00	Mechanism Only (Open Circuit).....	1/2
6627	1.00	Mechanism Only (Closed Circuit).....	1/2

2-Gang Button



No. 8495

Has cast brass casing with four mounting lugs and one end boss tapped 1/2 inch. Casing will be tapped for 1/2 or 3/4-inch pipe one way or two way if specified, without extra charge.

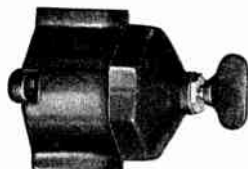
Brass cover fastened to casing with No. 6-32 brass screws.

Name-plate is unmarked and regularly positioned as shown in illustration. Specify position of name-plates in relation to conduit entrance.

No.	Each	Description	Wt., Lb.
8495	\$6.00	Open Circuit, Both Buttons.....	3
8884	6.00	Open Circuit, One Button; Closed Circuit, One Button.....	3

Locking Type—Watertight

For use in round-houses, mines, etc.



No. 8734

Has brass casing with two mounting lugs, and one end boss tapped 1/2-inch.

Casing will be tapped for 1/2 or 3/4-inch pipe one way or two way if specified, without extra charge.

Cover supplied with watertight stuffing box for plunger key.

Weight, 2 pounds.

No. 8733, Closed Circuit Type.....	each	\$5.00
No. 8734, Open Circuit Type.....	each	5.00

Edward Screwless Pushes
Schedule S



No. 630



No. 631



No. 632



No. 633

Hole can be drilled, wires connected and the flat sub-plate can be fastened to the surface with screws. Finished plate snaps firmly to subplate with no screws to mar the appearance.

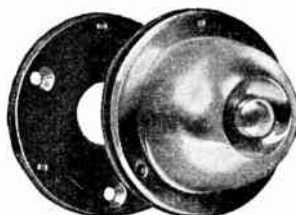
Fully insulated; the contact is pure phosphor bronze, self cleaning in operation. The finished plate is heavy brass. not sprayed, but brushed and lacquered.

No. 630 makes an attractive feature for all colonial type doorways. No. 631 is decorative but conservative. It is ideal for plaster walls as well as front entrances. No. 632 is smart and conservative and particularly adapted to narrow spaces. No. 633 is for dentists offices, etc.

No.....	630	631	632	633
Each.....	\$.37	.37	.27	.45
Style.....	Eagle	Oval	Rectangular	Indicator
Standard Package.....	6	6	6	6

No. 1786 Edwards Surface Type Weatherproof Push Button

Schedule S



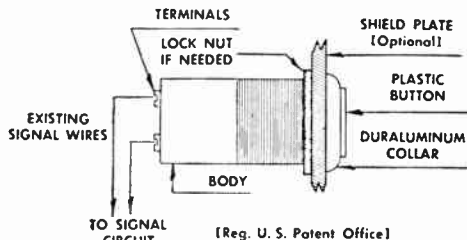
Standard package, 1.

A neat solid brass push button absolutely dependable for use outside of buildings, residences, etc.

Also recommended for marine work, ice plants, chemical plants, and all places where dampness, exposure, or fumes will corrode and destroy the mechanism of an ordinary push button.

No. 1786.....	each	\$4.40
No. 1786C, With Plate Threaded for 1/2-Inch Conduit.....	each	6.80

Philip and Lee Viza-Nite Illuminated Push-Button



BUILT WITHIN PROVISIONS OF NATIONAL ELECTRIC CODE



For chimes, door bells, horns, buzzers, and signal lights. Electrically illuminated by the same safe voltage used to ring the door bell or door chimes.

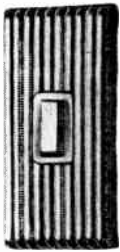
Simple to install. Requires no additional wiring; uses existing door bell wiring.

Packed 30 to a carton.

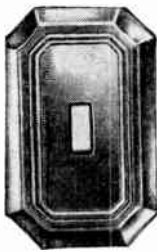
Each.....	\$1.50
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When ordering, specify whether for buzzer (6-8 volts) or chimes (10-12 volts).

Edwards Cast Entrance Pushes Solid Brass—Screwless Schedule S



No. 640



No. 641



No. 642

Solid brass casting, highly polished to a mirror-like finish; lacquered. Construction permits push to be mounted in any hole $\frac{5}{8}$ inch and larger. Shell white rectangular center is easily depressed giving positive contact directly on to large terminal screws. Molded shell containing mechanism insulates this push button.

One-piece mechanism screws into door jamb or molding (screws are furnished) and cast escutcheon snaps firmly in place, being held by two extra strong fasteners. Cast escutcheon cannot be removed or mechanism tampered with without inserting screwdriver into slot in bottom and prying apart.

No. 640 Rectangular Type. Particularly adapted for narrow door jambs, etc. Escutcheon plate—width, $\frac{1}{16}$ inch; height, $2\frac{1}{4}$ inches; thickness, $\frac{3}{8}$ inch.

No. 641 Octagonal Type. An ideal design for most types of architecture. Escutcheon plate—width, $1\frac{1}{16}$ inches; height, $2\frac{1}{2}$ inches; thickness, $\frac{3}{8}$ inch.

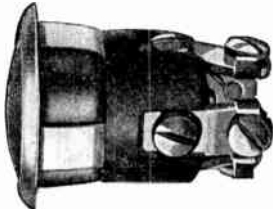
Standard package, 6.

No.	640	641	642
Each	\$1.50	1.50	1.50

No. 642 Oval Type. Represents the smart adaptation of the conventional front entrance push button. Escutcheon plate—width, $1\frac{1}{16}$ inches; height, $2\frac{1}{2}$ inches; thickness, $\frac{3}{8}$ inch.

No. 265 Edwards Low Voltage Return Call Push Buttons

Schedule C



For 3-wire return call systems. Also used where a number of pushes are installed, one for each bell, with one push to ring all bells.

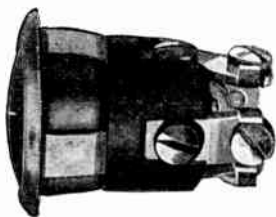
Standard finish, nickel; brush brass when specified.

Standard package, one; approximate weight, 2 ounces.

No. 265. Insulated, Fits $\frac{3}{4}$ -Inch Hole..... each \$2.15

Edwards Low Voltage Multiple Contact Push Buttons

Schedule C



Has four insulated contact springs on which a plunger contacts when depressed. The contacts may be connected to provide three circuits with one common or strapped together to close two circuits with double contact capacity. Phosphor-bronze, wiping contacts.

Standard finish, nickel; brush brass when specified.

Standard package, one; approximate weight, 2 ounces.

No. 260. For Open Circuit, Fits $\frac{3}{4}$ -In. Hole.... each \$1.60
No. 260C, For Closed Circuit, Fits $\frac{3}{4}$ -In. Hole... each 2.35

Edwards Flush Push Buttons

Schedule S
For Low Voltage
Flat Pearl Center Types



No. 620



No. 59

For general utility purposes. Stamped shell, phosphor bronze springs, self-cleaning contacts, self-forming binding posts. Spring clips hold push firmly in mounting hole.

No.	Each	Description	Std. Pkg.
620	\$.40	Insulated, Fits $\frac{5}{8}$ -Inch Hole.....	12
59	.80	Insulated, Fits $\frac{3}{4}$ -Inch Hole.....	6

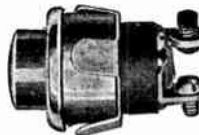
No. 625 Raised Center Types



This push has a raised white glass center but is otherwise exactly the same as 620. Can also be furnished with black, red, blue, yellow and other color centers at no extra charge. White center is standard and furnished unless otherwise specified. Standard finish, nickel; brush brass when specified.

No.	Each	Description	Std. Pkg.
625	\$.60	Insulated, Fits $\frac{5}{8}$ -Inch Hole.....	6

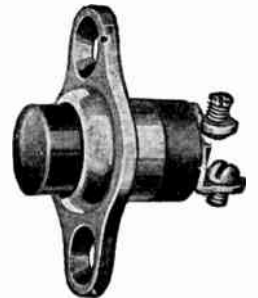
Protruding Center Type



No. 621



No. 116



No. 622

With solid turned brass shell. Phosphor-bronze springs, self-cleaning contacts.

No. 621 has spring clips to hold push firmly in $\frac{5}{8}$ -inch mounting hole. No. 622 has escutcheon for wood screw mounting in $\frac{1}{2}$ -in. hole. No. 116 is for forced fit in $\frac{1}{2}$ -in. hole.

No.	Each	Description	Std. Pkg.
621	\$.85	Insulated, With Spring Clips, Fits $\frac{5}{8}$ -Inch Hole	6
622	1.15	Insulated, With Escutcheon, Fits $\frac{1}{2}$ -Inch Hole	6
623	1.05	With Lock Nut, $\frac{5}{8}$ -Inch Hole.....	6
116	1.70	Insulated, Forced Fit, $\frac{1}{2}$ -Inch Hole.....	1

No. 850 Edwards High Voltage Push Button

125-250 Volt
Underwriters' Listed
Schedule S



Recommended for panel boards, plates, etc. Has only one moving member and two coil springs. Contacts are phosphor bronze of ample area, self-cleaning.

Ratings: 6 amperes at 125 volts a.c.; 3 amperes at 125 volts d.c.; 3 amperes at 250 volts a.c. and 1 ampere at 250 volts d.c.

Low voltage ratings by test: 10 amperes at 48 volts a.c., 32 volts a.c., 24 volts a.c. and d.c., 12 volts a.c. and d.c.; 8 amperes at 32 volts d.c.; 7 amperes at 48 volts d.c.

Standard finish, nickel; brushed brass when specified.
No. 850..... each \$3.30

**No. 146 Edwards Push Button Blocks
With Numbered Pushes**



Schedule S
Of genuine molded bakelite, with a removable weighted base and a sponge rubber pad. Flush, numbered, midget pushes are supplied with block. Can be mounted on the side of a desk with the use of a concealed mounting hole provided for that purpose. Will not mar or deteriorate.

Standard finish, black, mahogany or walnut. Std. pkg. 1.

No. of Buttons.....	1	2	4	6
Without Cord..... each	\$2.75	3.25	4.75	6.85

No. 197 Edwards Bakelite Directory Desk Pushes



Schedule S
Has phosphor bronze scraping contacts and is fully insulated.

Base is covered with soft sponge rubber.

Has changeable name cards.

Standard color, black. Mahogany, oak or walnut, no extra charge.

Standard package, 1.

No. of Buttons.....	1	2	4	6
Without Cord..... each	\$3.25	3.90	5.60	9.50
Weight..... ounces	1	1	1	2

Edwards All-Metal Desk Pushes



Schedule S
A fine desk push for neat appearance and convenient usage.

Heavy gaged steel body. Bonderized. A smaller and neater unit, taking less space on the desk. Molded centers. Completely insulated. One row of buttons for up to 10 buttons. Over 10 buttons, double rows.

Names are almost flush with top plate thus preventing dust ridden crevices and allowing easily readable names.

One complete directory card which is easier to handle than individual cards.

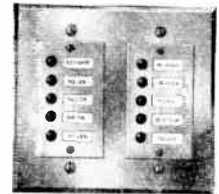
- Transparent celluloid keeps names clean.
- Black finish is standard with brushed nickel top plate.
- Specify exact number of buttons when ordering.

No. of Buttons	Without Buzzer		With Buzzer	
	No. 192 without Cord Each	Approx. Wt. Oz. Push Only	No. 194 without Cord Each	Approx. Wt. Oz. Push Only
1	\$7.30	1	\$12.40	1
2	9.10	1	13.75	1
4	12.60	1	19.75	2
6	16.00	2	28.10	2
8	19.60	2	37.50	2
10	23.00	2	.....	.....
12	31.80	2	.....	.....
Add per Button.	2.50	..	3.00	..

**No. 107 Edwards Push Button Panels
Schedule C**



5-Button



10-Button



240-Button

Designed to meet the requirements of small schools, public buildings, offices, etc., where no All or Master push button is required. This panel is ideal where space is limited and where economy is a factor.

Sizes 6 to 10 buttons inclusive are mounted on a plate which fits a 2-gang switch box; 11 to 15 buttons are mounted on a plate to fit a 3-gang switch box. Price does not include back boxes. Larger sizes are provided with a steel wall box, for flush mounting. Terminal board is provided suitable for mounting in back box and is wired to panel on sizes 16 buttons and larger. A panel 17 1/2 x 13 inches accommodates 240 buttons.

Brushed brass finish is standard.

3 to 15 Buttons.....	per button	\$2.75
16 Buttons and up.....	per button	4.10

No. 650 Edwards Solid Forged Brass Push Buttons



Schedule S

Recommended for better grade apartment and residence work.

Sturdy mechanism is entirely insulated and securely riveted to the solid brass case, making the push all one-piece.

Connections are easily made direct to two large screws on back of the push.

Can be mounted on metal trims without fear of short circuiting.

Oval head wood screws 3/4-inch No. 6 are furnished standard to match finish.

Overall dimensions: Height, 3 1/4 inches; width, 1 1/8 inches; depth, 5/8 inch.

Standard finish, brush brass with antique (black) mat.

Standard package, 1.

No.	Description	Each
650	Brush Brass with Antique (Black) Mat.....	\$1.45
650G	Chromium, Polished or Dull as Specified.....	2.30

No. 60 Edwards Flush Type Screwless Push Escutcheons

Schedule E



For 5/8-inch pushes.
For use on plaster or where larger than the midget push is required. Iron sub-plate is first secured to the wall. There being a number of screw holes, it is always possible to engage a lath. The brass plate is then placed over the iron plate and push button pressed into place. Spring clips on side of the push button grip iron plate securely and hold button and top plate in place.

Standard finish, nickel; brush brass or cadmium, when specified.

Standard package, 10. Weight, 5 ounces.

No. 60.....each \$.40
Push buttons not included in price of escutcheons.

Edwards Flat Push Button Escutcheons

Schedule E



No. 62



No. 62D

For 5/8-inch pushes. Used with either flat pearl center, round glass center or protruding bakelite center push button. Spring clips on side of pushes hold them securely in place. Plates are solid brass.

When ordering, state size of push to be used.

Standard finish, nickel; brush brass or cadmium, when specified.

Standard package, 10. Assortment permitted to make standard package.

No.	Each	62	62D
No.	\$3.00		
85	7.75		
85A	3.30		
85L	9.75		
85C			

Type	Rectangular	Diamond
Width.....inches	1 1/4	1 1/2
Height.....inches	2	2 1/4
Approx. Weight, Std. Pkg.....oz.	8	8

Push buttons not included in price of escutcheons.

Edwards Bakelite Pendant Pushes

Schedule S



Suitable for residence and hospital work. Bakelite finish will not become scratched or marred like wood. Light in weight, but exceedingly strong and will not warp, crack or chip off.

No. 67 has a flat pearl center.

Standard package, 6 of one color. Approximate weight, 1 pound.

No. 67, Black or Mahogany.....each \$.80
No. 67W, White Enamel.....each 1.00

No. 206 Edwards Table Pushes

Schedule S



Clamps on table without scratching. Used in connection with floor push or wall plug. Self-contained with button and contact built into spring clamp base. Self-cleaning, phosphor bronze contacts.

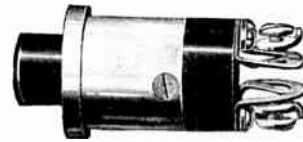
Standard nickel finish. Standard package, 6. Weight, 1 pound each.

No. 206.....each \$1.65

Edwards Quick-Break Push Buttons

110-220-Volt

Schedule S



No. 85

Sturdy mechanism and heavy contacts so designed that no matter how slowly the finger pressure is released the contact breaks quickly.

Standard finish, nickel; brush brass when specified.

Standard package, one.

No.	Each	Description	Voltage
85	\$3.00	Forced Fit in 3/4-In. Hole.....	110
85A	7.75	Forced Fit in 1 1/8-In. Hole.....	220
85L	3.30	Locknut Type, Fits 7/8-In. Hole.....	110
85C	9.75	Closed Circuit, Forced Fit in 1 1/8-In. Hole.....	110

No. 235 Edwards Receptaplug

For Non-Carpeted Floors or Rugs

Schedule S



A compact attachment plug for use where No. 290 floor tread is used beneath floor covering and can be reached to change its position.

Receptacle mortises into floor. Rubber capped plug is inserted flush into receptacle leaving no bulge.

Plug will not fit standard lighting receptacles, thus preventing the possibility of shorting the line.

Satin brass finish with brown rubber cap.

Furnished without cord and push.

Weight, 2 pounds.

Standard package, 6.

No. 235.....each \$1.25
Pin Only.....each .50

No. 237 Edwards Floor Pushes

For Uncarpeted Floors

Schedule S



Provides a means of closing a signalling circuit at a fixed location on the floor.

Receptacle mortises into floor and allows pin only to extend above floor line. Slight pressure on pin causes contact.

Standard package, 6. Weight, 2 pounds.

No. 237, Floor Push with Pin.....each \$1.00
Pin Only.....each .20

No. 290 Edwards Dixie Floor Tread

Schedule S



Recommended as a dining room push for calling servant during meals. Contact easily made by pressure at any point. Rubber covered base prevents push from sliding. The connectors are firm and reliable and whole device is designed for quick, easy installation. Cord enters through brass strap which holds it securely. Standard finish is satin brass.

Standard package, 10.

No. 290, Approx. Wt., 2 Pounds Each.....each \$1.50

Edwards Answercalls

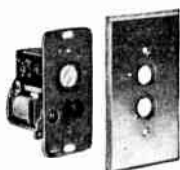
For Return Call Push Button Stations

8-12 Volts A.C. Standard

Schedule C



No. 139



No. 140

It fits any standard single gang switch box 2 3/8 inches deep and takes any standard push button switch plate.

No. 139 has buzz audible signal with no contacts or pivots and requires no adjustment. May be varied after installation, from loud low tone to a soft high tone through hole in sub-plate. Marked binding posts easily accessible.

No. 140 has annunciator type drop, which leaves a visual signal. Operation of push button, when call is answered, automatically resets drop. Recommended for use in Y.M.C.A. buildings, dormitories, and other places where it is desirable to leave an indication that a call has been made to the room during the occupant's absence.

No. 139, Flush Non-Indicating, Wt., 1 Pound... each \$5.50
 No. 140, Flush Indicating, Wt., 1 Pound..... each 11.40

No. 136 Edwards Surface Type Return Call Push Button Stations

D.C. or A.C.

Schedule C



Designed particularly for installation in existing buildings.

Provides a neat appearing plate mounted on a shallow cast box, which provides entrance for conduit or open wires as desired.

The audible signal is an Edwards Double Adjustment Lungen Buzzer, and station is completely wired for installation with Edwards Return Call Push.

The cast box is rubberoid black, the plate brushed brass or nickel.

Standard package, 1; approximate weight, 1 1/2 pounds.

No. 136, With Metal Plate..... each \$7.30

No. 136, With Bakelite Plate, If Specified..... each 7.70

No. 137 Edwards Flush Type Return Call Push Button Stations

D.C. or A.C.

Schedule C



A flush plate for mounting on a standard single gang switch box.

The audible signal is an Edwards Double Adjustment Lungen Buzzer, and the station is completely wired for installation with Edwards Return Call Push.

Standard finish, brushed brass or nickel.

Standard package, one.

Approximate weight per standard package, 1 pound.

No. 137, With Metal Plate..... each \$6.15

No. 137, With Bakelite Plate, If Specified..... each 6.50

No. 9 Edwards Door Openers

Economy, Mortise Type

Schedule S

4 1/2-6 Volts D.C. or 8-12 Volts A.C.



Face plate and nosing made of solid brass. Used extensively for low cost apartment jobs.

Fits same size mortise as same shape openers of other manufacturers. Height, 3 3/8 inches; depth, 2 1/8 inches; thickness, 1 inch; nosing opening, 1 1/8 inches; face plate, 5 7/8 x 1 1/4 inches.

May be used on either right or left hand doors.

Standard package, 6.

Approximate weight, 9 pounds.

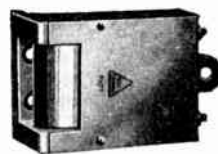
No. 9..... each \$3.10

No. 152 Edwards Door Openers

Commercial, Rim Type, Solid Nose

Schedule S

4 1/2-6 Volts D.C. or 12-16 Volts A.C.



For surface locks, thin frames, etc. Frame is cast iron with brass finish face plate and solid brass nosing.

Height, 2 inches; depth, 3 inches; thickness, 1 1/8 inches; nosing opening, 1 1/4 inches.

Approximate weight 2 pounds.

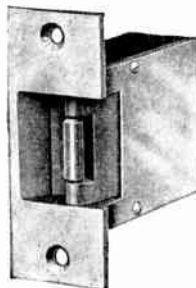
No. 152..... each \$7.50

No. 154 Edwards Door Openers

Mortise Type, Roller Nose

Schedule S

4 1/2 Volts D.C. or 12-16 Volts A.C.

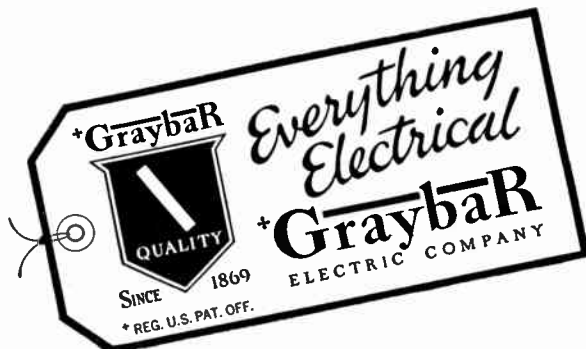


Height, 3 3/8 inches; depth, 2 7/8 inches; thickness, 1 1/4 inches. Nosing opening, 1 1/4 inches. Face plate, 1 1/4 x 3 3/8 inches. Brass finish.

May be used on either right or left hand doors.

Approximate weight, 2 pounds.

No. 154..... each \$7.00



Edwards Burglar Alarm Springs

Schedule S

Placed in the frame several inches above the lower end of the upper sash—and the same distance below the upper end of the lower sash. Each Sash should be mortised so that the nosing of the spring will be set in the recess when the window is closed. Mortise should be continued (beyond the necessary point) to permit opening of window for ventilation. Without mortise, any one trying to enter house and knowing of window springs, can easily open window gradually, and hold spring depressed with the finger.

Edwards Springs, when used properly as described, are classified as follows:

Open circuit window springs—nosing depressed contact is closed. Closed circuit window springs—nosing depressed contact is open. Open circuit window springs—nosing depressed contact is open. Open circuit door springs—plunger depressed contact is open. Closed circuit door springs—plunger depressed contact is closed.

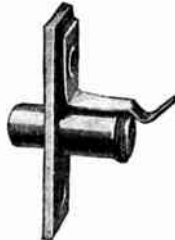
Open Circuit Spring



No. 34 Door Spring



No. 236 Door Trip



No. 38 Make and Break

No.	Each	Description	Size Plate Inches	Std. Pkg.
34	\$.45	Door.....	2 x 5/8	12
38	.45	Make and Break.....	2 x 5/8	6
236	1.40	Door Trip.....	2 1/4 x 1 1/4	6

Closed Circuit Spring

39	\$.45	Door.....	2 x 5/8	6
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Edwards All-Purpose Contactors

Schedule S



Designed so pressure from any direction will depress the nosing. The contactor fits a 3/4-inch hole. Ideal for use on doors, windows, drawers, etc. Vulcoid insulation, phosphor bronze contacts of ample capacity for all low voltage work.

No. 44—Pressure on nosing opens the circuit. No. 45—Pressure on nosing closes the circuit. No. 46—Momentary contact; pressure on nosing makes, then breaks the circuit and repeats the operation in returning to normal.

Standard package, 6.

No.	44	45	46
Each	\$.80	.80	.80

Edwards Burglar Alarm Traps

Schedule S



Installed with cord or wire stretched across entrances, open spaces or attached to doors, windows, etc. Slightest movement of cord or wire operates trap which makes and holds contact causing continuous ringing of bell without additional devices.

Covered Type

Standard package, 6. Can be assorted.
No. 27, For Open Circuit.....each \$2.00
No. 27-C, For Closed Circuit.....each 2.00

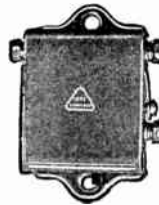


Uncovered Type

Standard package, 6. Can be assorted.
No. 29, For Open Circuit.....each \$.50
No. 29-C, For Closed Circuit.....each .50

No. 26 Edwards Constant Ringing Drops

Schedule S

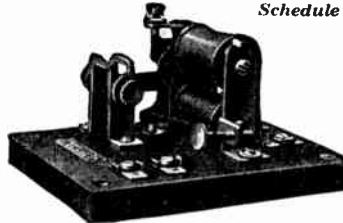


Especially designed for use in burglar alarm systems. With momentary closing of protective circuit this device causes bells to ring continuously, irrespective of subsequent opening of protective circuit. Plunger resets mechanism.

Recommended for battery systems where alarm may ring for several hours. Cuts own magnet out of circuit. Standard up to 16 V. a.c. or 12 V. d.c. Exact voltage must be specified. Standard package, 1.
No. 26.....each \$3.50

Edwards Burglar Alarm Relays

Schedule S

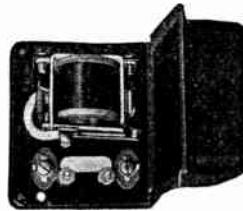


No. 1238 Open Type For D. C. Only

Adjustable for open or closed circuit operation. Pure hard drawn silver contacts. Contacts 1 ampere; 250 ohms recommended for closed circuit systems. Standard package, 1.

20 Ohms (Allows 10 Ohm Line Resistance on 1.5 V. d.c. Supply).....	each	\$7.50
250 Ohms (Allows 175 Ohm Line Resistance on 6 V. d.c. Supply).....	each	8.75
251 to 600 Ohms. Specify Exactly.....	each	10.00

No. 1239 Enclosed Type For A.C. or D.C.



A small, compact, open or closed circuit type as specified. Contacts 3 amperes 110 volts a.c., 6 amperes up to 48 volts a.c. Contacts 1 ampere, 110 volts d.c., 2 amperes up to 48 volts d.c. Standard package, 1.

8-24 Volts.....	each	\$7.50
25-48 Volts.....	each	8.50
110 Volts.....	each	10.00

No. 95-B Edwards Burglar Alarm Lock Switches

Schedule T



Lock switch to be mounted outside the door so persons having key may enter without giving alarm. Polished brass finish.

Approximate weight, 1/2 pound per standard package of 1.
No. 95-B, With Rod to Go through Door, Fastened by Nuts Inside.....each \$7.95
Extra Keys.....each .80

Webster Electric Telespatch Systems
For Railroads and Other Industries

Quick, convenient, dependable intercommunication is often the measure of industrial efficiency.

Provides instant voice-to-voice contact from a central point with individuals in the most remote sections of large railroad yards, ship yards, steel mills, or other widespread industrial operations. Their use makes possible the ready transmission of orders and reports, the coordination of processes and complete control of operations at all times.

Model S6357 Master Control Stations



Extremely rugged construction, housed in a gray metal cabinet and so designed as to allow the control operator an unimpeded view of the traffic area.

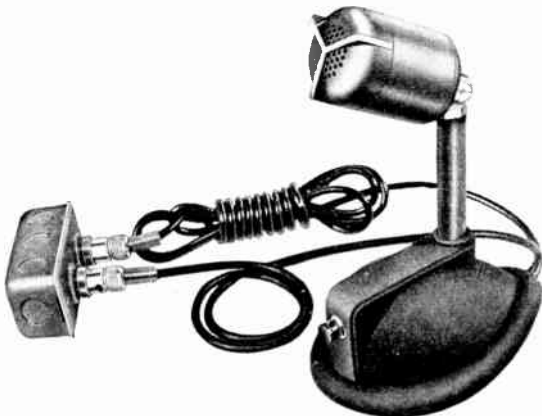
The standard system provides a maximum of 20 intercommunicating circuits, ten paging circuits and one paging "all-call" circuit.

Keys are of the sturdy telephone type and designed for rough service. Indicating lamps are of special design developed for intercommunication units supplied the U. S. Navy for shipboard use under actual battle conditions.

Upper Keys. Twenty individual speaker stations are contacted by switching these ten keys to an up or down position. The annunciator lights operate to indicate that contact button has been pushed at speaker station. An annunciator buzzer also gives warning of such a call. Ten of these speakers may be paged simultaneously by switching the ten keys to the "on" position.

Lower Keys. The ten paging areas are contacted by the three keys at the left and the two left-hand keys at the right. The key at the far right is the "all-call" key in both up (locking) or down (momentary) positions. The meter (center) is a gauge of outgoing volume and indicates when voice is at most effective speech level. Volume is controlled by knob below meter. Selector switch (left) provides for shifting from No. 1 to No. 2 amplifiers if necessary.

Model S6280-1 Microphone Units



Consists of a dynamic microphone mounted on a heavy steel desk stand. A push button is provided for operation of the talk-listen relay circuit.

Where desired a foot switch may be used in conjunction with this circuit.

The microphone is plugged into the small steel box and shielded wires are run to the amplifier unit.

Railroads find these systems ideal to speed up loading, unloading and handling freight, the making up of trains, and control of switching operations in large classification yards.

To meet rugged requirements of severe industrial service, many special features are incorporated in this equipment. Metal, weatherproofed housings are provided, and all parts are carefully selected for sturdy construction and long life operation.

Model S6358 Intercommunicating Speakers



Voice-to-voice contact between the master control station and individuals is carried on by means of these intercommunicating speakers. A maximum of 20 of these speakers may be connected to a standard control station. The speakers have a threaded pipe coupling for mounting on a pipe standard. A weatherproof push button, supplied by the user, is mounted on the pipe standard to actuate a buzzer and light at the control station when a call is initiated.

Model S6471-PM Paging Loudspeakers
Model S6437 Matching Transformers



Model S6471-PM



Model S6437 With Cover



Model S6437 Cover Removed

Ten paging speaker circuits are provided for connecting to any combination of speakers within the limits of the power handling capacity of the paging amplifiers.

Designed for operation with high power amplifiers. Made with an anodized aluminum diaphragm and special weather-proofing for long life under severe weather conditions.

Model S6375 Amplifier and Relay Cabinets

Provided to deliver 50, 100, or 300 watts of audio power. A driver amplifier feeds the output amplifier from the 20-ohm dynamic microphone.

Standard master control units, with 20 intercommunicating speakers, require three relay panels with a total of 21 sensitive telephone type relays. These are used in the operation of annunciator lights and buzzers. A talk-listen relay switches circuits from "listen" to "talk" by means of the microphone push switch, or an added foot switch.

A load resistor panel contains mounts for standard 10-watt wire wound resistors. These provide proper loading of amplifiers regardless of the number of selector keys used. A 24-volt d.c. power supply is provided to operate talk-listen relay, annunciator relays, and "B" supply cutoff relays in the amplifiers. The steel cabinet in which these are housed is 74 inches high, 22 inches wide, and 16 inches deep.

Webster Electric Teletalk Amplified Intercommunication Systems

Teletalk is amplified voice intercommunication. It is adaptable to every size and type of business. It is available in six basic models, each obtainable with special features to suit specific conditions. Capacities of individual models range from 5 to 24 stations. Systems based on any one model may be used for departmental operations or they can be combined to provide complete intercommunication for an entire office, plant or building operation.

Teletalk eliminates the countless, unnecessary and time-wasting steps and time consuming conferences that are inherent in any organization activity.

Three series available are M or Master, S or selective and SS or super selective.

Models 105 and 110



Particularly suited for use in small offices, service organizations, retail stores or factory groups, where intercommunication between a small group of executives or employees is desired.

Used for the purpose of securing information quickly, handling will-calls and alteration requests; information regarding credits, shipments and for similar purposes. Also used in large homes and apartments and on large estates for convenient and instant communication with servants.

Available in the M series in which the basic unit has complete control of the intercommunication and is not secretive, but speaker microphones can be used for two-way conversation. Also available in the SS series which is secretive and in which each station uses a basic Teletalk unit, each can select stations, call any other station or reply to calls with full secrecy. Available with earphones.

Cabinet is two-tone, solid walnut, hand-rubbed finish.

Size, 11 $\frac{1}{8}$ inches wide, 8 $\frac{1}{8}$ inches high, 6 $\frac{3}{4}$ inches deep. Power supply, 110-125 volts a.c. or d.c., 50-60 cycles. Station capacity, Model 105, 5 stations, Model 110, 10 stations. Power consumption, approximately 35 watts.

Models 206 and 206-A



Ideal for executives of small businesses; advertising agencies, lawyers' offices, architects and consulting engineers, and others, where appearance as well as the utmost operating convenience are the dominating factors.

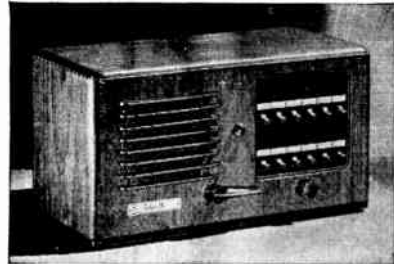
For in a system made up of these models it is easy to select a station. Simply trip up the key of the station for instant communication. Has a telephone handset for confidential use. A broader service is supplied in the Model 206-A through the annunciator system, which identifies the station that has called in the event the person called was not at his desk at the time of the call.

Available in the M and S series. (See Model 105.)

Cabinet is two-tone solid walnut, with hand-rubbed finish and bronzed speaker grill. Model 206-A has bronzed annunciator panel with indicators of contrasting aluminum finish.

Size, 13 $\frac{1}{8}$ inches wide, 7 $\frac{1}{8}$ inches high, 6 $\frac{3}{4}$ inches deep. Power supply, 110-125 volts a.c., 50-60 cycles. Station capacity, 6 stations.

Models 212, 212-A and 224



Ideal for professional and service organizations, Models 212, 212-A and 224 offer a wide range of service for executive and inter-department communication in the larger types of business.

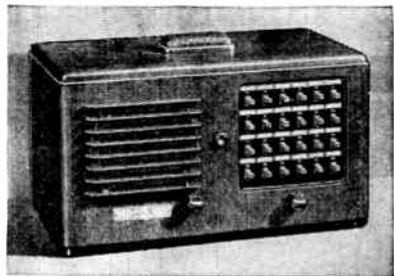
Provide just the type of service demanded in larger organizations. For example, the conducting of conferences without any executive leaving his desk. This is particularly desirable. It means that a conference can be called by simply tripping the Teletalk selector or keys bearing the name or number of each executive. As each one trips up the keys of those who are to be a part of the conference, every man listens to the words of the speaker and each one can speak as thoughts occur to him. All the time consumed in going to one office or waiting for the group to gather is eliminated. Has a telephone handset for confidential use.

Available in the M and S series. (See model 105.)

Cabinet is two-tone solid walnut, with hand-rubbed finish and bronzed speaker grills.

Size, 13 $\frac{1}{8}$ inches wide, 7 $\frac{1}{8}$ inches high, 6 $\frac{3}{4}$ inches deep. Power supply, 110-125 volts a.c., 50-60 cycles. Station capacity, 12 stations with or without annunciators, 24 stations without annunciators.

Models 512, 512-A and 524



Designed for the business executive who desires the utmost in convenience, appearance, simplified operation, maximum secrecy and the widest possible range of service.

With separate microphone on top of the cabinet. The speaker is for reception only. Has a telephone handset for confidential use. No manual operation of a Talk-Listen switch is required. The user need only trip the keys in the panel to talk with one or a number of stations. If any one of these stations is busy, the amber pilot light goes out. The light will go on again as soon as the line is clear. Then proceed to talk. In the event the station with which you wish to communicate is located in a noisy location, the volume can be greatly increased by pushing the extra-volume knob located under the speaker.

Available only in S series.

Cabinet is two-tone burl walnut with hand-rubbed finish and bronzed speaker grill and inbuilt microphone.

Size, 13 $\frac{1}{8}$ inches wide, 7 $\frac{1}{8}$ inches high, 6 $\frac{3}{4}$ inches deep. Power supply, 110-125 volts a.c., 50-60 cycles. Station capacity, 12 stations with and without annunciators, 24 stations without annunciators.

Send for catalog containing complete information on Teletalk Amplified Intercommunication Systems

Webster Electric Teletalk Amplified Intercommunication Systems

Speaker-Microphones



No. 5A-45B

Many buyers who install a Teletalk Intercommunication System—particularly an M series system—find there are some locations at which complete intercommunication service is not necessary.

To meet this requirement and reduce expense for the purchaser, we recommend the use of Speaker-Microphones. However, where paging only is required, Speaker-Microphones will be used at all stations except where the paging originates.

Model 5A-45 will prove highly satisfactory wherever the noise level is low and the room or department is small. This unit can be used with all models in M series for two-way communication; in the S series, for one-way communication and with all paging models.

Model 5A-45B is intended for use only with annunciator models.

Model 10B-45 is a large, powerful unit which can be used in both M and S series. It is primarily intended for use where the area to be covered by either intercommunication or paging is large or where the noise level is higher than can be overcome by the power of the No. 5A-45 unit.

Model 8C-45 serves the same purposes as the No. 10B-45 except that it is required where the air has a high moisture content, or where the speaker must be located out-of-doors.

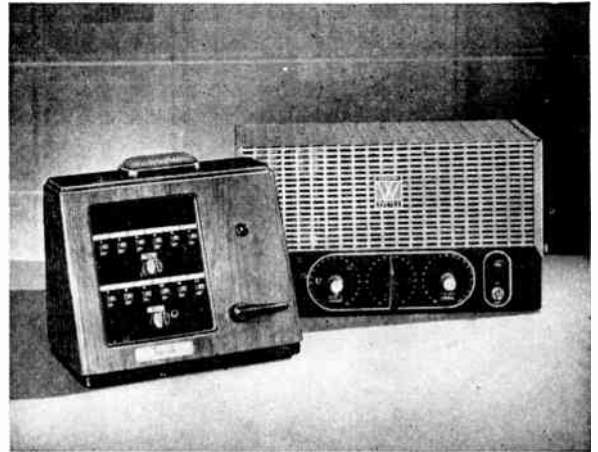
Equipped with button to call in to master station.

Webster Electric Paging Systems

Models 1006 and 1012

Models 10112, 10212, 10124 and 10224

With Amplifier



It is an established fact that in paging, an individual responds much quicker to a voice calling his name than he does to a signal which has been assigned to him.

Many people whose places of business are now equipped with Teletalk Intercommunication Systems find that they are not getting maximum benefit from them because of the tendency to use the system to too great an extent for paging. These two models—for paging only—are the answer. They are particularly designed for office paging.

Operation is simple and the scope of service is broad.

Model 1006 has a capacity of six stations. Each station may be paged individually, or by the use of the all-call feature, all stations can be paged at one time.

Model 1012 has a capacity of twelve stations. It also has the all-call feature.

Cabinet is two-tone solid walnut, with hand-rubbed finish and bronzed speaker grille.

Size, 13 $\frac{1}{8}$ inches wide, 7 $\frac{1}{2}$ inches high, 6 $\frac{3}{4}$ inches deep. Power supply, 110-125 volts a.c., 50-60 cycles.

Designed to bring Teletalk's fine design and excellent tone as an answer to the many requests for a satisfactory system for paging for factories, warehouses and in other locations where the noise level is high.

Features are the inbuilt microphone in the instrument panel, all-call or group-call provisions, a separate, remotely located, beam power amplifier of either 12 or 50 watts output with tamperproof adjustments for tone and volume. The control cabinet, which can be placed on the operator's desk is the only part of the system that need be visible.

Any of the Teletalk speakers or special speakers, if required, can be used with these models.

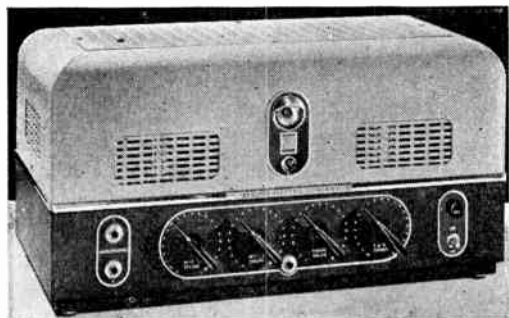
Cabinet is two-tone solid walnut with hand-rubbed finish. Amplifier is metal enclosed with three-tone, modernistic finish.

Cabinet size, 9 $\frac{3}{8}$ inches wide, 7 $\frac{1}{2}$ inches high, 5 $\frac{1}{4}$ inches deep; 12-watt amplifier size, 13 $\frac{3}{4}$ inches wide, 8 inches high, 7 inches deep. Power supply, 110-120 volts a.c., 50-60 cycles. Station capacity, Model 10112, 12 stations with all-call switch; Model 10212, 12 stations with 2 group-call switches; Model 10124, 24 stations with all-call switch; Model 10224, 24 stations with 2 group-call switches.

Send for catalog containing complete information on Teletalk Amplified Intercommunication and Paging Systems.

Webster Electric Teletalk Public Address Equipment

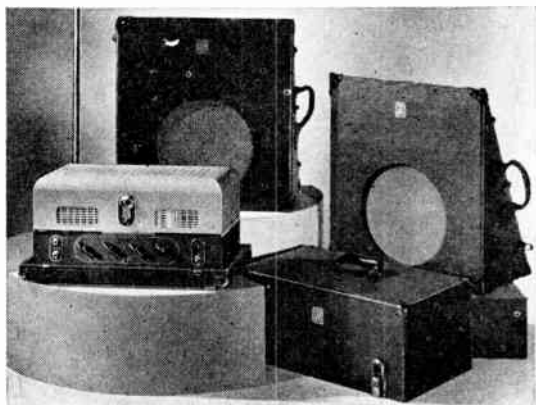
Model 18-50 50-Watt Amplifiers



Specifically designed for use in a sound system requiring high volume levels. It has all of the features necessary to provide maximum efficiency and value. A full selection of output impedances is available on four speaker plug receptacles. It has the further advantage of allowing booster amplifiers to be added to make up a sound system of 500 watts total power output. A maximum of nine Model 19-50 booster amplifiers may be connected, with interconnecting cables furnished.

All necessary amplifier connectors are furnished and are plainly marked. A minimum of controls are employed to simplify operation. All components are operated well below their ratings. Separate volume and mixing controls are provided for each of two high impedance microphone inputs and one dual tone control provides attenuation of bass or treble response. Inverse feedback is incorporated to provide maximum power output with minimum distortion. A cathode ray "eye" tube is used as an amplifier overload indicator to permit the amplifier to be operated up to its full power output without danger of overload distortion.

Model 50 TN 50-Watt Portable Sound Systems



Consists of:

- 1—Model 18-50 amplifier,
- 1—Model S4659 carrying case for Model 18-50 amplifier,
- 1—Model S4546-1 crystal microphone with 20 feet of shielded cable and plug,
- 1—Model S4549 microphone floor stand,
- 2—Model S4368 heavy duty 12-inch permanent magnet dynamic loudspeakers, each equipped with 50 feet of rubber covered flexible cord and plug,
- 1—Model S4637 speaker carrying case.

All of this equipment except the microphone and stand is contained within two portable carrying cases, one hinged top type for the amplifier and one split type which forms the loudspeaker baffles when open. Cases are of heavy plywood construction with metal braced corners and are finished in black Fabricoid.

Catalog Information on Other Models Available on Request

Guided Radio Portable Electric Megaphones

Amplifies 2500 Times



Used wherever it is necessary to lift the human voice above the tumult of traffic, conflagration, storms, industrial noises or sport spectators.

Equipped with batteries for self-operation and portability. Light in weight.

Has weatherproof case and is furnished with combination handle and shoulder strap.

No. A126 Chief Amplifier

Provides more than 1000 ten-second messages without recharging batteries. Equipped with internal storage battery. Output, 20 watts. Furnished with self-contained charger for operation from 120 volts, 60 cycles.

Length, 12 $\frac{5}{16}$ inches. Width, 7 inches. Height, 8 $\frac{1}{4}$ inches. Weight, 23 pounds.

No. A127 Deputy Amplifier

Provides more than 5000 ten-second messages without battery replacement. Has standard radio dry batteries. Output, 5 watts.

Length, 12 $\frac{5}{16}$ inches. Width, 5 inches. Height, 8 $\frac{1}{4}$ inches. Weight, 14 pounds, including batteries.

Megaphone

Range: (under normal conditions) with No. A126 amplifier, 1 mile or more distinctly. With No. A127 amplifier, $\frac{1}{2}$ mile or more distinctly.

Dimensions: length, 20 inches; maximum diameter, 13 $\frac{1}{2}$ inches. Weight, 9 pounds.

Inter-Communication Phone Systems Without Exchange Trunks

This system has gained universal recognition for providing reliable telephone communication in installations requiring limited local service and not requiring outside or city connections.

Ideal for offices, factories, stores, schools, apartments, institutions.

No. 1-A Systems

Features selective ringing and selective talking service and provides as many separate simultaneous conversations as there are pairs of phones installed. The total number of stations which may be connected is 25

No. 6240-C Telephones

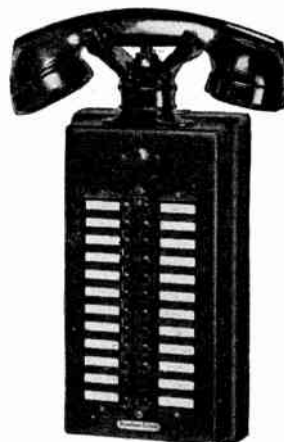
Desk and Wall

The No. 6240-C comes in two styles, desk and wall. When ordering, specify the style of instrument desired.

Code No.	No. of Buttons	Station Capacity	Description
6240-C6	6	7	Sel. Ring, Sel. Talk
6240-C12	12	13	Sel. Ring, Sel. Talk
6240-C16	16	17	Sel. Ring, Sel. Talk
6240-C24	24	25	Sel. Ring, Sel. Talk



No. 6240-C 12



No. 6240-C 24

Accessories

The No. 1-A system requires the following material for completing an installation:

Cable. With suitable conductors, (2 pairs No. 18 gage for battery supply, and 1 pair No. 22 gage, for each station in the system). Lead covered cable is recommended for all locations where moisture is present or where cable may be exposed to mechanical injury.

Stranded Flexible Cable. Used where it is necessary to move the desk telephone about upon a desk. Conductors required depend upon number of buttons in the key box.

Cable Terminals. Cable terminals should be provided wherever there is a junction between cables, and, usually, at desk mountings.

Rectifier. Recommended in place of dry cells wherever reliable 110 volt a.c. is available.

No. 11 Systems

Provides selective ringing and common talking operation. Adaptable to establishments where conversations can be limited to one at a time. Used extensively in residences, banks, warehouses, and stores.

No. 2527 Telephones



No. 2527-C 8

Selective ringing and common talking type.

Suitable for surface wall mounting.

No. 2539-C is a flush type wall telephone which is combined with a metal outlet box and a set of outlet box hangers.

Code No.	Code No.	No. of Buttons	Station Capacity
2527-C2	2539-C2	2	3
2527-C3	2539-C3	3	4
2527-C4	2539-C4	4	5
2527-C6	2539-C6	6	7
2527-C8	2539-C8	8	9

No. 6347-C Telephones



No. 6347-C 8

A surface mounting wall type instrument. The housing is of molded phenol compound with the push button unit mounted at the top. The transmitter and receiver are made up in the form of a handset.

Code No.	No. of Buttons	Station Capacity	Description
6347-C4	4	5	Sel. Ring, Com. Talk
6347-C8	8	9	Sel. Ring, Com. Talk

Inter-Communication Phone Systems Without Exchange Trunks No. 11 Systems (Continued)

No. 6345-C Telephones



Consists of a handset telephone desk set with push buttons mounted in the base together with an apparatus box containing a bell and connecting block.

No. 6345-C8 Handset

Code No.	No. of Buttons	Station Capacity	Description
6345-C4	4	5	Sel. Ring, Com. Talk
6345-C8	8	9	Sel. Ring, Com. Talk

Accessories

The following material is necessary to complete the installation of a No. 11 System:

- One No. 51-H Retardation Coil.** Installed near battery.
- Cable.** Three common wires, No. 18 gage, and one individual wire, No. 22 gage, for each station.
- Dry Cells.** Five cells required. If 110 volt a.c. current is available, a 6-volt rectifier may be used.

No. 6339-C Telephones



No. 6339-C Handset

Consists of a handset hook switch box, push button block and apparatus box.

The hook switch box can be mounted at the side of a desk, on a wall or any vertical surface.

Code No.	No. of Buttons	Station Capacity	Description
6339-C4	4	5	Sel. Ring, Com. Talk
6339-C8	8	9	Sel. Ring, Com. Talk

No. 12 System

Master Station—Common Talking

This system provides for communication from a central point, master station, to several outlying stations.

The master station is equipped with push buttons, one for each outlying station. By operating these buttons, each outlying station may be rung separately.

The outlying stations are each equipped with one ringing button only, by which they are able to signal the master station.

Only one conversation can be carried on at one time.

The capacity of this system permits the operation of one master station and from 2 to 16 outlying stations.

Instruments

Master Stations. Any of the instruments described under system No. 11 may be used as master stations in system No. 12 up to the capacities indicated. The No. 2527-C type telephone may be furnished with 10 to 16 push buttons to secure greater capacity.

Outlying Stations. The same type of instruments described in system No. 11 may be provided for outlying stations. These single button instruments are indicated by the following codes:

Code No.	Type	Code No.	Type
2527-C1	Surface Wall	6345-C1	Cradle
2527-C1	Flush Wall	6339-C1	Suspended
6347-C1	Surface Handset		

Accessories

The following material is required for completing a No. 12 system:

- One No. 51-H Retardation Coil.** Installed near battery.
- Wire.** Three common wires are required throughout the system, No. 18 or No. 19 gage. In addition, one individual wire between each outlying station and the master station, No. 22 gage. It will be found economical to use cable when there are long runs or a large number of wires.
- Cable Terminals.** Terminals are desirable at junction points and distribution centers.
- Dry Cells.** Five cells are required when the more distant outlying station is 750 feet or less distant from the master station.

**Inter-Phone Systems
Without Exchange Trunks
No. 14 and No. 14C Systems
Two-Station—Private Line**



No. 2527-C1
Wall Telephone



No. 6339-B1
Suspended Wall Telephone

Two-station private line telephones are used extensively for communication between rooms in a residence, between offices, between shipping room and warehouse, and to fill other similar requirements.

The No. 14 system requires two wires for connecting the two telephone instruments and one set of three or four dry cells at each telephone.

The No. 14C system requires three wires for connecting the two telephones and one set of five dry cells connected at one station only. Requires retard coil.

In either system, one station can ring the other by simply depressing the button on the set. Wall or desk sets may be used interchangeably.

Code No.	2527-C1	2539-C1	6345-B1	6339-B1	6347-C1
No. of Buttons	1	1	1	1	1
Description..	Surface Wall	Flush Wall	Handset Desk	Suspended Wall	Wall Handset

**No. 15 System
Code Ringing—Common Talking**



No. 6345-B1
Handset Desk Telephone

Each station is equipped with one push button, which, when depressed, signals every other station.

The various stations are called by signalling each one with a different code ring. Thus two rings signals station No. 2, three rings signals station No. 3, etc.

Capacity of system, 2 to 6 stations.

The No. 15 system may be used to advantage where telephone service is limited and where code ringing is not extensive enough to cause annoyance. Stockroom and associated warehouses, grouped green houses, guard stations, and similar installations are well served by No. 15 system.

The instruments used have the same general appearance as those shown under system No. 14. They are indicated in the following table:

Code No.	2527-C1	2539-C1	6345-B1	6339-B1	6347-C1
No. of Buttons	1	1	1	1	1
Description..	Surface Wall	Flush Wall	Handset Desk	Suspended Wall	Wall Handset

Accessories

Installing material as follows is required for the No. 15 system:

One No. 51-H Retardation Coil. Installed near battery.

Wires. Four wires are needed for connecting the phones.

Dry Cells. No more than 5 dry cells connected in series are used for this system.

Inter-Phone Cable



For Interior Use



For Outside Use

The conductors are provided with a single acetate yarn and single cotton insulation, which is colored in such a way that each pair and each single wire can be identified. The cable core is then impregnated with a wax compound and is covered with servings of paper and a heavy cotton braiding. In the case of lead covered cable, a lead sheath is placed over the core instead of the cotton braiding.

Three General Types of Cable are Provided

1. INTERIOR CABLE with outside braiding treated with gray fireproofing paint. Use only in dry places.
2. INTERIOR CABLE with brown glazed cotton outside braiding. Use only in dry places where exposed to view.
3. OUTSIDE CABLE, lead covered. Always use this cable outside, and inside where there is apt to be moisture even in a small degree. In conduit installations lead covered cable should be used.

No.	*No. of Con- ductors	PAIRS No. Gage	SINGLES No. Gage	Covering	Approx. Diam. Inches	
142B	8	.. ..	8 22	Glazed Braid Painted Gray	.32	
161B	8	.. ..	7 22	Cotton Braid Painted Gray	.28	
161BS	8	.. ..	7 22	Lead Sheath	.27	
162B	12	.. ..	11 22	Cotton Braid Painted Gray	.32	
162BS	12	.. ..	11 22	Lead Sheath	.30	
164B	12	2 18	6 22	Cotton Braid Painted Gray	.35	
164BS	12	2 18	6 22	Lead Sheath	.33	
244B	22	{	8 22	.. ..	Cotton Braid Painted Gray	.38
			2 18			
244BS	22	{	8 22	.. ..	Lead Sheath	.41
			2 18			
245B	22	{	8 22	.. ..	Brown Cotton Unpainted	.38
			2 18			
246B	34	{	14 22	.. ..	Cotton Braid Painted Gray	.42
			2 18			
246BS	34	{	14 22	.. ..	Lead Sheath	.45
			2 18			
247B	34	{	14 22	.. ..	Brown Cotton Unpainted	.42
			2 18			
248B	42	{	18 22	.. ..	Cotton Braid Painted Gray	.45
			2 18			
248BS	42	{	18 22	.. ..	Lead Sheath	.48
			2 18			
249B	50	{	22 22	.. ..	Cotton Braid Painted Gray	.48
			2 18			
249BS	50	{	22 22	.. ..	Lead Sheath	.51
			2 18			
250B	58	{	26 22	.. ..	Cotton Braid Painted Gray	.52
			2 18			
250BS	58	{	26 22	.. ..	Lead Sheath	.55
			2 18			
251B	72	{	33 22	.. ..	Cotton Braid Painted Gray	.56
			2 18			
251BS	72	{	33 22	.. ..	Lead Sheath	.60
			2 18			

*Quantity included under the heading "Conductors" includes spares.

Brach WJZ Potheads for Pedestals



In pedestal locations and other places where space is extremely limited it is desirable to have a terminal pothead that is extremely small and at the same time offers the advantages of high insulation, accessibility and a number of circuits.

The design includes a bakelite panel mounted on a heavy cast zinc box. Cable enters through a rubber sealed stuffing box. Provision is made for completely filling the pothead with pitch after cable is installed.

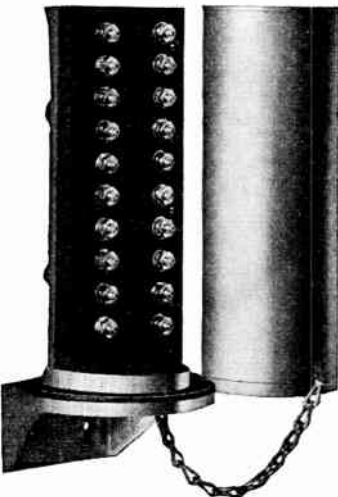
Bakelite panel on front of pothead and back cover are both removable. Panel is backed with waterproof paper.

Size, width and depth approximately 2 7/8 inches. The height depends upon the number of wires.

No.	WJZ-8	WJZ-10	WJZ-12	WJZ-19
No. of Terminals.....	16	20	24	38

NOTE: It is important to advise the diameter of the lead cable so that we can furnish the correct size watertight gland bushing.

Brach Pole Top Potheads



No. PT-20

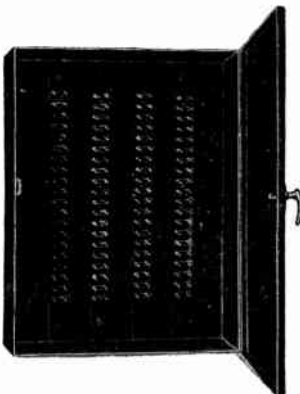
The purpose of this pothead is to provide either a sealed cable end with accessible terminals for testing and interconnecting, or a junction terminal to facilitate the connecting of cables to cables and open wires.

Cables brought up behind the terminal panel are skinned and passed out through the hollow studs of the binding posts and soldered. The enclosed chamber behind the terminal panel can then be entirely filled with compound. Cables or wires brought up in front of the terminal are connected to the binding posts in the

usual manner and can be sealed with compound in a well provided for this purpose. Compounding chamber, compounding well, base, and mounting bracket are castings. Panel is of solid 3/8 inch bakelite. Solid copper cover is permanently chained to base.

No.	PT-10	PT-20
No. of Terminals.....	10	20
Height.....inches	8	12
Diameter Overall.....inches	4 1/2	4 1/2

Brach Terminals In Sheet Metal Cabinets



Terminals in sheet metal cabinets are furnished to order.

Specify the type of terminal and the number of circuits required.

Be sure to advise size and location of entrance holes.

Brach Universal Terminal Strips

Type 2500



Each terminal strip is made in ten units moulded in one piece. Terminal strips may be sawed apart into smaller groups or single units. Each unit has its own mounting hole.

Sliding links are flanged to lock the nuts in place. Strips are made of bakelite. Each section of a strip may be further isolated by means of removable barriers. Insulated covers can be provided to fit over strips. Wires may be transferred or loops cut out without opening main circuit.

Size, 9 1/2 inches long, 1 3/4 inches wide, 1 3/4 inches high.

Type 2500T



The same general description as Type 2500, but in addition carries Auxiliary Transfer Terminals, permitting two or more wires to be connected to each side of the terminal. These transfer terminals are desirable where temporary connections are needed without disturbing the permanent connections.

Size, 9 1/2 inches long, 2 3/4 inches wide, 1 3/4 inches high.

ORDERING REFERENCE NOTE: By the addition of the letters B and C to any of the above ordering references we will understand that barriers and covers are to be included; or by adding B only that barriers only are required in addition to the terminals. For example: 2500TBC would be the 2500 terminal with extra transfer terminals, barriers and cover.

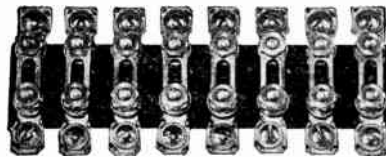
Type 1500



A smaller and a more compact unit than the Type 2500 Terminal Strip, but since silicon bronze screws are used throughout with heavy specially designed nuts they are far stronger than their size would normally indicate. Each terminal is made of eight units molded in one piece and may be separated into smaller groups or single units. Its design includes the same features as the 2500 strip including slide links, large creepage distance and resistance to the effects of gases, water or chemical action. Insulating cover can be furnished.

Size 6 inches long, 1 1/4 inches wide, 1 1/16 inches high.

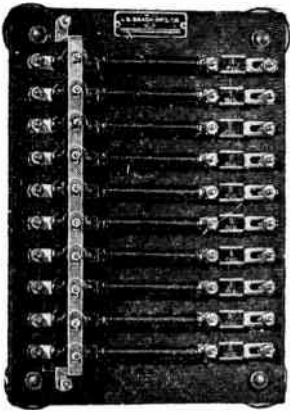
Type 1500T



Same general description as Type 1500, but in addition carries auxiliary transfer terminals, permitting two or more wires to be connected to each side of the terminal. These transfer terminals are also desirable where temporary connections are needed without disturbing the permanent connections.

Size 6 inches long, 2 3/8 inches wide, 1 1/16 inches high.

**Brach Entrance Panels
For Telephone Wire and Cable**



Meets the demand for a rugged, combined protection and test panel for indoor mounting where cables or wires enter headquarters or fire houses.

Panel provides for each wire a heavy duty Rare Gas Lightning Arrester, a *3-ampere 2000-volt line fuse, a slide test link and a common ground buss with terminal posts top and bottom so that ground wires can be connected in two places, all assembled on a 3/4-inch ebony asbestos panel mounted upon four porcelain insulators.

The slide test link permits opening a circuit without disturbing or injuring any

connected wire. The test links are marked to distinguish the circuit.

Panels can be mounted directly to the wall and set off from wall by porcelain knobs. Furnished mounted in sheet metal cases which may be fastened to the wall, these cases being provided with suitable doors and locks; or they can be furnished in weatherproof housings for mounting outdoors.

The arrester cartridges are heavy duty No. 272 Thermal Element Rare Gas Cartridges and are non-grounding. One is provided for each wire and meets the National Fire Protection Association requirements.

Fuses are nitted type rated at 2000 volts. One is provided for each wire.

Other size panels than those listed can be built to specifications.

Designation tags marked to specifications by stamp die markings on black fibre, filled in white are provided. They are shipped blank if no specification accompanies order.

Sneak current fuses, if not otherwise provided, may be had on protective panels embodying this additional equipment.

Standard Entrance Panels for Open Mounting with Arresters, Line Fuses and Terminals Complete

No.	1072	2072
Each		
Number of Wires	10	20
Size Panel	15 1/2 x 11 1/4 x 5	28 x 11 1/4 x 5

Standard Entrance Panels Enclosed in Cabinet with Arresters, Line Fuses and Terminals Complete

No.	1072-H	2072-H
Each		
Number of Wires	10	20
Size Panel	18 1/2 x 16 x 6 1/2	31 x 16 x 6 1/2

Standard Entrance Panels for Open Mounting with Sneak Fuses, Arresters, Line Fuses and Terminals Complete

No.	1072-S	2072-S
Each		
Number of Wires	10	20
Size Panel	15 1/2 x 12 3/4 x 5	28 x 12 3/4 x 5

Standard Entrance Panels Enclosed in Cabinet, With Sneak Fuses, Arresters, Line Fuses and Terminals Complete

No.	1072-SH	2072-SH
Each		
Number of Wires	10	20
Size Panel	18 1/2 x 17 x 6 1/2	31 x 17 x 6 1/2
No. 272, Cartridge Only	each	each
No. 53, Fuse Only	each	each

*Unless otherwise specified, 3-ampere fuses are furnished.
NOTE: Should any of the above be desired in weather-proof housings, place the letters HWP before the order number.

Entrance Panel in Sheet Metal Cabinets

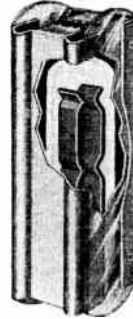
The above entrance panels are frequently furnished in sheet metal cabinets with brass hinges and locks.

As the number of circuits vary we will be glad to quote if advised the arrangement preferred and the number of circuits required. Be sure to advise size and location of entrance holes.

Brach Rare Gas Lightning Arresters

The sensitivity and uniformity of Rare Gas Lightning Arresters, together with their ability to absorb extremely heavy surges without permanently grounding has caused their wide spread acceptance for the protection of Telephone, Railway Signalling, and Municipal Fire and Police Alarm Circuits. The arrester gap is hermetically sealed in an atmosphere of inert rare gases and is not subject to moisture, corrosion, insects or dirt.

Type MCD Brach Rare Gas Lightning Arrester Cartridges



The cartridge unit supplies the demand for a small size thermal element lightning arrester which fits the clips of standard carbon mica block units with which it is interchangeable.

Will operate under conditions where humidity is high. Gives good protection.

Size 3/8 inch wide, 1 3/4 inches long, mounted on 1/2 inch centers.

No.	MCD-2	MCD-4	MCD-6
Each			W
Breakdown volts	200-400	400-600	600-900

Brach Rare Gas Heavy Duty Lightning Arresters

Where space is not at a premium the larger Heavy Duty Rare Gas Arresters are recommended. A few of the many available types are listed.

In the triple path types, two line electrodes and a ground electrode are contained in the same arrester cartridge facilitating the equalization of surge voltages between twisted pair conductors and cable conductors.

Standard voltage breakdown ranges 200-400, 350-600 volts a.c. Special ranges available from 90 volts to several thousand volts.

Type 27-A Arresters



Single line type. Recommended for fire alarm circuits, telephone and telegraph circuits.

The base is made of bakelite, and carries two binding posts, one for line and one for ground. Uses No. 27-M cartridge only.

Size 5 inches long, 1 1/4 inches wide and 2 inches high.

No. 27-A, Arrester Complete	each
No. 27-M Cartridge Only	each

Type 26 Arresters

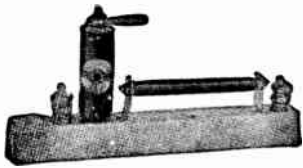


Same as Type 27-A except that it is equipped with an auxiliary air-gap under the cartridge to provide an additional path for any discharge in excess of the capacity of the cartridge.

Size 5 inches long, 1 1/4 inches wide and 2 inches high.

No. 26, Arrester Complete	each
No. 26-M, Cartridge Only	each

Brach Rare Gas Heavy Duty Lightning Arresters



Type 272 Arresters
Designed for telephone and telegraph circuits, where a Rare Gas Arrester is desired in combination with a line fuse.

The arrester is also largely used on single or grounded telephone lines.

Fuses are of the nutted end type, 5 ampere unless otherwise specified. Uses No. 272 Cartridge only and No. 53 Ft se only. Underwriters' Laboratories approved. Size 8¼ inches long, 4⅝ inches high, 1 inch wide.

- Type No. 272, Arrester Complete.....each
- No. 272, Cartridge Only.....each
- No. 53, Fuse Only.....each



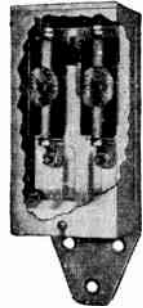
Type 184 Arresters Single Line, 2,000 Volts

Underwriters' Laboratories approved for fire alarm and other signal services.

Especially designed to fulfill the requirements of the Red Book with respect to location at the entrance of headquarters.

Consists of 3 operating portions: Lightning protective cartridge No. 272; sneak current fuse No. 53-S; regulation 2,000 volt fuse No. 53, 5 ampere unless otherwise specified.

Type 284-C Housed Arresters Double Line Outdoor



A lightning arrester suitable for use where a single pair of wires is to be protected by heavy duty arrester cartridges arranged to be mounted outdoors without fuses. The housing for the arrester cartridges consists of a porcelain base with heavy phosphor bronze clip terminals and the entire unit is covered by a can type weatherproof cover.

Mounting bracket provided. Cartridges are heavy duty, non-grounding Type 272 Thermal Element Neon Cartridges.

Meets the latest requirements of the National Fire Protection Association.

- Type No. 284-C, Housed Arrester Complete.....each
- No. 272, Cartridge Only.....each
- Size 9½ inches long, 4½ inches high, ½ inch wide.

- Type No. 184, Arrester Complete.....each
- No. 272, Cartridge Only.....each
- No. 53, Fuse Only.....each
- No. 53-S, Sneak Current Fuse Only.....each

Type 60 Arresters Double Line

For all low voltage protection. Base arranged for 2 cartridges taking care of a pair of circuit wires.

Auxiliary saw tooth gaps provided. Uses No. 27-M cartridge only. Size 5⅝ inches long, 3⅞ inches wide, 2¼ inches high.

- No. 60, Arrester Complete.....each
- No. 27-M, Cartridge Only.....each

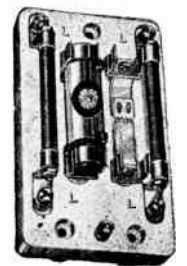
Type 40-B Arresters Double Line with 2,000 Volt Fuses

Recommended for all telephone and train dispatching circuits. Designed to accommodate the usual two wires or pairs of such circuits. Auxiliary air gaps are included.

Equipped with line fuses rated for 2,000 volts complying with the requirements of National Board of Fire Underwriters.

Uses No. 27-M cartridge only and No. 53 fuse only. Size 6⅞ inches long, 4 inches wide, 2¼ inches high.

- No. 40-B, Arrester Complete.....each
- No. 27-M, Cartridge Only.....each
- No. 53, Fuse Only.....each



Type 29SB Brach Switchboard Arresters

Listed as Standard by Underwriters' Laboratories



Switchboard is logical location for lightning arresters in central offices. Not only facilitates wiring but is preferred location because fuses may be readily maintained.

Can be furnished in polished or satin chromium finish, lacquered brass and gold plated ferrules, cadmium or black bakelite.

Fuses can be furnished in polished bakelite with chromium or brass terminals.

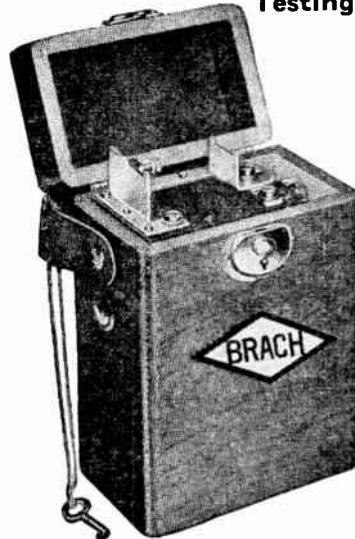
Can be used with horizontal or perpendicular mountings.

Casing, 2⅞ inches long. Overall, 4 inches.

- Type No. 29SB, Arrester Complete.....each
- No. 29SB, Cartridge Only.....each
- No. 53, Line Fuse.....each
- No. 53-S, Sneak Current Fuse.....each

When ordering specify type of finish desired on cartridges.

Brach Portable Rare Gas Arrester Testing Sets



The Brach Portable Testing Set is a small compact instrument and is capable of testing all types and makes of vacuum and rare gas lightning arresters.

This testing set can be used in determining the effectiveness of air-gap arresters as well.

It is good practice to make periodic tests of lightning arresters, or after a series of bad storms, to obtain uniform protection.

- No. R2605, Set Complete.....ea.
- No. R2605-55 Batteries only.....each

Type RTC-2 Vincent Rare Gas Relays For Noise Elimination on Telephone Lines



In metallic telephone circuits the use of divided ringing to ground in order to simplify code or harmonic ringing on party lines has often resulted in noisy transmission. When a RTC-2 Vincent Rare Gas Relay is connected in series with each grounded bell circuit the line is automatically freed from ground during voice transmission and ground current noises are eliminated. The higher ringing voltages, however, pass through the relays and ring the bells. The relay is also applicable to the central office drop ground connection.

Furnished with an ingenious clip requiring a single bolt to mount it within the bell box or at any other convenient location.

The relay has no moving parts and is unaffected by atmospheric or temperature changes. Lines equipped with the relay are

free from grounds in normal operation and therefore free from noises which would ordinarily be picked up through ground connections. Can be used on magneto or common battery lines with either harmonic or code ringing. Ringer load is removed from voice circuit, improving transmission.

Length, 2½ inches. Height, when mounted, 1½ inches.

Struthers-Dunn General Control Relays

Used for the control of heaters, signals, small motors, etc.

Wiping contacts are of fine silver; the design of the shading coil insures quiet a.c. operation. Each relay is tested by two different inspection departments before shipment.

Available with any desired number of poles. Various types of housing can be furnished.

Midget Relays



Base size, 2 3/4 x 1 7/8 inches.

Coils furnished as specified: 6 to 230 volts a.c.; or 2 to 230 volts d.c.

Contacts: 6 amperes, 115 volts a.c.; 3 amperes, 230 volts a.c.; 0.5 ampere, 115 volts d.c. Non-inductive loads.

Type 1XBX

Type	Description	Each
1HXX	S.P., D.B., Front Contact	\$4.30
1BXX	D.P., S.B., Front Contact	5.50
1XXH	S.P., D.B., Back Contact	4.30
1XXB	D.P., S.B., Back Contact	5.50
1HXH	S.P., D.B., D.T.	4.90
1HBX	D.P., S.B., D.T.	6.00

Power Relays



Coils furnished as specified: 6 to 550 volts a.c.; or 2 to 230 volts d.c.

Contacts: 30 amperes, 115 volts a.c.; 30 amperes, 230 volts a.c.; 4 amperes, 115 volts d.c. Double break types are rated 20 amperes, 220 volts a.c.; 6 amperes, 115 volts d.c. Non-inductive loads.

Type 8HXX

Type	Each	Description	Base Size Inches
8HXX	\$7.50	S.P., D.B., Front Contact	4 1/4 x 3
8BXX	9.80	D.P., S.B., Front Contact	4 1/4 x 3
8CXX	11.20	T.P., S.B., Front Contact	4 1/4 x 3
84XXH	9.50	S.P., D.B., Back Contact	5 x 3
84XXB	10.90	D.P., S.B., Back Contact	5 x 3
84XXC	12.40	T.P., S.B., Back Contact	5 x 3
84XBX	12.70	D.P., S.B., D.T.	6 1/4 x 3
8AXA	9.80	S.P., S.B., D.T., Separate Circuit	4 1/4 x 3
84BXX	13.80	D.P., S.B., D.T., Separate Circuit	6 1/4 x 3

Struthers-Dunn Mechanical Latch-In Electrical Release Relays



Type 5HXX

Used for push button control or similar applications.

Two coils: one coil closes contacts which latch closed; the other coil, when energized, trips the latch and opens the contacts.

Base size, 4 1/2 x 3 1/4 inches.

Available with any desired number of poles. Midget types are also available.

Type	Each	Description	CONTACT RATING, AMPS.			
			115V. A.C.	230 V. A.C.	115V. D.C.	230 V. D.C.
5HXX	\$10.10	S.P., S.T., D.B.	30	20	6	1
5BXX	11.50	D.P., S.T., S.B.	30	25	4	.5
5AXA	11.50	S.P., D.T., S.B.	8	6	2	.5

Struthers-Dunn Thermostatic Control Relays

Used for the control of heaters, refrigerator units, pressure, etc.

Protective resistor is part of the relay. Instrument contacts make but never break current.

For use with 3-wire H-L-C instrument or push button.

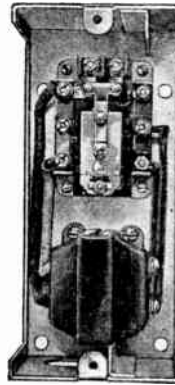
Used Where Control Circuit and Load are Fed by Same Line

Type	Each	RATING, AMPERES		Base Size Inches
		115 Volts A.C.	115 Volts D.C.	
8MXX50	\$9.50	30	6	4 1/4 x 3
1MXX50	5.80	6	1	2 3/4 x 1 7/8

Used Where Control Circuit and Load are Fed by Different Lines

Type	Each	115 Volts A.C.	115 Volts D.C.	Base Size Inches
8BXX50	\$10.90	15	2	4 1/4 x 3
1BXX50	6.60	6	1	2 3/4 x 1 7/8

Struthers-Dunn Relay Sets for Low Voltage Thermostat Control



Type RS239

Complete with relay and transformer mounted in sheet metal housing with external binding posts for thermostat connections.

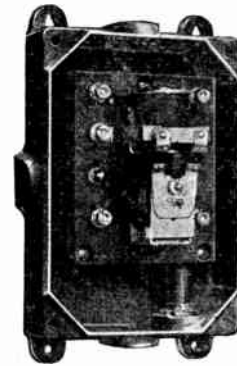
Used with 2-Wire Snap Action Thermostat

Type	Each	115-VOLT A.C. RATING	
		Hp.	Amps.
RS239	\$10.00	1/4	6
RS71	14.30	1	30

Used with 3-Wire H-L-C Thermostat

Type	Each	Hp.	Amps.
RS240	\$11.10	1/4	6
RS73	16.60	1	15

Struthers-Dunn Telephone Auxiliary Signaling Relays



Type 5XXH501W6

Type 4HXX56H3. Relay and condenser in 113 sheet metal, hinged cover housing. Signal remains on as long as circuit is closed.

Each..... \$14.60

Type 4HX56W6. Same as above type except in W6 cast aluminum housing.

Each..... \$25.90

Type 5XXH501W6. Relay, condenser, and push button in W6 cast aluminum housing, weather-proof. After telephone circuit once energizes relay the signal remains on until relay is released.

Each..... \$35.70

Struthers-Dunn Mercury Swing Relays



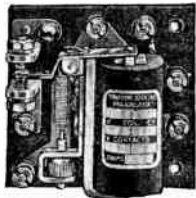
Type 22AXX

Contacts enclosed from corrosion, dust, and dirt. Recommended for high inrush loads. Swing type magnetic structure eliminates noise.

Contacts rated 25 amperes, 115 volts a.c.; 20 amperes, 230 volts a.c.; 20 amperes, 115 volts d.c.; 10 amperes, 230 volts d.c.

Type	Description	Each
22AXX	S.P., S.T., Normally Open	\$11.50
22XXA	S.P., S.T., Normally Closed	11.50
22BXX	D.P., S.T., Normally Open	16.10
22XBB	D.P., S.T., Normally Closed	16.10

Type 112XAX Struthers-Dunn Sensitive Relays



Low inertia and balanced moving parts result in high sensitivity, long life, fast operating, and vibration-resistant relays.

Available with interconnected coil and contact circuits for use with thermoregulators.

Sensitivity, 0.015 watts, d.c., 0.19 volt-amperes at 60 cycles.

Single pole, double throw contacts on non-inductive loads rated 2 amperes at 115 volts a.c.; 1/4 amperes at 115 volts d.c.

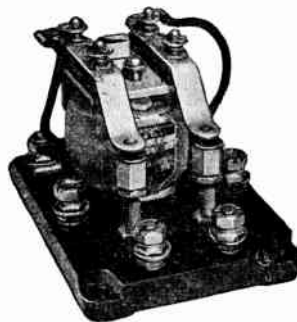
Base size, front connected relays, 2 1/2 x 2 3/8 inches.

Coils wound with wire up to and including 44 gage. Prices vary with wire gage.

Also available with double pole, double throw contacts. For more complete information, request complete bulletin data.

Edwards General Purpose Relays

Schedule C



Made in two sizes with magnets, bases, contacts, etc., proportioned according to use.

All even numbers are the senior relays, approximately 3 inches wide, 5 inches high and 3 inches deep.

All odd numbers are junior relays, approximately 2 inches wide, 3 inches high and 2 inches deep.

On a.c., relay will be found free from hum and efficient in operation. The contacts are pure hard drawn silver of the wiping type and liberally proportioned.

When ordering give: Exact operating voltage of coil and whether d.c. or a.c. (give cycles); voltage and current to be connected to contacts and whether inductive such as solenoids, motors, etc., or non-inductive such as lamps, heaters, etc. If there is any question a brief description or sketch of its intended use should be furnished with order.

Type PSY1 Struthers-Dunn Time Delay Relays



Many types of time delay relays are available including motor driven, both repeating and recycling, thermal, and inertia types.

This motor driven timer consists of a small synchronous motor driving a single cam at one rpm. The contacts close once per minute and the closure time is adjustable from 0 to 30 seconds. Contacts rated 10 amperes at 115 volts, a.c.

Motor for operation on 115 volts, 60 cycles, but may be furnished for other ratings at an increased price.

Size, 3 3/4 x 2 1/4 inches front connected.

Type PSY1.....each \$11.50

Struthers-Dunn Ratchet Type Sequence Relays



Ratchet type sequence relays move their contacts when the coil is energized and then remain in this position until the coil is de-energized and again energized.

Contacts rated 115 volts, a.c., 20 amperes; 115 volts, d.c., 1 ampere.

Coils approximate 8 watts, a.c.; 4 watts, d.c.

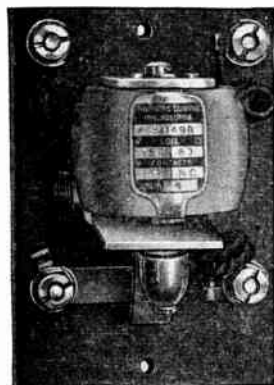
Base size, 5x3 inches.

85AXA S.P., D.T., Separate Circuit..... \$18.40

85BXX D.P., S.T..... \$18.40

Similar relays, except using midget construction are available at \$11.50.

Struthers-Dunn Emergency Lamp Relays



Designed to automatically cut in a standby or emergency lamp should the main lamp burn out.

If an auxiliary source of power (such as a storage battery) is available the relays may be connected to switch the emergency lamp into the auxiliary circuit should the main line voltage fail or the main lamp burn out.

The relay is equipped with coils of minimum voltage drop to operate in series with the main lamp, upon the failure of which the relay armature opens, closing a set of contacts and completing the circuit to the standby lamp.

Contacts are fine silver with low resistance which practically eliminates voltage drop at the contacts.

Contacts: 115-230 volts a.c., 800 watts; 115-230 volts d.c., 100 watts.

Base size, 4x2 3/4 inches front connected.

Type	Description	Each
20XXA5	S.P., S.T., S.B.	\$6.30
20XXH5	S.P., S.T., D.B.	6.30

Single Pole, Front Contact

No.	Each	MAXIMUM COIL VOLTS		CONTACT RATINGS					
		A.C.	D.C.	UP TO 48 VOLTS A.C.	UP TO 130 VOLTS A.C.	UP TO 250 VOLTS A.C.	UP TO 250 VOLTS D.C.		
940F	\$13.50	440	230	30	10	30	6	20	3
941F	7.75	130	90	6	3	6	1	3	.

Single Pole, Back Contact

940B	\$13.50	440	230	10	3	10	2	8	.
941B	7.75	130	90	6	3	6	1	3	.

Single Pole, Front and Back Contact

940FB	\$15.75	440	230	8	3	8	2	6	.
941FB	9.75	130	90	6	3	6	1	3	.

Double Pole, Front Contact

942F	\$17.50	440	230	30	10	30	4	25	2
953F	9.75	130	90	6	3	6	1	3	.

Double Pole, Back Contact

942B	\$19.75	440	230	30	10	30	4	25	2
953B	9.75	130	90	6	3	6	1	3	.

Double Pole, Front and Back Contact

942FB	\$23.00	440	230	30	10	30	4	25	2
953FB	10.85	130	90	6	3	6	1	3	.

Single Pole, Single Throw, Double Break, Mechanical Latch, Electric Reset

944	\$18.00	440	230	30	10	30	6	20	1
*955	7.75	75	48	5	2	..	..	..	..

*Low voltage relay, approximately 1 1/2 inches wide, 2 1/2 inches high, 1 3/8 inches deep. Bronze contacts. Suitable for lamp annunciators, etc.

Edwards Telephone Relays

For the operation of loud ringing extension bells or horns on any desired voltage. The relay operates on all standard telephone ringing circuits, 70 to 90 volts a.c., 16 to 20 cycles. Supplied complete in metal hinged cover box with condenser.

No. 963

Schedule C

For momentary operation as long as telephone ringing circuit is closed. Contact ratings—10 amperes a.c. or 5 amperes d.c. up to 48 volts, 10 amperes a.c. or 3 amperes d.c. up to 130 volts, 5 amperes a.c. or 1 ampere d.c. up to 250 volts.

No. 963.....each \$30.00

No. 26-T

Schedule C

For continuous ringing until reset. Contact ratings, 2 amperes a.c. or d.c. up to 48 volts.

No. 26-T.....each \$22.50

R-B-M Magnetic Relays

Used for control of electric power and lighting loads, pilot lights and audible signals. May also be used as circuit switching relays for machine tools, processing control and electrical interlocking systems, and electronic applications.

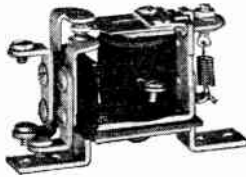
Mounting base has two tapped and two punched holes for front and rear mounting.

Wiping contacts are of fine silver.

Relays are thoroughly tested before shipment and are furnished with either solder or screw type terminals. When ordered with general purpose enclosure, relay will have screw terminals only.

Sheet steel general purpose enclosure No. 89000, complete with mounting screws, is used with the relays herein listed.

R-B-M Direct Current Single Pole Relays



No. 81523

Approximate dimensions: length, 2⁵/₁₆ inches; width, 1¹¹/₁₆ inches; height, 1³/₄ inches.

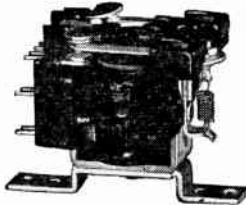
Coils furnished as specified: 1¹/₂ to 115 volts d.c.

Contacts: 220 volts a.c., 5 amperes; 110 volts a.c., 10 amperes; 24 volts d.c., 10 amperes. Non-inductive loads.

Weight, 4.3 ounces.

With Solder Terminals No.	With Screw Terminals No.	With Enclosure No.	Description
81511	81521	81561	Normally Open
81512	81522	81562	Normally Closed
81513	81523	81563	Double Throw

R-B-M Direct Current Double Pole Relays



No. 83513

Approximate dimensions: length 2⁷/₈ inches; width, 1³/₄ inches; height, 2³/₁₆ inches.

Coils furnished as specified: 1¹/₂ to 115 volts d.c.

Contacts, double pole: 220 volts a.c., 5 amperes; 110 volts a.c., 10 amperes; 24 volts d.c., 10 amperes. Non-inductive loads.

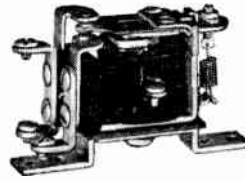
Contacts, single pole break: 220 volts a.c., 10 amperes; 110 volts a.c., 15 amperes; 24 volts d.c., 15 amperes. Non-inductive loads.

Weight, 6.6 ounces.

With Solder Terminals No.	With Screw Terminals No.	With Enclosure No.	Description
83511	83521	83561	Normally Open
83512	83522	83562	Normally Closed
83513	83523	83563	Double Throw
83514	83524	83564	One Normally Open
			One Normally Closed
83517	83527	83567	Normally Open
			Double Break
83518	83528	83568	Normally Closed
			Double Break
83519	83529	83569	Double Throw
			Double Break

R-B-M Magnetic Relays

R-B-M A.C. Single Pole Relays



No. 92523

Approximate dimensions: length 2⁵/₁₆ inches; width, 1¹¹/₁₆ inches; height, 1³/₄ inches.

Coils furnished as specified: 1¹/₂ to 220 volts, 50-60 cycle a.c.

Contacts: 220 volts a.c., 5 amperes; 110 volts a.c., 10 amperes. Non-inductive loads.

Maximum motor load, 1

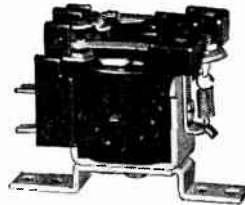
horsepower single phase.

Core is laminated.

Weight, 4.6 ounces.

With Solder Terminals No.	With Screw Terminals No.	With Enclosure No.	Description
92511	92521	92561	Normally Open
92512	92522	92562	Normally Closed
92513	92523	92563	Double Throw

R-B-M A.C. Double Pole Relays



No. 94511

Approximate dimensions: length, 2⁷/₈ inches; width, 1³/₄ inches; height, 2³/₁₆ inches.

Coils furnished as specified: 1 to 220 volts, 50-60 cycle a.c. 1/2

Contacts, double pole: 220 volts a.c., 5 amperes; 110 volts a.c., 10 amperes. Non-inductive loads.

Contacts, single pole double break: 220 volts a.c., 10 amperes; 110 volts a.c., 15 amperes. Non-inductive loads.

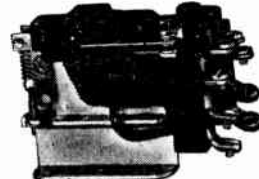
Maximum motor load, 1 horsepower single phase.

Core is laminated.

Weight, 6.7 ounces.

With Solder Terminals No.	With Screw Terminals No.	With Enclosure No.	Description
94511	94521	94561	Normally Open
94512	94522	94562	Normally Closed
94513	94523	94563	Double Throw
94514	94524	94564	One Normally Open
			One Normally Closed
94517	94527	94567	Normally Open
			Double Break
94518	94528	94568	Normally Closed
			Double Break
94519	94529	94569	Double Throw
			Double Break

R-B-M A.C. Double Pole Power Relays



No. 95223

Approximate dimensions: length, 3¹/₂ inches; width, 2¹/₄ inches; height, 2⁷/₁₆ inches.

Coils furnished as specified: 1¹/₂ to 220 volts, 50-60 cycle a.c.

Contacts: 220 volts a.c., 15 amperes; 110 volts a.c., 30 amperes. Non-inductive loads.

Maximum motor load, 1¹/₂

horsepower single phase.

Weight, 10.5 ounces.

With Solder Terminals No.	With Screw Terminals No.	With Enclosure No.	Description
95211	95221	95261	Normally Open
95212	95222	95262	Normally Closed
95213	95223	95263	Double Throw
95214	95224	95264	One Normally Open
			One Normally Closed

R-B-M Magnetic Relays

Electronic and Communication Midget Relays



No. 98211

Used in electronic and communication industries.

Ideally suited for automatic scales, counting devices, business machines, electric clock systems, resistance welder controls, traffic control systems, or any other applications requiring sensitive relays of a compact design.

Has high-speed, long life operation.

Midget Shunt-Type

Available in the above d.c. or a.c. coil ratings.

Contacts are rated 24 volts a.c., 10 amperes; 24 volts d.c., 10 amperes; and 110 volts a.c., 10 amperes.

Non-inductive load.

Direct Current Shunt-Type Relays

Available in 1 to 6 poles, double throw.

Coils furnished as specified: 1½ to 115 volts d.c.

Contacts: 32 volts d.c., 3 amperes or 110 volts a.c., 1 ampere Non-inductive load.

Direct Current Series-Type Relays

Available in 1 to 6 poles, double throw.

Coils available in maximum of 115 volts d.c. across the coil. Maximum resistance at 20°C., depending on type, of from 8500 to 12,000 ohms, except for the plug-in type which has maximum resistance of 10,000 ohms.

All contact available in normally open, normally closed, or double throw. Double throw contacts available in "break before make" or "make before break".

Alternating Current Shunt-Type Relays

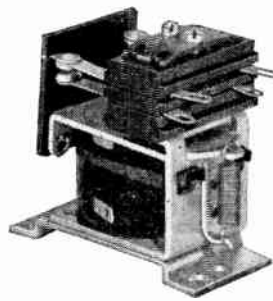
Available in 1 to 4 poles, double throw.

Coils furnished as specified: 1½ to 220 volts a.c.

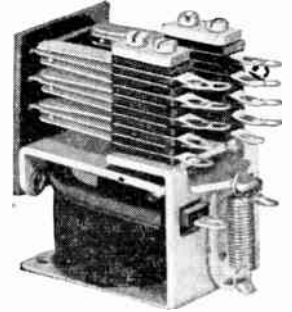
Contacts: 24 volts a.c., 3 amperes or 110 volts a.c., 1 ampere Non-inductive load.

For full information write for Bulletin 560.

R-B-M General Purpose Magnetic Relays



Alternating Current



Direct Current

Designed for commercial phonographs, vending machines, commercial radio equipment, and electronic apparatus.

Relays listed as suitable for Underwriters' approval for 115-volt a.c. application, when submitted as part of manufacturers equipment, have individual contact pile-up with wide insulators providing adequate clearance to ground for 150 volts or less. Relays designed in accordance with Underwriters' specifications for (Class C) small electrical devices have molded phenolic stack insulators.

Overall dimensions: width, 1½-inch; length, 2½ inches; height, 1¾ to 2¼ inches depending on contact arrangement.

R-B-M Direct Current Relays

3 Amperes, 32 Volts A.C.—1 Ampere, 32 Volts D.C.

Fine silver cross bar contacts welded to phosphor bronze springs. Coils furnished as specified: 1½ to 115 volts d.c.

Contacts: 3 amperes, 32 volts a.c. or less; 1 ampere, 32 volts d.c. or less. Non-inductive loads.

12 Amperes, 115 Volts A.C.—6 Amperes, 32 Volts D.C.

Fine silver button contacts welded to beryllium copper springs. Coils furnished as specified: 1½ to 115 volts d.c.

Contacts: 12 amperes, 115 volts a.c. or less; 6 amperes 32 volts d.c. or less. Non-inductive loads.

3 AMPERES, 32 VOLTS, A.C. 12 AMPERES, 115 VOLTS, A.C.

1 AMPERE, 32 VOLTS, D. C. 6 AMPERES, 32 VOLTS, D.C.

SINGLE-POLE DOUBLE-POLE SINGLE-POLE DOUBLE-POLE

Front Rear Front Rear Front Rear Front Rear

Mount- Mount- Mount- Mount- Mount- Mount- Mount- Mount-

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No. No. No. No. No. No. No. No.

98611 98621 98614 98624 98691 98601 98694 98604

98612 98622 98615 98625 98692 98602 98695 98605

98613 98623 98616 98626 98693 98603 98696 98606

Contact Arrangement
Normally Open
Normally Closed
Double Throw

R-B-M Alternating Current Relays

3 Amperes, 32 Volts A.C.—1 Ampere, 32 Volts D.C.

Fine silver cross-bar contacts welded to phosphor bronze springs. Coils furnished as specified: 1½ to 230 volts, 60 cycles.

Contacts: 3 amperes, 32 volts a.c. or less; 1 ampere, 32 volts d.c. or less. Non-inductive loads.

12 Amperes, 115 Volts A.C.—6 Amperes, 32 Volts D.C.

Fine silver button contacts and beryllium copper springs. Coils furnished as specified: 1½ to 230 volts, 60 cycles.

Contacts: 12 amperes, 115 volts a.c. or less; 6 amperes, 32 volts d.c. or less. Non-inductive loads.

Suitable for Underwriters' approval for 115-volt a.c. application when submitted as part of manufacturer's equipment.

3 AMPERES, 32 VOLTS A.C. 12 AMPERES, 115 VOLTS A.C.

1 AMPERE, 32 VOLTS D.C. 6 AMPERES, 32 VOLTS D.C.

SINGLE-POLE DOUBLE-POLE SINGLE-POLE DOUBLE-POLE

Front Rear Front Rear Front Rear Front Rear

Mount- Mount- Mount- Mount- Mount- Mount- Mount- Mount-

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No. No. No. No. No. No. No. No.

98711 98721 98714 98724 98791 98701 98794 98704

98712 98722 98715 98725 98792 98702 98795 98705

98713 98723 98716 98726 98793 98703 98796 98706

Contact Arrangement
Normally Open
Normally Closed
Double Throw

12 Amperes, 115 Volts A.C.—6 Amperes, 230 Volts A.C.

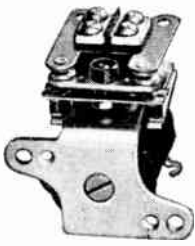
Fine silver button contacts welded to beryllium copper springs. Coils furnished as specified: 1½ to 230 volts, 60 cycles.

Contacts: 12 amperes, 115 volts a.c.; 6 amperes, 230 volts a.c., or 32 volts d.c. Non-inductive loads.

Designed in accordance with manufacturer's interpretation of Underwriters' specifications for small electrical devices (class C).

Double-Pole

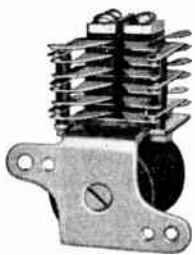
Front Mounting No.	Rear Mounting No.	Contact Arrangement
98734	98744	Normally Open
98735	98745	Normally Closed
98736	98746	Double Throw



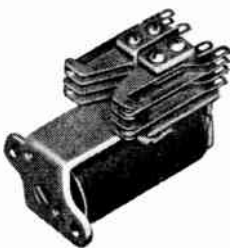
Nos. 98351 and 98361



No. 98324



No. 98346



No. 98334

Benjamin Telecode Relays

Listed by Underwriters' Laboratories

For telephone ringing extension and closed circuit alarm systems in factories, mines, etc., where great volumes of noise make it difficult to hear a telephone bell.

Supplied with contacts arranged for open circuits, contacts open until coil is energized; with contacts arranged for closed circuits, contacts closed until the relay is actuated by current flowing through the coils; and with locking armatures, special winding on coils locks the contacts when the relay is operated, giving continuous operation to signals until circuit is broken by a release switch. Contacts are of tungsten steel; coils are form wound with moisture-proof coverings.

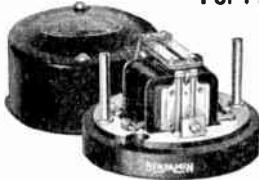
Rated .8 ampere at 110 volts. Standard coil windings, 1000 ohms for operation on 110-v., 60-cy., a.c. or 18 volt d.c. circuits.

Battleship gray enamel finish.

When ordering, specify resistance of telephone bell ringer coils, or voltage and frequency of ringing circuit.

For Panel Mounting

Less Condenser



For direct panel mounting; also used as the basis of all combinations listed below.

Has a bakelite base, 4 1/2 inches in diameter, with two mounting screw holes spaced on 3 1/2-inch centers.

Shipping weight, 2 1/2 pounds.

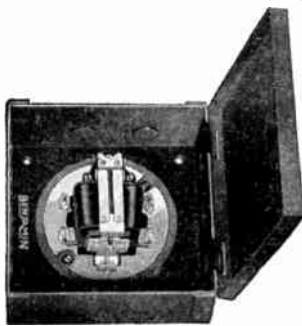
No.	Description	Each
8313-P	Open Circuit.....	\$15.00
8313-C	Closed Circuit.....	15.00
8313-L	Locking Armature.....	16.90

With Pressed Steel Box

For general use indoors. Steel box with hinged cover; 6x6x3 inches. With 1/2-inch knockouts on all four sides.

Less Condenser

Shipping weight 5 1/4 pounds.



No. Description Each

8315-P Open Circuit... \$15.00

8315-C Closed Circuit 15.00

8315-L Locking Armature... 16.90

*With Condenser

Shipping weight, 6 pounds.

8316-P Open Circuit. \$20.00

8316-L Locking Armature... 21.90

With Explosion Proof Box

Has a cast iron base, threaded to take a cast red brass cover. Joint between cover and base of box is close fitting, deep flanged and of sufficient depth to prevent the escape of flames to the surrounding atmosphere.

Base has two mounting lugs and two hubs with conduit stops.

Main section is 5 1/2 inches in diameter and tapped 1/2-inch straight through standard; tapped 3/4-inch, when specified.



Description	Less Condenser			*With Condenser		
	No.	Each	Ship. Wt., Lb.	No.	Each	Ship. Wt., Lb.
Open Circuit...	8319-P	\$20.00	10 1/2	8320-P	\$25.00	11 1/4
Closed Circuit.	8319-C	20.00	10 1/2	.....	.....	.....
Locking Armature.....	8319-L	21.90	10 1/2	8320-L	26.90	11 1/4

With Water Tight Box

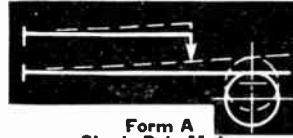
Same type as the explosion proof box, but has cast aluminum cover with a rubber gasket sealing the deep threaded joint between the base and cover.

Description	Less Condenser			*With Condenser		
	No.	Each	Ship. Wt., Lb.	No.	Each	Ship. Wt., Lb.
Open Circuit...	8322-P	\$18.10	7 1/2	8323-P	\$23.10	8 1/4
Closed Circuit.	8322-C	18.10	7 1/2	.....	.....	.....
Locking Armature...	8322-L	20.00	7 1/2	8323-L	25.00	8 1/4

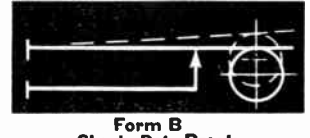
*Condenser rated 1 mf.

Mossman Switches

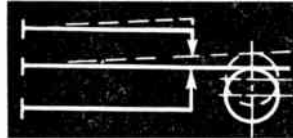
Basic Contact Forms



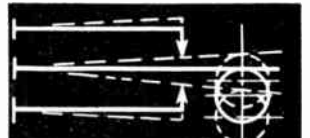
Form A
Single Pole Make



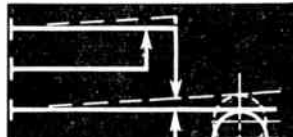
Form B
Single Pole Break



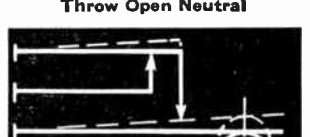
Form C
Single Pole Double Throw



Form C°
Single Pole Double Throw Open Neutral



Form D
Make Before Break



Form E
Break-Make-Break

Basic contact forms are illustrated. Indicate by letter the contact forms desired. Any combination can be obtained.

Form C° indicates a neutral or open position of the actuating spring on a Form C assembly in a three-position switch. Contact assemblies of 12 springs per pile-up, 24 springs per position, or 48 springs total can be built into the switch. Special pile-up arrangements can be made.

Contact Ratings

Standard Heavy Duty Contacts: diameter, 3/16-inch; fine silver; 10 amperes, 110 volts a.c.; non-inductive.

Extra Heavy Duty Contacts: diameter, 5/16-inch; silver alloy; 20 amperes, 110 volts a.c.; non-inductive.

Contacts are spun into plated phosphor bronze springs. Other contact materials are available for special applications.

Inverted Contact Forms

Used in order to balance the action of a switch and secure smoother operation. This is done by placing the "make or break" spring on the opposite side of armature spring to that of its normal position, so as to function when the switch is thrown on the opposite (to normal Form) position.

It is also possible to use the inverted Form B and C but not C°, which is applicable only to a three-position switch and may be placed in either position 1 or 2.

Mossman Series 4101 Heavy Duty Lever Switches



A multiple circuit, positive action lever switch. A three-position switch with locking action in the center or neutral position and locking or non-locking in the other two positions, or any

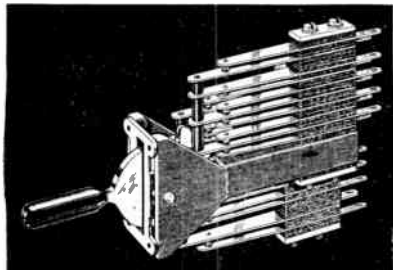
combination of this as required.

The use of a no-throw stop in either of the two active positions converts it into a two-position switch.

Applications: radio transmitters, signal systems, welding equipment, electronic devices and controls, lighting systems, machine tool controls, airport lighting and signalling, x-ray controls, fire alarm systems, annunciators, industrial control units, instruments, motor controls, aircraft electrical controls, and marine signalling systems.

Mechanical Construction: chassis consists of a heavy brass frame rigidly braced; frame supports a chromium-plated latch plate and spring-actuated piston, in which a roller is mounted clevis fashion; axles, stop-pins, and piston are of stainless steel; equipped with black phenolic handle; knurled metal handle also available; terminals are tinned for soldering.

Insulators: breakdown rating, 2000 volts a.c.; spring pile-up insulators are of Bakelite wafers, assembled under pressure to avoid distortion. Insulation may be had treated with standard moisture resisting varnishes of fungicide treatments if specified.

Mossman Series 4200 Lever Switches

Constructed to meet the need for a multiple circuit, positive action lever switch.

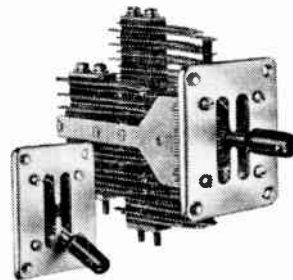
A three position switch with locking action in the center or neutral position and locking or non-locking in the other two positions or any combination of this as required.

The use of a no-throw stop in either of the two active positions converts it into a two-position switch.

Mechanical Construction: frame is either zinc or aluminum die casting; latch plate is of chrome-plated, half-hard brass with thread stem, on which plastic handle is secured; detent mechanism consists of a stainless steel spring, which exerts pressure against two free-rolling, stainless steel balls located in a nickel-plated brass tube, inserted and staked in the tunnel of the switch frame; terminals are tinned for soldering.

Insulation: breakdown rating of springs to ground, 1000 volts a.c.; spring pile-up insulators are Bakelite wafers, assembled under pressure to insure against distortion. Fungicide treated insulation available if specified.

Applications: communication systems; fire alarm systems; testing apparatus; instruments; annunciator systems; radio equipment; industrial devices; and signal systems.

Mossman Series 4500 Heavy Duty Lever Switches

Meets requirements for a multiple position, multiple circuit, positive action lever switch. Referred to as the gear shift switch because of its method of selecting positions.

Available as a five-position (Series 4505) or a four-position (Series 4504) switch.

In all positions, except center, (neutral) the action may be locking or non-locking. In center (neutral) position it is always locking.

Applications: motor starting, stopping, reversing, and speed control; hoist and crane control; equalization of multi-generator operation; public address systems; television transmitters; electronic devices and controls; marine signalling systems; electric ovens and furnaces; industrial control units; and lighting systems.

Safety Selective Switching: may take the place of four switches where selectivity is required. Prevents the danger of throwing more than one switch at a time.

Emergency Transfer of Spare Equipment: in which case a special locking feature prevents the use of the switch without breaking a seal.

Mechanical Construction: equipped with two chromium-plated latch-plates, and two spring-actuated stainless steel pistons with clevis mounted roller in each piston to form the latch; plastic handle is fastened to the stem of the actuating mechanism with a set-screw; removable stop plates make it easy to incorporate the locking or non-locking action; slot in escutcheon plate is H-shaped and the action of the switch is similar to the gear shifting action of a standard automobile gear shift; a special escutcheon plate assembly makes it possible to seal the switch in any desired active position.

Insulation: breakdown rating, 2000 volts a.c.; contact spring pile-up insulators are Bakelite wafers; pile-up screws are insulated by tubing; assembled under pressure to avoid distortion.

Ordering Contact Assemblies

When ordering specify:

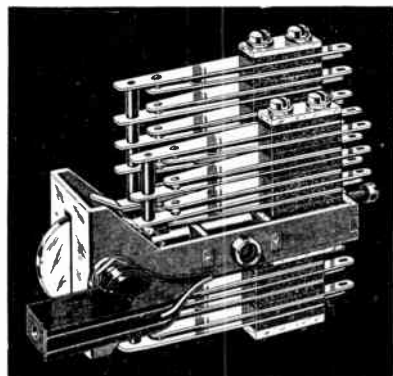
Action of Switch: locking, non-locking, no-throw, and in what position action is required.

Contact Forms and Location in Position: whether Position 1 or Position 2; Series 4500, whether five positions (4505) or four positions (4504) are required.

Contact Ratings: whether standard heavy duty or extra heavy duty.

Type of Mounting: for Series 6300, regular or moisture-proof and thickness of panel.

Handle: for Series 4200, phenolic (black, red, or white); for Series 4101, phenolic (black, red, or white) or knurled metal.

Mossman Series 6300 Heavy Duty Turn Switches

Meets the need for heavy duty, multiple circuit, positive action turn switches.

A three-position switch with locking action in the center or neutral position and locking or non-locking in the other two positions or any combination of this as required.

The use of a no-throw stop in either of the two active positions converts it into a two-position switch.

Applications: radio transmitters; electronic devices and controls; airport lighting and signalling; radar units; annunciators; television transmitters; marine signalling systems; and industrial control units.

Mechanical Construction: chassis consists of a heavy brass frame, rigidly braced which supports a chromium-plated latch-plate and spring-actuated piston in which a roller is mounted clevis fashion; axle, stop-pins, and piston are of stainless steel; $\frac{3}{8}$ -inch diameter, 32-thread nickel-plated brass bushing provides the bearing for the shaft; terminals are tinned for soldering; handle is made of Bakelite.

Insulation: breakdown rating, 2000 volts a.c.; spring pile-up insulators are of Bakelite wafers, assembled under pressure to insure against distortion. Fungicide treated insulation available if specified.

No. 86 Edwards Doorbell Transformers

Primary 115 Volts, 60-140 or 25-50 Cycles; 230 Volts, 60-140 Cycles
Secondary 10 Volts, 5 Watts

Schedule S



Has mounting feet so transformers may be used without outlet box in districts where such box is not required. May be inserted in either round or square plates and mounted on outlet boxes. Steel clad.

Underwriters' Listed.
Black finish.

No.	86	86X	86Y
Each	\$1.45	2.90	1.90
Volts	115	115	230
Cycles	60-140	25-50	60-140
Standard Package	6	6	6
Approx. Wt., Std. Pkg. pounds	9	9	9

Edwards Tri-Volt Doorbell Transformers

Primary 115 Volts, 60-140 Cycles; 230 Volts, 60-140 Cycles

Secondary 6-12-18 Volts

Schedule S



Permits an exact selection of the secondary voltage required and has a slightly greater capacity than the ordinary bell-ringer.

Particularly adapted for unusually long lines.

No.	874	874Y
Each	\$1.60	2.20
Volts	115	230
Cycles	60-140	60-140
Standard Package	20	20
Approx. Wt., Std. Pkg. lb.	9	12

Edwards Signaling Transformers

Primary 110V., 60 Cycles
Secondary 4-8-12-16-20-24 Volts



Completely enclosed. Binding posts eliminate splicing, soldering, and taping. Nos. 88 has Underwriters' approval. Forms own barrier between high and low voltage.

No.	Schedule S		Schedule C
	Each	Price	Price
*115V. 60 Cycles	88	7194	7195
each	\$6.70	46.75	58.00
Watts	50	750	1000
Height	4 1/2	6 1/2	6 1/2
Width	3 5/8	7 1/2	9 3/4
Length	7 7/8	14 1/2	14 1/2
Approx. Weight	8	42	58 1/4

*Ratings apply to the 24-volt tap; 115-volt primaries may be used on up to 130 volts.

Jefferson Wizard Bell Ringing Transformers



For residences or small flat buildings. Will operate door bells, buzzers, annunciators, and door openers. For 115 volts; 5 watts. Secondary, 10 volts. Size, 2x2x2 1/2 in. Weight, 1 lb. No. 230-101, 50-60 Cycles..... each \$1.45
No. 230-102, 25-40 Cycles..... each 2.90

Jefferson Nucode Bell Ringing Transformers

With Round or Square Cover

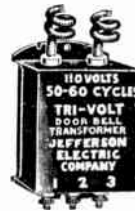
Mounted on an outlet box cover. Round cover fits 3 1/4 and 4-inch octagon boxes; square cover fits 3 1/4 and 4-inch octagon and 4-inch square boxes.

Knockout in cover permits hanging a drop cord from same outlet box. Transformer wires do not interfere with lighting wires. Grounded to prevent shocks or possibility of fires.



Cat. No.	Each	Style Cover	Capacity Watts	PRIMARY		Secondary Wt. Lbs.
				Volts	Cycles	
230-111	\$1.80	Round	5	115	50-60	10 1 1/4
230-112	3.60	Round	5	115	25-40	10 1 1/4
230-141	1.80	Square	5	115	50-60	10 1 1/4
230-142	3.60	Square	5	115	25-40	10 1 1/4

Jefferson Tri-Volt Bell Ringing Transformers



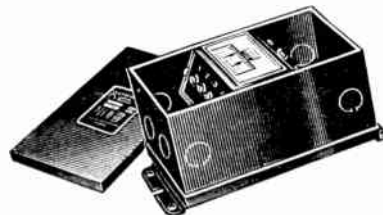
For 115 volts a.c. Generates 3 secondary voltages: 6, 12 and 18 and will take care of longer leads than Wizard or Nucode.

Capacity, 5 watts; dimensions 2x2 1/2 x 3 3/4 inches. Weight 1 1/2 pounds.

No. 230-121, for 50-60 Cycles..... each \$1.80
No. 230-122, for 25-40 Cycles..... each 3.25

Jefferson Standard Signaling Transformers

115 Volts, A.C.



Designed to operate all types of a.c. bells, horns, and other signaling systems including relays, lamps, annunciators, etc. Core and windings are hermetically sealed in a heavy metal case for protection against

moisture. Wiring compartments are provided for both primary and secondary connections.

All transformers have 4, 8, 12, 16, 20 and 24 volt secondary voltages.

Listed as standard by Underwriters' Laboratories, Inc.

No.	Each	Cap. V.A.	Cycles	Max. Current at Any Voltage Amp.	DIMENSIONS, IN.			Weight Pounds
					Depth	Width	Length	
231-101	\$6.70	50	50-60	2	4	4 11/32	7 11/16	7 1/2
231-102	10.70	50	25-40	2	4 3/4	4 11/32	7 11/16	8
231-111	10.70	100	50-60	4	4 3/4	4 11/32	7 11/16	11 3/4
231-112	17.10	100	25-40	4	5 1/2	4 11/32	7 11/16	13
231-141	24.00	250	50-60	10	5 1/2	4 11/32	7 11/16	14 3/4
231-142	38.40	250	25-40	10	5 7/8	5 9/16	10	28
231-151	38.80	500	50-60	20	5 7/8	5 9/16	10	28
231-152	62.00	500	25-40	20	8 5/8	6 5/8	10 3/4	59
231-171	46.75	750	50-60	30	7 5/8	5 9/16	10 5/8	35
231-172	75.00	750	25-40	30	8 5/8	6 5/8	10 3/4	84
231-181	58.00	1000	50-60	40	8 5/8	6 5/8	10 3/4	59
231-182	93.00	1000	25-40	40	8 5/8	6 5/8	12	99

For 230-volt transformers, add 15 per cent to above prices.

Transformers with primary circuit breaker; prices upon application.



No. 230-131 Jefferson Porcelain-Klad Transformers

115 Volts, 50-60 Cycles



Operates door bells, buzzers, annunciators and door openers in the average residence or small apartment building.

Porcelain covered transformer with a metal base for easy installation without the danger of breaking or chipping the case. Impervious to moisture or chemical fumes.

Size case, $3\frac{1}{8} \times 3\frac{1}{8} \times 1\frac{1}{8}$ inches.

Secondary, 10 volts. Capacity, 5 watts.

Listed as standard by Underwriters' Laboratories, Inc.

Not made for 230-volt or 25-40 cycles.

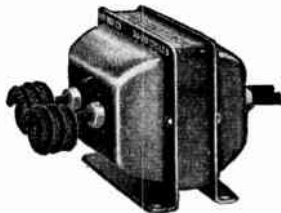
Weight, $1\frac{3}{4}$ pounds.

No. 230-131 each \$2.00

Jefferson Low Voltage Transformers

115 Volts, 50-133 Cycles, A.C.

Approved by Underwriters' Laboratories, Inc.



Designed for service wherever low voltage a.c. current is necessary, such as the operation of electrically controlled valves, thermostats, magnetic relays, etc.

Coils are layer built, automatically wound, have triple insulation, are vacuum treated, impregnated and baked.

The highest quality of silicon steel in shell design is used in this line of transformers. The core is locked against hum by varnish treatment and baking, and is securely clamped by the pressed-steel housings.

Heavy drawn steel sidings form the case of the control transformers. These sidings securely clamp the core and completely enclose the primary and secondary windings, shielding them from damage through rough handling. These sidings also form a base which has holes for convenient mounting.

Circuit breaker consists of a heavy bi-metallie member having a nichrome resistance element and phosphor bronze springs with large silver contacts. Parts are mounted on bakelite insulation and the re-set button is also of bakelite.

Standard Types

No.	Each	Cap. V.A.	Secondary Voltages	Weight Pounds
630-101	\$4.05	15	8	1 $\frac{1}{2}$
630-104	3.65	10	12	1 $\frac{1}{4}$
630-121	3.45	7.5	8	1 $\frac{1}{4}$
637-101	5.25	25	8, 16, 24	2 $\frac{1}{4}$
637-111	6.05	35	8, 16, 24	2 $\frac{3}{4}$
637-121	7.20	50	8, 16, 24	4
637-131	8.85	75	8, 16, 24	4 $\frac{1}{2}$
637-161	10.45	100	8, 16, 24	5 $\frac{1}{4}$
637-171	13.90	150	8, 16, 24	8 $\frac{1}{2}$
637-201	4.75	25	24	2 $\frac{1}{4}$
637-211	5.50	35	24	2 $\frac{3}{4}$
637-221	6.55	50	24	3 $\frac{1}{2}$
637-231	8.05	75	24	4 $\frac{1}{2}$
637-261	9.50	100	24	5 $\frac{1}{4}$
637-271	12.65	150	24	8 $\frac{1}{2}$
*637-251	7.80	50	6	3 $\frac{3}{4}$
*637-241	10.75	100	6	5 $\frac{1}{2}$

Automatic Circuit Breaker Types

637-301	\$9.85	25	24	3 $\frac{1}{4}$
637-311	11.55	35	24	3 $\frac{1}{4}$
637-321	13.20	50	24	3 $\frac{1}{2}$
637-331	16.80	75	24	5
637-361	20.15	100	24	5 $\frac{1}{4}$
637-371	26.40	150	24	8 $\frac{1}{2}$

*Equipped with primary cord and plug; therefore not approved by Underwriters' Laboratories.

Jefferson Oil Burner Ignition Transformers

115 Volts, 60 Cycles, A.C.



Nos. 638-171, 638-251, 638-261 and 638-271



No. 638-281

The introduction of various types of burners has required the development of different types of transformers. This is a transformer for every specific application—5000, 10000, 12000 and 15000-volt ratings; for intermittent and continuous service; grounded, mid-point grounded, balanced mid-point grounded, and insulated secondaries; and in core and shell type designs.

The cool operation is accomplished by exacting requirements, liberal design throughout, plus the use of quality materials of adequate size which results in long transformer life.

Equipped with built-in radio barrier to eliminate the possibility of objectionable radio interference.

Nos. 638-171, 638-251, 638-261 and 638-271 are assembled in the new streamlined case. This case is of heavy drawn steel of exceptional durability, treated to resist rust and finished in a high lustre long-wearing black enamel. All other types are assembled in similarly rugged and attractive cases of standard design. Universal mounting brackets of sturdy design are provided.

A junction box of liberal proportions is built into the top of the case. Knockouts are provided in two sides and in the end of the case for convenient entrance. Quick and easy splicing results and there is ample space for additional wiring which any installation may require. Primary leads 24 inches long are standard on all types.

Intermittent Duty Types

Grounded

No.	Each	Cap V.A.	Secondary Volts	MA.	Type of Core	Max. Gap Setting Inches	No. of Sec.	Weight Pounds
*638-281	\$15.80	125	5000	20	Shell	$\frac{1}{16}$	1	9
						Insulated		
*638-191	\$15.80	125	5000	20	Shell	$\frac{1}{16}$	2	9

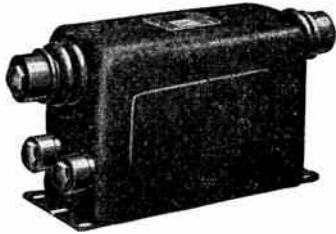
Continuous Duty Types

No.	Each	Cap V.A.	Secondary Volts	MA.	Type of Core	Max. Gap Setting Inches	No. of Sec.	Weight Pounds
						Grounded		
638-181	\$17.30	150	6000	20	Core	$\frac{1}{16}$	1	19
						Mid-Point Grounded		
638-201	\$12.05	200	8000	20	Core	$\frac{1}{8}$	1	13
						Grounded		
638-171	\$19.30	250	10000	23	Core	$\frac{3}{16}$	1	14
						Mid-Point Grounded		
638-251	\$19.30	250	10000	23	Core	$\frac{3}{16}$	2	14
						Mid-Point Grounded		
638-331	\$19.30	250	1000	23	Core	$\frac{3}{16}$	2	13
						Mid-Point Grounded		
638-231	\$19.30	250	10000	23	Core	$\frac{3}{16}$	2	15
						Mid-Point Grounded		
638-261	\$19.30	250	10000	23	Core	$\frac{3}{16}$	2	14
						Mid-Point Grounded		
638-271	\$20.75	250	12000	20	Core	$\frac{1}{4}$	2	14
						Mid-Point Grounded		
638-341	\$20.75	250	12000	20	Core	$\frac{1}{4}$	2	14
						Mid-Point Grounded		
638-291	\$26.15	450	15000	30	Shell	$\frac{1}{8}$	2	22
						Mid-Point Grounded		
638-291-007	\$38.40	450	15000	30	Shell(2)	$\frac{1}{8}$	2	22

*Not equipped with radio filter.

These transformers are obtainable in other voltages and frequencies at extra cost. Prices upon application.

Jefferson Luminous Tube Sign Transformers



Nos. 721-111 and 721-121

Designed for use in all types of portable or fixed, indoor or outdoor neon signs. Complete assortment of models provides a transformer to meet the most exacting requirements, both as to electrical and mechanical details.

Mid-point grounded, balanced design, patented construction, and

many other improvements insure perfect secondary current regulation regardless of length of tubing operated, high efficiency permitting long tube length, cool operation, quietness, long life, neat appearance, and lightness in weight.

Case in which transformer is assembled is made of extra heavy rust-resisting steel, flanged construction and with substantial brackets, insuring rugged construction. Binding posts and nuts are cadmium-plated to guard against corrosion. Case is black enameled, baked thoroughly to present a tough and durable finish.

115 Volts, 60 Cycles

Binding Posts Standard (One at Each End of Case)

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Approx. Weight Pounds
					Length	Width	Height	
721-111	\$18.90	450	15000	30	14 ³ / ₄	4 ³ / ₄	6 ¹ / ₃₂	31
721-121	17.80	360	12000	30	14 ³ / ₄	3 ³ / ₄	6 ¹ / ₃₂	30
721-321	15.00	200	12000	18	13 ³ / ₄	4 ³ / ₄	3 ²⁵ / ₃₂	20
721-421	14.50	250	9000	30	13 ³ / ₄	4 ³ / ₄	3 ²⁵ / ₃₂	19 ¹ / ₂
721-341	11.90	190	9000	18	11 ⁵ / ₈	3	4 ¹ / ₂	14
721-151	14.00	225	7500	30	13 ³ / ₄	4 ³ / ₄	3 ²⁵ / ₃₂	19
721-351	11.00	150	7500	18	11 ⁵ / ₈	3	4 ¹ / ₂	13
*721-161	11.40	150	5000	30	9	4 ³ / ₈	5	13
*721-361	8.30	100	5000	18	9 ¹ / ₄	3 ¹ / ₂	4 ³ / ₄	9 ³ / ₄
*721-191	7.90	100	3000	30	8 ³ / ₈	3 ⁵ / ₃₂	4 ³ / ₄	9
*721-391	7.50	75	3000	18	8 ³ / ₈	3 ⁵ / ₃₂	4 ³ / ₄	8

115 Volts, 25 Cycles

Binding Posts Standard (One at Each End of Case)

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Approx. Weight Pounds
					Length	Width	Height	
721-112	\$30.30	450	15000	30	16 ¹ / ₄	5 ⁷ / ₁₆	7 ⁵ / ₁₆	53
721-122	28.50	360	12000	30	16 ¹ / ₄	5 ⁷ / ₁₆	7 ⁵ / ₁₆	47
721-142	23.20	250	9000	30	14 ³ / ₄	4 ¹ / ₁₆	6 ¹ / ₃₂	34
721-162	18.50	150	5000	30	11 ⁹ / ₁₆	4 ³ / ₁₆	5 ¹ / ₁₆	21

High Intensity Types

115 Volts, 60 Cycles

Binding Posts Standard (One at Each End of Case)

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Approx. Weight Pounds
					Length	Width	Height	
721-411	\$26.50	825	15000	60	16 ³ / ₄	5 ⁷ / ₁₆	7 ⁵ / ₁₆	60
721-421	24.30	720	12000	60	16 ³ / ₄	5 ⁷ / ₁₆	7 ⁵ / ₁₆	56
721-441	20.30	500	9000	60	14 ¹ / ₂	5 ³ / ₄	6 ³ / ₈	38
721-451	18.50	450	7500	60	14 ³ / ₄	4 ³ / ₄	6 ¹ / ₃₂	31
721-461	11.70	300	5000	60	14 ³ / ₄	4 ³ / ₄	6 ¹ / ₃₂	28 ¹ / ₂
721-491	8.60	180	3000	60	13 ³ / ₄	4 ³ / ₄	3 ²⁵ / ₃₂	17

High Power Factor Types

115 Volts, 60 Cycles

Binding Posts Standard (One at Each End of Case)

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Approx. Weight Pounds
					Length	Width	Height	
724-411	\$37.20	450	15000	60	16 ³ / ₄	5 ⁷ / ₁₆	7 ⁵ / ₁₆	60
724-421	35.00	400	12000	60	16 ³ / ₄	5 ⁷ / ₁₆	7 ⁵ / ₁₆	59
724-441	27.00	275	9000	60	14 ¹ / ₂	5 ³ / ₄	6 ³ / ₈	37
724-451	24.40	250	7500	60	14 ³ / ₄	4 ³ / ₄	6 ¹ / ₃₂	31 ¹ / ₂
724-461	21.80	150	5000	60	14 ³ / ₄	4 ³ / ₄	6 ¹ / ₃₂	32
724-491	17.30	100	3000	60	14 ¹ / ₂	4 ³ / ₈	4 ³ / ₈	19 ³ / ₄
724-111	24.30	250	15000	30	14 ³ / ₄	4 ³ / ₄	6 ⁹ / ₁₆	31 ¹ / ₂
724-121	23.20	200	12000	30	14 ³ / ₄	4 ³ / ₄	6 ⁹ / ₁₆	31
724-141	19.80	150	9000	30	13 ³ / ₄	4 ³ / ₄	4 ³ / ₈	22 ¹ / ₂
724-341	17.30	110	9000	18	13 ³ / ₄	4 ³ / ₄	4 ³ / ₈	22
724-151	19.00	110	7500	30	13 ³ / ₄	4 ³ / ₄	4 ³ / ₈	27

Weatherproof Types

115 Volts, 60 Cycles

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Approx. Weight Pounds
					Length	Width	Height	
722-411	\$31.90	825	15000	60	6 ¹ / ₄	6 ¹ / ₄	15	72
722-111	24.30	450	15000	30	6 ¹ / ₄	6 ¹ / ₄	15	52 ¹ / ₂
722-421	29.70	720	12000	60	6 ¹ / ₄	6 ¹ / ₄	15	70
722-121	23.20	260	12000	30	6 ¹ / ₄	6 ¹ / ₄	15	51
722-441	25.70	500	9000	60	6 ¹ / ₄	6 ¹ / ₄	15	51
722-141	19.80	250	9000	30	6 ¹ / ₄	6 ¹ / ₄	15	48 ¹ / ₂
722-451	23.90	450	7500	60	6 ¹ / ₄	6 ¹ / ₄	15	51
722-151	19.50	225	5700	30	6 ¹ / ₄	6 ¹ / ₄	15	47

Core and Coil Types

115 Volts, 60 Cycles

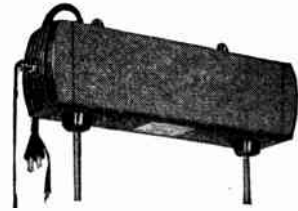
Unenclosed (6-Inch Primary and Secondary Leads)

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Approx. Weight Pounds
					Length	Width	Height	
*720-361	\$5.40	100	5000	18	3 ³ / ₄	2 ¹⁵ / ₁₆	4 ⁵ / ₈	6
*720-391	3.70	75	3000	18	3 ¹ / ₁₆	2 ¹ / ₈	3 ³ / ₄	4

*These are not mid-point grounded balanced design. Streamlined case.

Jefferson Indoor Luminous Tube Sign Transformers

115 Volts, 60 Cycles



Type 726 with Hanging Bracket

Designed to meet the requirements of the National Electric Code and Underwriters' Laboratories, Inc. The compactness of the streamlined case and the convenient end compartments make this line adaptable to every type of indoor luminous sign.

Two groups of transformers are available—Series No. 728 having secondary spring contact electrode housings, and Series No. 726 with secondary cables. Transformers in either series are furnished with or without 3-conductor cord and 2-prong plug with means for grounding and primary pull switch.

There are no exposed live metal parts in the high tension secondary circuit. Primary connections are screw terminals, panel-mounted, inside the end compartment. No soldering is required. Removal of end caps exposes the wiring compartments for easy and quick wiring. A combination knock-out and bushing in top of case provides for primary current entry through cord and plug, or through flexible or rigid conduit.

Hanging brackets, which prevent swinging movement of transformer and tubing, are furnished as standard equipment. Mounting supports for Series No. 728 are also available when it is desired to use the transformer and tubing in standing position.

Furnished in gray finish, hammered metal in appearance.

With Electrode Housings

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Weight Pounds
					Length	Width	Height	
728-141	\$19.00	250	9000	30	15 ¹ / ₂	3 ³ / ₁₆	6	31
728-341	17.60	190	9000	18	15 ¹ / ₂	3 ³ / ₁₆	6	19
728-151	18.90	225	7500	30	15 ¹ / ₂	3 ³ / ₁₆	6	18
728-351	16.20	150	7500	18	15 ¹ / ₂	3 ³ / ₁₆	6	15
728-161	17.50	150	5000	30	15 ¹ / ₂	3 ³ / ₁₆	6	15
728-361	14.00	100	5000	18	15 ¹ / ₂	3 ³ / ₁₆	6	14

With 3-Foot Secondary Cables

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Weight Pounds
					Length	Width	Height	
726-141	\$19.00	250	9000	30	15 ¹ / ₂	3 ³ / ₁₆	6	31
726-341	17.60	190	9000	18	15 ¹ / ₂	3 ³ / ₁₆	6	19
726-151	18.90	225	7500	30	15 ¹ / ₂	3 ³ / ₁₆	6	18
726-351	16.20	150	7500	18	15 ¹ / ₂	3 ³ / ₁₆	6	15
726-161	15.70	150	5000	30	15 ¹ / ₂	3 ³ / ₁₆	6	15
726-361	14.00	100	5000	18	15 ¹ / ₂	3 ³ / ₁₆	6	14

With Electrode Housings

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Weight Pounds
					Length	Width	Height	
728-111	\$22.30	450	15000	30	16 ¹ / ₂	6 ¹ / ₁₆	7 ⁷ / ₁₆	34 ¹ / ₂
728-121	21.00	360	12000	30	16 ¹ / ₂	6 ¹ / ₁₆	7 ⁷ / ₁₆	34 ¹ / ₂

With 3-Foot Secondary Cables

No.	Each	Cap. V.A.	SECONDARY Volts	MA.	DIMENSIONS, IN.			Weight Pounds
					Length	Width	Height	
726-111	\$22.30	450	15000	30	16 ¹ / ₂	6 ¹ / ₁₆	7 ⁷ / ₁₆	33
726-121	21.00	360	12000	30	16 ¹ / ₂	6 ¹ / ₁₆	7 ⁷ / ₁₆	33

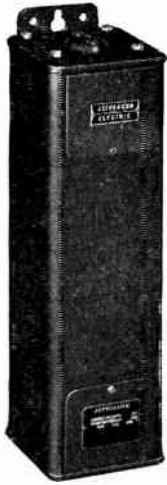
Series No. 728 may be used as hanging or standing type—standing brackets No. 728-001 supplied at slight additional cost. Series No. 726 is for hanging only, with eyelet supports for glass tubing.

For transformers of High Power-Factor type, add numeral "4" to catalog number—example: 728-4111 for 15000 volt 30 M.A. type.

Jefferson Transformers for Mercury Lamps

For 60-Cycle Operation

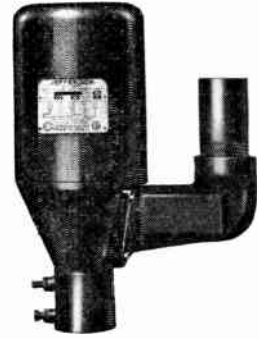
Listed By Underwriters' Laboratories, Inc.
Certified by Electrical Testing Laboratories



Nos. 232-901 and 232-903



Indoor Wall Type



No. 232-741

Indoor Type—H-1,400-Watt

For Wall Mounting and Fixture Suspension Installation

No.	Primary Voltage	Frequency	Cap. V. A.	Description	Approx. Wt. Lb.
232-811	100/107/115/123	60	650	Normal Power Factor Transformer	25 $\frac{1}{4}$
232-813	200/215/230/245	60	650	Normal Power Factor Transformer	25 $\frac{1}{4}$
232-821	100/107/115/123	60	450	High Power Factor Transformer	27 $\frac{3}{4}$
232-823	200/215/230/245	60	450	High Power Factor Transformer	27 $\frac{3}{4}$

Weather-Proof Wall Mounting Type—H-1, 400-Watt

For Outdoor Service

232-611	100/107/115/123	60	650	Normal Power Factor Transformer	29 $\frac{1}{2}$
232-613	200/215/230/245	60	650	Normal Power Factor Transformer	29 $\frac{1}{2}$
232-621	100/107/115/123	60	450	High Power Factor Transformer	30
232-623	200/215/230/245	60	450	High Power Factor Transformer	30

Weather-Proof Pole Mounting Type—H-1, 400-Watt

For Outdoor Floodlighting

232-711	100/107/115/123	60	650	Normal Power Factor Transformer	31 $\frac{1}{2}$
232-713	200/215/230/245	60	650	Normal Power Factor Transformer	31 $\frac{1}{2}$
232-721	100/107/115/123	60	450	High Power Factor Transformer	32
232-723	200/215/230/245	60	450	High Power Factor Transformer	32

Weather-Proof Pole Mounting Type—H-1, 400-Watt

With Fixture Mounting Support

232-741	100/107/115/123	60	650	Normal High Power Transformer	33
232-743	200/215/230/245	60	650	Normal Power Factor Transformer	33
232-751	100/107/115/123	60	450	High Power Factor Transformer	34
232-753	200/215/230/245	60	450	High Power Factor Transformer	34

Two-Lamp Transformers for 400-Watt Mercury Lamps

232-901	100/107/115/123	60	875	Indoor Type—High Power Factor	46
232-903	200/215/230/245	60	875	Indoor Type—High Power Factor	46
232-911	100/107/115/123	60	875	Outdoor Type—High Power Factor	56
232-913	200/215/230/245	60	875	Outdoor Type—High Power Factor	56

Indoor Type—H-5, 250 Watt

For Wall Mounting and Fixture Suspension Installation

232-861	100/107/115/123	60	...	Normal Power Factor Transformer	25
232-863	200/215/230/245	60	...	Normal Power Factor Transformer	25
232-871	100/107/115/123	60	...	High Power Factor Transformer	27 $\frac{1}{2}$
232-873	200/215/230/245	60	...	High Power Factor Transformer	27 $\frac{1}{2}$

Two-Lamp Transformers for H-5, 250-Watt Mercury Lamps

232-921	100/107/115/123	60	...	Indoor Type—High Power Factor	46
232-923	200/215/230/245	60	...	Indoor Type—High Power Factor	46

Weather-Proof Wall Mounting Type—H-5, 250 watt

232-671	100/107/115/123	60	...	Normal Power Factor Transformer	29 $\frac{1}{2}$
232-673	200/215/230/245	60	...	Normal Power Factor Transformer	29 $\frac{1}{2}$
232-681	100/107/115/123	60	...	High Power Factor Transformer	30
232-683	200/215/230/245	60	...	High Power Factor Transformer	30

Transformers for operation on 50 cycle source available in full range of types.
Unenclosed type transformers can be furnished on application.

G-E Autotransformers for High-Intensity Type H Mercury Lamps

The successful operation of high-intensity Type H mercury lamps depends on a transformer that must give proper starting and running characteristics, and must be a dependable source of power. As a result of close co-operation of transformer design and lamp design, General Electric has developed lines of autotransformers that assure matched performance with the lamps and most efficient operation.

Enclosed Tulamp Autotransformers



Fig. 1, Enclosed Tulamp Autotransformer

Enclosed Tulamp transformers are provided for the H1 and the H5 lamps. Tulamp transformers make use of the split-phase principle in which one lamp is ballasted by reactance only and the other lamp is ballasted by reactance and capacitance in series. The lagging power factor of the reactance branch offsets the leading power factor of the capacitance branch, resulting in an overall power factor of above 95 per cent. The phase displacement of currents in the two branches results in a materially reduced stroboscopic effect when the lamps are mounted adjacent to one another in pairs. As only one transformer is required for two lamps, lower first cost and installation cost will result. These transformers are suitable for wall or ceiling mounting. A large junction box with terminal board is part of the housing.

Enclosed Autotransformers



Fig. 2, Enclosed Autotransformer



Fig. 3, Enclosed Autotransformer for H-9 Lamp

Enclosed single-lamp transformers are listed for the H1, H2, H4, H5, and H9 lamps. These transformers, with the exception of H9 (high-power-factor only), are available in either the high-power-factor design or the normal-power-factor design. In the high-power-factor units, a G-E Pyranol capacitor is included in the housing, increasing the power factor to a minimum value of 90 per cent. These transformers can be mounted on the wall or ceiling, or suspended from conduit. Roomy junction boxes with terminal boards are built into all enclosed transformers.

Weatherproof Autotransformers

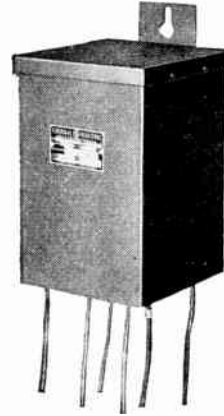


Fig. 4, Weatherproof Autotransformers

Weatherproof transformers are listed for the H1, H2, H4, and H5 lamps. These transformers are designed for outdoor installation, and are built in heavy sheet metal housings with brackets for wall or pole mounting. These transformers have leads for open wiring to the line and lamp circuits. As with the enclosed autotransformers, the weatherproof designs are available either with or without self-contained power-factor improvement by means of a G-E Pyranol capacitor mounted within the housing.

Core-and-Coil Autotransformer

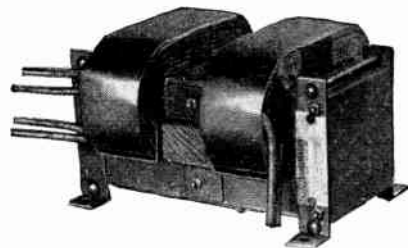


Fig. 5, Core-and-Coil Autotransformer

Core-and-coil transformers are listed for all except H9 lamps. These are recommended when they are to be built into the lighting fixture or machine by the fixture or equipment manufacturer. The fixture should be ventilated to allow free air circulation around the transformer.

Voltage Taps

Since the lamp must be operated within rather close voltage limits, taps are provided for satisfactory operation over a wide range of line voltages. The 230-volt ratings have taps at 245, 230, 215, and 200 volts; and the 115-volt ratings have taps at 123, 115, 107, and 100 volts. On the enclosed transformers, tap changing is simplified by means of a jumper lead for connecting to terminals on the terminal board.

G-E Autotransformers for High-Intensity Type H Mercury Lamps

H-1 400-Watt Lamp Enclosed Tulamp Autotransformer Appearance Similar to Fig. 1

No.	Frequency Cycles	Circuit Voltage	Approx. Line Power Factor Per Cent	Approx. Overall Dimensions Inches	Approx. Ship. Wt. Lb.	Each
58G106	60	115	95	7 ⁵ / ₈ x6 ¹ / ₂ x13 ¹ / ₈	42	\$30.45
58G116	60	230	95	7 ⁵ / ₈ x6 ¹ / ₂ x13 ¹ / ₈	42	30.45
58G107	50	115	95	7 ⁵ / ₈ x6 ¹ / ₂ x13 ⁵ / ₈	48	34.90
58G117	50	230	95	7 ⁵ / ₈ x6 ¹ / ₂ x13 ⁵ / ₈	48	34.90

H-4 100-Watt Lamp Core-and-Coil Autotransformer Appearance Similar to Fig. 5

No.	Frequency Cycles	Circuit Voltage	Approx. Line Power Factor Per Cent	Approx. Overall Dimensions Inches	Approx. Ship. Wt. Lb.	Each
59G16	60	115	50	3 ³ / ₄ x3 ³ / ₈ x 4 ⁵ / ₈	8	\$7.00
59G26	60	230	50	3 ³ / ₄ x3 ³ / ₈ x 4 ⁵ / ₈	8	7.65
59G17	50	115	50	3 ³ / ₄ x3 ⁷ / ₈ x 4 ⁵ / ₈	10	8.00
59G27	50	230	50	3 ³ / ₄ x3 ⁷ / ₈ x 4 ⁵ / ₈	10	8.70

H-1 400-Watt Lamp Core-and-Coil Autotransformer Appearance Similar to Fig. 5

58G1	60	115	60	6 x 5 ⁵ / ₈ x 6 ¹ / ₄	19 ³ / ₄	\$11.85
58G11	60	230	60	6 x 5 ⁵ / ₈ x 6 ¹ / ₄	19 ³ / ₈	11.85
58G5	50	115	60	6 x 6 x 6 ¹ / ₄	23	13.60
58G15	50	230	60	6 x 6 x 6 ¹ / ₄	23	13.60

H-4 100-Watt Lamp Enclosed Autotransformer Appearance Similar to Fig. 2

59G22	60	115	50	5 ⁵ / ₈ x4 x 5	9	\$16.75
59G32	60	230	50	5 ⁵ / ₈ x4 x 5	9	16.75
59G18	60	115	50	5 ⁵ / ₈ x4 x 5	9	9.75
59G28	60	230	50	5 ⁵ / ₈ x4 x 5	9	10.45
59G19	50	115	50	5 ⁵ / ₈ x4 x 5 ¹ / ₂	11	11.20
59G29	50	230	50	5 ⁵ / ₈ x4 x 5 ¹ / ₂	11	12.25

H-1 400-Watt Lamp Enclosed Autotransformer Appearance Similar to Fig. 2

58G2	60	115	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	31 ¹ / ₄	\$20.90
58G12	60	230	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	31 ¹ / ₄	20.90
58G6	50	115	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ³ / ₄	36 ³ / ₄	24.10
58G16	50	230	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ³ / ₄	36 ³ / ₄	24.10
58G3	60	115	60	6 ¹ / ₈ x6 ¹ / ₄ x11 ³ / ₄	26	15.35
58G13	60	230	60	6 ¹ / ₈ x6 ¹ / ₄ x11 ³ / ₄	26	15.35
58G7	50	115	60	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	30 ¹ / ₄	17.60
58G17	50	230	60	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	30 ¹ / ₄	17.60

H-4 100-Watt Lamp Weatherproof Autotransformer Appearance Similar to Fig. 4

59G20	60	115	50	5 x 5 ¹ / ₁₆ x 8 ⁷ / ₈	10	\$12.60
59G30	60	230	50	5 x 5 ¹ / ₁₆ x 8 ⁷ / ₈	10	13.25
59G21	50	115	50	5 x 5 ¹ / ₁₆ x 8 ⁷ / ₈	11 ¹ / ₂	14.45
59G31	50	230	50	5 x 5 ¹ / ₁₆ x 8 ⁷ / ₈	11 ¹ / ₂	15.90

H-5 250-Watt Lamp Enclosed Tulamp Autotransformer Appearance Similar to Fig. 1

58G225	60	115	95	7 ⁵ / ₈ x6 ¹ / ₂ x13 ¹ / ₈	39	\$30.45
58G235	60	230	95	7 ⁵ / ₈ x6 ¹ / ₂ x13 ¹ / ₈	39	30.45
58G226	50	115	95	7 ⁵ / ₈ x6 ¹ / ₂ x13 ⁵ / ₈	48	34.90
58G236	50	230	95	7 ⁵ / ₈ x6 ¹ / ₂ x13 ⁵ / ₈	48	34.90

H-1 400-Watt Lamp Weatherproof Autotransformer Appearance Similar to Fig. 4

58G10	60	115	90	6 ¹ / ₂ x6 ³ / ₄ x12 ⁷ / ₈	40 ¹ / ₂	\$22.35
58G20	60	230	90	6 ¹ / ₂ x6 ³ / ₄ x12 ⁷ / ₈	40 ¹ / ₂	22.35
58G26	50	115	90	7 ¹ / ₈ x6 ³ / ₄ x12 ⁷ / ₈	46	25.80
58G36	50	230	90	7 ¹ / ₈ x6 ³ / ₄ x12 ⁷ / ₈	46	25.80
58G9	60	115	60	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	16.75
58G19	60	230	60	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	16.75
58G25	50	115	60	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	19.20
58G35	50	230	60	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	19.20

H-5 250-Watt Lamp Core-and-Coil Autotransformer Appearance Similar to Fig. 5

58G131	60	115	50	6 x 5 ⁵ / ₈ x 6 ¹ / ₄	19 ³ / ₄	\$11.85
58G141	60	230	50	6 x 5 ⁵ / ₈ x 6 ¹ / ₄	19 ³ / ₄	11.85
58G135	50	115	50	6 x 5 ⁵ / ₈ x 6 ¹ / ₄	19 ³ / ₄	13.60
58G145	50	230	50	6 x 5 ⁵ / ₈ x 6 ¹ / ₄	19 ³ / ₄	13.60

H-5 250-Watt Lamp Enclosed Autotransformer Appearance Similar to Fig. 2

58G132	60	115	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	31 ¹ / ₄	\$20.90
58G142	60	230	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	31 ¹ / ₄	20.90
58G136	50	115	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ³ / ₄	36 ³ / ₄	24.10
58G146	50	230	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ³ / ₄	36 ³ / ₄	24.10
58G133	60	115	50	6 ¹ / ₈ x6 ¹ / ₄ x11 ³ / ₄	26	15.35
58G143	60	230	50	6 ¹ / ₈ x6 ¹ / ₄ x11 ³ / ₄	26	15.35
58G137	50	115	50	6 ¹ / ₈ x6 ¹ / ₄ x11 ³ / ₄	30 ¹ / ₄	17.60
58G147	50	230	50	6 ¹ / ₈ x6 ¹ / ₄ x11 ³ / ₄	30 ¹ / ₄	17.60

H-2 250-Watt Lamp Core-and-Coil Autotransformer Appearance Similar to Fig. 5

58G41	60	115	45	6 x 5 ⁵ / ₈ x 6 ¹ / ₄	19 ³ / ₄	\$11.85
58G51	60	230	45	6 x 6 x 6 ¹ / ₄	19 ³ / ₄	11.85
58G45	50	115	45	6 x 6 x 6 ¹ / ₄	23	13.60
58G55	50	230	45	6 x 6 ⁵ / ₈ x 6 ¹ / ₄	23	13.60

H-2 250-Watt Lamp Enclosed Autotransformer Appearance Similar to Fig. 2

58G42	60	115	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	31 ¹ / ₄	\$20.90
58G52	60	230	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	32	20.90
58G46	50	115	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ³ / ₄	36 ³ / ₄	24.10
58G56	50	230	90	6 ¹ / ₈ x6 ¹ / ₄ x12 ³ / ₄	39 ³ / ₄	24.10
58G43	60	115	45	6 ¹ / ₈ x6 ¹ / ₄ x11 ³ / ₄	26	15.35
58G53	60	230	45	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	30	15.35
58G47	50	115	45	6 ¹ / ₈ x6 ¹ / ₄ x12 ¹ / ₈	30 ¹ / ₄	17.60
58G57	50	230	45	6 ¹ / ₈ x6 ¹ / ₄ x12 ³ / ₄	33 ¹ / ₄	17.60

H-2 250-Watt Lamp Weatherproof Autotransformer Appearance Similar to Fig. 4

58G50	60	115	90	6 ¹ / ₂ x6 ³ / ₄ x12 ⁷ / ₈	40 ¹ / ₂	\$22.35
58G60	60	230	90	6 ¹ / ₂ x6 ³ / ₄ x12 ⁷ / ₈	40 ¹ / ₂	22.35
58G66	50	115	90	7 ¹ / ₈ x6 ³ / ₄ x12 ⁷ / ₈	46	25.80
58G76	50	230	90	7 ¹ / ₈ x6 ³ / ₄ x12 ⁷ / ₈	46	25.80
58G49	60	115	45	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	16.75
58G59	60	230	45	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	16.75
58G65	50	115	45	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	19.20
58G75	50	230	45	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	19.20

H-5 250-Watt Lamp Weatherproof Autotransformer Appearance Similar to Fig. 4

58G140	60	115	90	6 ¹ / ₂ x6 ³ / ₄ x12 ⁷ / ₈	40 ¹ / ₂	\$22.35
58G150	60	230	90	6 ¹ / ₂ x6 ³ / ₄ x12 ⁷ / ₈	40 ¹ / ₂	22.35
58G156	50	115	90	7 ¹ / ₈ x6 ³ / ₄ x12 ⁷ / ₈	46	25.80
58G166	50	230	90	7 ¹ / ₈ x6 ³ / ₄ x12 ⁷ / ₈	46	25.80
58G139	60	115	50	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	16.75
58G149	60	230	50	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	16.75
58G155	50	115	50	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	19.20
58G165	50	230	50	6 ¹ / ₂ x6 ³ / ₄ x11 ⁵ / ₈	35	19.20

H-6 1000-Watt Core-and-Coil Transformer Appearance Similar to Fig. 5

59G37	60	115	65	9 ¹ / ₈ x7 ¹ / ₂ x 6 ¹ / ₄	48	\$30.00
59G38	60	230	65	9 ¹ / ₈ x7 ¹ / ₂ x 6 ¹ / ₄	48	30.00
59G39	50	115	65	9 ¹ / ₈ x7 ¹ / ₂ x 6 ¹ / ₄	49	34.95
59G40	50	230	65	9 ¹ / ₈ x7 ¹ / ₂ x 6 ¹ / ₄	49	34.95

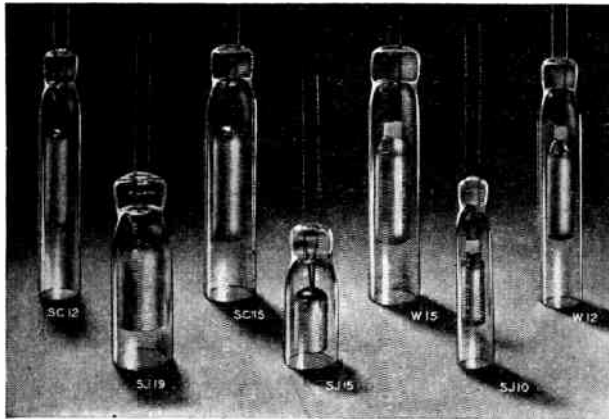
H-9 3000-Watt Enclosed Autotransformer Appearance Similar to Fig. 3

59G212	60	230	90	8 ⁷ / ₈ x7 x 33 ⁷ / ₈	190	\$167.20
59G213	60	460	90	7 x 6 ¹ / ₄ x 37 ¹ / ₈	160	125.40
59G214	60	575	90	7 x 6 ¹ / ₄ x 36 ¹ / ₂	155	125.40

H-3 85-Watt Lamp Core-and-Coil Autotransformer Appearance Similar to Fig. 5

59G1A	60	115	50	4 ³ / ₄ x2 ⁵ / ₈ x 3 ⁵ / ₈	7	\$7.00
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Superior Supro Electrodes
For Neon Tubes



Stain-free and crack-free with electrode coating which does not need to be broken down during bombardment and which gives a minimum of sputtering with mercury tubes. Sputtering is minimized and the voltage drop is low. Equipped with full length Westinghouse dumet leads. Available in BASED, which consists of a metal cap cemented to the electrode with bakelite cement and having the leads soldered to the cap.

No.	Each	Size of Shell Inches	Maximum Operating Current Milliamperes	Diameter of Glass Millimeters	Length Inches	Seal Shells
SC15	\$.09	3/8x1 5/16	60	15	23 3/4	1
SC12	.08 1/2	3/16x1 3/16	45	12	23 3/4	1
WF15	.10	3/8x1 5/16	100	15	23 3/4	2
SB15	.09 1/2	3/8x1 5/16	45	15	23 3/4	†1
SJ10	.08 1/2	1/2x1 1/4	30	10	2	1
SJ15	.09	3/8x 5/8	30	15	2	1
*SJ19	.11	1/2x1	100	19	2	1
*WJ19	.13	1/2x1	120	19	2	2
*SC19	.12	1/2x1 1/4	120	19	2 1/2	1
*WF19	.15	1/2x1 5/8	200	19	2 1/2	2

*Chiefly used for cold cathode lighting.
†Uncoated.
Additional types are available, prices on request.
Stranded wire leads can be furnished at additional cost.

Supro Lux Fluorescent Tubing

Available in diameters from 8 to 25 millimeters. Packed, 40 pounds of glass in a carton containing four paper packed bundles of 10 pounds each.

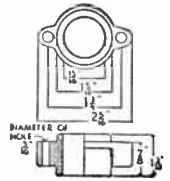
	10 Mm. or Larger	9 Mm.	8 Mm.
No. G23, Green, Amber Gold when Pumped with Neon Only per pound	\$.65	\$.85	\$1.05
No. L34, Blue, Pink when Pumped with Neon Only per pound	.75	.90	1.10
No. F52, Cream White, Formerly Powder White per pound	.75	.90	1.10
No. O13, Farm White per pound	.75	.90	1.10
No. V45, Snow White per pound	.75	.90	1.10
No. D66, Interior White per pound	.75	.90	1.10
No. S81, Yellow Gold, in Noviol Glass per pound	1.40	1.55	1.70
No. P73, Old Gold, in Noviol Glass per pound	1.40	1.55	1.70

Standard Fluorescent Lighting Association Colors

No. 3500 White. Similar to that used in hot cathode fluorescent lamps. Recommended for general lighting and is the brightest of all the colors.

Per pound	\$.75
Daylight White. Also similar to that used in hot cathode fluorescent lamps but is not as cold a color. Not recommended for signs.	
Per pound	\$.75
Soft White. White with a reddish cast. Excellent where foods are used or displayed and is flattering to the human complexion. May also be used on signs.	
Par pound	\$.75

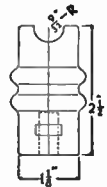
Knox Porcelain Electrode Bushings



White glaze standard. Other colors upon request.

No.	Description	Panel Opening Inches	Car. ton	Wt., Lb. per 100
7005	Without Fittings	1 3/8	100	12
7005-S	With Screw Sets and Screws	1 3/8	100	13

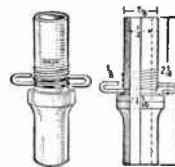
Knox Porcelain High Tension Cable Supports



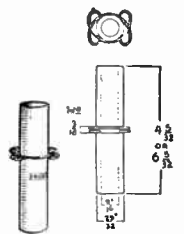
White glaze standard.

No.	Description	Car. ton	Wt., Lb. per 100
7060	Slotted for Inserting Nut and Screw	100	24
7060-S	With Screw Set and Screws	100	25

Knox Porcelain Assembled Cable Bushings



No. 7011



Nos. 7013 and 7014

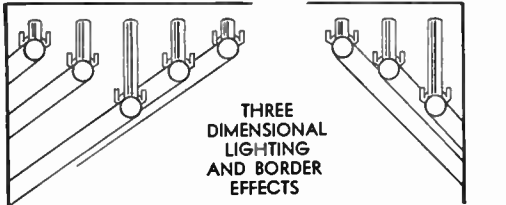
All metal parts cadmium plated. White glaze standard.

No.	Panel Opening Inches	Length Inches	Wt., Lb. per 100
7011	1	4	20
7013	1	4 7/32	18
7014	1	6 7/32	20

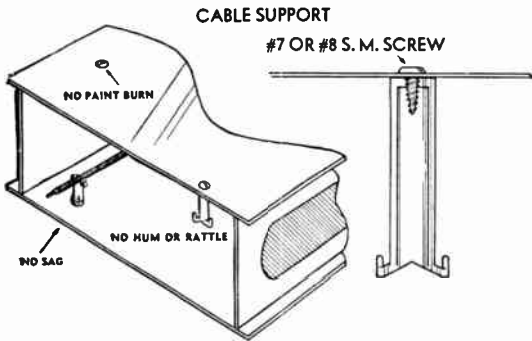
Neon Supplies—Miscellaneous Materials

Cable, Rubber Covered	Lamps, Flood, Mazda, Portable
Conduit	Mercury
Cord, Extension	Mica Sheets
Cord Sets	Motors and Controls
Cutouts	Poles, Metal for Supporting Signs
Drills, Electric	Reflectors, Porcelain
Fans, Ventilating	Soldering Irons, Electric
Fuses	Solder, Bar, Wire, Flux
Guards, Lamp	Stop Cocks, Glass
Hammers, Electric	Wire, Rubber Covered
Heaters, Electric	
Insulating Materials	

Peco Tube and Cable Supports

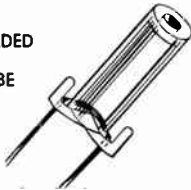


THREE DIMENSIONAL LIGHTING AND BORDER EFFECTS

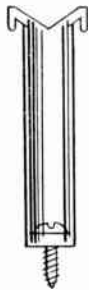


CABLE SUPPORT
#7 OR #8 S. M. SCREW

WIRE MAY BE THREADED THRU PIERCED EARS READY TO WRAP TUBE SAVES TIME IN OVERHEAD WORK

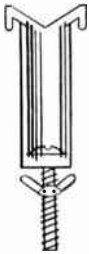


LONG FOR INTERIOR LIGHTING, ETC.



MEDIUM SIZE SCREW

INTERMEDIATES FOR GENERAL APPLICATIONS

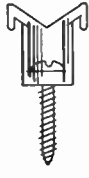


TOGGLE SCREW

SHORT STUB FOR PORTABLE SHOWCASE, ETC.



SHORT SCREW



LONG SCREW

AVAILABLE IN 4 SIZES WITH OR WITHOUT SCREWS. (CAN BE USED WITH ANY LENGTH OF #6 SHEET METAL SCREW)

Designed for supporting interior cold cathode lighting. Made of polystyrene with a high dielectric strength. Can be mounted 1/4-inch apart. Screw will not drop out during installation. Carton, 250. Standard package, 1000.

Length Inches	Without Screws			
	No.	Per 1000	Approx. Shipping Wt., Lb. per 1000	Approx. Shipping Wt., Lb. per 100
1/2	3000	\$25.00	1 1/2	
1	3001	26.00	3	
2	3002	28.50	6	
3	3003	29.75	8 1/2	

Length Inches	*With 1/2-Inch Screw		*With 1-Inch Screw		
	No.	Per 1000	No.	Per 1000	
1/2	3000-3	\$34.80	9 1/2	3000-7	\$35.15
1	3001-3	35.80	11	3001-7	36.15
2	3002-3	38.30	14	3002-7	38.65
3	3003-3	39.55	17	3003-7	39.90

*With No. 6 sheet metal screw inserted. For tube supports, use any No. 6 sheet metal screw. For cable support, use any No. 7 or No. 8 sheet metal screw. Available in clear or ivory. When ordering ivory, suffix I to number.

Airco Rare Gases



For sign tubes and fluorescent illumination lamps. Pure and free of active gases or undesirable elements. Pure rare gases increase the operating efficiency of sign tubes by creating lower resistance, which results in more footage per transformer and fewer transformers per sign. Moreover, pure rare gases insure longer life of the completed tube and lower maintenance costs. Available in a variety of accurate and uniform rare gas mixtures and color combinations. Furnished in 1 or 2-liter flasks; lead glass or Pyrex. Individually packed in cardboard container.

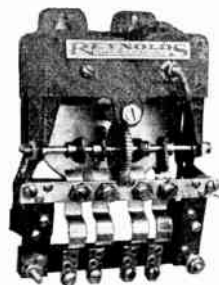
Color	Gas	Per Liter	Pressure Mm.	Glass	Coating
Rose Pink	Neon	\$5.00	10-18	Clear	Blue
Gold	*B-10, B-19, W-05	5.00	10-20	Noviol	Yellow
Yellow	Neon	5.00	10-18	Clear	Green
Green	*B-10, B-19, W-05	5.00	10-20	Clear	Green
Blue	*B-10, B-19, W-05	5.00	10-20	Clear	Blue
White	*B-10, B-19, W-05	5.00	10-20	Clear	White

*Use mercury. Gas B-10 is the standard all-purpose mixture for use with mercury; B-19 will provide maximum protection against fading at low temperature; W-05 is recommended for greatest brilliance where condensation of mercury is not a factor.

Mixtures of neon, argon, and helium are available at \$5.00 per liter. Prices on krypton and xenon or mixtures of these gases will be furnished upon request.

Reco Color Changing, Speller, or Speed Type Flashers and Controls

For 115 Volt, 60 Cycle, A.C. Only
Silver Contact



Color Changing or Speller Type.

For two or more colors. Speller type flasher. Two to four actions. Speed, 6 to 8 rpm.

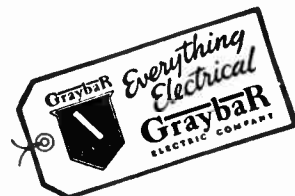
Speed Type. For traveling borders, revolving wheels, flames. Can shaft speeds, standard 36 to 46 rpm. with 5-lobe cams, makes flashing speed 180 to 230 flashes per minute.

When ordering state voltage and cycles of current. Also specify flashing action, timing, circuit loads, watts or volt-amperes.

Color Changing or Speller Type

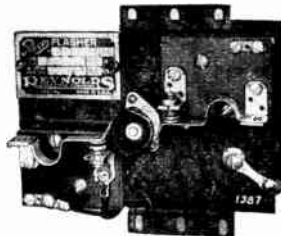
No.	No. of Circuits	Capacity per Circuit	Size Inches	Weight Pounds
FDBO-2	2	660W. or Va.	7x8x3 1/2	8
FDBO-3	3	660W. or Va.	7x8x3 1/2	8
FDBO-4	4	660W. or Va.	7x8x3 1/2	8
LDBO-2	2	1650W. or Va.	7x8x3 1/2	8
LDBO-3	3	1650W. or Va.	7x8x3 1/2	8
LDBO-4	4	1650W. or Va.	7x8x3 1/2	8

No.	No. of Circuits	Capacity per Circuit	Size Inches	Weight Pounds
FDBS-4	4	660W. or Va.	7x8x3 1/2	8
LDBS-4	4	1650W. or Va.	7x8x3 1/2	8



Reco Off and On, and Alternate Type Flashers and Controls

For 115 Volt, 60 Cycles, A.C. Only
Silver Contact



On and Off Type

Alternate Type

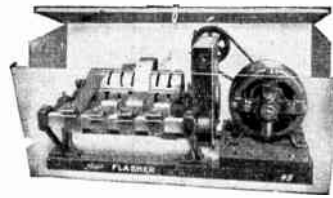
Order a single circuit for on and off type, two circuits for alternate type. Flashing cycles, 12 to 16 rpm.

No.	No. of Circuits	Capacity per Circuit	Size Inches	Weight Pounds
FDS1301	1	660W. or Va.	4 1/2 x 4 1/2 x 5 1/2	6 1/2
LDS1301	1	1650W. or Va.	4 1/2 x 4 1/2 x 5 1/2	6 1/2
FDS1302	2	660W. or Va.	4 1/2 x 7 1/2 x 5 1/2	8
LDS1302	2	1650W. or Va.	4 1/2 x 7 1/2 x 5 1/2	8

When ordering state voltage and cycles of current. Also specify flashing action, timing, circuit loads, watts or volt-amperes.

Reco On and Off or Color Changing Type Flashers and Controls

Brush and Drum Design
For 110 Volt, A.C. and D.C.



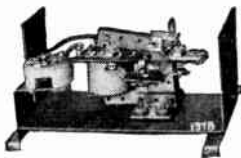
On and off, alternate sides, two or more colors. For lighting effects, signals, motor control, etc. Recommended where circuits are to be overlapped. Standard cycle, 6 rpm.; also from 3 to 7 rpm.

When ordering specify kind of current, a.c. or d.c., voltage, cycle, 2 or 3-wire service, timing, watts per circuit; include rough sketch if possible.

No.	No. of Brushes	Capacity per Circuit	Size Inches	Shipping Weight Pounds
G01	1	400W. or Va.	18x13x11	50
G02	2	400W. or Va.	18x13x11	55
G03	3	400W. or Va.	18x13x11	60
G04	4	400W. or Va.	18x13x11	65
L01	1	800W. or Va.	18x13x11	50
L02	2	800W. or Va.	18x13x11	55
L03	3	800W. or Va.	21x13x11	60
L04	4	800W. or Va.	21x13x11	68

Reco Thermatic Type Flashers and Controls

For 115 Volt, 60 Cycle, A.C. Only



A motorless flasher for flashing signs or displays on and off or alternate.

Speed, 15 to 20 fpm.

Loads can be the same or unequal.

Adjustment provided for slightly regulating on and off period.

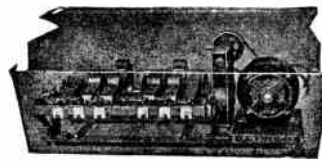
When ordering specify voltage and cycles of current; also flashing action, timing, circuit loads, watts or volt-amperes.

No.	Watts per Circuit	No. of Circuits	Size Inches	Weight Pounds
BTO-1	660	1 On and Off	6x4 1/2 x 3	1 1/4
BTO-2	660	2 Alternate	6x4 1/2 x 3	1 1/4
BTO-2A	660	2 On and Off	6x4 1/2 x 3	1 1/4
BTO-4	660	4 Two Alternate	6x4 1/2 x 3	1 1/4

Reco Speller Type Flashers and Controls

Brush and Drum Design

For 110 Volt, A.C. and D.C.



Flashes letter after letter, word after word; building up and down; progressive borders, motions, etc.

Standard speller action: one circuit on, after another until all are on,

then all out, all on, all out, and repeat.

When ordering, specify in detail flashing effect desired, kind of current, a.c. or d.c., voltage, cycle, 2 or 3-wire service, timing, watts per circuit; include rough sketch if possible.

Standard cycle, 6 rpm.; also from 3 to 7 rpm.

No.	No. of Brushes	Capacity per Circuit	Size Inches	Shipping Weight Pounds
GSP2	2	400W. or Va.	18x13x11	55
GSP3	3	400W. or Va.	18x13x11	60
GSP4	4	400W. or Va.	18x13x11	65
LSP2	2	800W. or Va.	18x13x11	55
LSP3	3	800W. or Va.	21x13x11	60
LSP4	4	800W. or Va.	21x13x11	68

Reco Neonimeter Flashers and Controls

For 115 Volt, 60 Cycle A.C. Only



Flashes the secondary or high voltage side of neon transformers. Flashing action is obtained by switching or transferring the current from one circuit to another without open circuiting the transformer secondary circuit.

Every outer terminal must be connected.

Maximum, 30 ma., 7500 to 15000 volts.

One Neonimeter can be used with only one transformer.

From 2 to 8 flashes can be obtained per rotor revolution.

Flashing speeds from 12 to 1040 fpm. (viz. 130x8 equals 1040 fpm.) obtained by connecting terminals to different arrangements with different rotor speeds.

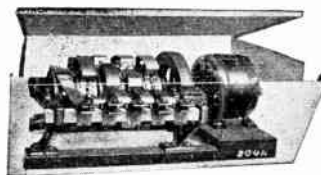
When ordering specify voltage and cycles of current; also flashing action, timing, circuit loads, watts or volt-amperes.

No.	No. of Circuits	Rotor RPM.	Size Inches	Weight Pounds
D-6	6	130-300	5x9 1/2 x 7	9
G-6A	6	6-8	5x9 1/2 x 7	9
G-6B	6	12-16	5x9 1/2 x 7	9
G-6C	6	25-60	5x9 1/2 x 7	9
D-8	8	120-300	5x9 1/2 x 7	9
G-8A	8	6-8	5x9 1/2 x 7	9
G-8B	8	12-16	5x9 1/2 x 7	9
G-8C	8	25-60	5x9 1/2 x 7	9

Reco Speed Type Flashers and Controls

Brush and Drum Design

For 110 Volt, A.C. and D.C.



Reproduces wide range of motion effects; revolving wheels, borders, flames, waterfalls, etc.

Speed effects are usually wired 1-2-3-4 requiring four brushes or in multiples of four circuits.

Standard cycle, 60 rpm.; also as slow as 35 rpm. Flashing speeds from 35 to 480 flashes per minute using from 1 to 8 drum contacts per brush.

Standard 240 fpm. (60 rpm.x4 contacts equals 240 fpm.).

When ordering specify kind of current, a.c. or d.c., voltage, cycle, 2 or 3-wire service, timing, watts per circuit; include rough sketch if possible.

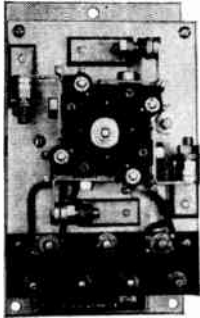
No.	No. of Brushes	Capacity of Circuit	Size Inches	Shipping Weight Pounds
CS4	4	200W. or Va.	18x13x11	55
FS4	4	400W. or Va.	21x13x11	68
KHDS4	4	1000W. or Va.	21x13x11	70

Time-O-Matic Sign Flashers

For controlling any type of display from simple off and on effect to most spectacular action. Pure silver contacts are used which will not pit or stick, and which will insure long life without replacement. The use of silver contacts allows the flasher to be operated in any position; no leveling or final adjustment is needed after installation. Heat or cold, or short circuits in the sign do not affect the flasher.

Drives are either direct or through spur gear reduction, which assures positive, even action. All steel parts are heavily cadmium plated.

Model 1 and Model 2 Flashers 50-60 Cycles



No. 2-6144

Small and compact for installation inside the sign.

Slow speed induction disk motor has a simple speed adjustment. The fast speed is two times greater than the slow speed.

With ball bearings.

Motor draws less than 14 watts.

Model 1 Off and On or Alternate Flashers

Size, $4\frac{1}{4} \times 7\frac{1}{2} \times 3\frac{3}{8}$ inches.

Speed adjustment, 12 to 24 flashes per minute. Write for information on special speeds.

Wattage per circuit, 2875.

Amperes per circuit, 25.

No.	Each	No. of Circuits	Circuit Timing	Wired Volts	Total Wattage
1-6101	\$27.50	1	Off and On	115	2875
1-6102	35.00	2	Off and On	115-230	5750
1-61A2	31.00	2	Alternate	115-230	5750

Model 2 High Speed Border Chaser Flashers

Size, four circuits, $4\frac{1}{4} \times 7\frac{3}{4} \times 3\frac{3}{8}$ inches.

Cabinet size, $6 \times 9\frac{1}{2} \times 5$ inches.

Speed adjustment, 150 to 450 flashes per minute.

Wattage per circuit, 2875. Amperes per circuit, 25.

2-6133	\$34.00	3	1-3	115-230	8625
2-6136	71.00	6	1-3	115-230	17250
2-6144	35.00	4	1-4	115-230	11500
2-6148	72.00	8	1-4	115-230	23000
2-6166	46.50	6	1-6	115-230	17250

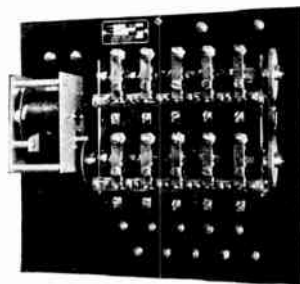
Replacement contacts, \$1.35 per set of two.

Direct Current Flashers

Standard a.c. flashers can be used on direct current where alternating current is available for the motor. Condensers of the proper size and type must be connected to the contacts for proper operation. Where a.c. is not available for the motor, flashers can be furnished driven by a d.c. motor. Write for prices.

Model 4 Speller Flashers

50 or 60 Cycles



Meets any requirement in the control of electric signs.

Each contact is controlled by individual split cams.

With ball bearings.

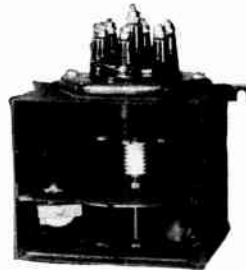
Contacts are rated at 25 amperes, a.c.

When ordering: state number of circuits; load per circuit; flashing cycle or sequence; whether 115 volts, 2-wire or 115-230 volts, 3-wire power supply is available.

Each..... \$47.00

For 25 amperes, add \$8.00 per contact.

Model 5 High Voltage Neon Flashers 115 Volt, 50-60 Cycles



No. 5-61H6

An adjustable speed, motor driven unit for flashing of neon tube signs on high voltage or secondary side of transformers.

Will handle one 15,000-volt 30 ma. transformer.

Permanent alignment of contacts assured by one-piece porcelain top.

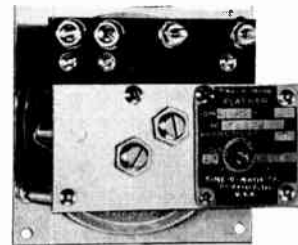
Has pivot type, permanently lubricated bearings, and four, six or eight terminals.

Shipping weight, 5 pounds.

No.	Each	Ter- mi- nals	Circuits	Flashes Per Min.	Size Inches
5-61H4	\$16.00	4	2 or 4	35-300	$5\frac{1}{2} \times 7\frac{3}{8} \times 4\frac{3}{8}$
5-61H6	17.25	6	2, 3 or 6	35-300	$5\frac{1}{2} \times 7\frac{3}{8} \times 4\frac{3}{8}$
5-61B4	20.50	4	2 or 4	5-35	$6\frac{3}{4} \times 4\frac{1}{8} \times 7\frac{3}{8}$
5-61B6	21.75	6	2, 3 or 6	5-35	$6\frac{3}{4} \times 4\frac{1}{8} \times 7\frac{3}{8}$
5-61H8	18.50	..	8	35-300	$5\frac{1}{2} \times 7\frac{3}{8} \times 4\frac{3}{8}$
5-61B8	23.00	..	8	5-35	$6\frac{3}{4} \times 4\frac{1}{8} \times 7\frac{3}{8}$
5-61H10	30.00	..	10	35-300	.....
5-61B10	35.00	..	10	5-35	.....

For extra circuits, add \$4.50 to prices per circuit.

Model 3 Off, On, and Alternate Flashers 115, 115-230 Volts, 15 Amperes, 50-60 Cycles, A.C.



No. 3-6101,
Off, On, and Alternate

Size: 1 and 2 circuits, $5\frac{5}{8} \times 4\frac{3}{8} \times 2\frac{1}{4}$ inches except 3-6102J and 3-61A2J; 3 and 4 circuits, $5 \times 6\frac{1}{2} \times 4\frac{3}{4}$ inches. Pivot type, lubricated bearings.

Speed of flash, 15 to 30 flashes per minute.

Standard cams are set for 50-50 operation.

Watts per circuit. 1725.

The 115-volt has 115-volt motor and is suitable for 115-volt 2-wire line; 115-230-volt has 115-volt motor but is suitable for 115-230-volt 3-wire line.

Model 3 High Speed Border Chaser Flashers

115-230 Volts, 10 Amperes, 50-60 Cycles, A.C.

Size: $5 \times 6\frac{1}{2} \times 4\frac{3}{4}$ inches.

Speed of flash, 250 per minute.

Watts per circuit. 1150. Circuit timing, 1-3 and 1-4.

Model 3 Type T Speller Flashers

115, 115-230 Volts, 15 Amperes, 50-60 Cycles, A.C.

Handles from 1 to 4 contacts at speeds adjustable from 2 to 10 seconds per cycle with faster speeds by cutting two or more complete operations on the cams.

Size: 1 and 2 circuits, $5\frac{5}{8} \times 4\frac{3}{8} \times 2\frac{1}{4}$ inches except 3-61T2J; 3 and 4 circuits, $5 \times 6\frac{1}{2} \times 4\frac{3}{4}$ inches.

Watts per circuit. 1725.

Model 3 Type S Speller Flashers

115, 115-230 Volts, 15 Amperes, 50-60 Cycles, A.C.

For a large number of contacts or for slow speeds.

Speed: three ranges of speed adjustment are available; 2-10 seconds; 4-20 seconds; 8-40 seconds. State which is desired when ordering. These ranges are approximate and may vary, particularly on the larger flashers.

Available in any number of circuits.

Watts per circuit. 1725.

All Prices Quoted Are Without Cabinets

**Lennan Rub-R-Lite Flashlights
Focusing Type**



No. 200

A completely rubber-cushioned flashlight that is waterproof and shockproof. Insulated against electrical charges. Batteries and bulb can be replaced in a few seconds.

Has two-button positive action switch; focusing device to adjust the spot for long or short range; bright aluminum reflector; all-steel inner case; and a plastic lens.

No. 200, two-cell, focusing, complete with No. 14 bulb but without batteries; packed 48 per shipping case; weight, 33 pounds..... each **\$1.85**

No. 250, three-cell, focusing, complete with No. 13 bulb but without batteries; packed 36 per shipping case; weight, 29 pounds..... each **\$2.20**

Spare Parts

No. 9-18A, Plastic Lens..... each **\$.13**

No. 9-17E, Polished Reflector..... each **.15**

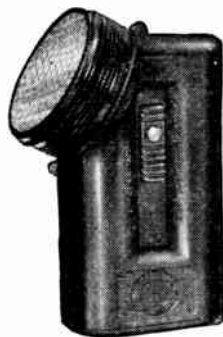
No. 10-200, Inner Shell Assembly with Bulb, Two-Cell..... each **1.10**

No. 10-250, Inner Shell Assembly with Bulb, Three-Cell..... each **1.32**

No. 10-12, Outer Rubber Case, Two-Cell..... each **.65**

No. 10-13, Outer Rubber Case, Three-Cell..... each **1.10**

No. 17S Justrite Safety Service Flashlights



Approved by Underwriters' Laboratories, U.S. Bureau of Mines, Bureau of Marine Inspection.

Uses 3 regular flashlight cells.

Case is made of plastic reinforced with metal inserts to prevent warping or shrinkage.

Stands on base.

Furnished with a belt clip and a 2½-inch polished-reflector.

Height, 5¾ inches.

Weight, ½ pound.

No. 17S, Clear Lens, less Batteries..... each **\$3.85**

No. 1717SII, Honeycomb Lens, less Batteries..... each **4.00**

No. 2251 Eveready Automatic Spotlights



Two-cell automatic spotlight. Seambrass tube, chromium finish with rolled-on black decoration. Uses

two Eveready No. 950 batteries and pre-focused lamp No. PR-2. Size 6¾x1¾ inches.

No. 2251, Less Batteries..... each **\$1.35**

No. 210 Eveready Penlights



A seamless chromium brass tube pocket flashlight, used by mechanics, doctors and dentists. Size: 5½x5/8 inches.

Uses two No. 915 Eveready batteries and No. 222 Eveready Lamp.

No. 210, Less Batteries..... each **\$.64**

**Eveready Flashlight Batteries
Unit Cells**

Standard package 12, for No. 950, 24 per package.



No. 950

No.	Each	Description	Size In.	Cell Size	Weight Lb. Oz.
915	\$.075	Penlight Cell	1 31/32 x 35/64	AA	7 1/2
935	.10	Baby Tubular	2 x 1 1/2	C	1 4
950	.10	Regular	2 27/64 x 1 21/64	D	9 12

**No. 102 Eveready
Flashlight Lens
Assortments**



Contains 32 No. 53394 lenses and 4 No. 53390 searchlight lenses.

Packed 1 assortment in a unit package.

No. 102..... per asst. **\$1.37**

Flashlight Lamps

Packed 10 in a carton.

No.	Each	No. Cells and Size	Bulb	Volts	Ampere Rating
13	\$.09	3D	G-3½	3.8	.30
14	.09	2D	G-3½	2.5	.30
Nos. 233, 13, 14	.09	2A-AA	TL-3	2.2	.25
233	.09	2C	G-3½	2.3	.27
*PR-2	.13	2D	B-3½	2.4	.50
*RP-3	.13	3D	B-3½	3.6	.50
*PR-6	.13	2D	B-3½	2.5	.30
No. 222 *PR-7	.13	3D	B-3½	3.8	.30

*Miniature flanged base.

No. 409 Eveready Lantern Batteries

6 Volts



Cell size, F.

Number of cells, 4.

Dimensions, 2½x2½x3¾ inches.

Packed 1 in a unit package.

Weight per unit package, 1½ pounds.

No. 409..... each **\$.70**

Eveready Single Shot Blasting Batteries



Equipped with positive and negative recessed terminals. Bears approval label of U.S. Bureau of Mines.

No. 702, 3-cell battery composed of size B cells, 4½ volts.

No. 704, 2-cell battery composed of type F cells, 3 volts.

No.	702	704
Each	\$.75	.85
Size	2 1/8 x 2 7/16 x 2 1/16 inches	2 5/8 x 1 1/2 x 1 1/4

No. 211 Big Beam Portable Electric Hand Lamps



Projects powerful ray over 1500 feet.

Power: 2 standard dry cell lantern batteries.

Finish: black enameled head; brass reflector, silver-plated; baked red enamel steel container.

Packed individually, 12 to a case.

Net weight each 3¼ pounds.

No. 211, without Batteries..... each \$12.50

Accessories

- No. 200, Battery, Lantern Type, 6 Volts..... each \$.70
- No. 225, Hold-Down Bracket..... each 2.00
- No. 229, Clear Lens..... each .60
- No. 215, Carrying Strap..... each 1.00
- No. 220, Wire Guard..... each .75
- No. 250, Snap-On Lens, Red, Green, or Flood..... each 1.50
- No. 260, Main Bulb..... each .45
- No. 255, Small or Auxiliary Bulb..... each .15

No. 411 Big Beam Portable Electric Hand Lamps



Projects powerful ray over 2500 feet. Can be floodlighted, if desired.

Power: No. 26AH heavy duty battery.
Finish: black enameled head; brass reflector, red enameled container.

Rubber reservoir prevents acid spillage; direct lamp-to-battery contacts; acid protected case.

No. 411, with Battery..... each \$39.25

Accessories

- No. 611, Rechargeable Storage Battery..... each \$15.00
- No. 510, Hold-Down Swivel Fitting..... each 8.75
- No. 515, Leather Shoulder Strap..... each 2.75
- No. 520, Wire Guard..... each 1.25
- No. 529, Clear Lens..... each 1.40
- No. 531, Red, Blue, or Green Lens..... each 1.80
- No. 530, Floodlight Lens..... each 1.70
- No. 550, Snap-On Lens, Complete Unit..... each 3.25
- No. 500, Hold-Down Bracket..... each 4.25
- No. 525, 15-Foot Extension, Complete with 6-Volt, 25-Watt Bulb and Adapter..... each 3.00
- No. 540, Resistance Switch, 6 Volts D.C..... each 4.00
- No. 1280, Charger, 115 Volts, 60 Cycles A.C..... each 20.00
- No. 900, Main Bulb, 6 Volts..... each .65
- No. 955, Auxiliary Bulb, 6 Volts..... each .13

No. 1000 Big Beam Portable Electric Hand Lamps



Projects powerful ray over 2500 feet. Can be floodlighted, if desired.

Power: No. 4F6H Burgess dry cell battery.

Finish: black enameled head; brass reflector, silver plated; and baked red enamel steel container.

Has direct lamp to battery contacts; no wires.

Net weight 3½ pounds.

No. 1000, without Battery..... each \$23.00

Accessories

- No. 466, Battery, Dry Cell, 9 Volts..... each \$3.23
- No. 510, Hold-Down Swivel Fitting..... each 8.75
- No. 515, Leather Shoulder Strap..... each 2.75
- No. 520, Wire Guard..... each 1.25
- No. 529, Clear Lens..... each 1.40
- No. 531, Red, Blue, or Green Lens..... each 1.80
- No. 530, Floodlight Lens..... each 1.70
- No. 550, Snap-On Lens, Complete Unit..... each 3.25
- No. 1500, Hold-Down Bracket..... each 4.25
- No. 900, Main Bulb, 6 Volts..... each .65
- No. 955, Auxiliary Bulb..... each .13

No. 700 Big Beam Portable Electric Hand Lamps



Projects powerful ray over 2000 feet.

Can be floodlighted.

Power: 4 No. 6 dry cells.

Finish: black japanned head and rim with red baked enamel container.

Has 6-inch silvered reflector and 6-inch heavy convex lens. Prefocused bulb.

Net weight 4 pounds.

No. 700A is the same as No. 700 except that it is equipped with 2 bulbs: dim and bright.

No. E700H is the same as No. 700 except that it is equipped with 3 bulbs: main bulb, small auxiliary bulb, and bulb on extension cord.

- No. 700, without Batteries..... each \$15.00
- No. 700A, without Batteries, with Aux. Bulb..... each 17.00
- No. 700EH, with Ext., without Batteries..... each 22.50

Accessories

- No. 6, Batteries, 4 per Set..... per set \$1.96
- No. 720, Wire Guard..... each 1.25
- No. 725, Hold-Down Bracket..... each 3.50
- No. 726, Hold-Down Bracket, Lock Type..... each 4.75
- No. 750, Snap-On Lens, Complete Unit..... each 3.25
- No. 760, Main Bulb, 4½ Volts..... each .65
- No. 755, Auxiliary Bulb, for No. 700A..... each .13
- No. 729, Clear Lens..... each 1.00
- No. 731, Red, Blue, or Green Lens..... each 1.55
- No. 730, Floodlight Lens..... each 1.40

Justrite All-Purpose Safety Hand Lanterns



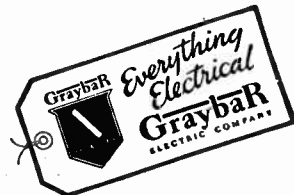
No. 44S is approved by Underwriters' Laboratories, Bureau of Mines and Bureau of Marine Inspection. Uses standard 6-volt battery. Has two bulbs to give either spot or diffused light, and a movable handle. Tilts on base to any angle. Furnished with 3½-inch chrome reflector and glass globe, and globe (lens) guard.

No. 42S has the same features as No. 44S except does not have inner guard for globe (lens).

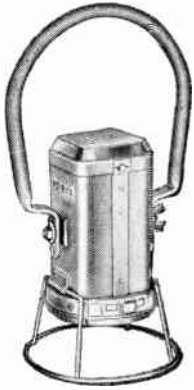
Battery is not included in prices.

No. 44S

- No. 44S, Weight, 3 Pounds..... each \$6.60
- No. 42S, Weight, 2¾ Pounds..... each 6.00



Justrite Railroad Trainman's Lanterns



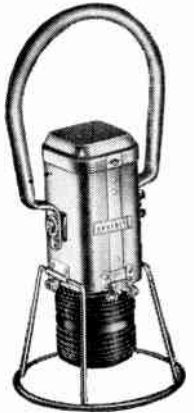
No. 40 uses standard 6-volt battery and bulbs. One bulb is used for spot beam, other bulb extended for ordinary signals. Has reinforced aluminum tubing handle, welded steel guard, and space for two spare bulbs. Furnished with 3½-inch chrome reflector. Weight, 2 pounds.

No. 40W has same features as No. 40 except with glass globe over reflector and no bulb extension feature.

No. 40, Without Battery, less Bulbs.....each \$4.00

No. 40W, Without Battery, less Bulbs.....each 4.60

No. 2171 Justrite Flagman's Red Lanterns



A warning beam, visible in all directions.

Has welded wide-base guard and a movable aluminum handle.

Uses standard lantern battery.

Furnished with 3-inch fresnel globe for two bulbs. Emergency bulb mounted in lantern. Space for two spare bulbs.

Weight, 3½ pounds.

No. 2171-JR, Without Battery, less Bulbs.....each \$6.00

Justrite Flexible-Light Lanterns



Used as headlight, or with light housing on wrist, leg, shoulder strap, or belt. Leaves both hands free.

Uses standard lantern battery.

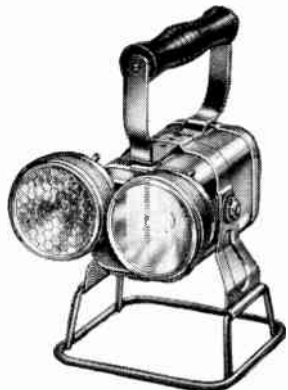
Battery case is carried on shoulder strap and waist belt. Rubber connecting cord.

Weight, 2 pounds.

No. 1955, With Spot Lens, less Battery.....each \$8.00

No. 19H55, With Honeycomb Lens, less Battery.each 8.20

Justrite Inspector's Lanterns



No. 2121

No. 2121 gives wide spread-beam from honeycomb lens, and separate light housing gives spot beam. Uses standard bulb and battery. Tilts on base to any angle. Furnished with two 2½-inch reflectors, interchangeable lens, and separate individual switches. Weight, 2¼ pounds.

No. 2111 has same features as No. 2121 except only one light housing using honeycomb spread beam lens. Weight, 2 pounds.

No. 2121, less Battery.....each \$7.00

No. 2111, less Battery.....each 6.00

No. 42W Justrite Twin-Bulb Hand Lantern



Has two bulbs to give either powerful spot beam and direct light to all sides. Alternate bulb gives brighter beam.

Uses standard lantern battery.

Furnished with 3½-inch chrome reflector; movable, aluminum tubing handle; and glass globe to cover reflector and bulb.

Tilts to any angle on guard-base.

Weight, 2½ pounds.

No. 42W, less Battery.....each \$5.50

Justrite Utility Lanterns



No. 2101. Light housing turns any direction horizontally or vertically.

Has spread-beam honeycomb lens, 2½-inch reflector, and folding handles.

Uses standard lantern battery.

Also furnished with plain lens for "spot" light.

Height, 7¾ inches.

Weight, 1¼ pounds.

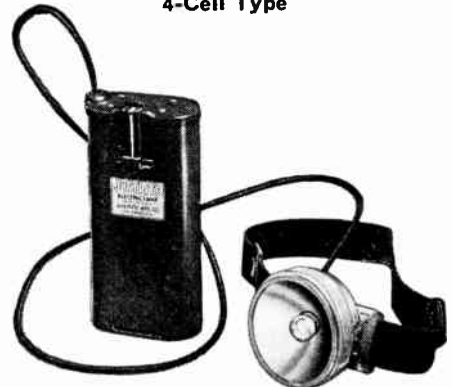
No. 2107 has same features as No. 2101 except bracket for belt instead of handle. Furnished with adjustable belt.

No. 2101, less Battery....each \$5.00

No. 2107, less Battery....each 6.00

No. 1904 Justrite Headlight-Lanterns

4-Cell Type



Has powerful spot beam. Uses 4 flashlight cells. Headpiece straps around cap. Battery case clips on belt. Furnished with 2½-inch polished reflector, 5-volt bulb and spare bulb.

Weight, 1 pound.

No. 1904, less Battery.....each \$5.00

Edison Primary Batteries

Edison Primary Batteries are applicable anywhere; require no battery charging facilities; deliver rated ampere-hour capacities continuously or intermittently at satisfactory voltage; do not lose capacity on open circuit even over long periods; have very low and constant internal resistance; give accurate visual indications of approaching and complete exhaustion; do not freeze; require no attention or maintenance excepting occasional visual inspections between renewals; are easily installed and renewed without expert help.

For either direct operation or as standby batteries where continuous d.c. power supply is extremely important. Standard types adequately and economically meet the low voltage power requirements for: Police, fire and burglar alarms; annunciator systems; elevator signals; stationary engine ignition; industrial, school and scientific laboratory services; marine beacons on fixed structures; program and time clock systems; mine signaling and communication; commercial and railroad telephone services (talking and ringing circuits, operators' transmitters on magneto switchboards, interrupters); telegraph main line and local sounder circuits.

A.C. or D.C. Primary Battery System. For low voltage lighting, control and other d.c. circuits normally fed from commercial power sources and requiring standby batteries to insure uninterrupted operation in emergencies. If normal supply fails, a relay instantly transfers the entire load to an independent and extremely reliable primary battery reserve until normal service is restored. Emergency operation can be maintained indefinitely from the standby battery. Visual indications show reserve capacity available. No current or apparatus needed for battery charging. Visual inspection is only battery maintenance required. This system is the ultimate in dependability, simplicity and economy.

Description. Edison Primary Batteries are zinc, copper-oxide, alkaline electrolyte type. A complete cell consists of: Factory-assembled element of positive and negative plates, can of caustic soda for mixing electrolyte, heat-resisting glass or enameled steel jar, porcelain cover, bottle of battery oil, terminal nuts and washers.

Renewing active materials restores an exhausted cell to full capacity. This simple operation requires only a new element, can of soda and bottle of oil which constitute a renewal. Other parts are permanent. Panels in zinc plates accurately indicate stage of exhaustion. All cells have liberal safety factor. Operating voltage averages 0.6 to 0.65 depending upon discharge rate. Use chart to select proper cells for load requirements.

Medium Duty Cells with 5-Plate Elements



No. M-502



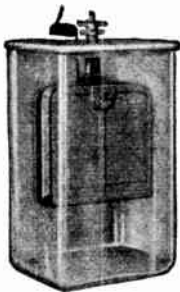
No. M-504

No.	Complete Each	Re-novels Each	Cap. Amp-hr.	Max. Cont. Disch. Amp.	JAR Shape	Overall Dimension Inches
M-501	\$5.35	\$2.80	500	2.25	Glass Round	6 3/4 Diam. x 12 3/4
M-502	5.60	2.80	500	2.25	Glass Rect.	5 3/4 x 6 3/4 x 12 1/4
M-504	5.20	2.80	500	2.25	Glass Barrel	7 Diam. x 11 5/8
M-1002	9.85	5.05	1000	3.50	Glass Rect.	6 1/2 x 8 1/4 x 14 3/4

Light Duty Cells with 3-Plate Elements



No. S-252



No. S-502



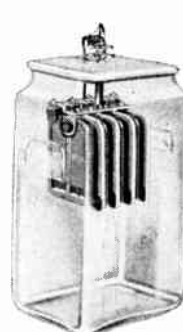
No. S-504

No.	Complete Each	Re-novels Each	Cap. Amp-hr.	Max. Cont. Disch. Amp.	JAR Shape	Overall Dimensions Inches
S-202	\$4.25	\$1.95	200	1.00	Glass Rect.	3 3/8 x 5 1/8 x 11
S-208	4.25	1.95	200	1.00	Glass Round	5 5/8 Diam. x 9 3/4
S-252	4.50	2.10	250	1.00	Glass Rect.	3 3/8 x 5 1/8 x 12
S-305	4.70	2.30	300	1.00	Glass Round	6 3/4 Diam. x 10 1/4
S-501	5.25	2.65	500	1.75	Glass Round	6 3/4 Diam. x 12 3/4
S-502	5.50	2.65	500	1.75	Glass Rect.	5 3/4 x 6 3/4 x 12 1/4
S-504	5.10	2.65	500	1.75	Glass Barrel	7 Diam. x 11 5/8

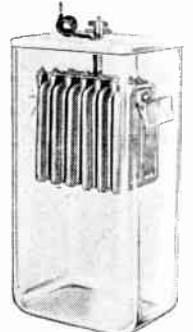
Heavy Duty Cells with 9 and 11-Plate Elements



No. HA-502



No. HA-902



No. HA-1302

No.	Complete Each	Re-novels Each	Cap. Amp-hr.	Max. Cont. Disch. Amp.	JAR Shape	Overall Dimensions Inches
HA-502	\$7.50	\$4.50	500	6.50	Glass Rect.	5 3/4 x 6 3/4 x 12 1/4
HA-902	9.90	5.00	500	12.00	Glass Rect.	6 1/2 x 8 1/4 x 14 3/4
HA-1302	16.00	9.00	1000	20.00	Glass Rect.	6 3/4 x 8 1/2 x 17 3/4
.....
.....
.....

Parts for Edison Primary Batteries

Renewal Parts

Description	No. S-202	No. S-208	No. S-252	No. S-305	No. S-501	No. S-502	No. S-504	No. M-501	No. M-502	No. M-504	No. M-1002	No. HA-502	No. HA-902	No. HA-1302
Assembled Element each	\$1.75	\$1.75	\$1.95	\$2.20	\$2.40	\$2.40	\$2.40	\$2.55	\$2.55	\$2.55	\$4.55	\$4.25	\$4.75	\$8.50
Caustic Soda.....per can	.24	.24	.27	.30	.42	.42	.42	.42	.42	.42	.90	.42	.90	1.00
Special Battery Oil.....per bottle	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10

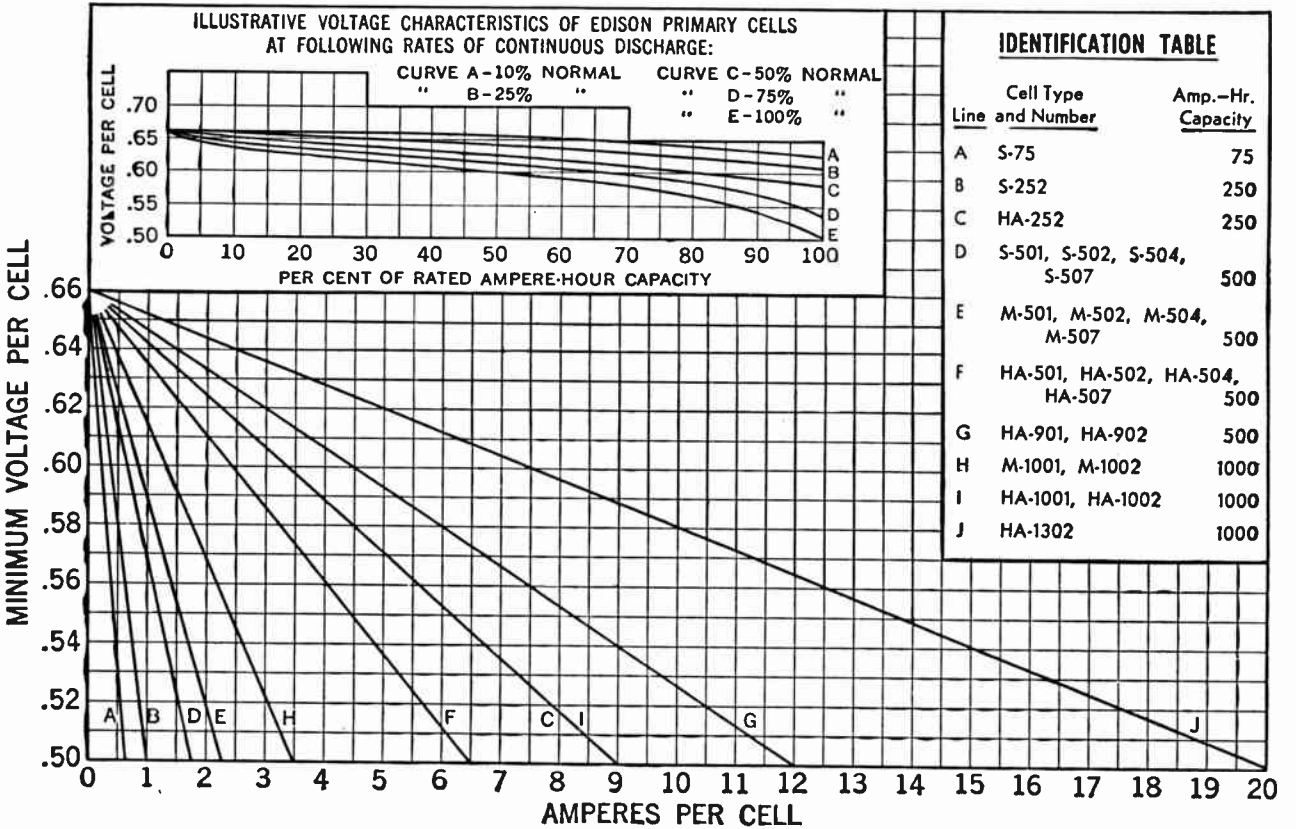
Permanent Parts

HR Glass Jar, Round.....each	\$2.00		\$2.00	\$2.25			\$2.25							
HR Glass Jar, Rect.....each	\$2.00		\$2.10				\$2.50			\$2.50	\$4.70	\$2.50	\$4.70	\$6.25
HR Glass Jar, Barrel.....each							\$2.15			\$2.15				
Porcelain Cover.....each	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55	1.00
Terminal Nuts & Wash- ers (For 1 Cell) per set	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25

Miscellaneous Parts

Large Wing Nuts.....each	\$0.10													
Brass Washers.....each														
Double Connectors.....each														\$0.50
Hexagon Jamb Nuts.....each														\$0.05

How to Select Proper Number and Type of Cells for Direct Operation or Standby



How to Select Cells. With above chart, proper type and number of Edison Primary Cells can be readily determined for a wide range of low voltage d.c. power requirements where the following information is available:

1. Maximum current in amperes required by apparatus cells are to operate. Always base selection on highest current rate, continuous or intermittent.
2. Minimum ampere-hour battery capacity desired.
3. Minimum voltage required at battery. Allow for voltage drop between battery and apparatus due to resistance of line, contacts, etc.

The letters on the sloping lines in the chart refer to the Identification Table which shows the corresponding types, numbers, and capacities of the cells.

Along bottom of chart, locate point which corresponds to maximum current required. From this point, follow a vertical line up to its intersection with first sloping line on which is found a cell having an ampere-hour capacity near-

est to that desired. Cell or cells designated on this line will most economically deliver maximum current needed.

From point where vertical and sloping lines intersect, follow a horizontal line to left hand side of the chart to find voltage of cell. This point on voltage scale shows minimum voltage at which cell will deliver its rated ampere-hour capacity at maximum current it will be called upon to furnish to connected apparatus.

To determine proper number of cells of type selected which should be used in series, divide the minimum cell voltage into the minimum battery voltage required to satisfactorily operate the apparatus.

For applications where cells will be subject to low temperatures for extended periods, detailed service conditions and operating requirements should be submitted for recommendations. This same procedure should also be followed when cells are desired for intermittent service where the maximum discharge will be of only a few seconds duration.

Eveready Air Cell Radio A Batteries



A-2300



A-2600



A-1300

A battery originally developed for owners of radios not on a power line. Has low ampere-hour cost, long service life, no recharging, constant voltage, and no shelf depreciation.

The Nos. A-2300 and A-2600 are for receivers drawing no more than 0.66 (660 milliamperes). No. A-1300 for receivers drawing no more than 0.2 (200 milliamperes).

Uses a liquid electrolyte but is shipped dry. In the dry state it undergoes no shelf depreciation.

Packed 1 in a unit package.

No.	A-1300	A-2300	*A-2600
Each	\$3.50	6.00	8.00
Voltage	1 1/4	2 1/2	2 1/2
For Receivers	1.4	2	2
Capacity	300	300	600
Length	5 1/16	8 1/4	9 29/32
Width	4 11/32	5 5/16	6 19/32
Height	8 5/8	8 5/8	11 13/16
Weight per Unit Pkg.	7	12 1/2	24

*For heavy drain air cell receivers, order with prefix "S."

Eveready Air Cell Batteries



No. T-1600



No. T-2600

For railroad, telephone and industrial use. The low ampere hour cost, long life and sustained voltage make these batteries desirable for telephone and signal work.

Available in two conservatively rated capacities—300 ampere hours and 600 ampere-hours.

Made in single cell units, also in batteries consisting of two cells in series. The average voltage per cell is 1.25 volts, falling to 1.0 volts per cell at the end of their capacity. Uses a liquid electrolyte.

Shipped dry. In the dry state it undergoes no shelf depreciation. Packed one in a standard package.

No.	T-1300	T-2300	T-1600	T-2600
Each	\$3.50	6.00	4.75	8.00
Volts	1 1/4	2 1/2	1 1/4	2 1/2
Capacity	300	300	600	600
Length	5 1/16	8 1/4	5 11/32	9 29/32
Width	4 11/32	5 5/16	6 19/32	6 19/32
Height	8 5/8	8 5/8	11 13/16	11 13/16
Weight per Standard Package	7	12 1/2	13	24

No. 6 Eveready Ignitor Dry Cells



For heavy service in all dry cell applications. Recommended for ignition, radio, bells, buzzers, electric games, toys, lanterns and other battery operated devices. Has patented metal top construction. Protects against leakage and breakage.

Carefully packed from fresh stock and guaranteed to reach destination in perfect condition. Round Jackets, equipped with screw terminals unless Fahnestock spring terminals are specified.

Voltage 1 1/2.

Width 2 5/8 inches.

Height 6 5/8 inches.

Packed 12 in a standard package.

Weight per standard package, 27 pounds.

Prices for west coast somewhat higher.

No. 6.....each \$.65

No. 6 Eveready Columbia Gray Label Telephone Dry Cells



This battery is especially design for telephone work and light-drain service.

Round Jackets only.

Fahnestock spring terminals are furnished unless screw connections are specified.

Voltage, 1 1/2.

Diameter, 2 5/8 inches.

Height, 6 5/8 inches.

Quantity in std. pkg., 25. Approx. wt. of standard package, 58 pounds.

Prices for west coast somewhat higher.

No. 6.....each \$.60

No. 6 Eveready Special Railroad and Industrial Cells



Combines high amperage, heavy service life and light service life. Designed for railroad and industrial use where a wide range of service conditions from extremely heavy to extremely light are encountered.

Round jackets only. Screw connections unless Fahnestock Spring Terminals are specified.

Voltage, 1 1/2; overall diameter, 2 5/8 inches; overall height, 6 5/8 inches.

Packed 25 in a standard package.

Approximate weight of standard package, 62 pounds.

Prices for west coast somewhat higher.

Each\$.70

Eveready Hot Shot Batteries



Cells are connected by soldered copper strips and encased in a single metal container. The advantages of this new type covering are the ability to withstand rough usage, waterproof, thoroughly insulated to prevent internal short circuits and a woven fabric handle for convenience in carrying.

Prices for west coast somewhat higher.

Cat. No.	Each	Voltage	DIMENSIONS, INCHES			Std. Pkg. Quantity	Approx. Wt., Lb. in Box
			Length	Width	Ht.		
1461	\$3.15	6	10 5/8	2 3/4	7 1/4	6	60
1462	3.15	6	5 1/16	5 5/16	7 1/4	4	41
1562	3.80	7 1/2	7 3/8	5	7 1/4	4	52
1662	4.15	9	7 13/16	5 1/4	7 1/4	4	62

No. 746 Eveready A Batteries



For 1.4 volt portable receivers.
For use with Eveready Mini-Max B battery.

A compact power supply unit for portable receivers.

Contains 3 Radio A cells.

Has 2-prong, 4½ volt socket.

Length, 3½ inches; width, 1½ inches; height, 4½ inches.

Packed 6 in a standard package.
Weight per standard package, 7½ pounds.

No. 746..... each \$.75

Eveready Portable Radio A Batteries



1½ Volts

For 1.4 volt radio receivers.

Gives more than double the service of the conventional battery of equal size.

Plug-in socket.



No.	741	742	743
Each.....	\$1.60	.90	1.25
Size.....	3⅞x2¼x5⅜	2⅞x2⅞x4	3⅞x2¼x4½
No. Radio A Cells.....	8	4	6
Std. Package.....	1	6	3
Wt. per Std. Package.....lb.	2¾	8¼	6½

No. 740 Eveready Dry A Batteries for 1.4-Volt Receivers

1½ Volts



Terminals; plug in, -, +1.5.

Dimensions, 4⅞x3⅞x7½ inches.

Packed 1 in a unit package.

Weight per unit package, 6¼ pounds.

No. 740..... each \$3.30

No. 950 Eveready A Batteries for Portable Receivers

1½ Volts

An ideal battery for personal radios.
Terminals; contact. Dimensions, 1¼-inch diameter by 2⅞ inches.

Packed 48 in a unit package. Weight per unit package, 9¾ pounds.

No. 950..... each \$.10



No. X-771 Eveready C Batteries

4½ Volts

Terminals; plug in, +, -3, -4½.

Dimensions, 4½x1⅞x3½ inches.

Packed 5 in a unit package.

Weight per unit package, 4 pounds.

No. X-771..... each \$.75



No. 718 Eveready A Batteries for Portable Receivers

6 Volts



Terminals—plug in, -, +6.

Dimensions, 3½x2¾x5½ inches.

Packed 1 in a unit package.

Weight per unit package, 2¾ pounds.

No. 718..... each \$1.70

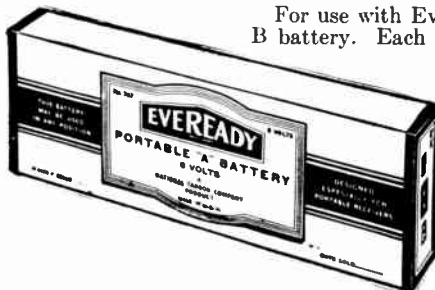
Eveready Portable Radio A Batteries

For use with Eveready Minimax B battery. Each battery contains 8 Radio A cells.

Two-prong socket.

The No. 747 is for a.c. or d.c. portable receivers.

Packed 2 in a unit package.



No.	745	747
Each.....	\$1.70	1.80
Volts.....	1½	6
Size.....inches	3⅞x1⅞x10½	3⅞x1⅞x10½
Weight per Unit Pkg. pounds	5¾	5¾

No. 744 Eveready A Batteries for Portable Receivers

6 Volts



Terminals, -, +6.

Dimensions, 2¼x2¼x3½ inches.

Packed 6 in a unit package.

Weight per unit package, 8½ pounds.

No. 744..... each \$.95

No. 758 Eveready Mini-Max A-B Packs for 1.4-Volt Farm Type Receivers

1½ Volts A; 90 Volts B



Terminals; plug in, -, +1.5; plug in, -, +90.

Dimensions, 10½x4¾x6½ inches.

Packed 1 in a unit package.

Weight per unit package, 15 pounds.

Prices for west coast somewhat higher.

No. 758..... each \$7.50

No. 754 Eveready Mini-Max A-B Packs for 1.4-Volt Portable Receivers 7½ and 9 Volts A; 90 Volts B



Terminals; plug in; -A, +7½A, +9A, -B, +90B.
Dimensions, 10½x3¼x4 inches.
Packed 1 in a unit package.
Weight per unit package, 6½ pounds.

No. 754..... each \$5.45

No. 487 Eveready Mini-Max B Batteries for Farm Type Receivers

45 Volts



Terminals; socket; +22½, +45.
Dimensions, 5½x2½x7¼ inches.
Packed 10 in a unit package.
Weight per unit package, 44 pounds.

No. 487..... each \$2.50

No. 482 Eveready Mini-Max Portable Radio B Batteries

45 Volts



For 1.4 volt portable receivers.
Mini-Max gives more than double the listening hours of a conventional battery of equal size or about the same service life as a conventional battery of twice the size.

Equipped with duplex socket.
Size: length 3½ inches; width 1½ inches; height 5½ inches.
Packed 6 in a standard package.
Wt. per standard package, 11½ lb.

No. 482..... each \$2.15

No. 467 Eveready Mini-Max Radio B Batteries

67½ Volts



For miniature radios.
A new and utterly different construction makes this battery last twice as long as a conventional battery of equal size.

Height, 3¼ inches. Length, 2¼ inches. Thickness, 1¾ inches. Weight, 12 ounces.
Packed 6 to a unit package.

Weight per unit package, 4½ pounds.

No. 467..... each \$2.45

No. 738 Eveready Portable Radio B Batteries

45 Volts

For 1.4 volt radio receivers.

Gives more than double the service of the conventional battery of equal size.

Standard socket.

Size, 3x2½x4¼ inches.

Packed 2 in a unit package.

Weight per unit package, 2¾ pounds.



No. 738..... each \$3.15

No. 768 Eveready C Batteries

Horizontal Type, 22½ Volts



Suitable for portable sets where light weight and small size are essential, and for self-contained sets having battery compartments too small to permit the installation of a larger B battery.

Plug-In type terminals. It has plus, minus 3, minus 4½, minus 16½, minus 22½ terminal markings.

Length, 4½ inches; width, 2½ inches; and height, 2½ inches.

Packed 1 in a standard package.

Weight per standard package 1 pound, 8 ounces.

No. 768..... each \$1.70

No. KS-8089 Dry Battery Gauges



A well made instrument for quickly testing battery life. It is compact, easy to carry and use and is reliable.

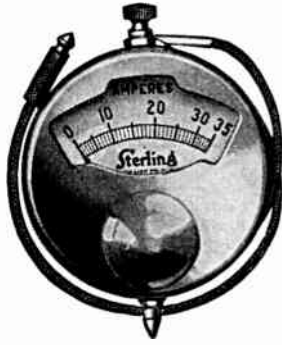
Designed by Bell Telephone Laboratories for use in testing No. 6 dry batteries used in telephone sets. It is manufactured to the specifications of and inspected by Western Electric Company. Has scale markings to show 0, 5, and 50% life remaining in dry batteries with separate scales for 2-cell and 3-cell batteries. Not arranged for testing single cells.

Pocket type, with cloth carrying bag with snap fasteners and equipped with Western Electric W2BM cord. Moving element has jeweled adjustable bearings and also has adjustable stops.

It will be necessary to allow a time interval of at least three minutes between consecutive readings in order to permit the winding to return to approximate room temperature. This instrument will be capable of withstanding a breakdown potential of 110 volts, a.c. applied between the cord clips and the case.

No. KS-8089..... each \$4.25

No. 24 Sterling Pocket Ammeters



This pocket ammeter is universally used for testing dry cells. It has 0-35 ampere scale, 1-ampere divisions.

This is a durable instrument, having correct scale calibration and a clearly marked dial.

Full nickel finish.

Packed in individual boxes and supplied in a standard package containing 10 boxes. Shipping weight, 3 pounds.

No. 24.....each \$1.85

Sterling Pocket Voltammeters



Packed 1 in a box, 10 boxes in standard package. Shipping weight, 3 pounds.

No. 44

Tests amperage of dry cell A batteries and voltage of "Hot Shot" and storage A batteries; 0-35 amp. scale, 1-amp. divisions; 0-10 volt scale, 1/2-volt divisions.

No. 44.....each \$2.50

No. 45

Tests amperage of dry cell A batteries and voltage of either dry or storage B batteries up to 50 volts; 0-35 ampere scale, 1-ampere divisions; 0-50 volt scale, 1-volt divisions.

No. 45.....each \$3.60

No. 38A Sterling Voltmeters For Portable Radio Batteries



For testing 90-volt B batteries and 1.5-volt A batteries.

The flexible terminals, designed to fit any type of socket hole, prevent shorts and permit inclining of meter for convenient reading.

Scale, 0-100 volts, 5-volt divisions. Scale, 0-2 volts, 1/10 volt divisions.

Tests 45-volt and 90-volt B batteries and 1 1/2-volt A batteries.

No. 38A.....each \$3.25

No. 42A Sterling Graphic General Testers

For Portable Radio Batteries



Designed for servicemen and dealers for testing all portable A and B batteries with a single tester.

Red and green color chart for all standard batteries including 45-volt and 90-volt B batteries and 1.5-volt, 4.5-volt, 6-volt and 7.5-volt A batteries.

Flexible terminals for battery protection and convenient reading.

Scale, 0-100 volts for special sizes of B batteries, 5 volt divisions.

No. 42A.....each \$6.00

G-E Tungar Rectifier Bulbs



No. 289881



No. 12x825



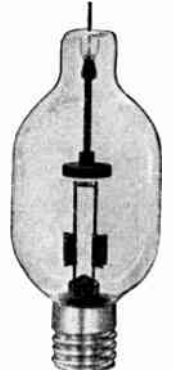
No. 206501



Nos. 99x44
189048
and 189049



No. 217283



Nos. 99x45
and 76x13



No. 199698



No. 20x672



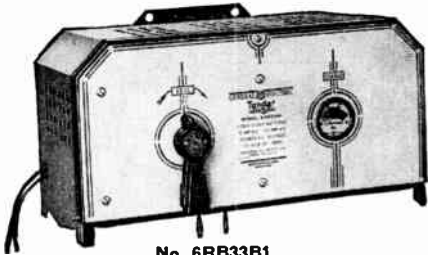
No. 45x674

These bulbs are filled with 99.8 per cent pure Argon gas. This gas undergoes five different additional treatments to remove impurities. Silver-colored magnesium coating on the inside absorbs impurities given off during operation.

No.	Each	RECOMMENDED MAXIMUM OUTPUT, D.C.		Socket No.	Approx. Ship. Wt. Lb.
		Amp.	Volts		
289881	\$4.00	0.5	7.5	278768	5/16
12x825	4.00	2.0	75	278768	5/16
206501	4.00	2.0	75	Std. Edison	5/16
99x44	5.00	6.0	25	217967	9/16
189048	5.00	6.0	60	217967	9/16
189049	5.00	6.0	90	217967	9/16
217283	10.00	15.0	60	217967	1 3/16
99x45	15.00	20.0	25	217967	9/16
199698	\$5.00	Full Wave, Argon 2/0.5 25/30		Std. Edison	5/16
20x672	\$5.00	Half Wave Mercury, Argon 5.0 20		K3778926	3/8
76x13	15.00	20.0 75		217967	1 1/4
16x897	\$8.00	Full Wave, Mercury 2.0 250		M5556072G1	1 3/8
45x674	15.00	6.0 250		M5556072G1	1 5/8

G-E Tungar Battery Chargers

Form A—Autotransformer—Garage Type
No. 6RB33B1—3-18 Cells, 6 Amp.—Half Wave
No. 6RB33B2—3-36 Cells, 6 Amp.—Half Wave
 115 Volt, 60 Cycles



No. 6RB33B1

Recommended for use by repair shops, car dealers, garages, service stations, and tire dealers.

Single dial switch control turns on a.c. and regulates charging rate. Silver-plated a.c. switch contacts for long life and trouble-free service. Fuse protection for battery and Tungar bulb.

Overall dimensions: height, 10½ inches; depth, 7⅝ inches; width, 18½ inches.

Finished in red and white acid-resisting finish.

Shipping weight, 32 pounds.

No.	6RB33B1	6RB33B2
Each.	\$38.00	41.00
With Tungar Bulb No.	189048	189049
Capacity No. of Batteries.	6	12

No. 6RB6B1

3-18 Cells, 12 Amp. or 3-36 Cells, 6 Amp.—Full Wave
 115 Volts, 50/60 Cycles

Recommended for use by garages, service stations and repair shops.

This tungar charges six 6-volt batteries at 12 amperes or twelve 6-volt batteries at 6 amperes or the equivalent.

New, easy-to-read meters. Two plug-in control panels regulate the charging rate to permit charging at a fast or slow rate or a combination of both.

Overall dimensions: height, 20⅞ inches; depth, 9⅝ inches; width, 11½ inches.

Finished with red lacquered case and ivory enameled panel.

Shipping weight, 57 pounds.

Price includes two No. 189048 Tungar bulbs.

No. 6RB6B1.....each **\$77.00**

No. 6RB6B5

3-36 Cells, 12 Amp. or 3-72 Cells, 6 Amp.—Full Wave
 115 Volts 50/60 Cycles

Recommended for use by large garages, fleet owners and super service stations.

This tungar charges twenty-four 6-volt batteries at 6 amperes or twelve at 12 amperes or the equivalent. Provides fast, one-day charging service.

New easy-to-read meters. Charges at a fast rate, slow rate, or a combination of both.

Overall dimensions: height, 20⅞ inches; depth, 9⅝ inches; width, 11½ inches.

Finished with red lacquered case and ivory enameled panel.

Shipping weight, 84 pounds.

Price includes two No. 189049 Tungar bulbs.

No. 6RB6B5.....each **\$89.50**

Similar outfits for other voltage and frequencies are available.

No. 6RC124F4 G-E Battery Chargers

Eighty Deluxe
 105 to 125 Volts, 60 Cycles
 Approved by Underwriters' Laboratories, Inc.



Combines, in a single unit, a fast-charger and a high-rate discharge tester. Substantially charges a normal run-down battery in less than one hour.

Efficient operation and long life are obtained by the use of a copper oxide rectifying element.

A single setting of the charger controls sets the high 80-ampere charging rate for the proper time and then tapers automatically.

Bell alarm sounds if battery is connected in reverse, thus preventing damage to battery or charger.

Precision-type meters measure the charging rate and cell voltages.

High rate discharge battery test equipment is built in.

Equipped with G-E fan-cooled copper oxide rectifier, 10-foot d.c. leads, test leads, and coiling racks for cords.

Plugs into standard outlet agreeing in rating. A.C. current consumption, 10 amperes or approximately 1150 watts under normal conditions. Heavy duty a.c. cord set furnished with each charger. Timing device is a synchronous motor, electric clock to provide automatic shutoff at the exact time predetermined by the time chart on panel.

Coarse and fine switches permit very close adjustment of charging rate. Test harness with 4 pin connectors is included.

Dimensions: height, 29 inches; width, 21 inches; depth, 20 inches. Shipping weight, 150 pounds.

No. 6RC124F4.....each **\$199.50**
 No. K6686126G1, Extra Test Harness.....each **2.50**

No. 6RC156F1 G-E Battery Chargers

One Hundred Deluxe

115 Volts, 60 Cycles



Combines, in a single unit, a fast charger and a high-rate discharge tester.

Has automatically controlled, two-rate charging. Initial high rate of 100 amperes reduces automatically to low, safe, finishing rate when battery is 75 per cent charged.

Bell alarm sounds if battery is connected in reverse thus preventing damage to battery or rectifier.

Retractable, 10-foot charging leads are enclosed in casing when not in use.

Equipped with an efficient and reliable fan-cooled metallic rectifier.

Has high-rate discharge battery test. Voltage reading for individual cell or overall battery is controlled by selector switch. Has additional test

leads for voltage regulator, generator testing, and other necessary voltage tests.

Furnished with G-E precision-type meters.

Plugs into standard outlet and draws only 12 amperes at 115 volts a.c. Heavy duty a.c. cord set is included.

Electric time clock for dependable, two-rate, accurate timing.

Coarse and fine switches permit very close adjustment of charging rate.

Dimensions: height, 37 inches; width, 23½ inches; depth, 18⅝ inches.

Shipping weight, 190 pounds.

No. 6RC156F1.....each **\$249.50**

**G-E Battery Chargers
For Farm and Home Use**

116 Volts, 60 Cycles

A selenium rectifier-type charger, small and light in weight.

Will charge battery without removal from the automobile.

Has automatic tapering charge from maximum rate to lower safe rate as battery becomes fully charged.



Furnished with durable, long a.c. cord with molded-on plug; long d.c. leads with battery clips.

Plugs into standard 115-volt, 60-cycle a.c. outlet.

No. 6RS916A1 (One Day) is for home and general use. Will charge the average run-down car battery in 24 hours or less. Has gray case with blue trim.

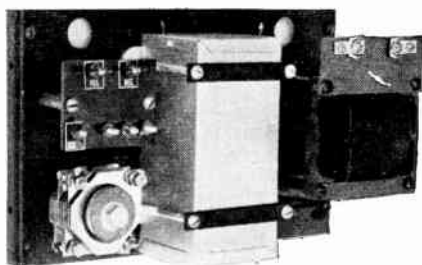
No. 6RS916A2 (Overnite) is for farm use to charge car, truck, and tractor batteries in 12 hours or less. Has gray case with red trim.

No.	Each	Capacity	D.C. Amps.	DIMENSIONS, INCHES			Ship. Wt. Lb.
				Height	Width	Depth	
6RS916A1	\$14.95	3 Cells	7/4	7 1/4	5	5	7
6RS916A2	21.95	3 Cells	12/7	7 1/4	5	6	8

G-E Copper Oxide Battery Eliminator

For Telephone Service

No. 6RC61D4—6 Volts, 0.35 Amp. D.C.
115 Volts, 60 Cycle



Designed to deliver a noiseless d.c. of 6 volts, 0.350 amperes. There is a multitude of applications that come within this rating. A few of them are as follows:

New apartment house interphone systems; replace batteries (dry cell or storage batteries) on existing apartment house interphone systems; school interphone systems that come within rated output of this outfit; to supply power for way station telephones on railroad telephone lines; to supply power for local sounders on railroad telegraph lines—the smooth, humless d.c. obtained from this outfit (oscillograph shows no ripple) is praised by Morse code operators—any general application where d.c. not in excess of the rated output is desired.

This rectifier consists of a copper oxide rectifying unit, transformer and necessary specially constructed filter (condenser and choke coil) all mounted on a steel base plate and enclosed in a rugged casing. Casing has an attractive crystallized green finish, which will not chip or mar.

Terminals are provided to supply a small amount of a.c. at 6, 12 or 18 volts for bell ringing.

Approximate shipping weight, 21 pounds.

No. 6RC61D4.....each \$44.00

G-E Full-Wave Tungars

For Charging Telephone Batteries

Form B—Insulated Transformer—Noiseless Type

No. 6RB6B17—3-24 Cells, 2-12 Amp. with Reactance—
3-36 Cells, 2-12 Amp. without Reactance

115 Volts, 60 Cycles



With External Filter Reactance

This tungar when used in conjunction with No. 3126680 external filter reactance makes an excellent combination for float charging telephone batteries. The wide range of charging obtainable with this combination has made it popular for small, medium, and large size telephone exchanges.

In small and medium size exchanges where motor-generator sets are now in service, this combination tungar and reaction

is often used to supplement the motor-generator set especially during low load periods. This combination is particularly desirable for this purpose during week ends in those exchanges where a charging rate of 12 amperes or less is sufficient. This enables shutting down the motor-generator set and operating during this period at the much higher efficiency obtained from the tungar.

Employs the plug type control which simplifies balancing both sides of the outfit, as a visual indication of the settings on each side is given. An ammeter is provided on each side which further simplifies operation of the outfit.

Two or more outfits are often connected in parallel to obtain charging rates above 12 amperes. The full load efficiency is approximately 74% when used in conjunction with No. 3126680 reactance.

Approximate dimensions: height, 19 7/8 inches; width, 11 1/2 inches; depth, 11 5/8 inches.

Uses two standard 6-ampere tungar bulbs, No. 189049.

Approximate shipping weight, 91 pounds.

No. 6RB6B17.....each \$110.00

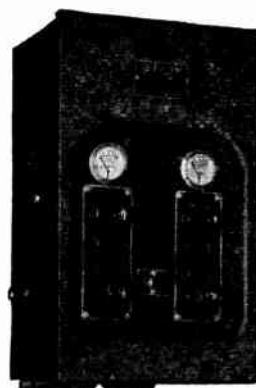
**No. 3126680 External Filter Reactance
for Use with 12-Ampere Full-Wave Tungars**

Used with 12-ampere full-wave tungars.

Height, 10 1/2 inches; width, 6 1/2 inches; depth, 7 3/4 inches.
Shipping weight, 73 pounds.

No. 3126680.....each \$42.00

**No. 6RB6B14—3-12 Cells, 2-12 Amp. with Reactance—
3-18 Cells, 2-12 Amp. without Reactance**



No. 6RB6B14.....each \$81.00

This tungar is similar to No. 6RB6B17, the only difference being in the rated output voltage. When used in combination with No. 3126680 reactance it is adaptable to charging telephone batteries of 3 to 12 cells at an adjustable rate of 2 to 12 amperes. The plug type of control is used and two ammeters are provided. Incorporates all the features of the No. 6RB6B17 outfit.

Approximate dimensions: height, 19 7/8 inches; width, 11 1/2 inches; depth, 9 5/8 inches.

Uses two No. 189048 bulbs.

Approximate shipping weight, 82 pounds.

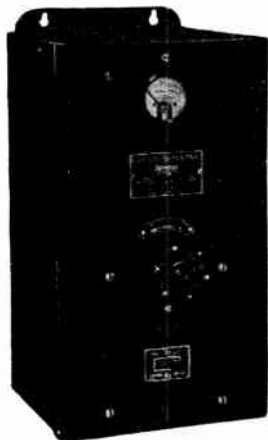
G-E Full-Wave Mercury Tungars

For Charging Telephone Batteries

Form B—Insulated Transformer—Noiseless Type

No. 6RB23C1—9-24 Cells, 2.0-Ampere

115 Volts, 50/60 Cycles



This mercury tungar has slightly lower ampere capacity. It will give full 2.0-ampere charging rate up to 52 battery volts, and tapers to 0.9 amperes at 65 battery volts. Adjustment of the charging rate is obtained by secondary taps brought to a terminal board, in conjunction with a rheostat. A high grade D'Arsonval ammeter is provided to indicate the charging rate. A filter reactance is incorporated as an inherent part of the outfit.

Full-load efficiency, 53%. Power-factor, 86%.

Approximate dimensions: height, 16 $\frac{1}{16}$ inches; width, 9 $\frac{1}{16}$ inches; and depth, 10 $\frac{3}{8}$ inches.

Uses one No. 16X897 bulb.

Approximate shipping weight, 45 pounds.

No. 6RB23C1..... each \$75.00

No. 6RB10C5—9-24 Cells, 6 Ampere

115 Volts, 50/60 Cycles



This outfit is similar to No. 6RB23C1 except for higher current output. It will give full-rated output of 6 amperes from 19 to 52 battery volts. Adjustment of charging rate is by means of secondary taps brought to a terminal board, used in conjunction with a rheostat. An ammeter is provided to indicate charging rate. A smoothing filter reactance is incorporated.

Particularly desirable for small and medium sized exchanges and PBX's which are too large for two or three-ampere outfits and too small for twelve-ampere outfits. It is sometimes recommended for installations where a three-ampere continuous float charge is required, because of the extra capacity that a six-ampere rate allows for boost charging.

Approximate dimensions: height, 17 $\frac{1}{2}$ inches; width, 12 $\frac{1}{8}$ inches; depth, 14 $\frac{1}{8}$ inches.

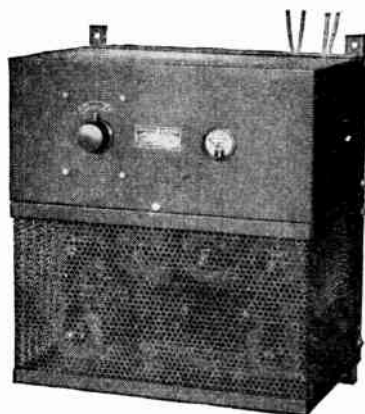
Uses one No. 45X674 bulb.

Approximate shipping weight, 75 pounds.

No. 6RB10C5..... each \$110.00

G-E Copper Oxide Battery Chargers

For Telephone Service



This copper oxide rectifier for telephone service obtains output adjustment over an extremely wide range in very small steps. A new type of variable transformer replaces the conventional transformer taps and resistance commonly used for adjusting. The dial mounted on the front of the cabinet gives perfectly uniform adjustment from zero to full load.

The rectifying unit is a copper oxide assembly, a permanent rectifying device of proven reliability and safety. After the charging rate is adjusted, no other attention is required.

The life of this copper oxide rectifier is practically unlimited. There are no parts to replace. A large number of units have been running on test continuously since 1925.

The efficiency of the rectifier is high since all the adjustment is made with a transformer. This eliminates the losses which occur when a resistance is used to obtain output adjustment.

An internal filter prevents objectionable hum. The filter choke coil and the transformer are vacuum-impregnated with Glyptal. The properties of Glyptal provide maximum mechanical and electrical durability. The rectifier is equipped with a D'Arsonval instrument which gives an accurate indication of the output current.

An attractive black wrinkle-finish casing is designed for maximum practicability and lasting beauty. Because the lower section is perforated it allows free air circulation to cool the unit.

Several different ratings have been standardized so that it is possible to provide a trickle charge for large batteries or a full charge for small batteries.

Model No.	Each	Cells	Amps.	DIMENSIONS, INCHES		
				Height	Width	Depth
6RC98D1	\$90.00	12	1.0	19	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC98D2	100.00	12	2.0	19	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC98D3	112.00	12	3.0	19	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC99D3	125.00	12	4.0	25	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC99D2	135.00	12	5.0	25	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC99D1	148.00	12	6.0	25	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC95D2	190.00	12	8.0	25	20 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC96D7	230.00	12	12.0	31	20 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC98D4	90.00	24	0.5	19	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC98D5	100.00	24	1.0	19	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC98D6	112.00	24	1.5	19	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC99D4	125.00	24	2.0	25	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC99D6	148.00	24	3.0	25	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC100D1	190.00	24	4.0	31	13 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC96D8	210.00	24	5.0	31	20 $\frac{3}{8}$	14 $\frac{7}{8}$
6RC96D9	230.00	24	6.0	31	20 $\frac{3}{8}$	14 $\frac{7}{8}$

G-E Full-Wave Tungars

For Charging Telephone Batteries
Form B—Insulated Transformer—Noiseless Type
No. 244708—11-12 Cells, 0.3-0.5-Ampere
115 Volts, 60 Cycles



A small compact charger designed primarily for continuous trickle charging in a small PBX. A filter reactance is incorporated to prevent objectionable hum in the telephone circuit.

Designed to charge 11 or 12 cells on a variable resistance permits adjusting the charging rate from 0.3 to 0.5 amperes. Full load efficiency, 28%. Power-factor, 78%.

Approximate dimensions: height, 9¹¹/₁₆ inches; width, 6³/₁₆ inches depth, 8³/₄ inches.

Uses one No. 199698 bulb.

Approximate shipping weight, 25 pounds.

No. 244708.....each \$52.00

No. 3049455—9-24 Cells, 1-3-Ampere
115 Volts, 60 Cycles



This Tungar was designed primarily to meet the requirements of intercommunicating systems and PBX's. Extreme flexibility is a feature of this outfit. It can be used wherever a full-wave filtered output is required up to 3 amperes from 19 to 52 battery volts. Six sets of secondary taps brought to a terminal board located just inside the left-hand door, in conjunction with a rheostat controlled from the front panel permit a simple and easy method of adjusting the output over the entire range.

A high grade D'Arsonval ammeter, mounted on the front panel, gives accurate indication of the charging rate. A suitable filter reactance is incorporated in the design, to give quiet operation on telephone batteries.

Will give full 3.0-ampere charging rate at 52 battery volts, and taper to 1.75 amperes at 65 battery volts. Full load efficiency, 48%. Power-factor, 92%.

Approximate dimensions: height, 17¹/₂ inches; width, 12¹/₂ inches; depth, 14³/₈ inches.

Uses 2 No. 12X825 bulbs.

Approximate shipping weight, 88 pounds.

No. 3049455.....each \$112.00

G-E Copper Oxide Battery Chargers

For General Applications

***115 Volts, 60 Cycles, A.C.**



This battery charger is available for charging all types of storage batteries, large or small. Once the charger is installed no other attention is required except an occasional adjustment to the charging rate.

Can be used wherever there is a battery to be charged: central and sub-station control batteries; emergency lighting batteries in central stations, hospitals, stores, theaters and manufacturing plants; telephone batteries in schools, industrial plants, offices, small exchanges and annunciator systems; alarm batteries for police and fire alarms, burglar alarms, industrial protective alarms and call systems; batteries operating starters on gasoline and diesel engines; industrial truck batteries, etc.

No.	Each	No. of Cells	Battery Voltage	D.C. AMPERES		APPROX. DIMENSIONS, IN.		
				Max.	Min.	Height	Width	Depth
6RC75A1	\$32.00	6-9	12-22.5	0.1	0.01	13	6 ¹ / ₂	8 ³ / ₄
6RC49A15	44.00	6-9	12-22.5	0.5	0.04	10 ⁷ / ₈	11 ⁷ / ₈	9 ¹ / ₄
6RC49A16	50.00	6-9	12-22.5	1.0	0.08	10 ⁷ / ₈	11 ⁷ / ₈	9 ¹ / ₄
6RC49A20	56.00	6-9	12-22.5	2.0	0.16	10 ⁷ / ₈	11 ⁷ / ₈	9 ¹ / ₄
6RC98A1	77.00	2-12	4-30	1.0	0	19	13 ³ / ₈	14 ⁷ / ₈
6RC98A2	87.00	2-12	4-30	2.0	0	19	13 ³ / ₈	14 ⁷ / ₈
6RC98A3	99.00	2-12	4-30	3.0	0	19	13 ³ / ₈	14 ⁷ / ₈
*6RC99A3	110.00	2-12	4-30	4.0	0	25	13 ³ / ₈	14 ⁷ / ₈
*6RC99A2	120.00	2-12	4-30	5.0	0	25	13 ³ / ₈	14 ⁷ / ₈
*6RC99A1	130.00	2-12	4-30	6.0	0	25	13 ³ / ₈	14 ⁷ / ₈
*6RC95A2	168.00	2-12	4-30	8.0	0	25	13	14 ⁷ / ₈
*6RC96A1	208.00	6-12	12-30	12.0	0	31	20 ³ / ₈	14 ⁷ / ₈
6RC75A2	35.00	10-16	20-40	0.1	0.01	13	6 ¹ / ₂	8 ³ / ₄
6RC49A17	50.00	10-16	20-40	0.5	0.05	10 ⁷ / ₈	11 ⁷ / ₈	9 ¹ / ₄
6RC49A18	58.00	10-16	20-40	1.0	0.08	10 ⁷ / ₈	11 ⁷ / ₈	9 ¹ / ₄
6RC98A4	77.00	13-24	26-60	0.5	0	19	13 ³ / ₈	14 ⁷ / ₈
6RC98A5	87.00	13-24	26-60	1.0	0	19	13 ³ / ₈	14 ⁷ / ₈
6RC98A6	99.00	13-24	26-60	1.5	0	19	13 ³ / ₈	14 ⁷ / ₈
*6RC99A4	110.00	13-24	26-60	2.0	0	25	13 ³ / ₈	14 ⁷ / ₈
*6RC99A6	130.00	13-24	26-60	3.0	0	25	13 ³ / ₈	14 ⁷ / ₈
*6RC100A1	168.00	13-24	26-60	4.0	0	31	13 ³ / ₈	14 ⁷ / ₈
6RC96A8	180.00	13-24	26-60	5.0	0	31	20 ³ / ₈	14 ⁷ / ₈
6RC96A9	208.00	13-24	26-60	6.0	0	31	20 ³ / ₈	14 ⁷ / ₈
6RC75A3	40.00	17-25	34-62	0.1	0*01	13	6 ¹ / ₂	8 ³ / ₄
6RC49A19	45.00	17-25	34-62	0.5	0.04	10 ⁷ / ₈	11 ⁷ / ₈	9 ¹ / ₄
6RC74A3	65.00	17-25	34-62	1.0	0.08	11 ³ / ₈	18	11 ¹ / ₄
6RC74A8	78.00	25-35	50-88	1.0	0.08	11 ³ / ₈	18	11 ¹ / ₄
6RC75A5	50.00	40-66	80-165	0.1	0.01	13	6 ¹ / ₂	8 ³ / ₄
6RC74A2	85.00	40-66	80-165	0.5	0.04	11 ³ / ₈	18	11 ¹ / ₄

*These numbers are for 50/60 cycles, 115 volts.

G-E No. 6RB10Y5 60-Cell Full Wave Tungars

For 55 to 66 Cells, 3 to 6 Amperes
115 Volts, 60 Cycles



Recommended for charging 55-66-cell control batteries in central stations, sub-stations, etc.

The charging rate is adjustable from 3 to 6 amperes at 120-battery volts; 1.5 to 6 amperes at 150-battery volts; and tapers to 3 amperes at 175-battery volts.

May be mounted on switchboard, above or behind it, or in any out-of-the-way corner.

The full-wave Tungar bulb requires only a short period of time for heating the filament and then it starts rectifying as soon as the load is placed on the outfit.

Can be depended on to operate 24 hours a day with practically no attention. There are no moving parts to wear, which minimizes maintenance costs. The battery cannot discharge through the bulb in the event of power failure; and these outfits will automatically start charging again when a.c. power returns.

Battery volts, 120/150/175. Charging amperes, 6/6/3. Overall dimensions: height, 17½ inches, width, 12½ inches; depth, 14¾ inches.

Renewal tungar bulb: No. 45X674.

Approximate shipping weight, 95 pounds.

No. 6RB10Y5.....each **\$164.00**

Renewal Tungar Bulb, No. 45X674.....each **15.00**

Similar outfits for other voltages and frequencies are available.

G-E No. 6RB19Y2 Full Wave Tungars

For Charging Clock, Signal, Control Batteries, Etc.

Form B—Insulated Transformer

6 Cells, 6 or 12 Ampere
115 Volts, 60 Cycles



A charger used for charging 6-cell (12-volt) batteries, or it may be used to charge two 3-cell batteries. A snap of the tumbler switch changes the charging rate from 6 to 12 amperes. No other adjustment of the charging rate is provided, since it is generally not required on applications where this outfit is used. Two of these outfits are often connected in parallel to obtain a charging rate of 24 amperes at 12 volts.

Highly recommended for use in fire stations for fire apparatus batteries. Also used with No. 3126680 reactance to float charge telephone batteries.

Approximate dimensions: height, 11 inches; width, 9¾ inches; depth, 11¼ inches.

Uses two No. 189048 bulbs.

Approximate shipping weight, 43 pounds.

No. 6RB19Y2.....each **\$62.00**

G-E 60-Cell Full Wave Tungars

115 Volts, 60 Cycles

These instruments are designed specially for float charging 60-cell control batteries in central stations, sub-stations, industrial plants, etc.

Designed to meet the exacting requirements of central station engineers, making it possible to replace present charging equipment for control batteries with highly efficient, quiet operating chargers.

No. 6RB22Y2

55-66 Cells, 0.4-2 amp.



Incorporates micrometer adjustment of the charging rate, which is easily controlled from front panel.

The maximum charging rate of 2.0 amperes may be obtained at 120 or 150-battery volts, and tapers off slightly at 175-battery volts. A charging rate as low as 0.4 ampere at 120-battery volts can be obtained.

Battery volts, 120/150/175. Charging amperes, 2.0/2.0/0.75. Overall dimensions: height, 14 inches; width, 10¾ inches; depth, 11¾ inches. Approx.

shipping weight, 58 pounds.

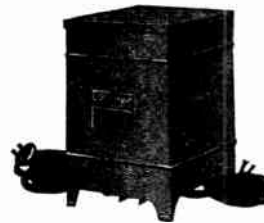
Renewal tungar bulb: No. 16X897.

No. 6RB22Y2.....each **\$125.00**

Renewal Tungar Bulb, Cat. No. 16X897.....each **8.00**

No. 6RB14Y1

55-66 Cells, 0.4-8 amp.



Used primarily for trickle charging where there is a very small load or no load on the battery. It is arranged for wall, panel, or bench mounting.

Where this charger is to be used, the charging rate is usually predetermined; and once the charging rate has been set, no further adjustments are necessary, consequently, the outfit is supplied without instruments.

Designed to deliver a tapering charge which tapers from 0.8 ampere at 120-battery volts to 0.4 ampere at 175-battery volts. A cover on the top gives easy access to the bulb.

Battery volts, 120/150/175. Charging amperes, 0.8/0.6/0.4. Overall dimensions: height, 9¼ inches; width, 6 inches; depth, 7¾ inches. Approx. shipping weight, 32 pounds.

Renewal tungar bulb: No. 16X897.

No. 6RB14Y1.....each **\$42.00**

Renewal Tungar Bulb, Cat. No. 16X897.....each **8.00**

No. 6RB10Y3

55-66 Cells, 1.75-6 amp.



Simple, sturdy construction. An outfit for applications, which do not require extra refinements or capacity.

It is usually used where there is a voltmeter available on the switchboard for indicating the battery voltage, and consequently is supplied without a voltmeter.

Although there is some adjustment of the charging rate provided, this is primarily a tapering charger. The charging rate starts at 6 amperes at 120-battery volts and tapers to 1.75 amperes at 175-battery volts.

Battery volts, 120/150/175. Charging amperes, 6.0/3.0/1.75. Overall dimensions: height, 17½ inches; width, 12½ inches; depth, 14¾ inches. Approx. shipping weight, 95 pounds.

Renewal tungar bulb: No. 45X674.

No. 6RB10Y3.....each **\$120.00**

Renewal Tungar Bulb, Cat. No. 45X674.....each **15.00**

Similar outfits for other voltages and frequencies are available.

G-E Constant Potential Full Wave Mercury Tungars

Form B—Insulated Transformer

No. 6RB3E4, 115-Volt, 2.0-Ampere and
No. 6RB3E8, 230-Volt, 2.0 Ampere

115 Volts, 60 Cycles



No. 6RB3E4

This mercury Tungar rectifier is a constant potential device, designed specifically for operating electro-magnetic devices, such as solenoids, magnetic clutches, magnetic brakes, magnetic chucks, etc. It is also used extensively to operate small d.c. motors, card punching machines and innumerable other d.c. devices where power requirements are 2 amperes or less at 115 volts, d.c.

Furnished in a neat, strong, welded steel casing with two hinged doors allowing easy access to bulb and transformer. A double-pole tumbler switch mounted on the front panel breaks both sides of the a.c. line. Outfit is arranged for wall or panel mounting.

Approximate dimensions: height, 11 inches; width, 9³/₁₆ inches.

Uses one No. 16X897 bulb.

Approximate shipping weight, 60 pounds.

Cat. No.	6RB3E4	6RB3E8
Each	\$50.00	65.00
Depth	11 ¹ / ₄ inches	14 ¹ / ₄

No. 6RB10E1, 115-Volt, 6-Ampere and
No. 6RB10E3, 230-Volt, 6-Ampere

115 Volts, 50/60 Cycles



No. 6RB10E1

This outfit is similar to the above outfit, except that it has a capacity up to 6 amperes. The applications are about the same. The output voltage regulation is well within the usual commercial allowance of 10% from no load to full load.

Approximate dimensions: height, 17¹/₂ inches; width, 12¹/₂ inches; depth, 14¹/₈ inches.

Uses one No. 45X674 bulb.

Approximate shipping weight, 95 pounds.

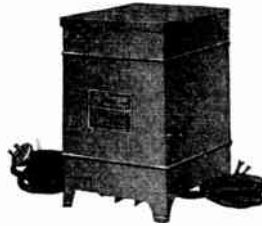
Cat. No.	6RB10E1	6RB10E3
Each	\$100.00	120.00

G-E Half Wave Tungars

For Charging Clock, Signal, Control Batteries, Etc.

Form B—Insulated Transformer
115 Volts, 60 Cycles

No. 204170—9-12 Cells, 0.5-2.5-Ampere



Nos. 204170 and 199717

A simple, compact, half-wave outfit designed to charge from 9 to 12 cells at an adjustable rate 0.5 to 2.5 amperes. Adjustment is obtained by means of two secondary taps used in conjunction with a 6-ohm resistance.

Supplied in a neat casing arranged for wall, panel, or bench mounting. A hinged cover allows easy access to bulb, resistance and transformer. No instruments are provided, since

they are not generally required on applications where this outfit is used.

Full-Load efficiency, 55%. Power-factor, 50%.
Approximate dimensions: height, 9¹/₁₆ inches; width, 6³/₁₆ inches; depth, 8³/₄ inches.

Uses one No. 195528 bulb.
Approximate shipping weight, 25 pounds.
No. 204170 each \$47.00

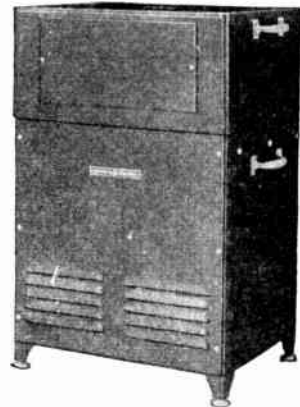
No. 199717—16-24 Cells, 0.5-2.5-Ampere

This tungar is similar in construction to No. 204170, except it has a wider d.c. voltage range. Three taps on the secondary, in conjunction with an adjustable resistance, provide full adjustment of charging rate from 0.5 to 2.5 amperes at 40, 50, or 60-battery volts. Very liberally designed throughout. Will charge up to 75 volts at 1.5 amperes.

Full-load efficiency, 60%. Power-factor, 50%.
Approximate dimensions: height, 9¹/₁₆ inches; width, 6³/₁₆ inches; depth, 8³/₄ inches.

Uses one No. 189049 bulb.
Approximate shipping weight, 29 pounds.
No. 199717 each \$48.00

G-E No. 6RC138F4 General Purpose Copper Oxide Rectifiers



This type rectifier has been used successfully for several years in motion picture projection service.

Conservatively rated 1 kw. continuous output at 110 to 115 volts, d.c. For intermittent duty, where the duty cycle does not exceed 20 minutes per hour, it may be safely rated 1.5 kw. at 110 to 115 volts, d.c.

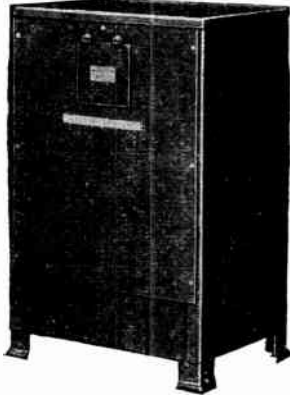
Line taps are provided for a range of line voltage from 190 to 250. May be operated in parallel where the load conditions exceed the rating of a single unit.

Rated d.c. output: 110-115 volts, 10 amperes.

Dimensions: height, 33³/₈ inches; width, 21¹/₂ inches; depth, 16 inches.

No. 6RC138F4 each \$250.00

No. 500 G-E Plating Rectifiers



A complete unit which consists of transformers, copper-oxide stacks, ventilating fan, contactor, and auxiliary equipment.

Made of heavy steel with acid-resistant wrinkle finish.

Has removable front panel for access to all parts.

Transformers are vacuum-impregnated with insulating varnish, and the copper-oxide stacks are varnish-dipped to resist corrosion. A fan provides an even flow of air around the stacks and transformers.

Available in two output ratings: 6 volts, 500 amperes or 12 volts, 250 amperes. Higher output ratings may be obtained by connecting two or more rectifiers in series, parallel, or series-parallel. No 500 is normally used with a G-E manual On-Load voltage control to regulate tank voltage. However, if automatic voltage control is desired, the On-Load control is recommended.

Fuse Capacity

No. of Rectifiers	A.C. Volts		No. of Rectifiers	A.C. Volts	
	230	440		230	440
1	20	10	5	80	40
2	40	20	6	90	45
3	50	25	7	110	60
4	70	40	8	125	60

For multiple rectifier installations, multiply the fuse sizes by the number of rectifiers for proper fusing.

230 Volts, 60 Cycles, 3-Phase

D.C. Volts	No. of Rectifiers	Maxi. of D.C. Amps	Rectifier		Control		Method of Connecting Rectifiers	Rectifier and Control Ship. Wt., Lb.
			No.	Each	No.	Each		
1-6	500	1	6RCI20F1	1	3126760G12	1	Series	710
1-6	1000	2	6RCI20F1	1	3126760G15	1	Parallel	1310
1-6	1500	3	6RCI20F1	1	3126760G15	1	Parallel	1795
1-6	2000	4	6RCI20F1	1	3126760G17	1	Parallel	2370
2-12	250	1	6RCI20F3	1	3126760G12	1	Series	710
2-12	500	2	6RCI20F1	1	3126760G15	1	Series	1310
2-12	750	3	6RCI20F3	1	3126760G15	1	Parallel	1795
2-12	1000	4	6RCI20F1	1	3126760G15	1	Series-Par.	2370
3-18	500	3	6RCI20F1	1	3126760G15	1	Series	1795
4-24	250	2	6RCI20F3	1	3126760G16	1	Series	1310
4-24	500	4	6RCI20F1	1	3126760G17	1	Series	2370
4-24	1000	8	6RCI20F1	2	3126760G17	1	Series-Par.	4740
4-42	500	7	6RCI20F1	2	3126760G17	1	Series	4165
8-48	250	4	6RCI20F3	1	3126760G17	1	Series	2370
4-48	500	8	6RCI20F1	2	3126760G17	1	Series	4740

440 Volts, 60 Cycles, 3-Phase

1-6	500	1	6RCI20F2	1	3126761G12	1	Series	710
1-6	1000	2	6RCI20F2	1	3126761G15	1	Parallel	1310
1-6	1500	3	6RCI20F2	1	3126771G15	1	Parallel	1795
1-6	2000	4	6RCI20F2	1	3126761G17	1	Parallel	2370
2-12	250	1	6RCI20F4	1	3126761G12	1	Series	710
2-12	500	2	6RCI20F2	1	3126761G15	1	Series	1310
2-12	750	3	6RCI20F4	1	3126761G15	1	Parallel	1795
2-12	1000	4	6RCI20F2	1	3126761G17	1	Series-Par.	2370
3-18	500	3	6RCI29F2	1	3126761G15	1	Series	1795
4-24	250	2	6RCI20F4	1	3126761G15	1	Series	1310
4-24	500	4	6RCI20F2	1	3126761G17	1	Series	2370
4-24	1000	8	6RCI20F2	2	3126761G17	1	Series-Par.	4740
4-42	500	7	6RCI20F2	2	3126761G17	1	Series	4165
8-48	250	4	6RCI20F4	1	3126761G17	1	Series	2370
4-48	500	8	6RCI20F2	2	3126761G17	1	Series	4740

When ordering, specify d.c. voltmeter and ammeter ratings for controls.

No. 300 G-E Plating Rectifiers



A complete unit which consists of transformers, copper-oxide stacks, ventilating fan, contactor, and auxiliary equipment.

Transformers are vacuum-impregnated with insulating varnish, and the copper-oxide stacks are varnish-dipped to resist corrosion. An even flow of air around the copper-oxide stacks and transformers is maintained by a ventilating fan which brings the air in at the bottom of the rectifier and out through the top section.

Available with two output ratings: 6 volts, 300 amperes, or 12 volts, 150 amperes. The 6-volt model is suited to small tanks used for cadmium, zinc, chrome, or other still-plating applications. The 12-volt model is used for barrel plating and cleaning. Higher output ratings required by individual tanks can be obtained by connecting two or more rectifiers in series, parallel, or series-parallel. These are normally used with the G-E On-Load manual voltage control.

On-Load, hand-operated voltage control, with coarse and fine handles and START and STOP push buttons, provides adjustment of rectifier output to the tank. This On-Load control is designed with an overvoltage relay which automatically protects the rectifier or bank of rectifiers and the plating tank from application of excess voltage.

Has acid-resistant wrinkle finish.

Fuse Capacity

No. of Rectifiers	A.C. Volts		No. of Rectifiers	A.C. Volts	
	230	440		230	440
1	15	10	5	60	30
2	25	15	6	60	30
3	40	20	7	70	40
4	50	25	8	80	40

For multiple rectifier installations, multiply the fuse sizes by the number of rectifiers for proper fusing of the equipment.

230 Volts, 60 Cycles, 3-Phase

D.C. Volts	No. of Rectifiers	Maxi. of D.C. Amps	Rectifier		Control		Method of Connecting Rectifiers	Rectifier and Control Ship. Wt., Lb.
			No.	Each	No.	Each		
1-6	300	1	6RCI38F11	1	3126760G11	1	Series	505
1-6	600	2	6RCI38F11	1	3126760G12	1	Parallel	865
1-6	1200	4	6RCI38F11	1	3126760G15	1	Parallel	1620
2-12	150	1	6RCI38F13	1	3126760G11	1	Series	505
2-12	300	2	6RCI38F11	1	3126760G12	1	Series	865
2-12	300	2	6RCI38F13	1	3126760G12	1	Parallel	865
3-18	300	3	6RCI38F11	1	3126760G15	1	Series	1300
4-24	150	2	6RCI38F13	1	3126760G12	1	Series	865
4-24	300	4	6RCI38F11	1	3126760G15	1	Series	1620
7-42	300	7	6RCI38F11	1	3126760G17	1	Series	2670
8-48	150	4	6RCI38F13	1	3126760G15	1	Series	1620

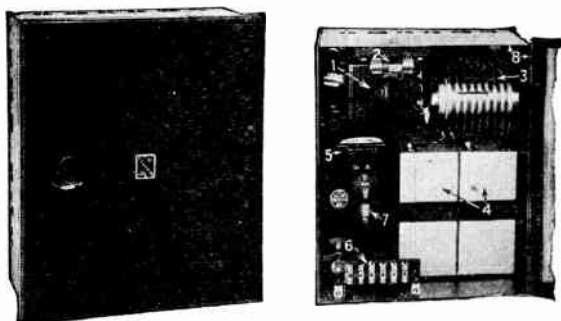
440 Volts, 60 Cycles, 3-Phase

1-6	300	1	6RCI38F12	1	3126761G11	1	Series	505
1-6	600	2	6RCI38F12	1	3126761G12	1	Parallel	865
1-6	1200	4	6RCI38F12	1	3126761G15	1	Parallel	1620
2-12	150	1	6RCI38F14	1	3126761G11	1	Series	505
2-12	300	2	6RCI38F12	1	3126761G12	1	Series	865
2-12	300	2	6RCI38F14	1	3126761G12	1	Parallel	865
3-18	300	3	6RCI38F12	1	3126761G15	1	Series	1300
4-24	150	2	6RCI38F14	1	3126761G12	1	Series	865
4-24	300	4	6RCI38F12	1	3126761G15	1	Series	1620
7-42	300	7	6RCI38F12	1	3126761G17	1	Series	2670
8-48	150	4	6RCI38F14	1	3126761G15	1	Series	1620

When ordering, specify d.c. voltmeter and ammeter ratings for controls.

Edwards Telephone Rectifiers

For 110-130 Volts, 50-60 Cycles, A.C.



Edwards rectifying units consist of transformer, full-wave copper-oxide rectifier, filter condensers, chokes and fuses completely assembled in metal cabinet.

In the units for general signaling use, chokes and filter condensers are omitted, but otherwise they are identical.

All connections are plainly marked.

Large installations, or those where 120-volt service is not thoroughly dependable, often require an emergency storage battery. For this service, Edwards units can be equipped with a variable charging resistor, and, where necessary, an auxiliary relay to automatically transfer from rectifier to storage battery.

Standard finish of cabinet, olive green.

For Intercommunicating Systems

No.	924	926
D.C. Required for Talking... volts	6	24
A.C. Required for Ringing... volts	6-12-18-24	6-12-18-24

For Manual Switchboard Telephone Systems

Requires 24 volts d.c. for talking and ringing.

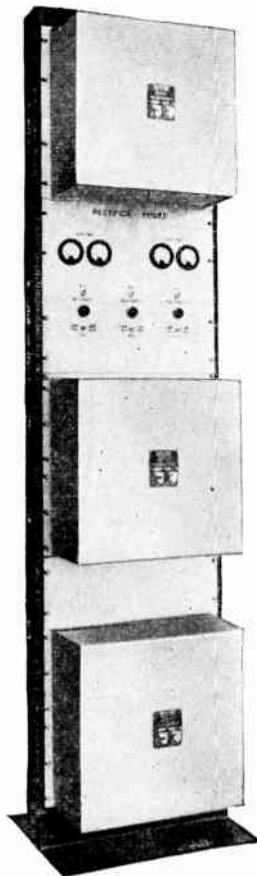
Cord Pairs in use, 1-5, 5-10, 10-20.

No.	923	924	926
Each.	\$120.00	60.00	175.00
D.C. Volts No Load	7.5	9.5	31.0
D.C. Volts Full Load Rating:			
Continuous.	3.5	7.5	26.0
Intermittent.	2.5	6.0	24.0
D.C. Amperes Full Load Rating:			
Continuous	1.0	.35	.35
Intermittent	1.5	.5	.5
A.C. Volts No Load	8-12-16-20-24	8-12-16-20-24	8-12-16-20-24
A.C. Watts Full Load Rating:			
Continuous	50	50	50
Intermittent.	100	100	100

Standard units are for use on 110-130 volts, 50-60 cycles a.c. For 25 cycles, add 25 per cent to prices.

Fansteel Selenium Rectifiers

For Railway Communications Service



Catalog 1937 Fansteel D.C. Power System consisting of three rectifiers and power control panel for 160-volt, 5-ampere d.c. supply to two telegraph line or printer circuits.

Fansteel Selenium Rectifier power units and battery chargers are supplied in standard or custom-built models for every direct current supply requirement in railway telegraph or telephone service.

Power Units for Line Service

are supplied for wall or standard 19-inch relay rack mounting to furnish filtered direct current without battery to telegraph line, printers, perforators, re-perforators or distributor transmitter machine circuits. Output voltage is adjustable.

Power Units for Local Circuits

eliminate batteries, supplying filtered direct current for local or "sounder" circuits. Output voltage is adjustable.

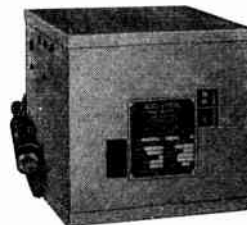
Telephone Battery Chargers

are supplied for central switchboard or P.B.X. batteries at maximum charging rates ranging from 500 milliamperes to 12 amperes. They are designed to be connected to the battery continuously, all noise being eliminated by the filter network. When properly adjusted to the average load, they will not overcharge the battery. Coarse and fine adjustment switches and d.c. ammeters are provided on all standard models, which are assembled in steel housings for wall mounting.

Battery-Rectifier Power Supply

for dispatchers' transmitters, other local telephone circuits, alarms, annunciators and other low voltage equipment, consists of a small storage battery and full wave filtered rectifier assembled into a steel cabinet for wall mounting. In operation, the rectifier is connected into an a.c. supply, charging the battery continuously at slightly more than the average circuit load. Supplied in 4, 6 and 8-volt models, regular duty or heavy duty with batteries of sufficient rating to permit long periods of operation when the a.c. supply is off.

Dependable Performance is built into every rectifier power unit or battery charger made by Fansteel Metallurgical Corporation. Rugged, heavy duty selenium rectifier stacks, built for long years of service, are made in the Fansteel plant under high standards of scientific quality control. All other components are made or selected under equally high standards. All equipment is designed by trained engineers well versed in the requirements of railway communications service.



Catalog 1312-P Heavy Duty Battery Rectifier Power Supply Consisting of 6-volt, 10.4 ampere-hour battery and 0.75 ampere selenium rectifier with filtered output for dispatchers' transmitters and other low voltage service.

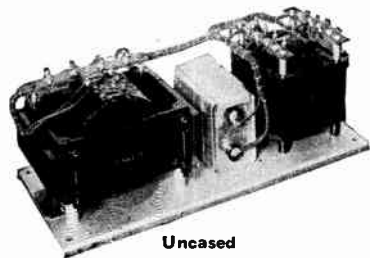
How to Order: Specify intended use, a.c. line voltage and frequency, d.c. output volts and amperes (or number and type of cells of battery). For custom-built equipment, ask for Form 247. For complete references, ask for Fansteel Bulletin RDP-109.

Raytheon Voltage Stabilizers

Input, 95-130 Volts, 60 Cycles, Single Phase;
Output, 115 Volts, Plus or Minus ½%



Cased



Uncased

Constant a.c. voltage is essential for effective operation of many electrical devices. When voltage stabilizer is built into products as original equipment, its simplicity and unique freedom from adjustments eliminate manual voltage adjustments in completed assembly.

Well suited for laboratory use a sit eliminates the variations introduced by changing line voltage.

All branches of the electrical communications industry use the voltage stabilizer extensively. Amplifiers used in talking motion pictures, radio transmitters, sound recording equipment, and telephone apparatus operate most effectively with a constant voltage input. May be made for any output voltage or for several different output voltages, all stabilized, single phase only. Also made for operating devices where inherent limitations of standard type may not be suitable.

Wherever correct operation of synchronous electric clocks is obtained, the voltage stabilizer will meet its specifications. If frequency varies, so that correct operation of synchronous electric clocks is not obtained, write for recommendations giving the change in frequency expected. Standard stabilizer is adjusted to operate with a unity power factor load. If load is materially less than unity, adjustment can be made at factory to suit.

30 to 300 Watts

60 Cycle—Input 95-130 Volts—Output 115 Volts—Single Phase

No.	Each	Output Watts	DIMENSIONS, INCHES			Weight Pounds
			Length	Width	Height	
VH611	\$26.00	30	6	3 ³ / ₁₆	4 ¹ / ₂	8
VH621	26.00	35	6	3 ³ / ₁₆	4 ¹ / ₂	8
VH622	31.00	75	7 ¹ / ₄	4	5 ³ / ₁₆	12
VH623	39.00	150	8 ⁹ / ₁₆	4 ³ / ₄	6 ⁵ / ₁₆	20
VH624	57.00	300	10 ¹ / ₂	6	7 ¹ / ₁₆	35

500 to 2000 Watts

60 Cycle—Input 95-130 Volts—Output 115 Volts—Single Phase

No.	Each	Output Watts	Length	Width	Height	Weight Pounds
VR-5	\$82.00	500	12 ¹ / ₂	9 ⁹ / ₁₆	8 ¹ / ₂	70
VR-6	170.00	1000	14	14 ³ / ₄	11 ⁷ / ₈	140
VR-7	241.00	2000	16 ³ / ₈	14 ³ / ₄	11 ⁷ / ₈	200

4 KVA to 12 KVA Models—4000 to 12,000 Watts

60 Cycle—Input 190-260 Volts—Output 230 Volts

No.	Each	Output Watts	Length	Width	Height	Weight Pounds
VL6404	†	2000	.....	.....	28	500
VL6406	6000	.....	.....	35	675
VL6408	8000	.....	.....	40	850
VL6410	10,000	.....	.....	52	1025
VL6412	12,000	.....	.....	52	1200

No. VR7A

60 Cycle—Input 190-260 Volts—Output 220-230 Volts

No.	Each	Output Watts	Length	Width	Height	Weight Pounds
VR7A	\$240.00	2000	16 ³ / ₈	14 ³ / ₄	11 ⁷ / ₈	200

*May be connected for either 115 or 230 volts at the factory in any combination of input and output voltage, i.e.: 95-130-volt input, 115-volt output; or 190-260-volt input and 115-volt output.

†Prices upon application.

Raytheon RECTICHARGERS

For Telephone Power Supply

With Natural Ventilation



A constant potential battery charger for telephone service. Basically a dry disk rectifier with a Raytheon control circuit which maintains a substantially constant d.c. voltage output at any load, in the presence of wide changes in a.c. input voltage. Operation is accomplished without the aid of any moving parts.

A small storage battery, floated across the terminals of the unit, and the combination of the two will make a complete a.c. to d.c. telephone power unit.

Operation

When the load current demand is less than the rectifier rating, the unit supplies all the current required and at the same time delivers to the battery a trickle charge of the right amount to make up for the internal battery losses and to prevent destructive chemical action. If the current demand exceeds the rating, the excess is supplied by the battery. When the load drops back to a value below the unit rating, the unit output remains at its rated value. The difference between the unit rating and the load current is thus supplied to the battery until it is fully charged.

Doubling the Current Rating

Any size of unit may be connected to any make of constant current charger having a filter for telephone service through a special relay. It provides a definite cost saving incentive for using these combinations either for new installations or to increase the current capacity of existing installations.

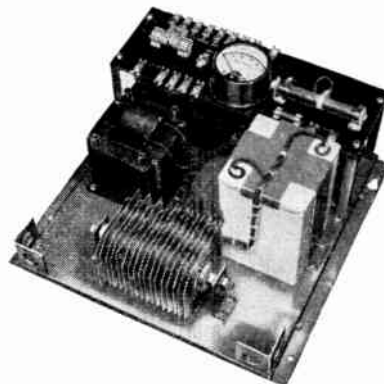
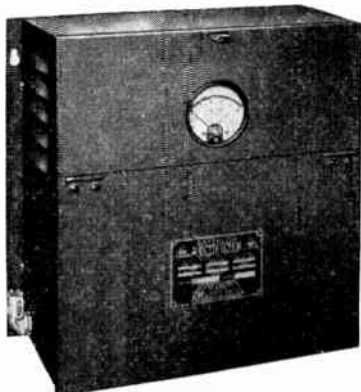
No.	Each	Battery Cells	Amps.	DIMENSIONS, INCHES			Ship- Wt., lb.
				Width	Depth	Height	
RCR1066	\$142.60	11/12	1.0	14 ¹ / ₂	7 ⁵ / ₈	14 ¹ / ₈	62
RCR1073	172.50	11/12	2.0	14 ¹ / ₂	9 ¹ / ₂	14 ¹ / ₈	94
RCR1058	223.10	11/12	3.0	19	11	21	163
RCR1067	302.45	11/12	6.0	19	15 ¹ / ₄	28	233
RCR2013-A	*	11/12	12.0	15 ¹ / ₄	16 ⁵ / ₈	20 ³ / ₄	180
RCR2016-A	*	11/12	24.0	15 ¹ / ₄	16 ⁵ / ₈	27 ³ / ₄	180
RCR1068	172.50	22/24	1.0	14 ¹ / ₂	9 ¹ / ₂	14 ¹ / ₈	93
RCR1076	236.90	22/24	2.0	19	11	21	173
RCR1069	269.10	22/24	3.0	19	15 ¹ / ₄	28	231
RCR1070-B	285.00	22/24	6.0	10 ¹ / ₄	9 ¹ / ₄	21	180
RCR2016-B	*	22/24	12.0	15 ¹ / ₄	16 ⁵ / ₈	27 ³ / ₄	180

Accessories

No.	Separate Relay for Constant Current Combination No.	No.	Separate Relay for Constant Current Combination No.		
				Brackets for Floor Mounting No.	Brackets for Floor Mounting No.
RCR-1066	BR-1095	CR-1093	RCR-1076	BR-1097	CR-1094
RCR-1073	BR-1095	CR-1094	RCR-1069	BR-1096	CR-1090
RCR-1058	BR-1097	CR-1090	RCR-1085	.....	CR-1092
RCR-1067	BR-1096	CR-1091	RCR-1070A	.....	CR-1091
RCR-1068	BR-1095	CR-1093	.....	.....	.....

*Prices on request.

Raytheon RECTIFILTER (Battery Eliminators for Telephone Service)



An economical way of obtaining telephone direct current power direct from an alternating current source.

Improves telephone service by providing full direct current power for the best operation of the telephones.

A satisfactory way of supplying direct current power to PBX and PAX boards.

Features

1. Outlasts many sets of batteries.
2. Eliminates the trouble and expense of routine service for battery inspection.
3. Releases wires carrying charging current from the central office to subscribers' PBX boards for revenue producing service.
4. Minimizes power cost because of high efficiency in converting a.c. to d.c.

Steady D.C. Voltage

The PBX and PAX boards require a stabilized d.c. voltage to insure proper operation under the conditions of changing load normally encountered.

No. 1044-E and larger sizes include an exclusive d.c. stabilizing circuit which operates magnetically and, therefore, requires neither adjustment nor maintenance.

Continuous D.C. Power During an A.C. Interruption

Relays may be added to change to a d.c. power source in the event of a.c. failure, a.c. sources are normally dependable, but applications are possible where even rare interruptions cannot be countenanced. In these cases, a change of source relay should be specified.

Ratings

The established current ratings are conservative and the user will not find it necessary to de-rate any of them by adding a safety factor. Operates a telephone system for 24 hours a day as long as the maximum current demand does not exceed the rating.

However, it should be remembered that ratings are based on two assumptions: first, on their being installed in live air; second, on being placed where the maximum ambient temperature does not exceed 95° F. If ambient conditions exist which differ from the above, write for suggestions before selecting.

With Dry Plate Rectifying Units

Input, 110-125 Volts A.C., Single Phase

No.	Each	DC OUTPUT FOR TALKING		No. Load Output Volts	Full Load Output Volts	A.C. Supply Frequencies	60-CYCLE OUTPUT FOR RINGING		CABINET, INCHES			Shipping Weight Pounds	Brackets for Floor Mounting	
		Volts	Amperes				Volts	Amperes	Width	Depth	Height		No.	Per Pair
*RFR-1057-R	\$32.00	4	0.23	4.0	4.0	50/60	6-12-18-24	4.00	7	6 1/4	10 1/2	13		
RFR-1024	32.00	6	0.50	8.5	5.5	50/60	6-12-18-24	4.00	7	6 1/4	10 1/2	12		
RFR-1028-A	52.00	6	1.00	8.5	5.5	50/60	6-12-18-24	4.00	7	6 1/4	10 1/2	14		
RFR-1026	48.00	12	0.50	15.5	11.5	50/60	6-12-18-24	4.00	7	6 1/4	10 1/2	14		
RFR-1027	52.90	24	0.50	28.0	20.0	50/60	6-12-18-24	4.00	7	6 1/4	10 1/2	19		
RFR-1027-R	59.80	24	0.50	28.0	20.0	50/60	6-12-18-24	A.C.	} No. 1027 with Change of Source Relay			19		
RFR-1044-E	111.55	24	1.00	26.0	24.0	60	6-12-18-24 75-100 A.C.	4.00	14 1/2	7 5/8	14 1/8	63	BR-1095	
RFR-1044-ER	118.45	24	1.00	26.0	24.0	60						} No. 1044-E with Change of Source Relay			63	BR-1095
RFR-1043	126.50	24	1.50	26.0	24.0	60	6-12-18-24 75-100 A.C.	0.15	14 1/2	7 5/8	14 1/8	69	BR-1095	
RFR-1043-R	133.40	24	1.50	26.0	24.0	60						} No. 1043 with Change of Source Relay			69	BR-1095
RFR-1040	163.30	24	3.00	26.0	24.0	60	24 D.C.	.....	14 1/2	9 5/8	14 1/8	81	BR-1095	
RFR-1040-R	170.20	24	3.00	26.0	24.0	60	24 D.C.	.....	} No. 1040 with Change of Source Relay			81	BR-1095	
RFR-1041	197.80	24	4.50	26.0	24.0	60	24 D.C.	.....	19	12	14 1/8	142	BR-1095	
RFR-1042	226.00	24	6.00	26.0	24.0	60	24 D.C.	.....	19	12	21 1/2	179	BR-1097	
RFR-1082	239.20	48	3.00	52.0	48.0	60	48 D.C.	.....	19	12	21 1/2	170	BR-1097	
RFR-1079	264.50	48	4.00	52.0	48.0	60	48 D.C.	.....	19	15 3/8	28	169	BR-1096	
RFR-1080	394.45	48	6.00	52.0	48.0	60	48 D.C.	.....	19	15 3/8	28	180	BR-1096	

*Operates one or two magneto telephone operators' headset transmitters. Change of source relay included.

Made to order for other wanted a.c. inputs and d.c. outputs.

Change of source relays can be supplied on all models. When not listed, order by adding suffix R to catalogue number.

Western Electric

Carrier Telephone Systems

Type C

A multi-channel carrier system operating at a frequency range of from 6 to 29 kilocycles. Provides facilities for superimposing three additional telephone circuits upon an existing open wire voice frequency telephone circuit.

The C5 Carrier Telephone Terminal is used at each end of a Type C Carrier Telephone System and the C1 Carrier Telephone Repeater is used at intermediate points of such a system to amplify the three carrier channels.

Where the total length of entrance and intermediate cable involved is relatively short, a Type C system employing two C5 terminals without repeaters can be operated under average conditions over lines up to about 150 to 200 miles in length. By using intermediate C1 Carrier Telephone Repeaters and spacing them approximately 150 miles apart, the length of such a system can be extended almost indefinitely provided the transmission and crosstalk characteristics of the line are satisfactory.

When repeaters are not employed the Type C system can be arranged to operate with either manual or automatic regulation of the circuit net losses. When one or more repeaters are required the latter arrangement is always utilized.

Ringing

The C5 terminal is designed to operate with 1000-cycle ringer equipment. Any standard 1000-cycle terminal or intermediate ringer can be used. Western Electric 1000-cycle ringer oscillator equipment is recommended. Three of these units are required for each C5 terminal, one being used for each channel. The ringing equipment is not an integral part of the terminal and should be ordered separately.

Power Supply

The C5 terminal and the C1 repeater may be operated from either 24 and 130-volt office batteries or by the addition of suitable power supply equipment from a 105 to 125-volt, 50-60-cycle, a.c. source. In battery operated case about 6 watts of 55-volt, 50-60-cycle power is also required for the repeater, and a like amount for a terminal if the carrier pilot channel equipment is employed.

The C5 terminal or the C1 repeater can be obtained mounted complete on one relay rack bay. This bay may be $8\frac{3}{4}$, $10\frac{1}{2}$, or $11\frac{1}{2}$ feet in height. Additional relay rack space may be required for the associated equipment required.

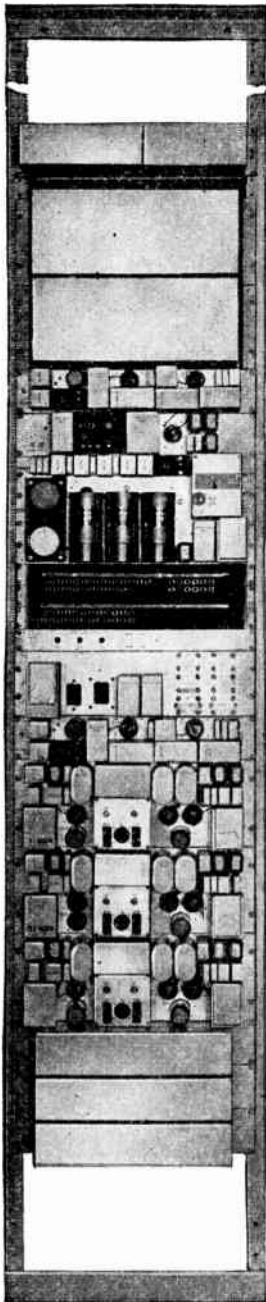
The selection of the apparatus required for a carrier system is dependent upon all the physical and electrical characteristics of the line on which it is to be placed. Such information should be forwarded to Graybar in a specially prepared questionnaire which can be obtained upon request. After the job has been studied, quotations and complete recommendations will be made on equipment to meet your requirements.

Type G1

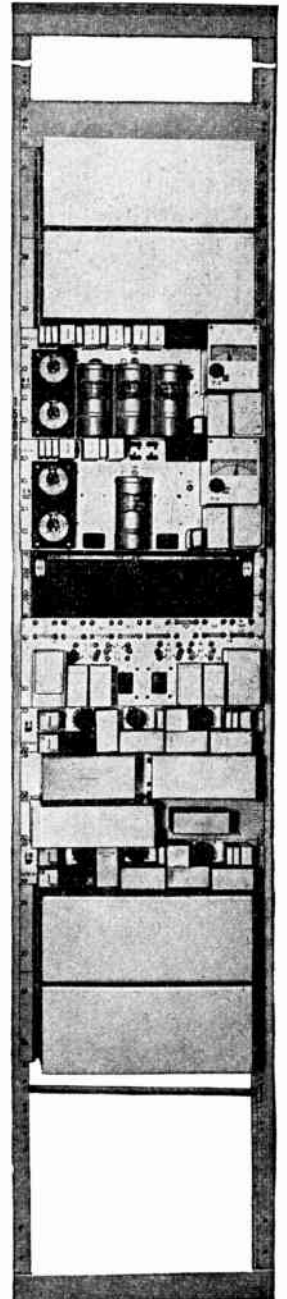
The Western Electric G1 Carrier Telephone System is a relatively simple and inexpensive single-channel system. The equipment is small in size and has been arranged for operation from an a.c. supply of 105-125 volts, 50-60 cycles.

The carrier frequency employed is 10.3 kc. It is generated by a vacuum-tube oscillator at one terminal only, which is called the active terminal. Both upper and lower sidebands are transmitted over the line and the carrier is transmitted along with them for use in modulation and demodulation at distant terminal which is called the inert terminal because it contains no vacuum-tube apparatus and requires no power supply. Transmission in the reverse direction is accomplished in the same way except for the fact that a phase corrector is required at the inert terminal.

For ringdown operation 20-cycle signaling is employed on a simplex basis. For cases where this is not feasible a simple composite set is available which provides two signaling paths, one for the carrier circuit and one for the voice circuit on which the carrier is superimposed.



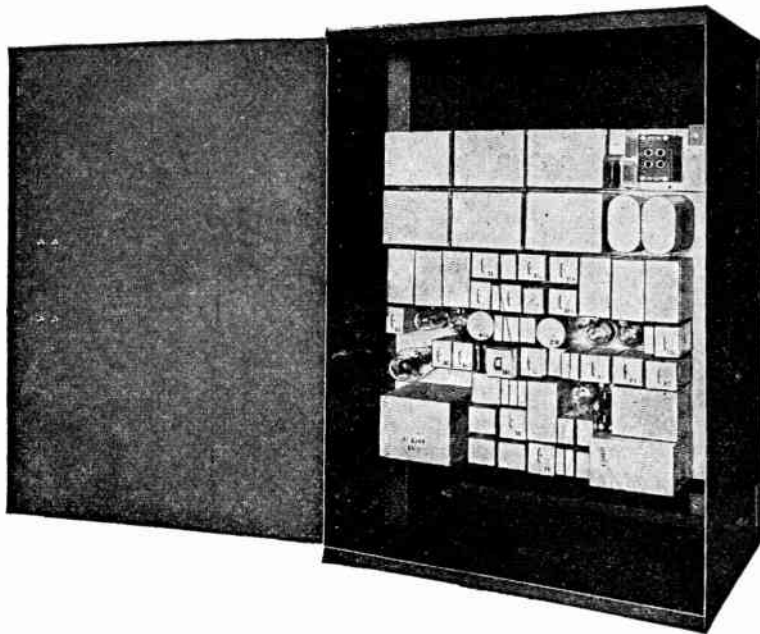
C5 Carrier Terminal



C1 Repeater

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric
No. H1 Type Carrier Telephone Systems



**No. H1 Type Carrier Telephone—Terminal Panel, Line Filter,
and Balancing Panel Mounted in Apparatus Cabinet**

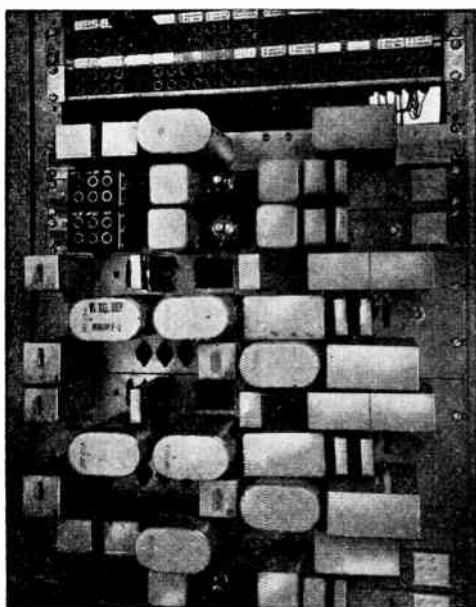
A single channel system for use on open wire lines.

Equipment includes provision for operation on a ring-down basis and can be applied on a line without the loss of any existing service. Suitable for use as a permanent installation, and also for temporary or emergency circuits. Typical applications are on the telephone lines of telephone, railroad, power, oil and pipe line companies where long distance telephone facilities are required.

The power supply may be either 105 to 125 volt, 50 to 60

cycles, single phase, a.c. or regular central office filament, signal and plate battery potentials.

This system, without an intermediate repeater, finds its widest application on open wire circuits of about 50 to 200 miles in length. With one or two intermediate repeaters this system is applicable on circuits up to as much as 500 or 600 miles in length, depending on gage of open wire conductors, amount of intermediate cable in line, number of bridged way stations, etc.



Western Electric
No. V1 Telephone Repeater
A.C. Operated

Designed to fill requirements for railroads and pipeline companies for trunkline or dispatch purposes.

When used as a toll line or trunk repeater, it may be equipped for various kinds of signalling (20, 135, or 1000 cycles) and may be operated on the same circuit with a telegraph channel when the necessary composite set is used.

Also provided with precision line balancing networks for use with uniform lines or adjustable networks for use with lines having non-uniform impedance characteristics.

When used as a dispatch repeater, it is equipped with a by-pass for the $3\frac{1}{2}$ cycle signals of the train dispatching equipment and is not arranged for operation with telegraph or on a phantom group basis. The dispatcher repeater is limited to open wire use.

The power supply unit, the rectifier of the signal battery, and the ringing supply unit operate on a 105 to 125 volt, 50-60 cyclesource.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric Voice Frequency Loading Coils

Available Voice Frequency Loading Coils and Loading Units for 2-Wire Telephone Circuits



M Type Loading Unit
Phantom Group



No. 632 Loading Group

By the application of loading coils on telephone cable circuits the unit loss can usually be reduced to the order of one-third to one-fourth the non-loaded value. The reduction is less than this amount at low frequencies and more at high frequencies, resulting in a nearly constant loss at all important voice frequencies. This contributes to the fidelity of reproduction, which is dependent largely upon a uniform transmission of the various frequencies required for intelligibility and naturalness. The loaded circuit is superior to the non-loaded circuit with respect to both loss and transmission distortion.

The following table lists the code numbers of the individual coils and loading units which comprise the different classes and include their nominal design inductance values.

Class	Code No.	Nominal Inductance—Henry	Class	Loading Units	NOMINAL INDUCTANCES—HENRY	
					Each Side Circuit	Phantom Circuit
I-a	632	.088	II	MF1	.172	.063
	638	.044		MF3	.044	.025
	639	.022		MF4	.031	.018
I-b	643	.135	MF5	.031	.018	
	644	.175	MF6	.031	.018	
	645	.250	MF9	.088	.050	
			MF10	.088	.050	
			MF11	.088	.050	

Loading Coil Cases

Potting arrangements for the loading coils and units listed are available for a wide range of installation conditions and circuit complement sizes.

When only a few loaded circuits are required, the small size of the non-phantom type coils make it especially economical to pot these coils in individual containers suitable for installation within cable splice sleeves in aerial and underground installations. For larger groups of non-phantomed circuits, up to about 100 Class I-a coils and 25 Class I-b coils, or for locations where conditions may be difficult for "Splice Sleeve" loading, low cost types of lead sleeve cases are available. These designs are suitable for aerial and underground installations. For larger loading complements, welded steel case designs are available; these differ in finish and minor installation details, for aerial and underground installations. Also, a limited number of case designs are available for small complement office installations on apparatus racks.

For phantom loading units, lead sleeve type case designs are available for 1, 2, and 3 loading units and welded steel designs provide for complements in the range of 4 to 80 loading units.

Western Electric

No. 1417 Type Magneto Telephones

A local battery magneto wall set arranged for anti-sidetone rural service. Equipped with high efficiency No. 635A transmitter and No. 706A receiver. Furnished with a shelf for writing.

The standard type telephone set operates on three dry cells and is equipped with a No. 48 type (5-bar) generator.

Equipment

Two or three batteries are required but must be ordered separately. In addition to the apparatus mentioned, telephone is equipped with the following:

- Code No. 635A Transmitter
- Code No. 706A Receiver
- Code No. R2DW Receiver Cord
- Code No. 143Y Switch-Hook
- Code No. TIC Transmitter Cord (6 Inches)
- Code No. 113D Induction Coil
- Code No. 8A Transmitter Bracket

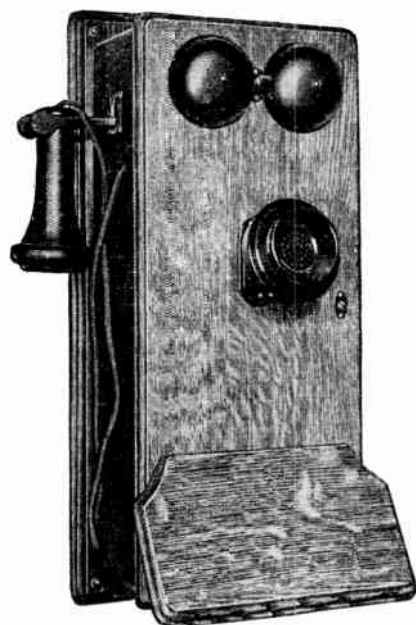
3-Cell Type

Code No.	RINGER		Generator Code No.	Condenser Code No.	CLASS OF SIGNAL SERVICE Telephone to Central Office	Central Office Telephone	Line Conditions as Regards Load
	Code No.	Resistance (Ohms)					
1417AH	38AG	1000	22A	*	Code	Code	Medium
1417N	38FG	1600	48A	...	Code	Code	Medium
1417P	38BG	2500	48A	...	Code	Code	Heavily
1417R	38FG	1600	48A	149E	Code	Code	Medium
1417S	38BG	2500	48A	149E	Code	Code	Heavily

2-Cell Type

Code No.	RINGER Code No.	Resistance (Ohms)	Generator Code No.	Condenser Code No.	CLASS OF SIGNAL SERVICE Telephone to Central Office	Central Office Telephone	Line Conditions as Regards Load
1417CH	53AG	1020	22BA	*	Code	Code	Lightly
1417CN	53FG	1620	50F	...	Code	Code	Medium
1417CP	53BG	2500	50F	...	Code	Code	Heavily
1417CR	53FG	1620	50F	149E	Code	Code	Medium
1417CS	53BG	2500	50F	149E	Code	Code	Heavily

*Arranged for a No. 149E condenser which may be wired in the ringer or receiver circuit if desired.



3-Cell, Closed View

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric
Magneto Mine Telephones
 No. 1336 Type



No. 1336—Outer and Inner Doors Open

These are metal case magneto telephones having all apparatus and parts treated to resist the action of moisture. Primarily designed for use on heavily loaded lines where code ringing is employed. Intended chiefly for mine service where danger from explosive gases is not present. Also recommended for outdoor use.

DRY CELLS. Two standard size dry cells are required for each telephone to furnish current for talking.

Two special cartons, impregnated with moisture-proofing compound are furnished with each No. 1336 type telephone. These are to be substituted for the standard cartons furnished on the dry cells. These cartons resist the action of any moisture that may form on the inside of the case and prevent current leakage and rapid deterioration.

No. 1336A. This telephone is not equipped with a ringer as it is intended for use where an extension bell is preferred to the regular telephone ringer. Also for service where all the calls will be outgoing.

Nos. 1336E and 1336K. These telephones differ from the No. 1336A in that they are equipped with a ringer and an iron hood for protecting the gongs.

No. 1336J. This telephone differs from the No. 1336E only in that a condenser is provided to permit the ringers of this telephone as well as others on the same line, being rung even though its receiver may have been left off the switchhook.

Transmitter No. 647 type. Receiver No. 706. Generator No. 48C.

Code No.	Receiver Cord	Condenser	RINGER		Signaling Service	For Line Load
			Code No.	Resistance		
1336A	R2DW	None	None		Code Ringing	Heavily Loaded
1336E		None	45BG	2500		
1336J	15-In.	149A	45BG	2500	Code Ringing	Medium Loaded
1336K		149A	45FG	1600		

In addition to the apparatus listed above the No. 1336 type telephone is equipped with a No. 143J switchhook and a No. 31 induction coil.

Special No. 1336 type telephones equipped with a heavy brass padlock and with two keys are obtainable. The padlock is attached to the chain in place of the latch pin. Orders must state that padlocks are desired.

No. 1536E Explosion-Proof Mine Telephone

This type of telephone is for use in mines where explosive gas is present. In the words of the United States Bureau of Mines the Western Electric Mine Telephone Type No. 1536E "is permissible for use in mines or other locations where methane or other explosive gases or coal dust are or are likely to be present in dangerous proportions."

This telephone set is enclosed in a cast iron housing $8\frac{3}{16} \times 11\frac{1}{4} \times 17\frac{1}{2}$ inches having a sloping roof and a hood extending out from the top of the door. These two features protect the working parts of the set from damage by falling debris and facilitate the shedding of water. This construction permits mounting the transmitter, receiver and generator-handle entirely exposed on the door but under the protection of the hood. The set is therefore under all conditions immediately recognizable as a telephone.



Closed View

The design of this set safeguards against the explosions which might result from the sparking of the switchhook and generator shunt spring contacts. Safeguards against explosions due to sparking caused by poor or loose connections also have been incorporated and every precaution has been used to guard against mechanical injuries to coils and other parts which might later develop into sparking points.

Western Electric

Subscriber Magneto Desk Set Boxes



No. 300 Type with No. 48 Type Generators

With ringers to operate on a.c. for code ringing service between central office and telephones.

Used with desk stands and No. 250 type telephone sets.

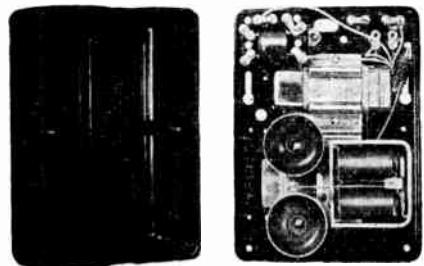
Code No.	COMPOSED OF			Condenser No.	For Ringing Service	Used on Lines as Regards Load
	Generator No.	Ringer No.	Resistance Ohms			
300K	48A	*51BG	2500	...	Code	Heavily
300L	48A	38FG	1600	...	Code	Medium
300M	48A	38FG	1600	149A	Code	Medium
300N	48A	38BG	2500	149A	Code	Heavily

*No. 38BG ringer can be furnished when specified.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric

No. 684BA Subscriber Sets



A small anti-siditone common battery subscriber set intended for use in two party selective or four party semi-selective flat rate service in dial areas subject to inductive interference.

Ringer No. B1AL; condenser No. 195A; and induction coil No. 101A. (The No. B1AL ringer is equipped with one No. 41A and one No. 41B gong).

Western Electric

No. 302 Type Central Battery Telephone Sets



No. 302AW-3



No. 302BW-3

The combined telephone set consists of a housing and a base on which is mounted the induction coil, condenser, ringer, and other apparatus. Telephone set mounting and a hand set form the complete telephone set.

Intended for use in common battery service.

Nos. 302AW-3 and BW-3. For individual line, P.B.X. extensions, and bridged stations.

Nos. 302EW-3 and FW-3. For 2-party selective and 4-party semi-selective stations, and divided code ringing.

The suffix -3 refers to a black finish telephone set.

Code No.	Tel. Set Mounting	Dial No.	Dial Adapter No.	Apparatus Blank No.	§Cords	Hand Set
†302AW-3	H1-3	.....	.....	82A-3	¶D2D-9	FlAW-3
*†302BW-3	H1-3	5HA-3	59A	.....	¶D2D-9	FlAW-3
†302EW-3	H1-3	.....	.....	82A-3	¶D3AL-9	FlAW-3
*†302FW-3	H1-3	5HA-3	59A	.....	¶D3AL-9	FlAW-3

*When specified can be equipped with No. 61P filter to suppress dialing induction into radio receiving sets.

†For use at manual stations. ‡For use at dial stations.

§Cords are 5½ feet long. Can be obtained in 9, 13, and 25-foot lengths when specified in the order.

¶When specified No. D2E-9 cord assembled with No. 273A plug can be obtained instead of No. D2D-9.

¶When specified No. D3AD-9 cord assembled with No. 273A plug can be obtained instead of No. D3AL-9.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric

No. 250 Type Telephone Sets



With proper connections this set can be in common battery dial or manual areas.

Each set consists of an FlAW-3 hand set, an AA1-3 telephone set mounting, and the necessary cords and wiring. Each set requires a suitable subscriber's set associated with it in order to complete the station equipment.

Code No.....	250AW-3	†250BW-3
Dial No. ....	.....	5HA-3
Dial Adapter No.....	.....	59A
Apparatus Blank No.....	82A-3	.....
‡Cord No.....	D4AL-9	D4AL-9

†When specified in order, set can be obtained equipped with No. 61P filter to suppress dialing induction into radio receiving sets.

‡Cords 5½ feet long furnished unless otherwise ordered. Available in 9, 13, and 25-foot lengths. If cord equipped with plug is desired, specify D4W-9 cord and 283B plug.

No. 251 Type Telephone Set

Same as the No. 302 type except that it is furnished without ringers and provided with a special ringer mounting for a Stromberg-Carlson No. D-2993 harmonic ringer.

Code No.....	251AW-3	251BW-3
Color.....	Black	Black
Used for.....	Manual Systems	Dial Systems

Western Electric

Hand Set Telephones

No. 1011A



For installer's and repairman's use in manual areas. Consists of soft rubber handle containing the following:

- No. F1 Transmitter Unit
- No. HA1 Receiver Unit
- No. W2BT Cord, 4 Ft. Long. Connected Externally
- Condenser (.10 Min., .15 Max. Mf.)
- Talking and Monitoring Switch
- Apparatus Blank

The switch is connected so as to shunt out the condenser when in the talking position.

**Western Electric
Central Battery Telephone Sets**

No. 300 Type—For Outdoor Use



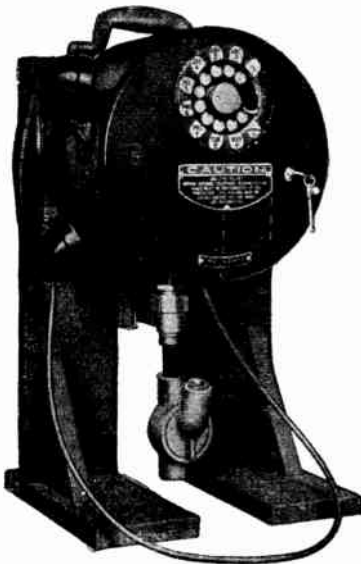
Closed View

For outdoor use in anti-sidetone equipment in manual or dial service. Consists of a gray finished metal mounting in which induction coil, ringer, and condensers are assembled. A moisture-proofed handset is hung on a switch hook which is assembled to inner door. Inner door provides a method of mounting dial or apparatus blank. Outer door is fastened by means of a lock and has an instruction card holder welded to its inside surface.

A No. 29A bracket is required for use in mounting each of the telephone sets on buildings, fences, poles, etc., and must be ordered separately.

Approximate overall dimensions: height, 1 foot 1 inch; width, 9 inches; depth, 6 1/4 inches.

No. 320 Type



Intended for use in Class 1, Groups B, C, and D atmospheres, as defined by the National Electrical Code.

The component parts of this set, except the hand set, are contained within an enclosure consisting of a cast aluminum housing and base having a threaded joint. Protection against probability of flames resulting from internal explosion reaching surrounding atmosphere is accomplished by strength of castings and by controlling length and clearance of openings through which any element in the design is brought through the housing.

Intended for use in common battery systems and for individual lines.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

**Western Electric
Connecting Blocks**

No. 8A



One screw and cord tip terminal on each connector.

Number of connectors, 6.
Ebonized wood base: length, 5 inches; width, 1 inch; thickness, 5/8 inch.

No. 11 Type



No. 11A

Two screw terminals on each connector. Opposite terminals electrically connected.

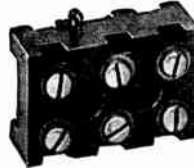
Base: length, 1 5/8 inches; width, 1 5/8 inches; thickness, 3/16 inch.

Code No.	11A	*11B	†11C
No. Connectors	2	2	2

*Consists of No. 11A with black finished metal cover.

†Same as No. 11B except under-surface of top of cover has insulating strip to protect terminals from short circuits.

No. 12 Type



No. 12E

Same as No. 11 Type except has three slots in under side of base.

Base: length, 1 1/8 inches; width, 1 3/8 inches; thickness, 3/16 inch.

Code No.	12E	†12F
No. Connectors	3	3

†Consists of No. 12E with black finished metal cover.

No. 30 Type

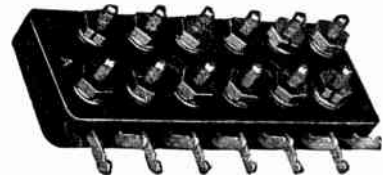


Binding posts have locknuts with posts spun over to prevent loss of locknuts.

Composition base: width, 1 1/2 inches; thickness, 1/2 inch.

Code No.	30A	30B	30C	30D
No. Connectors	12	22	32	52
Length Base	inches 4 3/16	7 3/16	10 7/16	16 1/16

No. 31 Type



Each connector has one locknut binding post and one soldering terminal, brought out on the side.

Composition base: width, 1 1/2 inches; thickness, 1/2 inch.

Code No.	31A	31B	31C	31D
No. Connectors	12	22	32	52
Length Base	inches 4 3/16	7 3/16	10 7/16	16 1/16

No. 42A Type



Cover Off

For use with combined handset mountings for fastening the handset mounting cord and the inside wire. Has a removable metal cover.

Composition base: length, 1 1/8 inches; width, 1 3/8 inches; thickness, 1/2 inch.

No.	42A-4	42A-9
Color	Ivory	Brown

Western Electric Telephone Cords

There is a Western Electric cord to fit any telephone set or switchboard. If none of the cords described below meet your requirements, write us, sending if possible a sample cord or a sketch, paying particular attention to the kind of tip required. Always specify length of cord when ordering.

Code No.	Maker of Tinsel Conductor	Covering	Length Feet	Use
D21D9	2	Cotton	5½	302 Type Combined Tel. Set Desk Stands, B1—Hand Set Mounting
D3AK9	3	Cotton	5½	
D4AL9	4	Cotton	5½	
Desk Stand Cords				
H3AA9	3	Cotton	4	E1 and F1 Hand Set
Hand Set Cords				
S2A	2	Cotton	3, 4, 6 or 8	All Type Boards
S3B	3	Cotton	4, 5, 6 or 8	
Switching Cords				
L4B	4	Cotton	...	Head & Chest Sets
Operators Cords				
Receivers Cords				
R2CE	2	Cotton	2½	40P Transmitter Arm
R2DW	2	Cotton	3	144 and 706A Receiver
R2EY	2	Cotton	3	706 Type Receiver
R2FA	2	Cotton	2	716 Type Receiver

Western Electric Tubular Fuses

Fiber Shell Type

Lead fuse wire prevents possibility of overheating shell. Fuses carry rated currents indefinitely without injury; act reliably on one and one-half times rated values. Fuses of same code number and rated capacity give consistent performance as to rated and operating current values.

No. 7T



Used with B cable terminals and fuse chambers. Rated capacity, 7 amperes.

No. 11C



Used with Nos. 98A and 1079AP protectors. Rated capacity, 7 amperes.

No. 7A

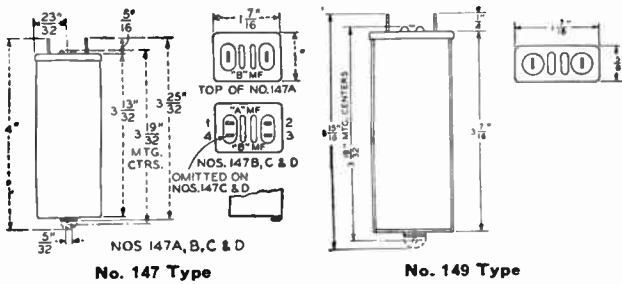


Used with Nos. 77, 1074A, 1075A, and 1078A protectors. Rated capacity, 1, 2, 3, 4, 5, or 7 amperes, as specified.

Western Electric Condensers

Western Electric telephone condensers are of tinfoil and paper type. Paper dielectric used in separating tinfoil plates is prepared from selected stock.

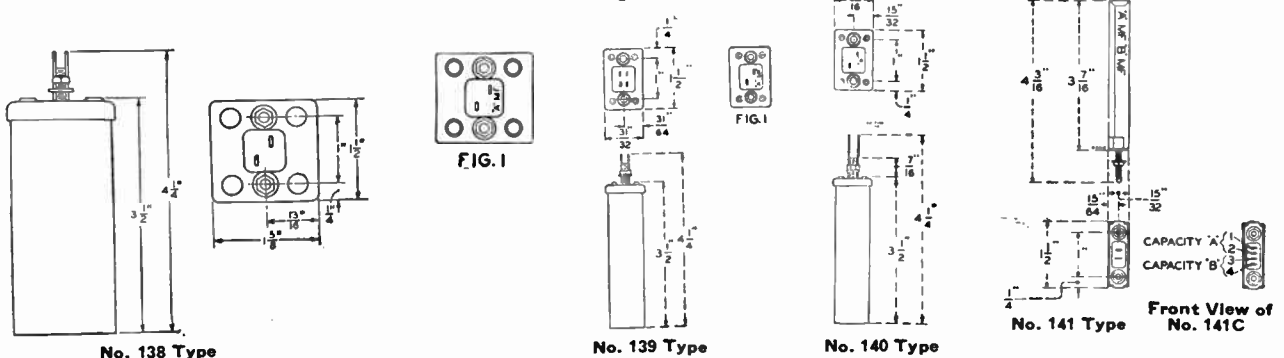
Unmounted Type



Code No.	Max.	CAPACITY M.F. STAMPED AT		Min.	Used in Set Nos.
		A	B		
147A	2.50	...	2.00	2.00	Gen., 311A, 1312A, 1314A
147B	1.25	1.00	...	1.00	
*147C	1.25	1.00	...	1.00	General
	1.25	...	1.00	1.00	
*147D	1.25	1.00	...	1.00	Composite
	.62	...	.5	.5	
149A	1.25	1.00	...	1.00	Coil Raeks
149B	.62	.5	...	.50	
149C	.13	.1	...	.10	...
149D	.80	.65	...	.65	...
149E	1.25	1.00	...	1.00	...
149F	.80	.65	...	.65	...

Tested on 500 volts d. e.

Mounting Plate Type



Code No.	Fig. No.	CAPACITY M.F. STAMPED ON CONDENSER AT			Tested on Voltage
		Minimum	A	B	
138A	1	1.00	1.00	1.25	1000 A.C.
139A	1	2.00	2.00	2.50	500 D.C.
140B		.50	.50	.62	1000 A.C.
140E		.125	.125	.160	1000 A.C.
141A		1.00	1.00	1.25	500 D.C.
*141C		.50	.50	.625	500 D.C.
		.50	...	.50	
141D		.25	.25	.32	500 D.C.
141J		.125	.125	.16	500 D.C.

*Values stamped at "A" are measured between terminals 1 and 2; values at "B", between terminals 3 and 4.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric

Subscriber Extension Bell Sets

Intended for auxiliary use as extension bells in connection with wall, desk, and transmitter arm telephones.

No. 127 Type



Set consists of a ringer mounted on the cover of a box. Each set is equipped with No. 2A binding posts for making line connections.

Operating current, a.c., not biased.

Golden oak finish.

Approximate overall dimensions: width, 6½ inches; height, 5½ inches; depth, 4¼ inches.

Code No.	127F	127G
Ringer.	38BG	38BG
Approx. Resist. ....ohms	2500	1620

No. 592 Type—Loud Ringing



Consists of a die-cast base upon which is mounted: what is essentially the mechanism of a No. B1A or No. B3A ringer; a condenser (when required); two No. 26B (3-inch diameter) gongs; and suitable terminals for connecting the subscriber set in the telephone circuit.

Resonators for the gongs are cast as an integral part of this base. The set is intended for both indoor and outdoor use. For indoor installations, the No. 169AW backboard should be used for mounting the set.

Also available with No. 42A (4-inch diameter) gongs instead of the No. 26B gongs when specified on order.

Approximate overall dimensions: length, 7¼ inches; width, 6¼ inches; depth, 2½ inches.

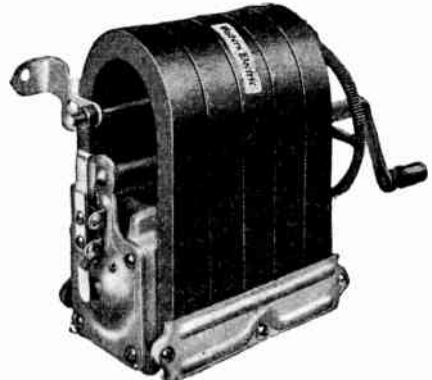
Replaces No. 392 type.

No.	Con- denser	D.C. Resistance Ohms	Vacuum Tube	Use
592AW	198A	4600	.....	In Manual or Dial Lines, in Individual Two-Party Selective and Four-Party Selective Line Service.
592BW	.....	4600	.....	On Magneto Non-Polarized Ringing Lines.
592CW	.....	2000	359A	In Four-Party Full Selective and Eight-Party Semi-Selective Service.

Western Electric

Hand Generators

No. 48 Type



No. 48A

A powerful generator. Used in telephones for heavily loaded line service.

With a non-inductive load of 1500 ohms and an armature speed of 1025 rpm., this generator will give 80 volts a.c.

Code No.	Voltage	Normal Condition of Generator Circuit	Principal Use and Description
48A	80 A.C.	Closed	Standard for Telephones Intended for Use on Heavily Loaded Lines
48C	80 A.C.	Closed	Mine Telephone — All Parts are Treated to Resist the Action of Moisture and Fumes
48G	80 A.C.	Closed	No. 1800 Switchboards
48H	80 A.C.	Open	Switchboards
48J	80 A.C.	Open	No. 1800 Switchboards
48P	80 A.C.	Open	Switchboards

No. 50 Type



Delivers 60 volts a.c. under a 1500-ohm non-inductive load (after being short-circuited for ½ minute) and an armature speed of 1025 rpm.

Western Electric

No. 299F Subscriber (Hand Generator) Sets



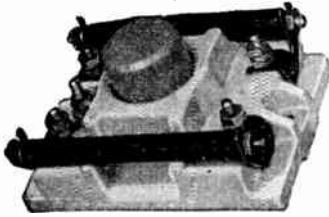
Consists of a No. 48A generator mounted in an oak cabinet having a hinged cover.

For alternating current.

Width, 8 inches; depth, 6 inches; 9 inches.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric No. 98 Type Telephone Set Protectors



Protects central battery and magneto telephones against high potential (lightning) and abnormal current (crosses with electrical circuit).

Has two No. 11C fuses. Line protection, 2 wire.

Code No. 98A 98B
With Two Protector Blocks, Nos. . . . 26 and 27 26 and 30

Western Electric Protector Blocks



No. 26



No. 27

Ordinary lightning discharges will cause an arc across the air gap between the carbon blocks but will not heat them sufficiently to melt the cement used for holding the carbon plug in place. A cross with an electric light or power line, however, will cause a discharge or repeated discharges of such duration that the heating of the carbon insert of the No. 27 blocks will melt the cement holding it in place. This allows the mounting spring to push it into direct contact with the No. 26 block, thus permanently grounding the line.

No. 26. A solid piece of hard non-dusting carbon. Used with Nos. 27 and 30 type protector blocks.

No. 27. Used in central office protectors. Consists of a white porcelain frame with a countersunk hard carbon plug fastened in place with low temperature fusing cement.

Western Electric Accessories

JACKS. Welded frame or cast, single or multiple mounting, single or multiple springs for use with standard Western Electric plugs are available for all purposes.

KEYS. Push button or lever type with practically any spring combination can be supplied.

PLUGS. Single or multiple, 1, 2, or 3-conductor for use with jack can be supplied.

RELAYS. Many types and innumerable spring combinations for low voltage work can be supplied.

RESISTANCES. Inductively and non-induction on brass core, single and double wound on Miconite core, spool type of various values and Lavite core types can be supplied.

TELEPHONE WIRES. Textile insulated, lacquer treated in 14, 16, 18, 19, 20, 22, 24 gage, single, paired, triple, and quadruple. In various colors for all low voltage work.

Western Electric Protector Mountings No. 83A



Protects drop wires between overhead lines and subscriber's telephone set from lightning.

Consists of an iron box $8\frac{3}{4} \times 3\frac{1}{2} \times 2\frac{1}{2}$ inches with a hinged cover having a No. 84A protector mounting within it. Arranged for pole mounting. Intended to be equipped with Nos. 26 and 30 protector blocks for cable protection for five pairs of wires. Box mounted underneath crossarms on poles. Two mounting lugs are provided for this purpose.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar Office.

Western Electric Protector Mountings No. 93AW



Consists of a galvanized metal box having a slip cover with locking screws and two screws for mounting protector in box. Cover includes a shield of insulating material which protects line terminals from gases expelled during fuse operation. For use in housing No. 98A protector in outdoor installations. When equipped with a No. 98A protector entirely replaces the No. 1086A protector and is coded the 1093AW protector mounting.

Overall dimensions, $7\frac{3}{4} \times 5\frac{1}{2} \times 2\frac{1}{16}$ inches.

Western Electric Receivers No. 716 Type



No.	Receiver Unit	Receiver Holder	Receiver	Head-band	Use
716C	HA4	11	.....	*.....	Waystations in Train Dispatching Systems
716D	....	..	716A	11A	Common Battery Circuits
716E	....	..	716B	11A	Local Battery Circuits

*Used with No. 11A headband which must be ordered separately.

No. 706A



Consists of a moulded case with HA-1 receiver unit. Springs for making electrical contact with receiver unit and a cap for holding unit in place are provided.

Western Electric No. 635A Transmitters



Designed to permit the use of the high quality F1 transmitter unit in desk stands and wall sets. Furnishes a better grade of transmission than older desk stand transmitters using a carbon button.

Western Electric
Ringers

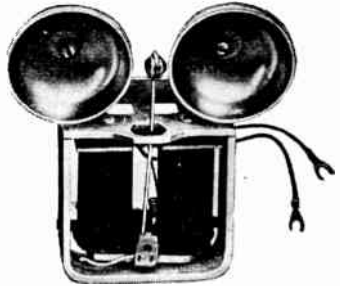
No. 38 Type



Western Electric Company ringers are wound with black enamel wire of Western Electric manufacture. Designed to give maximum ringing efficiency and at the same time offer high impedance to voice currents. The gong posts are designed for engaging slotted gongs thereby assuring permanent gong adjustment.

Code No.	Ringer Code No.	Resistance Ohms	Biasing Feature	Current Adjusted for	Gong Posts Woodwork		GONGS	
					Lgth. In.	Thick. In.	Code No.	Diam. In.
38BG	38B	2500	None	A.C.	1 ³⁷ / ₁₆	5/8	26A	3
53AG	53A	1020	None	A.C.	1 ⁹ / ₁₆	5/8	29A	2 ¹ / ₂
53BG	53B	2500	None	A.C.	1 ⁹ / ₁₆	5/8	29A	2 ¹ / ₂
53FG	53F	1620	None	A.C.	1 ⁹ / ₁₆	5/8	29A	2 ¹ / ₂

No. B1AL



A unit type biased ringer intended for use in H1 type telephone set mountings. Has a cantilever type biasing spring arranged for three settings and a stroke adjusting stop for adjusting the sound output.

Equipped with one No. 41A and one No. 41B gong. Can also be obtained equipped with two No. 40C or one No. 40D and one No. 40E gong when specified on the order. These ringers can also be obtained with a wooden clapper (P-465312) instead of a metal clapper, when specified in the order.

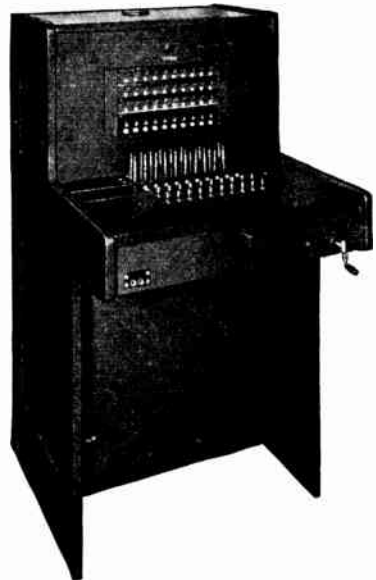
Has two coils having a total d.c. resistance of 4600 ohms ±10%. The 900-cycle inductance is minimum 20 henries.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric

No. 551 Type P.B.X. Private Branch Exchange Switchboards

No. 551A



A switchboard of the single position, non-multiple type. Arranged for operation with either a manual or a dial central office.

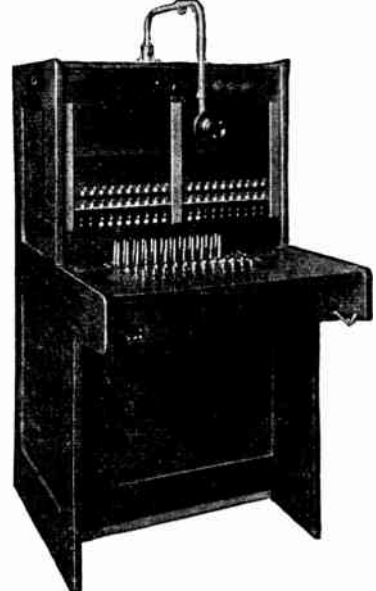
Switchboard in either oak with natural finish or in mahogany with a mahogany-walnut finish. Lumber is kiln dried and thoroughly seasoned to prevent warping and cracking.

Capacity

Station Line Circuits	40
Trunk Circuits	10
Cord Circuits	10

Ten station line circuits may be equipped with line relays for long lines.

No. 551B



Similar to the No. 551A except has larger capacity, as follows:

Station Line Circuits	320
Trunk Circuits	15
Cord Circuits	15

Twenty of the station line circuits may be equipped with line relays.

This switchboard has a maximum capacity of 320 lines but may be had with a capacity of eighty lines, the different capacities being arranged for by the use of different local cables.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric

No. 1801 Private Branch Exchange Switchboards Sectional Unit Type



No. 1801 Switchboard
Showing Method of Enlarging



No. 1801 P.B.X. Switchboard System B,
Wall Mounted with Cord Casing



No. 1801 P.B.X. Switchboard System D,
Desk Mounted

The Western Electric No. 1801 P.B.X. is a manual central battery system utilizing a small single position, non-multiple switchboard of the sectional unit type. Suitable for use in medium-size industrial plants, department stores, apartment buildings, schools, hospitals, sanitariums, hotels, and public buildings.

May be used with either a dial or a manual central battery central office. It is flexible and economical in operation, particularly suited to locations where the final capacity cannot be determined initially and is readily adaptable to the diversified line and traffic conditions encountered on private branch exchanges.

The units which comprise the No. 1801 P.B.X. can be assembled in the same way as those of a sectional bookcase.

The wood may be either oak in full red oak finish, or birch in mahogany finish.

Equipment Arrangements

The following four equipment arrangements are available:

SYSTEM A. Communication between attendant and stations.

SYSTEM B. Communication between attendant and stations.

Intercommunication between stations.

SYSTEM C. Communication between attendant and stations.

Intercommunication between stations. Trunk lines to a central battery central office. Direct current ringing.

SYSTEM D. Similar to System C, except that station bells are rung with alternating current and the trunks of System D may be connected into either a dial or a manual central battery central office.

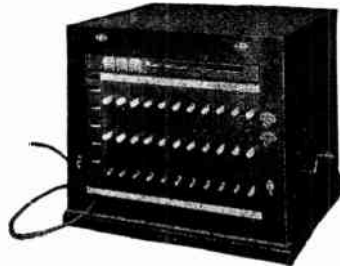
Power Requirements

Since the quality of service obtained from a P.B.X. is affected materially by the efficiency of the power supply, power equipment designed particularly for this kind of service should be selected.

For talking, signaling, and direct current ringing, the No. 1801 P.B.X. requires a 20-28-volt, single battery supply. The 20-cycle alternating current ringing current required for System D may be obtained from a source outside the P.B.X. or at the P.B.X. by the use of a hand generator.

Western Electric

No. 506 Type Cordless P.B.X. Switchboards



No. 506A

A single position turret of the cordless type. All connections are made by operation of keys.

Circuits are arranged for local manual service and for operation into either manual or machine switching central

offices. The wiring and equipment are same for all systems.

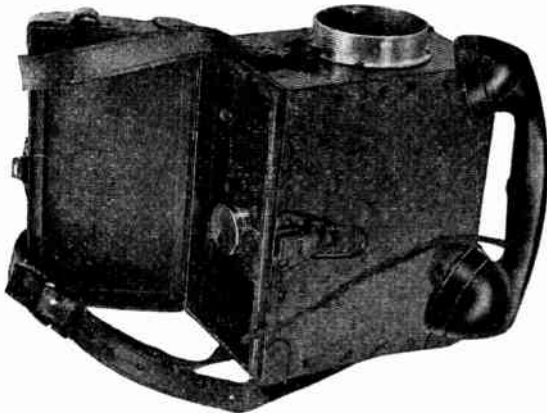
A desk stand is provided for use of attendant. When required a dial is furnished with desk stand so connections can be made to a dial central office.

	Capacity	
Code No.	506A	506B
Positions	1	1
Trunk Circuits	3	5
Connecting Circuits	5	5
Station Line Circuits	7	12
Attendants Telephone Circuit	1	1
Ringing and Buzzer Circuit	1	1

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric

No. 301A Portable Telephone Sets



For applications where a portable magneto telephone of rugged construction is required.

Set consists of a hand set and an aluminum chassis on which are mounted a hand generator, an induction coil, condenser, two battery containers, and a ringer mounting bracket. Assembled chassis is mounted in black fiber, wood-lined carrying case equipped with shoulder strap.

The F3C-W-3 handset includes No. F1 transmitter unit and No. HA-1 receiver unit. A push-button switch in handset handle is used to set up the talking condition.

A ringer may be mounted in this set if one is desired; specify when ordering.

Four Type D, 1.5-volt dry cell flashlight batteries are required for operation. The low battery drain of the transmitter unit insures a long battery life. The batteries should be specified on the order if desired.

Western Electric

No. F1AW-3 Type Hand Sets



No. F1AW-3. For use with and forms a part of the No. 302 type combined telephone set. For general use at subscriber stations.

Consists of: No. F1 transmitter unit; No. HA1 receiver unit; No. H3C-9, 4-foot cord; No. F1W-3 hand set handle; No. P-456236 receiver cap; No. P-456235 transmitter cap.

No. F2AW-3. For use in central offices and P.B.X. systems. Similar to No. F1AW-3 except with 4-conductor cord terminating in twin plug. Replaces the No. E2A-3.

Consists of: No. F1 transmitter unit; No. HA1 receiver unit; No. H4U cord; No. 289A plug; No. F2W-3 hand set handle; No. P-456236 receiver cap; No. P-456235 transmitter cap.

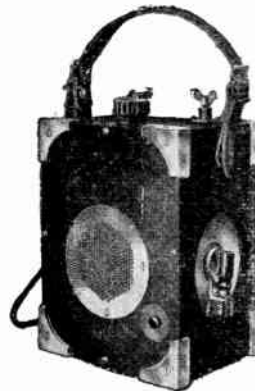
No. F2BW-3. For use in anti-sidetone local battery talking, common battery signaling subscribers' stations in manual and dial areas, and in key cabinets. Similar to No. F1AW-3 except that it employs a 4-conductor cord.

Consists of: No. F1 transmitter unit; No. HA1 receiver unit; No. H4T-9 cord; No. F2W-3 hand set handle; No. P-456236 receiver cap; No. P-456235 transmitter cap.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric

**Portable Test Sets
No. 1017C**



No. 1017 Type

In birch mahogany finish case; length, 6 $\frac{3}{8}$ inches; width, 4 $\frac{7}{8}$ inches; height, 8 $\frac{1}{16}$ inches. Weight, 7 pounds.

No. 1017E

Similar to No. 1017C set except equipped for use on either composited or straight telephone lines.

Contains the following:

- *No. 29F Generator
- No. 2E Buzzer
- No. 716B Receiver
- No. 13 Induction Coil
- No. 649A Transmitter
- *Operates a No. 56A drop through 11,500 ohms resistance.

No. 714 Eveready Battery (must be ordered separately)

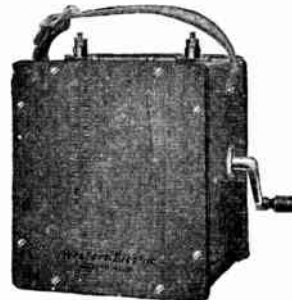
No. R2CD Cord, 2 feet

No. 6000A Interrupter

Nos. 90510 to 90530

Consists of a generator and ringer in series for testing through various line resistances.

Birch finished case measures 5 $\frac{3}{4}$ x6 $\frac{5}{8}$ x5 $\frac{1}{4}$ inches. A leather strap handle is provided.



No. 90530

List No.	Generator No.	RINGER		Gen. Operates Ringer Through Ohms
		Type	Ohms	
90530	22K	19B	2500	10,000
90510	22K	19H	500	35,000
90511	22N	19A	1000	50,000
90512	22N	19B	2500	100,000

**Western Electric
G Type Handset Mountings**



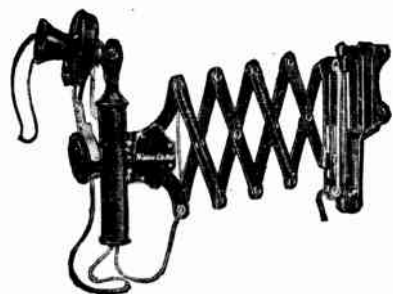
Arranged for use with the Nos. F1AW and F2BW or similar type hand sets.

Equipped with a bracket designed to permit adjustment of mounting to various lengths of desk top overhang. Bracket also permits mounting to be secured for hand set to hang on either side of the mounting or in front of the mounting.

Card retainer group P298106 must be ordered separately.

Western Electric Railway Train Dispatching Telephone Systems

Transmitter Arms



No. 1148DD

No. 1148 DA. Adjustable folding arm having telephone set incorporated in it; includes one No. 48DA transmitter arm, one No. 635B transmitter, one No. 716B receiver equipped with a No. 11A headband, one No. R2CT cord (2½ feet), one No. D3AB cord (8 feet), and two No. T1C cords (9¾ inches); mounts on the side of a roll top desk.

No. 1148DB. Same as No. 1148DA, except that it is arranged to mount on the side of a flat top desk.

No. 1148DC. Same as No. 1148DA, except that it is arranged to mount on the top of a flat top desk.

No. 1148DD. Same as No. 1148DA, except that it is arranged to mount on a wall.

Intended for use in way stations in conjunction with Nos. 501A and 501B subscriber sets in train dispatching circuits.

No. 650B Transmitters

Chest type transmitter intended for use in local battery circuits in train dispatching systems.

Contains an F2 transmitter unit.

Used with a No. 716B receiver and a No. 11A headband.



Transmitter Attachments

Used for supporting chest type transmitter.

No. 2A.—Buckle only.

No. 3A.—Buckle and slate colored tape.

No. 3B.—Buckle and black colored tape.

No. 3C.—Buckle and white colored tape.



Repeating Coils Nos. 70A and 77A



No. 70A



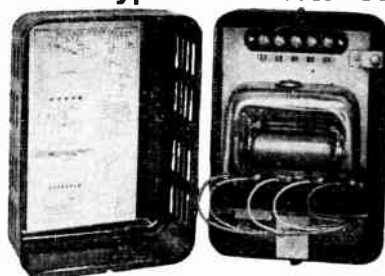
No. 77A

Intended for use in phantom and simplex circuits. No. 70A is for use in connection with a.c. selectors. No. 77A has coil mounted on a wood base.

No. of Coils	70A	77A
No. of Windings Each Coil	1	1
Resistances, Ohms:		
Primary	2 of 45	2 of 20
Secondary	2 of 40	2 of 21
Impedance Ratio	1 to 1	1 to 1
Wood Base	11x8¾ inches	6x4

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

No. 162 Type A.C. Selector Sets



No. 162C Equipped with No. 60 Type Selector

For new installations. Replaces the No. 160 type.

Furnished in two models, both of which are identical in appearance and size, the components being mounted on a steel chassis which is housed in the metal backs, 9¾ inches high, 7 inches wide, and 6¾ inches deep.

Finished in black and arranged for wall mounting.

No. 162C is for use at way stations in circuits which are not operated through repeating coils.

No. 162R is for use at way stations in circuits operated through repeating coils.

Mounting facilities are provided for the No. 60 type selector, which, however, is not furnished as part of the set because varying conditions require the use of different models of this unit. Includes features that permit their use in train dispatching, telephone systems employing Type C & H Carrier telephone equipment.

No. 341A Transformers

Designed for use at a train dispatcher's station when the No. 60 type selectors on dispatching and message circuits are operated through transformers.

Especially designed to transmit low frequency selector impulses on long lines on which a large number of selectors are operated.



Approximate dimensions, 6x5x5½ inches.

Foot Switches

Consists of a black finish case with a foot pedal and a set of contact springs.

Dimensions: 7½x3¾x5½ inches, including foot pedal.

No. 1B. Used with No. 502A Subscriber Set at train dispatching stations. Has single make contact for connecting battery to transmitter for talking.

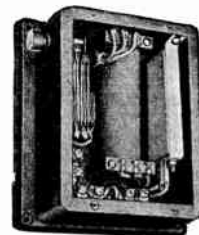
No. 3B. Used with No. 502A Subscriber Set at train dispatching stations. Has one break and two make contacts and is used with loudspeaker.

No. 3C. Used with No. 501B Subscriber Set at way stations. Has two break and three make contacts for connecting battery to transmitter, for talking, and for changing the turn ratio of the induction coil to increase the efficiency of the subscriber set when transmitting and receiving.

No. 3D. Used with No. 501B Subscriber Set at waystations. Has two break and four make contacts and is used when a loudspeaker set is connected to the subscriber set.

Way Station Desk Set Boxes

Used on train dispatching circuits in way station telephone sets with desk stand, flexiphones or transmitter arm, equipped with No. 635B transmitter and No. 716 type receiver.



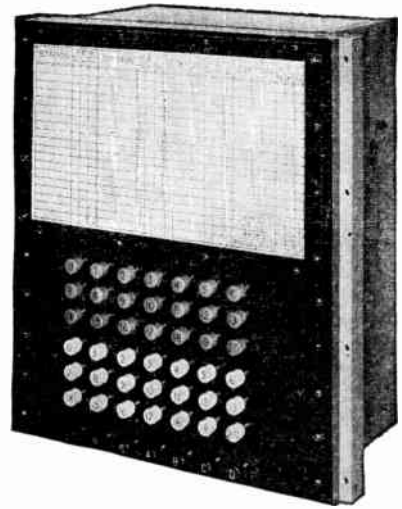
No.	Con- denser No.	Induction Coil No.	Description
501A	142B	42	Equipped with No. 1014A Push Button
501B	142B	42	Arranged for No. 3C Foot Switch

Western Electric

**Railway Train Dispatching Telephone Systems
Selector Keys**



No. 62A



No. 63B

The Nos. 62 and 63 type selector keys are motor driven master calling keys designed to operate any one or all No. 60 type selectors in a train dispatching telephone system.

No. 62 type is arranged for desk or table mounting.

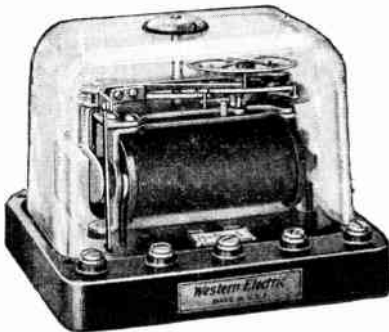
No. 63 type is mounted in the face equipment of a No. 604 P.B.X. switchboard.

Available in two models of each type, the A model being

intended for use in systems using a 17 step selector signalling code and the B model for use in systems using a 27 step selector signalling code.

Code No.	62A	62B	63A	63B
Approx. Height.....inches	12½	12½	10⅝	10⅝
Approx. Width.....inches	10¼	10¼	9¾	9¾
Approx. Depth.....inches	6½	6½	6¼	6¼

Nos. 60AP and 60BP Selectors



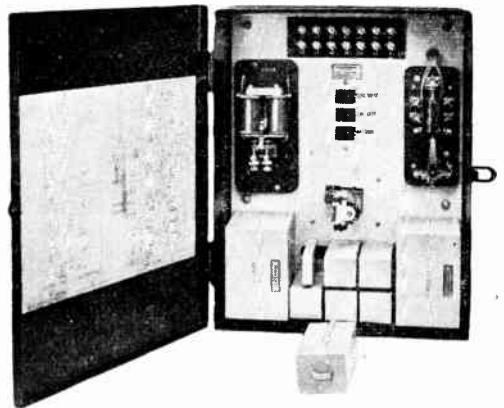
Operates on alternating current and is designed for use at waystations in train dispatching telephone systems in conjunction with Nos. 162C and 162R selector sets.

No. 60AP and 60BP selectors are designed to operate in a system using 17 or 27 step selector signalling code. The 60AP is equipped for receiving time signals.

No. 60BP is equipped with four selective ringing terminals instead of one as in No. 60AP but is not equipped to receive time signals.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

No. 62B Selector Apparatus Cases



Designed for use at the dispatcher's office in a train dispatching telephone system, and contains all of the signalling apparatus required at this station except the selector keys which are mounted separately.

Consists of a black finished metal box measuring 12¼x 15¼x6⅝ inches, equipped with a hinged cover and latch and a metal chassis on which the component apparatus is mounted.

Arranged for wall mounting.

Burgess Acousti-Booths

Acoustic Doorless Telephone Booths

No. 601 Scout Shelf Type



A wall or shelf type booth for use in bus terminals, hotels, hospitals, stores, railway stations, banks, institutions and offices. Ideal for busy public places where available space is limited. Users can enjoy a comparative zone of quiet regardless of the noise and confusion nearby. Conversations are clearer, understandable and private. Thick walls of sound-absorbent material

soak up both direct and reflected noises.

Made of reinforced plywood; walnut finish.

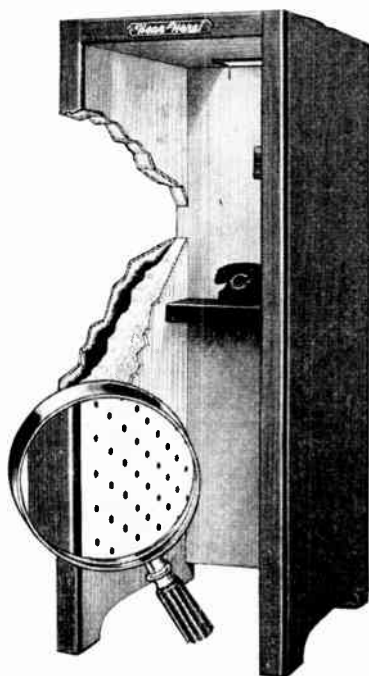
Has instrument shelf, 23 $\frac{1}{2}$ x17 inches.

Outside dimensions: width, 28 inches; height, 32 inches; depth, 26 inches.

Shipping weight, 80 pounds.

No. 601 each \$90.00

No. 201 Floor Type



Because this booth is doorless, there is ample circulation of air to relieve the stuffiness which is common to the conventional door type telephone booth.

The acoustic walls absorb disturbing noises so that the voice is heard without reverberation or echo.

Made of a thick layer of acoustic material sandwiched between plywood panels. The interior panels are perforated to allow the sound to soak into the acoustic filler.

Has rich brown walnut stain finish. An electric fixture in the ceiling provides illumination. Clean and sanitary—the pedestal foundation makes sweeping easy.

Outside dimensions: width, 30 inches; height, 79 $\frac{1}{2}$ inches; depth, 38 inches.

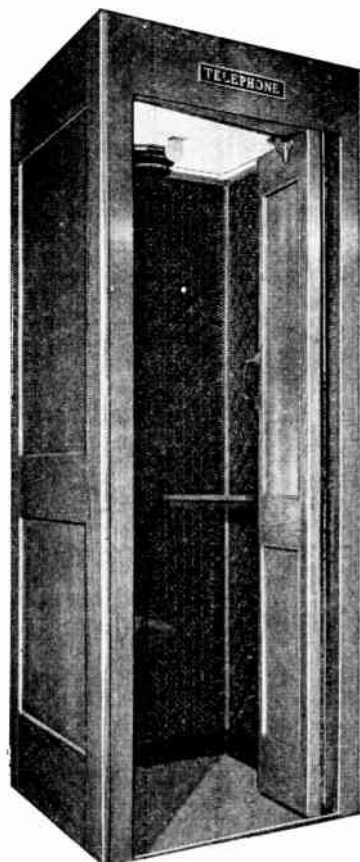
Inside dimensions: width, 24 inches, height, 76 $\frac{1}{2}$ inches; depth, 35 inches.

Wood instrument shelf, 24x8 $\frac{1}{4}$ inches, provides a convenient support for taking notes.

Approximate shipping weight, 225 pounds.

No. 210 each \$175.00

No. 100 Churchill Telephone Booths



No. 100 Booth



Showing Light and Ventilator

A self-contained booth designed to meet the need of a booth without a floor. Acoustically designed; every effort is made to make this booth as sound-proof as possible.

For single or multiple installation.

Equipped with a reinforced back panel for mounting a wall telephone or coin collector.

Available in selected white oak, finished medium golden oak and selected birch, finished medium mahogany.

Has folding door with glass in door only.

The following equipment is furnished as standard: automatic door switch for lights and electric ventilator; silent electric ventilator; and complete metal lining.

Seats are also available in either type of lumber, as extras.

Overall dimensions: height, 84 $\frac{3}{4}$ inches; width, 30 $\frac{1}{2}$ inches; depth, 30 $\frac{3}{4}$ inches.

Shipped knocked down and crated.

Western Electric

Lead Covered Telephone Cable



2121 Pair Cable

Types of Cable

Lead-covered cable may be divided into three general classes as follows:

1. Paper insulated cable for aerial or underground use. (Lead covered or lead covered and jute protected or lead covered and steel tape armored).
2. Paper insulated cable, submarine or gully type. (Lead covered, steel wire armored).
3. Textile insulated cable.

Aerial or Underground Cable

Lead Covered

Under the usual conditions of installation of telephone cables the same type of cable may be used for aerial construction or in ducts underground. The various types of lead-covered cable for aerial or underground use are as follows: NH, CNB, CSA, BPA, DSM, and BST.

Jute Protected

A type of cover for the cable sheath has been developed which effectively protects the sheath from soil corrosion. This protection consists of wrappings of paper and jute which have been impregnated with preservative compound and which are flooded with asphaltic compound while being applied to the cable. Cables having this covering are referred to as jute protected. Jute protected cables are about .2 inch larger in overall diameter than unprotected cables for smaller sizes and about .3 inch larger for full size cables. Any lead-covered cable can be furnished jute protected if so noted on the order.

Tape Armored

This type of sheath covering is similar to that used for the jute protected cables except for the addition of the steel tapes and a further covering of asphalt flooded jute. For the tape armored cable the increase in diameter varies with the size of the cable from about .3 to .6 inches. Any lead-covered cable can be furnished tape armored if so noted on the order.

Galvanized Tape Armored

Galvanized tape armored cable for aerial use can be furnished where some protection against low frequency induction from power lines is desired. If individual condition necessitates this type of cable, write nearest distributor, giving details and information; prices will be furnished.

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Unit Stranded Cable—Paper Pulp Insulation

A new form of paper insulation has been developed by the Western Electric Company which is known as pulp insulation because of its method of application to the wire. Paper is made directly on conductor in such a way as to form a continuous, seamless tube.

Submarine and Gully Type Cable, Wire Armored

Paper insulated submarine and gully type cable may be divided into three general classes:

1. High dielectric strength, tight core cable. Used in comparatively long lengths where cost of repairing a break in cable will be less than cost of new cable.
2. High dielectric strength, loose core cable. Used in comparatively short lengths where high transmission efficiency and high dielectric strength are of importance. For example, a short crossing cable connecting important open wire.
3. Single paper insulated loose core cable. Used in comparatively short lengths where so high a dielectric strength is not necessary. For example, a short crossing cable connecting land cables.

Submarine Type

Single or double armored cable can be furnished. Double armor is used in cases of severe mechanical requirements. In still water with a mud bottom, single armor will be sufficient. With a rocky or uneven bottom, or with strong tides or currents, double armor should be considered.

Gully Type

A light wire armored cable for crossing gullies, small streams and swamps. This cable provides greater mechanical strength than the tape armored cable and is lighter and less expensive than standard wire armored submarine design. Has same protection against soil corrosion as jute protected cable.

Textile Insulated Cable

Paper insulated cables are usually terminated in buildings by splicing on a short piece of lead covered textile insulated cable. Commercial textile yarns are liable to contain soluble salts, which will cause electrolytic action when exposed to moist atmospheres and result in poor insulation and sometimes produce corrosion of the conductors. It has been found that by removing such impurities substantial improvements of the insulating properties of the textiles are obtained. Only purified textiles are used in Western Electric Cables.

Special Cable

Special conditions often require cables with different characteristics from those which have been standardized and coded. Paper insulated cable, designed to withstand test potentials up to 1,500 volts a.c., is supplied for special circuits such as for telegraph or signal circuits. If an individual condition necessitates special cable, write the nearest distributor.

Composite Cable

Composite cable, composed of conductors of two or more gages can be furnished if desired. The combinations of pairs which will utilize the space within the lead sheath most economically are somewhat limited. Recommendations will be made along this line. Consult nearest distributor.

Quadded Cable

Paper and textile insulated quadded lead covered cable for toll telephone and telegraph purposes can be furnished if desired. Recommendations will be made upon receipt of detailed information. Consult nearest distributor.

Reels

Cable is shipped on reels. Ends of cable are fastened securely to reels, and unarmored cable is protected by lags nailed around periphery of reel.

Guarantee

Coding of cables is on basis of actual number of pairs in cable. The number of pairs indicated in tables are guaranteed to be free from opens, shorts, crosses, and grounds. The capacitance and the conductor resistance are guaranteed not to increase nor the insulation resistance to decrease beyond the limits stated due to defective material or manufacture.

Western Electric

Lead Covered Telephone Cable

Advantages

As a means to practically uninterrupted communication, Western Electric Lead Covered Cable offers a number of conspicuous advantages, making for better service, better public relations, and money economies.

This lead covered cable possesses several advantages of material benefit to its users, among which are:

1. They make use of the most suitable designs and materials to secure and maintain the highest class of telephone transmission, as determined by many years of research work conducted by Bell Telephone Laboratories, and by constant tests in the field, in close cooperation with the largest users of telephone cable in the world.

2. The reliability of the Western Electric product is proved by the fact that more than half the telephone cable throughout the world is of Western Electric design.

3. Cables are manufactured by the Western Electric as an essential part of the telephone plant which must not only give the most efficient performance possible, but must maintain this efficiency through the greatest possible number of years. To accomplish this object, every part of telephone cable is designed not only to give the electrical qualities required, but to insure a maximum of mechanical ruggedness and protection against damage. As an example of this, a given mutual capacitance can be obtained in either a soft core or a hard core cable. The hard core cable is somewhat larger in diameter and contains a larger amount of insulating paper. The soft core cable is bound to be soft or mushy to such an extent that it has a decided tendency to buckle when bent. It is therefore more difficult to install than the harder core cable. Western Electric cables are designed to have satisfactory mechanical characteristics.

Transmission

Transmission efficiency of telephone cable depends upon its capacitance and conductor resistance. When telephone cable forms a portion of a completed telephone connection, the transmission efficiency of the telephone connection as affected by the cable portion depends somewhat on the relative position of the cable in that circuit and also on the type of other construction to which it is connected.

The length of circuit which, when connected to short subscribers' loops, will cause a transmission loss of 30 db. (units of transmission loss, called decibels) is considered about the maximum length over which commercial transmission can be secured.

Capacitance

The capacitance of a cable circuit is important because it limits to a large extent the length of cable through which it is possible to transmit speech. The capacitance may be specified either as mutual, that is, the capacitance between the two wires or a pair; or as grounded, that is, the capacitance between a wire and all the other wires and the sheath. Mutual capacitance is preferable in defining the quality of the cable for telephone transmission, since the conductors are used in pairs as metallic circuits and seldom, if ever, singly as grounded lines. The grounded capacitance is about 1.6 times the mutual, but this ratio varies somewhat for different cables.

Capacitance may be measured by the d.c. charge method, the d.c. discharge method, or the a.c. method. The a.c. method, using a frequency of 800 cycles or higher, is preferable because it measures the true capacitance for the voice currents. The d.c. capacitance tends to be higher than the a.c. capacitance. The d.c. charge method is less subject to error due to improper manipulation of the testing equipment than the d.c. discharge method.

Western Electric cables are tested for mutual capacitance by the a.c. method, unless specifically requested otherwise.

Extra Pairs

Extra pairs are placed in all cables containing conductors smaller than No. 16 to take care of any pairs which may become defective in manufacture. In the majority of cables all or part of the extra pairs will often be found good and may be used for additional circuits. All pairs of No. 16 A.W.G. and larger except in submarine cable are guaranteed to meet the specification requirements when the cable leaves the factory.

The coding of all cables is on the basis of the actual number of pairs. Actual and guaranteed numbers of pairs in the various sizes of standard cables containing conductors smaller than No. 16 A.W.G. are as follows:

Actual Pairs	Guaranteed Pairs
6 to 149	Actual pairs less one
150 to 249	Actual pairs less two
250 to 349	Actual pairs less three
350 to 449	Actual pairs less four
450 to 505	Actual pairs less five
606	Actual pairs less six
909	Actual pairs less nine
1212	Actual pairs less twelve
1818	Actual pairs less eighteen

For Aerial or Underground Use

Type NH—Paper-Ribbon Insulated

SHEATH. Lead antimony.

CONDUCTORS. No. 16 A.W.G. single dry paper tape insulation. Blue-orange pairs alternating with green-orange pairs, except for two orange-white tracer pairs, one in the center and one in the outside layer and a red-orange pair in each layer containing an odd number of pairs.

MUTUAL CAPACITANCE. A.c. testing average any reel not exceeding .072 microfarad per mile of cable at 60°F.

CONDUCTOR RESISTANCE. Not exceeding 23 ohms per mile of cable at 68°F.; any conductor.

INSULATION RESISTANCE. Not less than 500 megohm miles at 60°F.; any conductor.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 1000 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No. and No. of Pairs	No. of Pairs Guaranteed	Thickness Sheath Inches	Mean O.D. Inches	Convenient No. of Feet on Reels	Approx. Weight Pounds per Foot
NH 26	26	.080	1.13	2000	1.8
NH 51	51	.089	1.52	1500	2.9
NH101	101	.103	2.11	1000	5.1
NH152	152	.113	2.54	750	7.1

Type CNB—Paper-Ribbon Insulated

SHEATH AND INSULATION RESISTANCE. Same as for Type NH. **CONDUCTORS.** No. 19 A.W.G. single dry paper tape insulation, with color groups depending upon size.

MUTUAL CAPACITANCE. A.c. testing, average any reel not exceeding .090 microfarad per mile of cable at 60°F.

CONDUCTOR RESISTANCE. Not exceeding 46 ohms per mile of cable at 68°F.; any conductor.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 700 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No. and No. of Pairs	No. of Pairs Guaranteed	Thickness Sheath Inches	Mean O.D. Inches	Convenient No. of Feet on Reels	Approx. Weight Pounds per Foot
CNB 6	5	.063	.42	2800	.41
CNB 11	10	.065	.52	3000	.56
CNB 16	15	.067	.60	4000	.70
CNB 26	25	.070	.72	3000	.93
CNB 51	50	.075	.95	2500	1.46
CNB 76	75	.080	1.14	2200	1.99
CNB101	100	.084	1.29	1700	2.46
CNB152	151	.090	1.56	1400	3.38
CNB202	201	.095	1.78	1400	4.27
CNB303	302	.104	2.15	900	5.97
CNB404	402	.112	2.47	700	7.68
CNB455	452	.115	2.61	650	8.48

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric

Lead Covered Telephone Cable

For Aerial or Underground Use

Type BPA—Paper-Ribbon Insulated

SHEATH. Lead antimony.

CONDUCTORS. No. 22 A.W.G. double dry paper tape insulation, with color groups depending upon size.

MUTUAL CAPACITANCE. A.c. testing, average any reel not exceeding .095 microfarad per mile of cable at 60°F.

CONDUCTOR RESISTANCE. Not exceeding 92 ohms per mile of cable at 68°F.; any conductor.

INSULATION RESISTANCE. Not less than 500 megohm miles at 60°F.; any conductor.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds any a.c. test potential whose maximum instantaneous value is 700 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No. and No. of Pairs	No. of Pairs Guaranteed	Thickness Sheath Inches	Mean O.D. Inches	Convenient No. of Feet on Reels	Approx. Weight Pounds per Foot
BPA 6	5	.061	.36	3500	.31
BPA 11	10	.063	.42	3500	.40
BPA 16	15	.064	.47	3500	.48
BPA 26	25	.066	.55	3500	.62
BPA 51	50	.070	.73	3500	.95
BPA 76	75	.073	.85	3500	1.20
BPA101	100	.076	.96	3000	1.50
BPA152	151	.080	1.14	2000	2.00
BPA202	201	.084	1.29	2000	2.50
BPA303	301	.090	1.56	1500	3.40
BPA404	401	.095	1.78	1500	4.30
BPA606	602	.105	2.18	1060	6.10

Type CSA—Paper-Pulp Insulated

SHEATH. Lead antimony.

CONDUCTORS. No. 22 A.W.G. pulp insulation, with color groups depending upon size.

STRANDING. Multiple-unit design 152 pairs and larger.

MUTUAL CAPACITANCE. A.c. testing, average any reel not exceeding .090 microfarad per mile of cable at 60°F.

CONDUCTOR RESISTANCE. Not exceeding 92 ohms per mile of cable at 68°F.; any conductor.

INSULATION RESISTANCE. Not less than 500 megohm miles at 60°F.; any conductor.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 500 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No.	No. of Pairs	Thickness Sheath Inches	Mean O.D. Inches	Convenient No. of Feet on Reels	Approx. Weight Pounds per Foot
CSA 11	10	.063	.42	3500	.40
CSA 16	15	.064	.47	3500	.48
CSA 26	25	.066	.57	4200	.63
CSA 51	50	.070	.73	3000	.95
CSA 76	75	.073	.86	2400	1.20
CSA101	100	.076	.98	3000	1.50
CSA152	151	.080	1.16	1700	2.00
CSA202	201	.084	1.32	1600	2.50
CSA303	301	.091	1.59	1400	3.50
CSA404	401	.095	1.78	1200	4.30
CSA606	602	.104	2.15	900	6.00
CSA909	903	.115	2.61	650	8.50

Type BST—Paper-Pulp Insulated

SHEATH. Lead antimony.

CONDUCTORS. No. 26 A.W.G. pulp insulation, with color groups depending upon size.

STRANDING. Multiple-unit design 152 pairs and larger.

MUTUAL CAPACITANCE. A.c. testing, average any reel not exceeding .085 microfarad per mile of cable at 60°F.

CONDUCTOR RESISTANCE. Not exceeding 230 ohms per mile of cable at 68°F.; any conductor.

INSULATION RESISTANCE. Not less than 500 megohm miles at 60°F.; any conductor.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 500 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1200 volts.

Code No. and No. of Pairs	No. of Pairs Guaranteed	Thickness Sheath Inches	Mean O.D. Inches	Convenient No. of Feet on Reels	Approx. Weight Pounds per Foot
BST 11	10	.061	.33	3500	.27
BST 16	15	.061	.36	3300	.31
BST 26	25	.063	.43	4000	.40
BST 51	50	.065	.52	4200	.55
BST 76	75	.067	.60	3700	.69
BST 101	100	.069	.69	3500	.84
BST 152	150	.072	.80	2400	1.00
BST 202	200	.074	.90	2500	1.30
BST 303	300	.078	1.08	1600	1.80
BST 404	400	.082	1.21	1600	2.20
BST 606	601	.087	1.45	1400	2.90
BST 909	902	.094	1.75	1100	4.00
BST1212	1203	.100	2.00	900	5.10
BST1515	1505	.105	2.21	650	6.1
BST1818	1806	.110	2.41	650	7.20
BST2121	2108	.115	2.61	650	8.20

Type DSM—Paper-Pulp Insulated

SHEATH. Lead antimony.

CONDUCTORS. No. 24 A.W.G. pulp insulation, with color groups depending upon size.

STRANDING. Multiple-unit design 152 pairs and larger.

MUTUAL CAPACITANCE. A.c. testing, average any reel not exceeding .090 microfarad per mile of cable, at 60°F.

CONDUCTOR RESISTANCE. Not exceeding 145 ohms per mile of cable, at 68°F.; any conductor.

INSULATION RESISTANCE. Not less than 500 megohm miles at 60°F.; any conductor.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 500 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No.	No. of Pairs	Thickness Sheath Inches	Mean O.D. Inches	Convenient No. of Feet on Reels	Approx. Weight Pounds per Foot
DSM 11	10	.061	.36	3300	.31
DSM 16	15	.062	.39	2900	.36
DSM 26	25	.064	.48	4500	.47
DSM 51	50	.067	.60	4200	.70
DSM 76	75	.069	.70	3000	.88
DSM 101	100	.071	.78	3000	1.00
DSM 152	150	.075	.93	2800	1.40
DSM 202	200	.078	1.05	2200	1.70
DSM 303	300	.082	1.24	1600	2.30
DSM 404	400	.087	1.42	1400	2.90
DSM 606	601	.093	1.71	1100	4.00
DSM 909	902	.101	2.04	900	5.60
DSM1212	1203	.109	2.35	650	7.10
DSM1515	1505	.115	2.61	650	8.60

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western-Electric Lead Covered Telephone Cable

Type AFA—For Inside Construction

SHEATH. Pure lead.

CONDUCTORS. No. 22 A.W.G. tinned, double acetate yarn and single cotton insulation, covering on each pair colored white and red-white.

STRANDING. Multiple, unit design 152 pairs and larger.

TRACER PAIR. One in outer layer colored white-blue or white-brown.

INSULATION RESISTANCE. Not less than 500 megohm miles at 60°F.

CONDUCTOR RESISTANCE. Not exceeding 96 ohms per mile of cable at 68°F.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 700 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No.	No. of Pairs	Thickness	Mean	Convenient	Approx.
No. of Pairs	Guaranteed	Sheath	O.D.	No. of Ft.	Wt. Lb.
		Inches	Inches	on Reels	per Foot
AFA101	101	.064	.97	1000	1.4
AFA152	151	.071	1.17	1000	2.0
AFA202	201	.077	1.33	1000	2.5
AFA303	302	.088	1.61	800	3.6
AFA404	403	.097	1.85	700	4.7
AFA606	605	.111	2.24	500	6.8

Type AGA—For Inside Construction

SHEATH. Pure lead.

CONDUCTORS. No. 22 A.W.G. tinned, double acetate yarn and single cotton insulation, colored in accordance with a standard color scheme so that each pair is distinguishable from other pairs in the cable.

CONDUCTOR RESISTANCE. Not exceeding 96 ohms per mile of cable at 68°F.

INSULATION RESISTANCE. Not less than 500 megohm miles at 60°F.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 700 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No.	No. of Pairs	Thickness	Mean	Convenient	Approx.
No. of Pairs	Guaranteed	Sheath	O.D.	No. of Ft.	Wt. Lb.
		Inches	Inches	on Reels	per Foot
AGA6	6	.040	.31	1000	.20
AGA11	11	.042	.38	1000	.28
AGA16	16	.045	.45	1000	.36
AGA21	21	.047	.50	1000	.44
AGA26	26	.048	.53	1000	.49
AGA31	31	.049	.58	1000	.56
AGA41	41	.052	.65	1000	.69
AGA51	51	.055	.72	1000	.82
AGA76	76	.059	.85	1000	1.10
AGA101	101	.064	.97	1000	1.40
AGA152	151	.071	1.17	1000	2.00
AGA202	201	.077	1.33	1000	2.50

Type BUA—For Inside Construction

SHEATH. Pure lead.

CONDUCTORS. No. 22 A.W.G. tinned, double cotton insulation, coated with cellulose acetate lacquer, colored in accordance with a standard color scheme so that each pair is distinguishable from other pairs in the cable.

CONDUCTOR RESISTANCE. Not exceeding 96 ohms per mile of cable at 68°F.

INSULATION RESISTANCE. Not less than 10 megohm miles at 60°F.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 700 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No.	No. of Pairs	Thickness	Mean	Convenient	Approx.
No. of Pairs	Guaranteed	Sheath	O.D.	No. of Ft.	Wt. Lb.
		Inches	Inches	on Reels	per Foot
BUA6	6	.040	.33	1000	.25
BUA11	11	.043	.41	1000	.32
BUA16	16	.045	.47	1000	.39
BUA21	21	.047	.51	1000	.45
BUA26	26	.049	.57	1000	.51
BUA31	31	.050	.60	1000	.56
BUA41	41	.053	.69	1000	.66
BUA51	51	.056	.75	1000	.94
BUA76	76	.061	.89	1000	1.19
BUA101	101	.065	1.01	1000	1.42

Type NFA—For Inside Construction

SHEATH. Pure lead.

CONDUCTORS. No. 22 A.W.G. tinned, enamel, double acetate yarn and single cotton insulation, covering on each pair colored white and red-white.

STRANDING. Multiple, unit design 152 pairs and larger.

TRACER PAIR. One in outer layer colored white-blue or white-brown.

INSULATION RESISTANCE. Not less than 500 megohm miles at 60°F.

CONDUCTOR RESISTANCE. Not exceeding 96 ohms per mile of cable at 68°F.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 700 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No.	No. of Pairs	Thickness	Mean	Convenient	Approx.
No. of Pairs	Guaranteed	Sheath	O.D.	No. of Ft.	Wt. Lb.
		Inches	Inches	on Reels	per Foot
NFA101	101	.064	.97	1000	1.4
NFA152	151	.071	1.17	1000	2.0
NFA202	201	.077	1.33	1000	2.5
NFA303	302	.088	1.61	800	3.6
NFA404	403	.097	1.85	700	4.7
NFA606	605	.111	2.24	500	6.8

Type NGA—For Inside Construction

SHEATH. Pure lead.

CONDUCTORS. No. 22 A.W.G. tinned, enamel, double acetate yarn and single cotton insulation, colored in accordance with a standard color scheme so that each pair is distinguishable from other pairs in the cable.

CONDUCTOR RESISTANCE. Not exceeding 96 ohms per mile of cable at 68°F.

INSULATION RESISTANCE. Not less than 500 megohm miles at 60°F.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 700 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No.	No. of Pairs	Thickness	Mean	Convenient	Approx.
No. of Pairs	Guaranteed	Sheath	O.D.	No. of Ft.	Wt. Lb.
		Inches	Inches	on Reels	per Foot
NGA6	6	.040	.31	1000	.20
NGA11	11	.042	.38	1000	.28
NGA16	16	.045	.45	1000	.36
NGA21	21	.047	.50	1000	.44
NGA26	26	.048	.53	1000	.49
NGA31	31	.049	.58	1000	.56
NGA41	41	.052	.65	1000	.69
NGA51	51	.055	.72	1000	.82
NGA76	76	.059	.85	1000	1.10
NGA101	101	.064	.97	1000	1.40
NGA152	151	.071	1.17	1000	2.00
NGA202	201	.077	1.33	1000	2.50

Type OUA—For Inside Construction

SHEATH. Pure lead.

CONDUCTORS. No. 22 A.W.G. tinned, enamel, double cotton lacquered insulation, colored in accordance with standard color scheme so that each pair is distinguishable from other pairs in the cable.

CONDUCTOR RESISTANCE. Not exceeding 96 ohms per mile of cable at 68°F.

INSULATION RESISTANCE. Not less than 20 megohm miles at 60°F.

DIELECTRIC STRENGTH. Insulation between conductors capable of withstanding for two seconds an a.c. test potential whose maximum instantaneous value is 700 volts. The insulation between conductors and sheath capable of withstanding a test with an a.c. potential whose maximum instantaneous value is 1400 volts.

Code No.	No. of Pairs	Thickness	Mean	Convenient	Approx.
No. of Pairs	Guaranteed	Sheath	O.D.	No. of Ft.	Wt. Lb.
		Inches	Inches	on Reels	per Foot
OUA6	6	.040	.33	1000	.21
OUA11	11	.043	.41	1000	.30
OUA16	16	.045	.47	1000	.38
OUA21	21	.047	.51	1000	.46
OUA26	26	.049	.57	1000	.53
OUA31	31	.050	.60	1000	.58
OUA41	41	.053	.69	1000	.71
OUA51	51	.056	.75	1000	.86
OUA76	76	.061	.89	1000	1.10
OUA101	101	.065	1.01	1000	1.40

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Western Electric
Type CL Switchboard Cable

This cable represents the highest development in the art of switchboard cable manufacture.

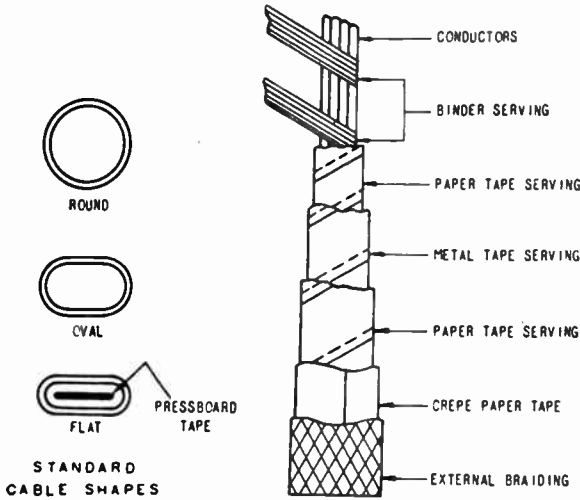
The CL type cable listed in the following tables consists of copper conductors, either tinned or enameled, with two servings of double acetate yarn and one serving of cotton impregnated with cellulose acetate.

Cellulose acetate impregnated conductors are referred to in the tabulation as lacquered conductors.

Cables having enameled conductors are identified by four digit code numbers, 1016CL, 1024CL, etc. All CL cables except the quadded 500CL and 1500CL type have an outer covering consisting of the following: the core of each cable is bound with a binder serving of cotton; a serving of paper tape; a serving of metal tape; a second serving of paper tape; and a serving of crepe paper tape applied longitudinally. Over this is applied a close braiding of cotton. The completed cable is painted with gray cable paint.

In quadded cable (500CL and 1500CL types), the cotton binder serving is omitted and a heavier first serving of paper tape is used.

Designed in three general shapes, flat, oval, and round. In the following tabulations the larger dimensions for oval or flat cable represent the width and the smaller dimensions the thickness.



SHOWING BINDER SERVING NOT USED ON QUADDLED CABLE

Tinned Conductors
Double Acetate Yarn, Single Cotton Insulation,
Lacquered

Code No.	*Conductors	Pairs		Dimen. In.	Shape	Replaces
		No. Gage	†Color			
16CL	63	20 22	1-20	20 22 1-20	.350x.760	Oval 6016-6201
24CL	43	20 22	1-20	20 22 1-20	.330x.560	Oval 6024-6196
50CL	33	10 22	1-10	10 22 1-10	1 3/8 Diam.	Rd. 6050
62CL	63	15 22	1-15	15 22 21-35	3/16 Diam.	Rd. 6035-6062
66CL	103	15 22	1-40	5 22 121-125	.72 Diam.	Rd. 1066-6066
		5 22	141-145	20 22 1-20		
		20 22	1-20	20 22 1-20		
69CL	208	20 22	1-20	20 22 1-20	.98 Diam.	Rd. 1069-6069
		20 22	1-20	20 22 1-20		
		20 22	1-20	20 22 1-20		
70CL	83	20 22	1-20	20 22 141-160	1 5/32 x 1 9/16	Oval 6070
74CL	21	10 22	181-190	64 22 1-64	3/8 Diam.	Rd. 6074, 6079
97CL	132	64 22	1-64	20 24 1-20	.81 Diam.	Rd. 1097-6097
100CL	83	20 24	1-20	20 24 141-160	.73x.49	Oval 1100-6100
103CL	42	20 24	1-20	20 22 1-20	.58x.37	Oval 1103-6103
106CL	103	20 22	1-20	20 22 141-160	1 1/16 Diam.	Rd. 6106
125CL	23	10 19	1-10	20 22 1-20	.52 Diam.	Rd. 1125-6125
182CL	13	6 22	181-186	10 22 1-10	3/4 Diam.	Rd. 6182
183CL	53	10 22	141-150	10 22 1-10	1 1/4 Diam.	Rd. 6183
191CL	93	20 22	1-20	30 12 21-50	.61 Diam.	Rd. 6191
205CL	39	12 22	1-12	12 22 21-32	.42 Diam.	Rd. 6205-6227
232CL	83	20 22	1-20	20 22 141-160	.350x1.570	Flat
233CL	123	20 22	1-20	40 22 1-40	.68 Diam.	Rd. 6233
234CL	164	20 22	1-20	20 22 21-40	.81 Diam.	Rd. 6234
		20 22	121-140	20 22 141-160		
		20 22	1-20	20 22 21-40		
235CL	205	20 22	1-20	40 22 1-40	.88 Diam.	Rd. 6235
		20 22	121-140	20 22 141-160		
		20 22	1-20	20 24 1-20	.82x.44	Flat 1236
239CL	103	20 22	1-20	20 22 1-20	.370x1.57	Flat
241CL	43	20 22	1-20	20 22 1-20	.33x.76	Flat
242CL	63	20 22	1-20	20 22 1-20	.33x1.57	Flat
243CL	312	20 22	1-20	20 22 1-20	1.11 Diam.	Rd. 6237
		20 22	1-20	20 22 1-20		
		20 22	1-20	20 22 1-20		

*Includes spares.
†Numbers refer to color combinations. Write for further information.

For more complete information on all types of telephone apparatus and cable see Western Electric Catalog 11. Consult your nearby Graybar office and warehouse.

Tinned Enameled Conductors
Double Acetate Yarn, Single Cotton Insulation,
Lacquered

Code No.	*Conductors	Pairs		Dimen. Inches	Shape	Replaces
		No. Gage	†Color			
1016CL	63	20 22	1-20	20 22 1-20	.79x.39	Oval 1016
1024CL	43	20 22	1-20	20 22 1-20	.55x.42	Oval 1024
1050CL	33	10 22	1-10	10 22 1-10	.42 Diam.	Rd. 1050
1066CL	103	40 22	1-40	5 22 121-125	.73 Diam.	Rd. 1066
		5 22	141-145	20 22 1-20		
		20 22	1-20	20 22 1-20		
1069CL	208	20 22	1-20	20 22 1-20	.109 Diam.	Rd. 1069
		20 22	1-20	20 22 1-20		
		20 22	1-20	20 22 1-20		
1070CL	83	20 22	1-20	20 22 141-160	.79x.50	Oval 1070
1074CL	21	10 22	181-190	20 22 1-20	.39 Diam.	Rd. 1074
1125CL	23	10 19	1-10	20 22 1-20	.58x.36	Oval
1182CL	13	6 22	181-186	20 22 1-20	.32 Diam.	Rd. 1182
1475CL	12	16 22	181-186	20 22 1-20	.40 Diam.	Rd. 1475
1476CL	24	12 22	181-192	20 22 1-20	.5 Diam.	Rd. 1476

‡Made up of shielded twisted pairs. The wires are twisted in pairs and a ground wire is laid longitudinally with the twisted pair. On each pair is a braided shield of copper wire. Intended for use in multi channel carrier circuits.

Toll Quadded Cable—Tinned Conductors
Double Acetate Yarn, Single Cotton Insulation,
Lacquered

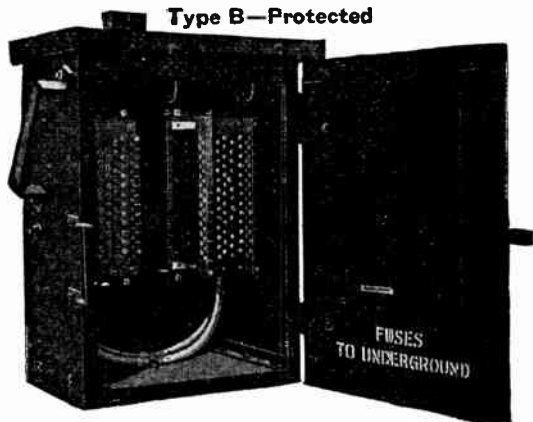
Code No.	*Conductors	No. of Quads	Gage	†Quad Color	Diameter Inches	Shape
500CL	8	2	22	1 & 2	.28	Round
501CL	16	4	22	1-4 Incl.	.40	Round
502CL	32	8	22	1-8 Incl.	.50	Round
503CL	40	10	22	1-10 Incl.	.56	Round
504CL	52	12	22	1-12 Incl.	.59	Round
505CL	68	16	22	1-16 Incl.	.68	Round
506CL	84	20	22	1-20 Incl.	.71	Round

Toll Quadded Cable—Tinned Enameled Conductors
Double Acetate Yarn, Single Cotton Insulation,
Lacquered

1500CL	8	2	22	1 & 2	.28	Round
1501CL	16	4	22	1-4 Incl.	.40	Round
1502CL	32	8	22	1-8 Incl.	.50	Round
1503CL	40	10	22	1-10 Incl.	.56	Round
1504CL	52	12	22	1-12 Incl.	.59	Round
1505CL	68	16	22	1-16 Incl.	.68	Round
1506CL	84	20	22	1-20 Incl.	.71	Round

**Western Electric
Cable Terminals**

Type B—Protected



No. B26, Open

The listing of Type B cable terminals complete includes a terminal box, equipped with fuse chambers and binding post chambers, each of which is supplied with a cable stub attached and potheaded. Fuse chambers and binding post chambers may be ordered as separate items.

No. B26 terminal will terminate both a 26 pair underground cable and a 26 pair aerial cable. It provides for cross-connection. Other sizes have similar capacity ratings.

Pole seats may be used with the two smaller sizes of Type B cable terminals. These together with balconies for the large terminals can be obtained.

Code No.	Capacity Pairs	Cable Terminal Box	*Fuse Chamber		Binding Post Chamber	
			No.	Qty.	No.	Qty.
B 26	26	B 26	B 26A	1	B 26A	1
B 51	51	B 51	B 51A	1	B 51A	1
B 76	76	B 76	B 76A	1	B 76A	1
B101	101	B101	B101A	1	B101A	1
B152	152	B152	B 76B	2	B 76B	2
B202	202	B202	B101B	2	B101B	2
B304	304	B304	B 76B	2	B 76B	2
			B 76C	2	B 76C	2
			B101B	2	B101B	2
B404	404	B404	B101C	2	B101C	2

*B fuse chambers do not include the No. 7T fuses which must be ordered separately.

Type F—Unprotected



Open

Provides a moisture-proof seal for lead-covered cables terminated on outside walls or poles.

Consists essentially of a metal sealing chamber having an insulating panel with binding posts, nuts, and washers. Provided with galvanized slip cover and detachable metal mounting plate. Terminal may be mounted with stubs out of top or bottom of mounting. With 5½-foot cable stub projecting from top of terminal. Can be furnished with 10 or 12-foot cable stub (out of top only), or 8-foot cable stub (out of top or bottom as specified).

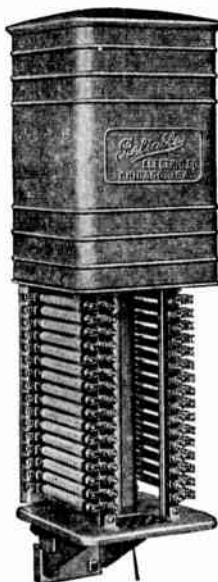


Code No.	F10	F16	F26
No. Pairs of Conductors Arranged for.	10	16	26
Overall Height	8½ inches	10½ inches	15½ inches
Overall Width	7½ inches	7½ inches	7½ inches
Overall Depth	4½ inches	4½ inches	4½ inches

For more complete information on all types of telephone apparatus and cable, consult your nearby Graybar office.

Reliable Protected Cable Terminals

- Type B27 with No. 27L 5-Ampere Fuse
- Type B56 with No. 56 5-Ampere Fiber Fuse
- Type B55 with No. 55 5-Ampere Fiber Fuse



For terminating lead covered cable with facilities for drop wire distribution. Adds to the convenience of installation, wiring and maintenance. A detachable mounting bracket simplifies the installation.

The cable chamber is on the pole side and is accessible by removing the terminal from the bracket. All drop wiring is done on the side away from the pole.

Individual clips for carbons and fuses, prevent the carbons from crossing when removing fuses. It is unnecessary to remove these fuses when installing jumper wires as all binding posts are at right angles to the fuses.

The heavy binding posts are treated to prevent season cracking. Mounted in molded bakelite and cannot short or turn.

Fuse clips and all other metal parts are rounded to prevent scratches to linemen. Beveled washers on binding posts make it easy for linemen to insert wires. Jumper wires enter the terminal through a heavy fiber fanning hole in bottomplate.

The cast cable chamber is air tight with a full round rubber gasket which seals cable wires. Cable wires are terminated in hollow studs and can be soldered outside of the cable chamber.

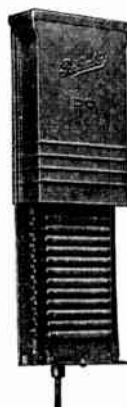
The can top is square with a heavy cast cover which acts as protection against bending or puncturing. It is guided from three points to prevent contact with live parts.

Supplied with No. P495 saw-tooth discharge blocks, No. P197 carbons and 7-foot, No. 22 A.W.G. stub.

Capacity Pairs	Each	Overall Height Inches	Stub Inches	Shipping Weight Pounds
11	\$17.50	14½	None	21
	20.10	14½	7	30
16	24.15	17½	None	24
	27.30	17½	7	35
26	33.10	23¾	None	27
	37.00	23¾	7	37

Type RP Reliable Protected Cable Terminals

- Type RP-27 with No. 27L 5-Ampere Fuses
- Type RP-56 with No. 56 5-Ampere Fuses



This is a compactly designed, reversible protected cable terminal. Designed to meet requirements for a small protected terminal of high quality and fine workmanship.

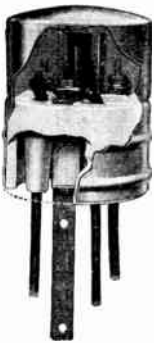
Rugged in construction, yet light in weight. The mounting bracket is detachable for easy installation. The cable chamber is a durable casting—will outlast the cable. A sliding cover is provided making the terminal reversible and eliminating the bother of handling separate types for installation with stub at top and bottom.

Made of corrosion resistant aluminum alloy throughout. Insulation is molded bakelite.

Furnished with P495 sawtooth discharge blocks, P1384 carbons, and a 6-foot, No. 22 A.W.G. stub out of top.

Type	RP
Each	\$13.00
Capacity	6 pairs
Height	11 inches
Stub	6 feet
Weight	9½ pounds

No. 402RR Reliable Two-Wire Cross Arm Arresters



Has galvanized steel bracket and an aluminum cover.

Furnished with P495 discharge block and P1384 carbon block.

Furnished with dry spot base of heavy porcelain.

Diameter, 3 inches. Length, 8½ inches.

Standard package, 2.

Shipping weight, 2 pounds.

No. 402RR.....each \$1.00

No. P495 Reliable Sawtooth Discharge Blocks



Standard package, 20.

No. P495, Ship. Wt. per 100, 2 Pounds.....per 100 \$7.50

Reliable Fuses

For Protectors and Terminals

1, 3, 5, and 7 Ampere Capacity

Unless otherwise specified, 7-ampere fuses will be supplied.

1¾-Inch Tip Diameter



Made in four lengths.

No.	Per 100	Shoulder to Shoulder Inches	Material	Std. Pkg.	Ship. Wt. Lb. per 100
27L	\$9.00	1¾	Ceramic	50	6
77	16.80	4¾	Fiber	50	5
95L	9.00	4	Ceramic	50	5
31L	9.00	3	Ceramic	50	5

1¼-Inch Diameter Tip

Made in two lengths.

30	\$9.00	3	Ceramic	50	7
106	15.00	3¼	Fiber	50	4

7/16-Inch Round Fiber

With 3/8-Inch Hexagon Nuts, Both Ends



Made in two lengths.

53	\$18.00	3¾	Fiber	50	6
55	18.00	1¼	Fiber	50	7

7/16-Inch Round Fiber

With 7/16-Inch Hexagon Nut, One End



56	\$20.00	4¼	Fiber	50	8
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Tube Filterettes

No. 1217 For Permanent Installation



Used with oil burners, refrigerators, call systems, relays, traffic beacons, small sign flashers, dish washers, printing press motors, and small generators.

For operation at 250 volts a.c. or d.c.

Handles up to 10 amperes. Equipped with screw terminals. Frequency range, 300 kc. to 400 mc.

Contained in steel knockout box 8¼x3¾x1¼ inches.

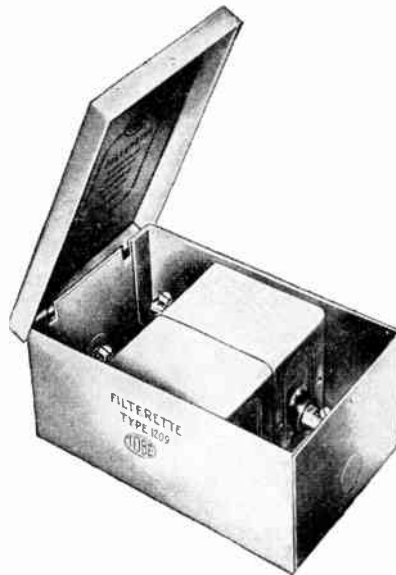
Has ¼-inch mounting holes on 2¾x6¼-inch centers in back of box.

Individually boxed.

Furnished in standard packages of 6 units.

No. 1217.....each \$12.50

No. 1209 For Permanent Installation



Used with large motors, d.c. generators, rotary converters, and electro-medical equipment.

For operation at 125 volts a.c. or d.c.

Handles up to 50 amperes.

Contained in steel knockout box 4¼x7¾x3¼ inches.

Has No. 4 mounting holes on 3¼x6-inch centers.

Screw terminals have 10-32 slotted hex head screws, with lockwashers.

Individually boxed.

Furnished in standard packages of 4 units.

No. 1209.....each \$26.00

No. 1239 For Fluorescent Lamps



Connects across 115-volt input to fluorescent lamp to stop feed-back of radio noise along lamp cord or wiring.

Contained in molded phenolic case, 1¾x1¼ inches, with wrap-around bracket for single screw mounting.

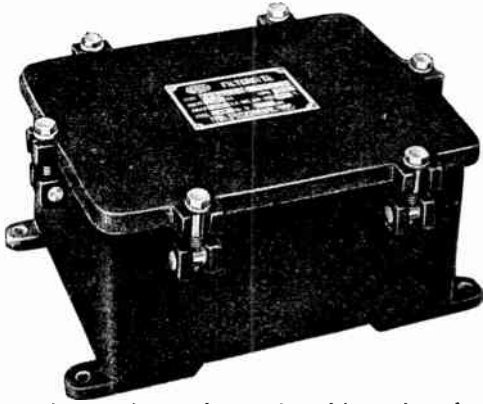
Has insulated flexible leads for connection to a.c. or d.c. line.

Convenient, flat shape fits small space in lamp base or fixture housing. Works well in broadcast and popular short wave bands.

Standard package, 12.

No. 1239.....each \$.95

Tobe Filterettes No. 1168AD For Permanent Installation



For marine service, or for use in refrigerating plants and where high humidity is encountered. For operation at 40 volts a.c. or d.c.; handles up to 55 amperes.

Contained in cast housing $8\frac{3}{4} \times 6\frac{1}{4} \times 4\frac{3}{16}$ inches, with rigid cover held on by six swing bolts; integral mounting lugs with $\frac{3}{8}$ -inch holes on $9\frac{1}{8} \times 5\frac{7}{16}$ -inch centers; 10-32 terminal screws. Standard package, 1.

No. 1168AD.....each \$34.00

No. 1197 For Permanent Installation

For marine service. For operation at 250 volts a.c. or d.c.; handles up to 50 amperes.

Contained in cast housing $6\frac{3}{8} \times 5\frac{5}{16} \times 3\frac{7}{8}$ inches with integral lugs for mounting on 4 by 4-inch centers.

Cover is fastened by 4 screws.

Standard package, 2.
No. 1197.....each \$34.00

Screen Booth Filters

For insertion in power supply line to shielded test rooms; these units provide wide-band attenuation ample to allow operation of sensitive, high-frequency apparatus in close proximity to electrical equipment of all types.

Welded steel housings have knock-outs for conduit at each end; threaded studs facilitate cable lug attachment.

Heavy Duty Filters

No.	Amp.	Volts	Volt. Drop per Circuit	Freq. Range Megacycles	Wt. Lb.
*1179-A	100	500 A.C./D.C.	.2	0.15 to 400	40
†1182-A	100	500 A.C./D.C.	.2	0.15 to 400	65
Medium Duty Filters (Two Wire)					
1137	20	{ 110/220 A.C. 500 D.C. }	.5	0.15 to 20	17
1116	50	{ 110/220 A.C. 500 D.C. }	.5	0.15 to 20	17

*Two Wire. †Three Wire.

Tobe Filterettes No. 1218 For Portable Equipment



Used with office machines, large food mixers (commercial type), and light electro-medical equipment.

Operates on 125/250 volt a.c. or d.c. circuits at loads up to 10 amperes, over a frequency range of 300 kc. to 30 mc.

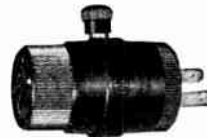
Has steel case $8\frac{3}{8} \times 3\frac{5}{16} \times 1\frac{11}{16}$ inches.

Has 6-foot rubber insulated cord and standard two-contact receptacle; screw is provided for return connection to frame of noise maker.

Individually boxed and furnished in standard packages of 6.

No. 1218.....each \$12.50

No. 1214 For Portable Equipment



Used with appliances driven by universal or d.c. motors, such as vacuum cleaners, hair dryers, sewing machines, food mixers, and cash registers. Most effective in the broadcast band and adjacent short-wave bands.

Operates on 125 volts a.c. or d.c. at current up to 15 amperes.

Plastic case is $1\frac{1}{2} \times 2\frac{3}{8}$ inches.

Individually packaged and furnished in counter display boxes of 12 units. Weight each, $2\frac{1}{2}$ ounces.

No. 1214.....each \$1.98

No. 1215 For Electric Razors



Used with electric razors. Operates on 125 volts a.c. or d.c. at current up to 15 amperes.

Plastic case is $1\frac{1}{2} \times 2\frac{3}{8}$ inches.

Individually packaged and furnished in counter display boxes of 12 units. Weight, each $2\frac{1}{2}$ ounces.

No. 1215.....each \$1.98

No. 1220 For Portable Equipment



Used with appliances of the series-motored or universal-motored type. Recommended when the nearest radio station is more than 100 miles away.

Operates on 125 volts, a.c. or d.c. at current up to 15 amperes.

Has steel case $2\frac{1}{8} \times 2\frac{7}{8} \times 1\frac{3}{4}$ inches with strap bracket for mounting on $3\frac{11}{16}$ -inch centers.

Furnished with 6-foot rubber-insulated cord and plug, and a two-contact receptacle.

Individually boxed and packaged in standard lots of 6.

No. 1220.....each \$5.50

Tobe Manufacturers' Type Filterettes



Designed and engineered to suppress static caused by oil burners, barbers' clippers, ozonators, traffic signals, and a multitude of equipment and household appliances.



The Tobe "Filterized" Tag, which carries with it a consumer acceptance value, is made available to manufacturers.

Graybar is prepared to facilitate solutions to all inquiries which may arise in connection with noise suppression.

Type PRF Tobe Oil-Paper Capacitors

For A.C. Service



No. PRF-3310

Designed for intermittent or continuous a.-c. service and for power factor correction. Oil-filled, oil-impregnated and furnished in hermetically sealed steel cases with solder lug terminals on a leak-proof insulator assembly.

In higher voltage ratings, the solder-lug terminals are provided with cup-type bushings for a longer leakage path.

Dependable service in ambient temperatures up to 75°C. is accomplished with stable capacitance and stable power factor.

Mounting provisions include the permanently attached base plate, designated by the suffix P to the type number; the hook hold-down bracket with spade lug, designated H; the flange type hook hold-down bracket, designated F; and the universal wrap-around (adjustable) bracket, designated U.

Type PRF Bases

Base	Thickness Inches	Width Inches	Base	Thickness Inches	Width Inches
A	1 1/16	1 13/16	E	2 1/4	3 3/4
B	1 3/16	2 1/2	F	2 1/2	3 3/4
C	1 1/4	3 3/4	G	3 3/16	3 3/4
D	1 3/4	3 3/4	H	4 9/16	3 3/4

110-330 V., A.C.			440 V., A.C.			660 V., A.C.		
Capacity Mfd.	No.	Height In.	No.	Height In.	No.	Height In.	No.	Height In.
1	PRF-331	*A 2 1/8	PRF-441	*A 2 5/8	PRF-661	A 4		
2	PRF-332	*A 2 5/8	PRF-442	*A 4	PRF-662	B 4 1/4		
3	PRF-333	*A 4	PRF-443	B 3 1/2	PRF-663	C 3 1/2		
4	PRF-334	B 3 1/2	PRF-444	B 4 3/4	PRF-664	D 3 5/8		
5	PRF-335	B 4 1/4	PRF-445	C 4	PRF-665	D 4 1/4		
6	PRF-336	B 4 3/4	PRF-446	C 4 3/4	PRF-666	E 4 1/4		
7					PRF-667	E 4 1/4		
8	PRF-338	C 4	PRF-448	D 4	PRF-668	F 4 3/4		
10	PRF-3310	C 4 3/4	PRF-4410	D 4 3/4	PRF-6610	G 4 3/4		
12	PRF-3312	D 4	PRF-4412	E 4 3/4	PRF-6612	H 4 3/4		
15	PRF-3315	D 4 3/4	PRF-4415	G 4	PRF-6615	H 5 3/4		
20	PRF-3320	E 4 3/4	PRF-4420	H 4 3/4	PRF-6620	H 7 1/2		
25	PRF-3325	G 4 1/2	PRF-4425	H 5 3/4				
30	PRF-3330	H 4	PRF-4430	H 6 1/2				
40	PRF-3340	H 4 3/4						
50	PRF-3350	H 5 1/2						
60	PRF-3360	H 6 1/2						
80	PRF-3380	H 8 1/2						

*Cup bushings cannot be furnished.

Tobe N-Erg-Y Capacitors



Designed for use with portable speed-flash units. Has high energy storage combined with compactness and light weight.

Dependability under diversified operating requirements suits all types of indoor and outdoor service in modern super-speed, photo-flash work.

Available in two ratings, 100 watt-seconds and 25 watt-seconds.

100 Watt-Seconds

Peak rating of 2500 volts d.c.; holds peak charge for approximately 24 hours.

Hermetically sealed steel case, cup-type phenolic bushings, heavy duty screw terminals for large cable connections to handle high instantaneous currents.

Negligible inductance and resistance in windings and connections allows high instantaneous current values up to 1250 amperes.

Has 10,000 charge-discharge cycles at peak rating. Dimensions: height, 6 1/2 inches; and 3 3/4 x 4 1/2-inch base. Weight, 6 1/2 pounds.

25 Watt-Seconds

Has same features as 100 watt seconds capacitor except height, 4 3/4 inches; and 3 3/4 x 2 1/2-inch base. Weight, 2 1/2 pounds.

Tobe A.C. Oil Type Motor Capacitors

Designed for long life under the stress of a.c. motor starting and power factor correction.

Non-inductively wound, mineral oil impregnated and filled. Has low power factor and high degree of stability as to all characteristics, at temperatures up to 85°C.

Non-removable solder-lug terminals are assembled to hermetically sealed cylindrical steel cases.



Mounting brackets can be furnished in flat or curved style.

220 Volts A.C.				375 Volts A.C.			
No.	Capacity Mfd.	Diam. In.	Ht. In.	No.	Capacity Mfd.	Diam. In.	Ht. In.
MRR-221-75	1.75	1 3/8	2 1/2	MRR-387	7.00	2 1/2	5 1/8
MRR-224-75	1.75	2 3/16	2 5/8				
MRR-225	5.00	2 3/16	2 5/8				

330 Volts A.C.				440 Volts A.C.			
No.	Capacity Mfd.	Diam. In.	Ht. In.	No.	Capacity Mfd.	Diam. In.	Ht. In.
MRR-332	3.00	1 3/8	3	MRR-444-54	5.00	2 1/2	5 1/8
MRR-333-3	3.30	2	2 3/8	MRR-445	5.00	2 1/2	5 1/8
MRR-333-5	3.50	2	2 5/8	MRR-447	7.00	2 1/2	5 1/4
MRR-334	4.00	2 3/16	2 5/8	MRR-448	8.00	2 1/2	5 1/4
MRR-335	5.00	2 3/16	2 5/8				

Tobe Electrolytic Type Motor-Starting Capacitors

For use in a.c. motor starting circuits at temperatures from minus 76°F. to plus 185°F.

Cylindrical metal cases in three standard sizes: KM1C1, 1 3/8-inch diam. 3 1/8-inch height; KM1C2, 2-inch diam. 3 1/8-inch height; KM1C6, 2-inch diam. 4 1/8-inch height.

Furnished with screw or solder-lug terminals. Standard mounting hardware as required.



110 Volts A.C.			110 Volts A.C.		
No.	Capacity Min. Mfd.	Max. Mfd.	No.	Capacity Min. Mfd.	Max. Mfd.
KM1C1-020-110	20	24	KM1C2-189-110	189	210
KM1C1-027-110	27	30	KM1C2-216-110	216	240
KM1C1-032-110	32	36	KM1C2-243-110	243	270
KM1C1-043-110	43	48	KM1C2-270-110	270	300
KM1C1-054-110	54	60	KM1C6-324-110	324	360
KM1C1-064-110	64	71	KM1C6-378-110	378	420
KM1C1-070-110	70	78			
KM1C1-076-110	76	84			
KM1C1-086-110	86	96			
KM1C1-097-110	97	107			
KM1C1-108-110	108	120			
KM1C1-124-110	124	138			
KM1C1-145-110	145	161			
KM1C2-162-110	162	180			

220 Volts A.C.		
No.	Capacity Min. Mfd.	Max. Mfd.
KM1C1-020-220	20	24
KM1C1-026-220	26	30
KM1C6-032-220	32	36
KM1C6-038-220	38	42
KM1C6-043-220	43	48
KM1C6-053-220	53	60

Tobe Oil Type Fluorescent Lamp Capacitors

Designed to meet the special a.c. requirements of fluorescent lamp and other a.c. services.

Mineral oil impregnated and filled.

Hermetically sealed in metal cases with oil-proof solder-lug terminals.

Available in round and oval styles.



Type FCR				Type FCO			
Round Case—2 3/4 Inches High				Oval Case—2 3/4 x 1 1/2-In. Base			
No.	A.C. Capacity Volts	Capacity Mfd.	Diam. In.	No.	A.C. Capacity Volts	Capacity Mfd.	Ht. In.
FCR-332-5	330	2.5	2 1/2	FCO-223-5	220	3.50	3 7/8
FCR-333	330	3.0	2 1/2	FCO-223-75	220	3.75	4 1/8
FCR-333-5	330	3.5	2 1/2	FCO-224	220	4.00	4 3/8
FCR-334	330	4.0	2 1/2	FCO-224-5	220	4.50	4 7/8
				FCO-224-75	220	4.75	4 7/8
				FCO-333	330	3.00	3 5/8
				FCO-333-5	330	3.50	3 7/8
				FCO-333-75	330	3.75	4 1/8
				FCO-334	330	4.00	4 3/8
				FCO-334-25	330	4.25	4 5/8

Type TRS Tobe Oil-Paper Capacitors



No. TRS-3004-U

For use in filter, transmitting, and timing circuits. Capable of withstanding transient voltages and temperatures encountered in such service.

For filter circuit applications, capacitor is rated in terms of R.M.S. voltage at the input to the rectifier.

Impregnated and filled with mineral oil. Is of non-inductive type. Hermetically sealed steel case of squeeze-seam construction can be furnished with permanently attached mounting feet,

hook hold-down brackets, or adjustable wrap-around brackets, all of which provide for upright or inverted mounting. Wrap-around bracket permits capacitor to be set into a sub-panel or chassis with terminals at any desired distance above mounting surface.

Terminal assemblies are of oil-tight construction with insulation adequate to rated voltage of capacitor. Heavy shakeproof type soldering lugs, assembled to terminal studs, will handle connecting wires in sizes up to No. 15. Terminals are white porcelain; washers, black bakelite.

Type numbers identify capacitor without mounting. For mounting feet, add P to type number; for hook type bracket add H; for universal wrap-around bracket, add U.

No.	Capacity Mfd.	Volts D.C.	DIMENSIONS, INCHES		
			Height	Width	Thickness
TRS-650	.50	600	2 1/8	1 13/16	1 1/16
TRS-601	1.0	600	2 1/8	1 13/16	1 1/16
TRS-602	2.0	600	2 5/8	1 13/16	1 1/16
TRS-603	3.0	600	4	1 13/16	1 1/16
TRS-604	4.0	600	3 1/2	2 1/2	1 3/16
TRS-605	5.0	600	4	2 1/2	1 3/16
TRS-606	6.0	600	4 3/4	2 1/2	1 3/16
TRS-608	8.0	600	3 1/2	3 3/4	1 1/4
TRS-6010	10.	600	4	3 3/4	1 1/4
TRS-612	12.	600	4 3/4	3 3/4	1 3/4
TRS-6020	20.	600	4	3 3/4	2 1/4
TRS-6040	40.	600	4 1/4	3 3/4	4 9/16
TRS-6050	50.	600	4 3/4	3 3/4	4 9/16
TRS-1050	.50	1000	2 1/8	1 13/16	1 1/16
TRS-1001	1.0	1000	2 5/8	1 13/16	1 1/16
TRS-1002	2.0	1000	4	1 13/16	1 1/16
TRS-1004	4.0	1000	4 3/4	2 1/2	1 3/16
TRS-1005	5.0	1000	4	3 3/4	1 1/4
TRS-1008	8.0	1000	4 3/4	3 3/4	1 1/4
TRS-10010	10.	1000	4 3/4	3 3/4	1 3/4
TRS-10012	12.	1000	4	3 3/4	2 1/4
TRS-10015	15.	1000	4 3/4	3 3/4	2 1/4
TRS-1510	10	1500	2 1/8	1 13/16	1 1/16
TRS-1525	25	1500	2 1/8	1 13/16	1 1/16
TRS-1550	50	1500	2 5/8	1 13/16	1 1/16
TRS-1501	1.0	1500	4	1 13/16	1 1/16
TRS-1502	2.0	1500	4 1/4	2 1/2	1 3/16
TRS-1504	4.0	1500	4 3/4	3 3/4	1 1/4
TRS-1506	6.1	1500	4 3/4	3 3/4	1 3/4
TRS-2010	20	2000	2 1/8	1 13/16	1 1/16
TRS-2025	25	2000	2 1/2	1 13/16	1 1/16
TRS-2050	50	2000	2 5/8	1 13/16	1 1/16
TRS-2001	1.0	2000	3 1/2	2 1/2	1 3/16
TRS-2002	2.0	2000	4	3 3/4	1 3/4
TRS-2004	4.0	2000	4	3 3/4	2 1/4
TRS-25003	.03	2500	2 1/8	1 13/16	1 1/16
TRS-2501	1.0	2500	3 3/4	3 3/4	1 3/4
TRS-2502	2.0	2500	4 3/4	3 3/4	1 3/4
TRS-2504	4.0	2500	4	3 3/4	4 9/16
TRS-30001	10	3000	2	2 1/2	1 3/16
TRS-30002	20	3000	2 1/2	2 1/2	1 3/16
TRS-3025	25	3000	2 1/2	2 1/2	1 3/16
TRS-3050	50	3000	4	2 1/2	1 3/16
TRS-3001	1.0	3000	4	3 3/4	2 1/4
TRS-3002	2.0	3000	4 1/4	3 3/4	3 3/16
TRS-3004	4.0	3000	4 3/4	3 3/4	4 9/16
TRS-4001	1.0	4000	5	3 3/4	2 1/4
TRS-600025	25	6000	4	3 3/4	1 1/4
TRS-6001	1.0	6000	4 3/4	3 3/4	4 9/16

Type VRC Tobe Television Type Capacitors



Designed to meet all requirements for the television service.

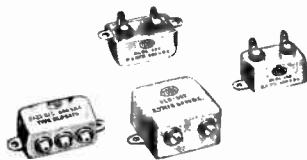
Hermetically sealed, mineral oil-filled.

Can be furnished in wide variety to meet specifications.

No.	Volts D.C.	Capacity Mfd.	Dimensions, In.	Terminals
VRC-8010	8000	0.1	3 3/4 x 2 1/4 x 4 1/8	2
VRC-16005-T1	16000	0.05	3 3/4 x 1 1/2 x 5 3/8	1

Tobe Oil-Paper Capacitors

Type RLO



Provides the convenient versatility of the bathtub design with the operating advantages of oil-impregnated and oil-filled construction.

Seamless, drawn case is hermetically sealed and is tinned for protection against corrosion. When specified, a lacquer finish can be furnished instead of tinning. Projecting ears on ends of case are provided for mounting.

Heavy, tinned copper soldering terminals, supported on molded phenolic insulators, can be located on the top, the bottom, or the side of the drawn metal case. The location of the terminals is indicated by suffix letters added to the type designations as follows: for terminals on the bottom, suffix L (example, RLOL-650); for terminals on the top the suffix is N; the basic type number RLO indicates terminals on the side of the case.

Characteristics of mineral oil used for impregnating and filling these capacitors are such that they can be used through a temperature range of minus 55° to plus 185°F.

Case Size	DIMENSIONS, INCHES			Mgt. Ctrs.	Overall
	Length	Width	Thickness		
A-2	1 13/16	1	7/8	2 1/8	2 1/2
B-1	2	1 3/4	7/8	2 3/8	2 3/4
C-3	2	2	1 1/4	2 3/8	2 3/4

Capacity Mfd.	600 V., D.C.		1000 V., D.C.	
	No.	Case Size	No.	Case Size
0.01	RLO-6001	A2	RLO-10001	A2
0.02	RLO-6002	A2	RLO-10002	A2
0.05	RLO-6005	A2	RLO-10005	A2
0.1	RLO-610	A2	RLO-1010	A2
0.25	RLO-625	A2	RLO-1025	A2
0.5	RLO-650	A2	RLO-1050	B1
1.0	RLO-601	B1	RLO-1001	C3
2.0	RLO-602	C3		
.05-.05	RLO-6205-3	A2	RLO-10205-3	A2
.1-.1	RLO-6210-3	A2	RLO-10210-3	A2
.25-.25	RLO-6225-3	A2	RLO-10225-3	B1
.5-.5	RLO-6250-3	B1	RLO-10250-3	C3
1.-1.	RLO-621-3	C3		
.05-.05-.05	RLO-6305	A2		
.1-.1-.1	RLO-6310	A2	RLO-10310	B1
.25-.25-.25	RLO-6325	B1	RLO-10325	C3
.5-.5-.5	RLO-6350	C3		

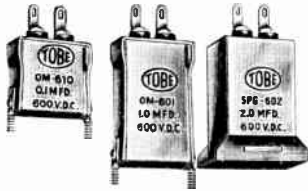
Tobe High Temperature Capacitors

Temperatures up to 135°C. are successfully withstood by this capacitor.

Meets particular service requirements.

Inquiries are solicited on specialized capacitor designs for laboratory, research, and industrial applications.

Tobe Oil-Mites Oil-Paper Capacitors



Oil impregnated and filled.

Hermetically sealed in drawn metal cases.

Mineral oil impregnant affords stable capacitance and power factor from minus 55°F. to plus 185°F. with insulation resistance of 2000 megohms, or higher, and dissipation factor below 0.008 (measured at 1000 cycles).

Furnished in any of three styles: without mounting brackets; with detachable hold-down bracket permitting either upright or inverted mounting; and with permanently attached flange-type mounting bracket soldered to the case for upright or inverted mounting, according to specifications.

When ordering, state mounting style required. On special order, the type and position of terminal lug can be varied.

200 Volts

No.	Capacity Mfd.	CASE SIZE, INCHES		
		Height	Width	Thickness
OMM-2001	0.01	1 3/32	1 3/8	5/8
OMM-2002	0.02	1 3/32	1 3/8	5/8
OMM-2005	0.05	1 3/32	1 3/8	5/8
OMM-210	0.10	1 3/32	1 3/8	5/8
OMM-225	0.25	1 3/32	1 3/8	5/8
OMIU-250	0.50	1 7/32	1 3/8	5/8
OMIU-201	1.0	1 7/32	1 3/8	5/8
OM-202	2.0	2 1/2	1 3/16	1 3/16
OMM-2205	2x0.05	1 3/32	1 3/8	5/8
OMM-2210	2x0.10	1 3/32	1 3/8	5/8

400 Volts

OMM-4001	0.01	1 3/32	1 3/8	5/8
OMM-4002	0.02	1 3/32	1 3/8	5/8
OMM-4005	0.05	1 3/32	1 3/8	5/8
OMM-410	0.10	1 3/32	1 3/8	5/8
OMM-425	0.25	1 3/32	1 3/8	5/8
OMIU-450	0.50	1 7/32	1 3/8	5/8
OM-401	1.0	2 1/4	1 3/8	5/8
OM-402	2.0	2 1/2	1 3/16	1 3/16
OMM-4205	2x0.05	1 3/32	1 3/8	5/8
OMM-4210	2x0.10	1 3/32	1 3/8	5/8

600 Volts

OMM-6001	0.01	1 3/32	1 3/8	5/8
OMM-6002	0.02	1 3/32	1 3/8	5/8
OMM-6005	0.05	1 3/32	1 3/8	5/8
OMM-610	0.10	1 3/32	1 3/8	5/8
OMM-625	0.25	1 3/32	1 3/8	5/8
OMIU-650	0.50	1 7/32	1 3/8	5/8
OM-601	1.0	2 1/4	1 3/8	5/8
OM-602	2.0	2 1/2	1 3/16	1 3/16
OMM-6205	2x0.05	1 3/32	1 3/8	5/8
OMM-6210	2x0.10	1 3/32	1 3/8	5/8

1000 Volts

OMM-10001	0.01	1 3/32	1 3/8	5/8
OMM-10002	0.02	1 3/32	1 3/8	5/8
OMM-10005	0.05	1 3/32	1 3/8	5/8
OMM-1010	0.10	1 3/32	1 3/8	5/8
OMIU-1025	0.25	1 7/32	1 3/8	5/8
OM-1050	0.50	2 1/4	1 3/8	5/8
OM-1001	1.0	2 1/2	1 3/16	1 3/16

Dimensions include thickness of bracket.

Flange mounting adds 1/2-inch to height and 1/16-inch to width; designate flange mount by prefix SPG in number (example SPG-1001 is 1 mfd. 1000 v. capacitor with flange mounting).

Tobe Molded Oil-Paper Capacitors



Designed for use where the requirements are for minimum-size, easily installed capacitors capable of withstanding temperature and humidity beyond the usual limits for tubular by-pass capacitors.

Non-inductively wound, paper-dielectric sections are thoroughly vacuum-dried, impregnated with mineral oil, and molded in mica-filled phenolic housings.

Non-hygroscopic lacquer coating, applied to the completed capacitor, seals the phenolic and minimizes moisture absorption.

Suitable for use at radio frequencies up to 40 megacycles, for audio frequency by-pass service, and for use in filter circuits, these units have extremely low series resistance, high shunt resistance, and can carry relatively large R.F. currents. Compact, rectangular shape and light weight allows them to be mounted by connecting leads alone.

For applications under extreme humidity and tropical conditions, these capacitors can be furnished with a neoprene terminal seal, bonding the wire terminal leads to the phenolic case and assuring positive protection against moisture.

Type APC—Size, 1 1/2x2 3/4x1/2 Inches

No.	Capacity Mfd.	Working Voltage, D.C.		
		200	400	800
APC-0005	500	200	400	800
APC-001	1000	200	400	800
APC-0015	1500	200	400	800
APC-002	2000	200	400	800
APC-003	3000	200	400	800
APC-004	4000	200	400	800
APC-005	5000	200	400	800
APC-006	6000	200	400	800
APC-007	7000	200	400	800
APC-008	8000	200	400	800
APC-01	10000	200	400	800

Type DPC—Size, 1 3/4x1 1/2x1 3/8 Inches

DPC-001	1000	200	400	800	1000
DPC-0015	1500	200	400	800	1000
DPC-002	2000	200	400	800	1000
DPC-0025	2500	200	400	800	1000
DPC-003	3000	200	400	800	1000
DPC-004	4000	200	400	800	1000
DPC-005	5000	200	400	800	1000
DPC-006	6000	200	400	800	1000
DPC-007	7000	200	400	800	1000
DPC-008	8000	200	400	800	1000
DPC-01	10000	200	400	800	1000
DPC-015	15000	200	400	800	1000
DPC-02	20000	200	400	800	1000
DPC-03	30000	200	400	800	1000
DPC-04	40000	200	400	800	1000
DPC-05	50000	200	400	800	1000

Type EPC—Size, 1 1/2x1 3/4x1 3/8 Inches

EPC-005	5000	200	400	800	1000
EPC-006	6000	200	400	800	1000
EPC-007	7000	200	400	800	1000
EPC-008	8000	200	400	800	1000
EPC-01	10000	200	400	800	1000
EPC-015	15000	200	400	800	1000
EPC-02	20000	200	400	800	1000
EPC-03	30000	200	400	800	1000
EPC-04	40000	200	400	800	1000
EPC-05	50000	200	400	800	1000
EPC-06	60000	200	400	800	1000
EPC-08	80000	200	400	800	1000
EPC-10	100000	200	400	800	1000
EPC-20	200000	200	400	800	1000

Tobe Miniature Molded Oil-Paper Capacitors

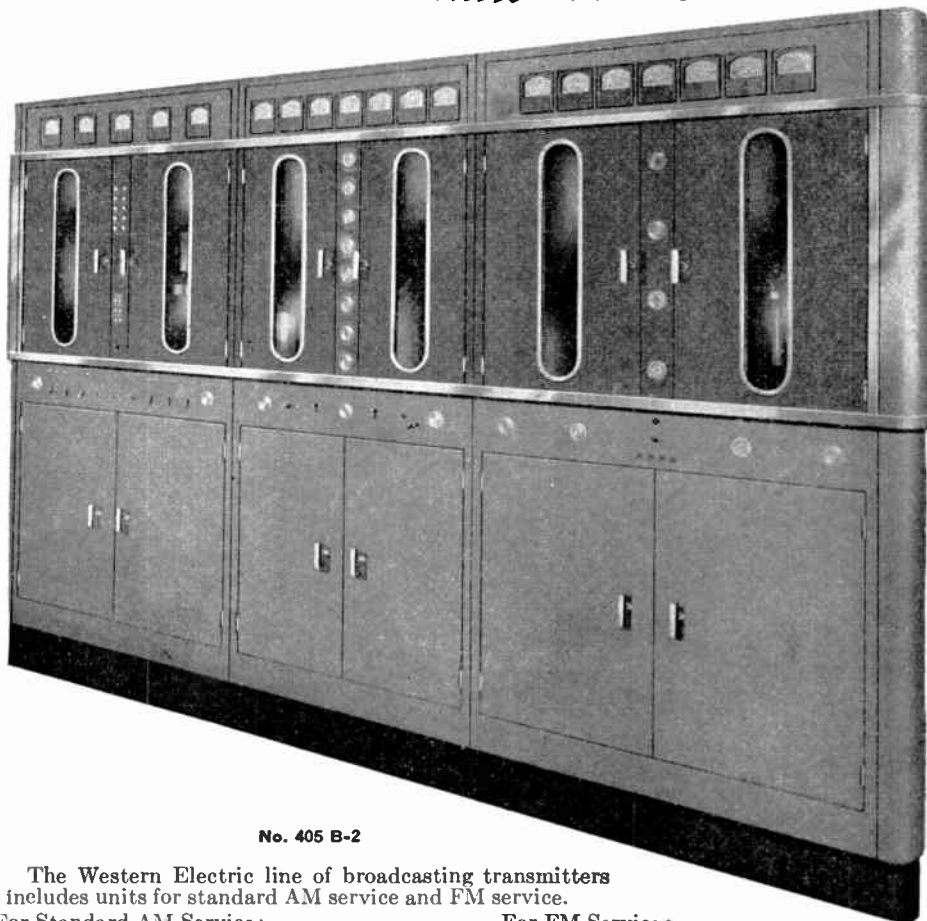
Designed to meet requirements for miniature components to be used in hearing aids, pocket radio receivers, airborne radio apparatus, etc.

Paper-dielectric, oil-impregnated, and molded in phenolic cases, sealed to withstand 90 per cent relative humidity. Working temperatures from minus 55°C. to plus 65°C.; .001 mfd. and .005 mfd. ratings are available for plus 85°C service at additional cost.

Rated working voltage, 75 volts d.c.; capacitance tolerance, plus 60 per cent, minus 20 per cent.

No.	Capacity Mfd.	CASE SIZE, INCHES			WIRE SIZE, IN.	
		Length	Width	Thick.	Diam.	Length
HAC-001	0.001	3/16	5/16	3/32	0.025	1 3/8
HAC-005	0.005	3/16	5/16	3/32	0.025	1 3/8
HAC-01	0.010	11/16	29/64	7/32	0.032	1 3/8
APC-05	0.050	11/16	29/64	7/32	0.032	1 3/8

Western Electric Transmitters



No. 405 B-2

The Western Electric line of broadcasting transmitters includes units for standard AM service and FM service.

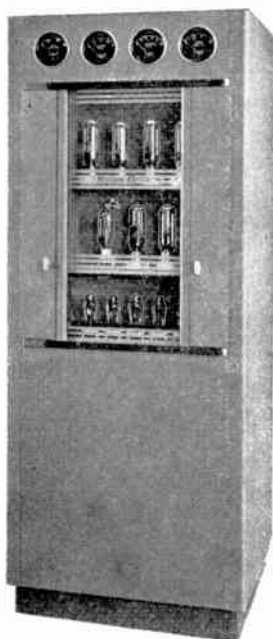
For Standard AM Service:

No. 451A-1.....	250 Watts
No. 442A-1.....	500 Watts
No. 443A-1.....	1000 Watts
No. 405B-2.....	5000 Watts
No. 407A-1.....	50000 Watts

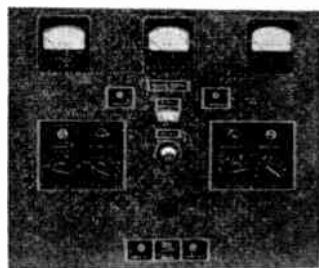
For FM Service:

No. 501 C-2.....	250 Watts
No. 503B-2.....	1000 Watts
No. 504B-2.....	3000 Watts
No. 506B-2.....	10000 Watts
No. 507B-2.....	50000 Watts

Western Electric 2A Phase Monitors



No. 451A-1



Designed for measuring the phase and amplitude relations of the currents in the antenna elements of directional arrays, so that these relations can be correlated with the field pattern.

The 2A Phase Monitor consists principally of: two meters for indicating relative amplitudes of tower current; a phase-measuring condenser and its associated circuit; an amplifier detector circuit for obtaining an indication of balance; and a self-contained power supply.

Frequency Range: 540 to 1600 kilocycles.

Phase Angle Range: 0 to 360°.

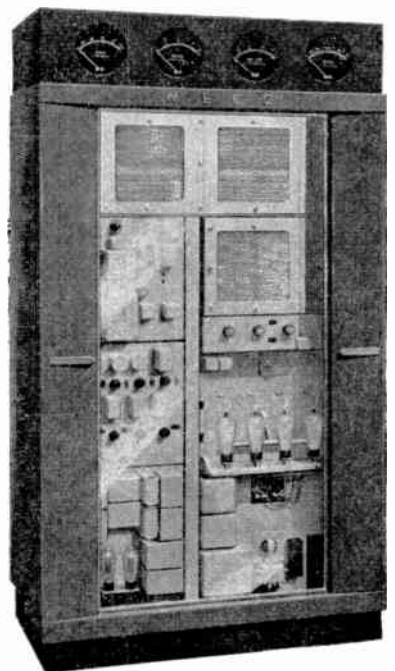
Rated Frequency Input Power: minimum 1/2-watt.

Power Supply: 105-125 volts, 40 to 60 cycles.

Power Consumption: 40 watts.

Dimensions: 16x19x8 inches.

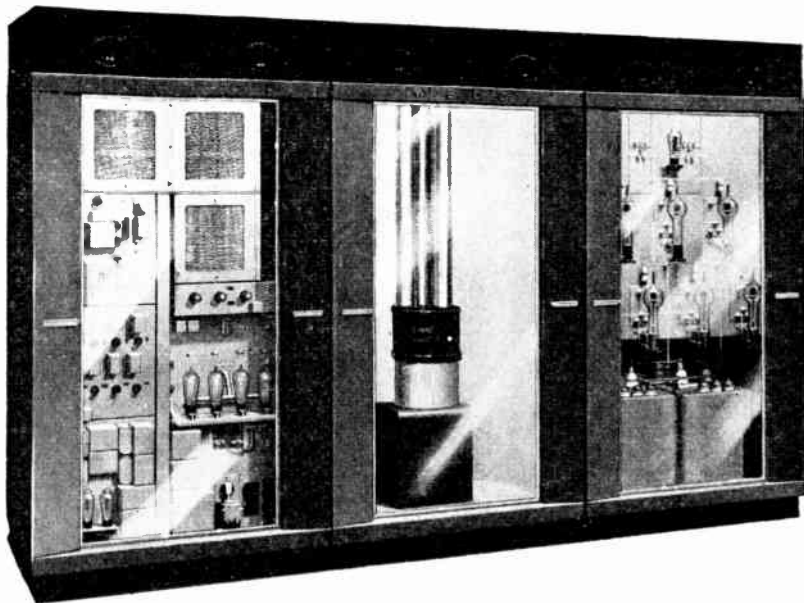
Weight, 43 pounds.



No. 503B-2

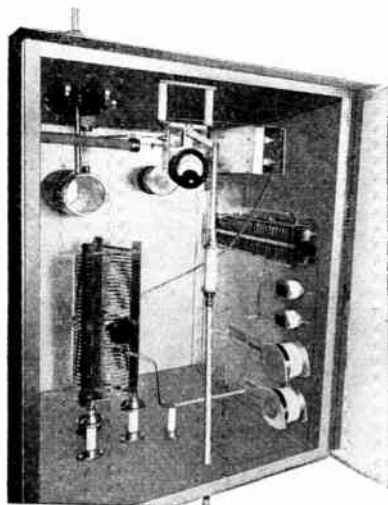
Western Electric No. 506B-2 Transmitters

10,000 Watts
For FM Service

**Western Electric**

No. 54A
Clover-Leaf
FM Antenna

For Broadcasting

Western Electric No. 101A Antenna Coupling Equipment

Designed to match the impedance of a base insulated antenna having a resistance of not less than 15 ohms and a reactance of not more than 650 ohms, to the characteristic impedance of a concentric transmission line from a transmitter having a rated output power of 5 kilowatts or less at radio frequencies between 540 and 1600 kilocycles.

Series-excited antenna.

Cabinet is an all-weather metal type. Dimensions: 46 inches high; 36 inches wide; and 33 inches deep. Shipping weight, 600 pounds.

Blaw-Knox Towers

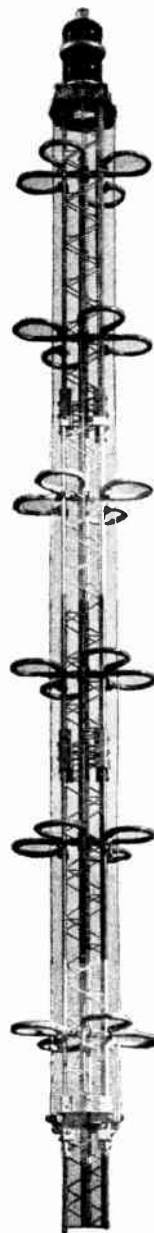
A complete broadcast tower line available in the following types:

Types CH and CN vertical AM radiators;

Types CFN and CFH for combination FM-AM radiators;

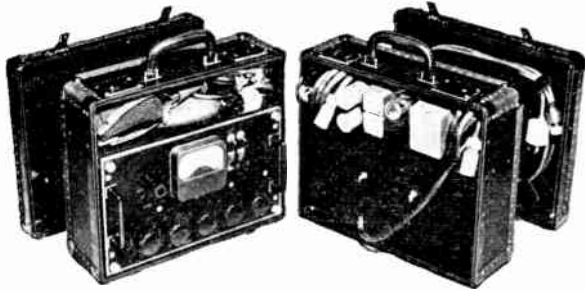
Types N16, N28, H21, and H40 for FM antenna support, all self-supporting;

Types SGN, DGN, SGH, and DGH guyed towers for FM, AM, and FM-AM combination.

**No. 54A Clover-Leaf FM Broadcast Antenna**

Designed to radiate horizontally polarized radio waves and to concentrate this radiated energy in a service area surrounding the transmitting station. Engineered for frequency modulation broadcast stations operating at carrier frequencies between 88 and 108 megacycles and at power levels up to and including 50 kilowatts. The antenna, providing a power gain of 1.3 to 4.7, comprises an array of two or more vertically stacked radiating units. Each radiating unit is composed of a cluster of four curved elements which, in plan view, forms a symmetrical shape similar to a four-leaf clover.

Western Electric No. 22D Portable Speech Input Equipment



A compact system, light in weight and designed to provide complete pick-up facilities both for established remote and for on-the-spot broadcasts.

Consists of a combination amplifier and control unit with a carrying case and a second carrying case for either a power unit for a.c. operation or a battery holder for battery operation, or both, as specified.

No. 22D includes a four channel parallel mixing circuit for operation with 30-ohm dynamic microphones or other sources of comparable impedance.

Master gain control, indirectly illuminated volume indicator, binding posts for two-program lines, jacks for two monitoring headsets, and both binding posts and a jack for an order wire telephone set are furnished.

Frequency Response: uniform within ± 1 decibel from 30 to 10,000 cycles.

Source Impedance: 30 ohms, nominal.

Load Impedance: 150 or 600 ohms.

Gain: maximum, 92 decibels; typical operating, 70 decibels.

Maximum Output: +18 dbm. with less than 1 per cent harmonic distortion.

Power Supply: a.c. operation, 110-120 volts, 50-60 cycles; power consumption is 28 watts at 115 volts; battery operation, filament 1.6 amperes at 6 volts and plate 21 milliamperes at 180 volts.

Dimensions: each case, approximately 14x17x8 inches.

Weight: complete, 50 to 60 pounds.

Western Electric No. 1304A and No. 1304B Reproducer Sets

An electrical transcription and disc record reproducing unit for professional use in broadcasting and sound system installations.

Modern styling, harmonizes with modern studio units. Quiet, dependable, trouble free, powerful drive mechanism. Standard 16-inch diameter record platter, felt surfaced. Interchangeable center pins for outside record center holes. Speed selection of either 33 $\frac{1}{3}$ or 78 rpm. by operating an electrical switch.

Flutter (including wow) less than 1 per cent at 33 $\frac{1}{3}$ or 78 rpm. Total playing time variation over 15 minute program at 33 $\frac{1}{3}$ or 78 rpm., ± 4.5 seconds, (platter speed constant within ± 5 per cent.)

Turntable has built-in isolation to eliminate motor and building vibrations as a factor in operation. No rubber-tired or rim-drive wheels to flatten or wear out. Ample proportioning of power transmission mechanism. Rapid starting, from standstill to full constant speed in approximately $\frac{1}{2}$ revolution at 33 $\frac{1}{3}$ rpm. and $1\frac{1}{2}$ revolutions at 78 rpm. Operates on 115-volt (± 5 per cent), 60 cycles a.c. Motor and drive pulley replaceable for application with other than 115-volt, 60 cycle a.c. power.

Lubrication and inspection accomplished by removing the turntable platter.



Western Electric Type 109 Reproducer Groups



No. 109AA Reproducer Group consists of: No. 9A reproducer, No. 5A reproducer arm, No. KS-13386 equalizer and cable assembly, No. 171A repeating coil, and No. 711A bracket.

No. 109B Reproducer Group consists of: No. 9B reproducer, No. 5A reproducer arm, No. KS-13386 equalizer and cable assembly, No. 171A repeating coil, and No. 711A bracket.

No. 9A and 9B reproducers differ only in stylus tip radius and material. Either plays vertical or lateral records but No. 9A favors vertical and No. 9B lateral reproduction.

Western Electric No. 120C Pre-Mixing Amplifiers

Designed to fulfill requirements as a pre-mixing or booster amplifier and for use in no gain bridging amplifier circuits. A compact, two-stage, 44-decibel gain amplifier unit having excellent frequency response, low distortion, and a balanced input transformer with an electrostatic shield and extra electromagnetic shielding.

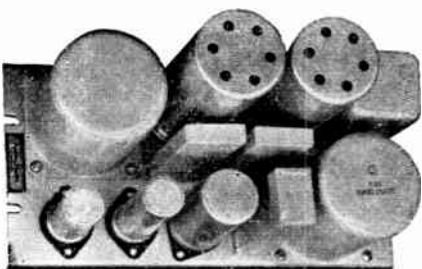
Resistors in cathode circuits are provided to permit checking the currents of the tubes by means of a Western Electric No. KS-10003 type or equivalent meter.

Frequency Response: flat within ± 1 decibel over the range 50 to 15,000 cycles, from nominal impedances.

Source Impedance: 30 or 250 ohms, nominal.

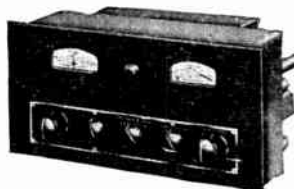
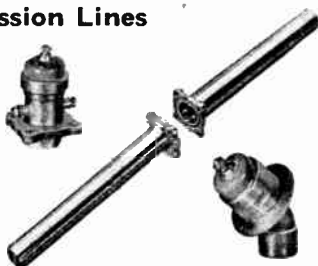
Load Impedance: 600 ohms.

Gain: 44 decibels.



Transmission Lines

Graybar distributes Communication Products Aircore concentric transmission lines and fittings in sizes from $\frac{1}{4}$ -inch to 6 $\frac{1}{2}$ inches to meet all requirements for standard and FM broadcast as well as dehydrators and line maintenance accessories.



Western Electric

No. 5A Frequency and Modulation Monitors

The Western Electric 5A Frequency and Modulation Monitor for FM broadcast-stations fulfills all the F.C.C. and RMA requirements by a good margin, and incorporates many features which extend its usefulness.

Western Electric No. 25B Speech Input Equipment

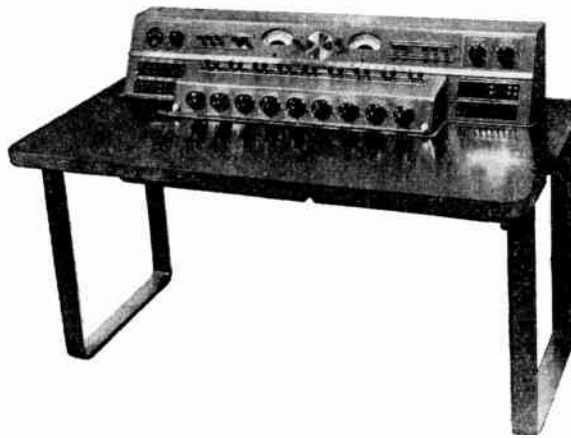
A complete a.c. operated broadcast studio console-type program production unit for the amplification, control, and monitoring of programs originated by microphones, transcriptions, remote lines or equivalent sources.

Has two main program channels capable of simultaneous operation on separate programs without interference, plus a monitor amplifier for loud-speaker monitoring and cueing operations.

Terminals are provided for eight microphone or low level transcription input circuits and switching keys are included for selection of either of two low level inputs for each of four pre-amplifiers.

Three additional simultaneous microphone inputs can be had by using the line mixers and external amplifiers.

Consists of five principal units: the desk style No. 40A Console Control Unit, the No. KS-10284 Table, a compact No. 12A Power Supply, and two flush type wall junction boxes (Nos. 7A and 7B).



Power Source: 105-125 volts, 50 to 60 cycles a.c., approximately 225 watts.

Dimensions: Console, 36x55x28 inches; Power Supply, 16½x28x10 inches; Junction Boxes, 18x20x4 inches.

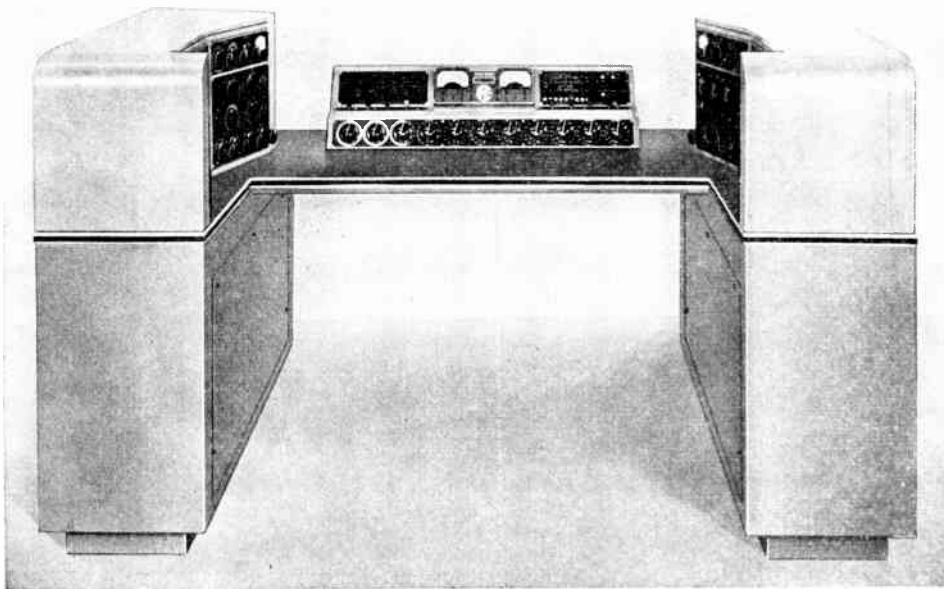
Frequency Response: $\pm \frac{1}{2}$ decibel, 50 to 15,000 cycles.

Source Impedance: Microphone Inputs, 30, 250, or 600 ohms, nominal; Line Inputs, 600 ohms; Utility Inputs, 600 ohms; Aircue Inputs, 600 ohms.

Load Impedance: Line Output, 600 ohms; Audition Output, 600 ohms; Monitor-Amplifier Outputs, furnished adjusted for loud-speaker impedances of 3 to 10 ohms (may be reconnected to impedances 1 to 1200 ohms).

Maximum Output Power: +18 dbm., allows 10 decibel margin for peak factor above +8 vu, which is the normal program output for the equipment.

Western Electric Custom-Built Consoles

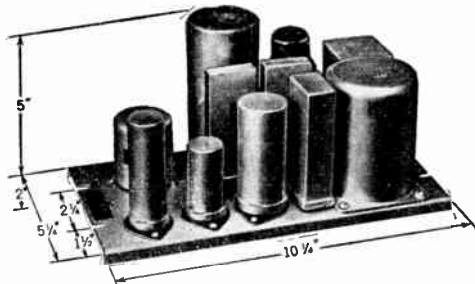


Western Electric Custom-Built Consoles, engineered to customer's requirements, are noted for their versatility, utility, and attractive appearance.

They are designed to have uniform frequency response, inherently low distortion level, and low noise level, all better than the limits set by the FCC for the highest quality AM and FM broadcasting.

Each installation incorporates standard Western Electric components combined into circuit arrangements and cabinet designs to meet individual requirements.

Western Electric Type 132 Main Amplifiers



No. 132A Main Amplifier is a compact, two-stage main amplifier for feeding normally equalized transmission lines or master switching circuits, with adequate power to handle

program bus systems or studio auditioning facilities. Operates from an external power supply, and is suited for desk or rack mounting. Resistors in cathode circuits permit tube checks.

No. 132B Amplifier is essentially the same as No. 132A except that it has 50 decibel gain, a balanced input transformer with an electrostatic shield and an extra electromagnetic shield. The nominal source impedances for No. 132B are 30 and 250 ohms.

Frequency Response: No. 132A, uniform within 1 decibel over the range 50 to 15,000 cycles, nominal impedances.

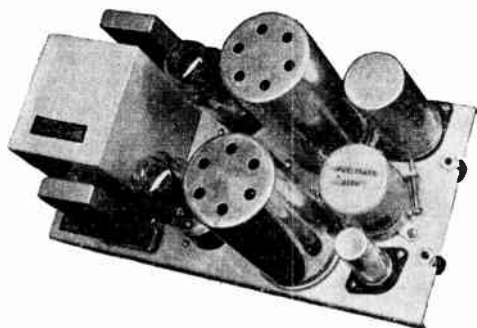
Source Impedances: No. 132A, 30 or 250 or 600 ohms, nominal.

Load Impedance: No. 132A, 600 ohms.

Maximum Gain: No. 132A, 48 decibels.

Output Power: No. 132A, +29 dbm. with 1 per cent total harmonic distortion at 400 cycles; +27 dbm. at 50 to 7500 cycles.

Western Electric No. 133A Line Amplifiers



A multi-purpose unit of the two-stage, push-pull type, with stabilized feedback.

Can be used as a line amplifier, an isolation amplifier, a general monitor amplifier.

Has sufficient power for many line and studio loud-speaker applications.

Incorporates an output transformer with taps, which will satisfactorily feed circuit impedances over a range from 1 to 1200 ohms. Resistors in cathode circuits permit easy tube checks with a Western Electric No. KS-10003 meter or equivalent.

Frequency Response: uniform within ± 1 decibel over the range 50 to 15,000 cycles, from nominal impedances.

Source Impedance: nominal, 600 ohms for matching, 600 ohms circuit for bridging (input impedance approximately 20,000 ohms for bridging).

Load Impedance: tapped transformer for operation into 1 to 1,200 ohms load.

Gain: 47 decibels with 600-ohm source input; 21.5 decibels when bridged on 600-ohm circuit.

Maximum Output Power: 4 watts (+36 dbm.) with 1 per cent harmonics, 50 to 7500 cycles; 8 watts (+39 dbm.) with 2 per cent harmonics, 50 to 7500 cycles.

Western Electric No. 20B Rectifiers

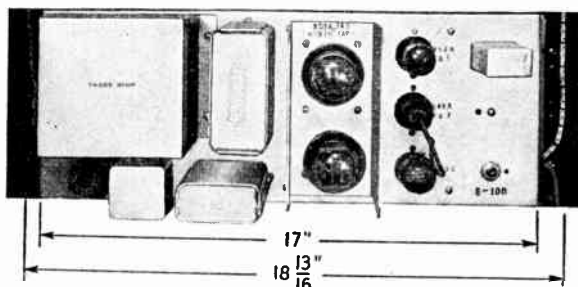
A full-wave vacuum tube rectifier incorporating a vacuum tube voltage regulating circuit.

Has negligible internal impedance which minimizes coupling between amplifiers due to the use of a common plate supply source.

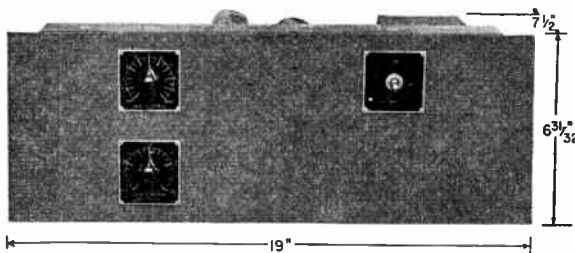
Input: 100-130 volts, 50 to 60 cycles; power consumption, 196 watts, 1.7 amperes for rated load.

Output: rated load, plate supply 110 milliamperes at 275 volts d.c.; and filament supply, 10 amperes at 6.3 volts a.c.

Designed to mount on standard 19-inch relay rack or cabinet.



Western Electric No. 124F Monitor and Talkback Amplifiers



For speech input or sound systems.

Combines monitoring facilities, heretofore requiring two amplifiers, into a single, high quality, three-stage unit.

Incorporates two separate input circuits, offering the control engineer a means of feeding program to booth and studio loudspeakers, as well as cue-feeding to remote lines either from low level sources (microphones and reproducers) or from line or bus level sources.

The low level circuit is designed to permit talkback and cue to performers in an associated studio.

Each of the two input circuits provides a margin of gain adequate to satisfy all requirements for its particular type of service.

Separate gain controls are supplied which, in case of the low level input, may be duplicated at a remote point, if desired, as a measure of operating convenience.

Connected for an output power of 12 watts, normally considered ample for most monitoring conditions. If more than one loudspeaker is to be driven, however, or if a high volume level is required, 20 watts can be made available by a simple change in the wiring connections and using Western Electric tubes.

Tapes are provided in the output transformer which can be adjusted for operation into impedances ranging from 1 to

1200 ohms, so that a wide variety of loud speaker combinations can be matched in impedance without loss of power or introduction of harmonics.

Frequency Response: uniform within ± 1 decibel over the range 50 to 15,000 cycles with microphone input.

Source Impedance: Line input, 600 ohms or bridging; low level input, 15 to 250 ohms.

Load Impedance: 1 to 1200 ohms.

Gain: line input, 60 decibels maximum (600-ohm matching connection); 47 decibels maximum (20,000-ohm bridging connection); low level input, 104 decibels maximum.

Gain Control: line input, 20 decibels in 1 decibel steps, with off position; low level input, 35 decibels continuously adjustable with off position; (low level control on d.c. bias basis; either or both gain controls can be located remotely from amplifier).

Output Power: 12 watts (+41 dbm.) as shipped; 20 watts (+43 dbm.) available.

Power Supply: 105-125 volts, 50-60 cycles, 1.25 amperes, 125 watts.

Dimensions: height, 7 inches; width, 19 inches; depth, 7 inches.

Western Electric No. 633A Dynamic Microphones



Designed for radio broadcasting, public address, announcing, and sound distribution systems.

For use with equipment nominally rated for 25 to 50 ohms source impedance.

Features ruggedness, dependability, high quality and either non-directional or semi-directional performance.

Western Electric No. 640AA Microphones



In the broadcasting field, associated with its companion No. RA-1095 (single stage) Amplifier, the No. 640AA assures ultra-faithful sound pick-up.

Operates into high impedance grid circuit of closely associated vacuum tube amplifier

(such as Western Electric No. RA-1095 Amplifier). Polarizing voltage, 200 volts, d.c., from well-regulated noise-free supply.

Mounted in structure containing first amplifier stage.

Dimensions: cylindrical shape, approximately 1x1 inches. Weight, 1½ ounces.

Western Electric Type 639 Microphones



Pre-eminent in the field of sound pick-up because of its high quality and cardoid directivity.

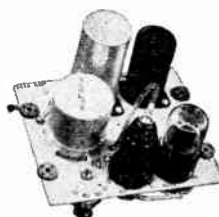
Excellent for broadcast and public address use, not only as all-purpose microphone but also as the solution to many difficult pick-up problems.

A combination of a dynamic moving coil type pressure element and an improved ribbon type velocity-actuated element enclosed in an attractive housing.

When these elements are combined equally, the directional characteristic is the heart-shaped cardoid curve C. Use of each element alone presents patterns D (dynamic), circular and R (ribbon), 8.

These characteristics are available with No. 639A or No. 639B. Additional patterns are available with No. 639B.

Western Electric No. 141A Amplifiers



A three-stage pre-amplifier for use with basic (Nos. 142A and 143A) amplifiers and other amplifier combinations in public address and sound distribution systems. Meets requirements of R.M.A.

One No. 141A may be mounted on and arranged to derive its necessary power supplies from one of the basic amplifier units. Dimensions: 4½x5¼x5 inches.

Frequency Response: ± 1 decibel from 35 to 15,000 cycles, from nominal impedance.

Source Impedance: 30, 250, and 600 ohms, nominal.

Load Impedance: any impedance above 600 ohms.

Gain: step control 40, 50, 60, and 70 decibels into 600-ohm load.

Maximum Output Power: +20 dbm., 50 to 7500 cycles, for 6000-ohm load.

Power Required: 0.9-amp. at 6.3 v.; 15 ma. at 250 v.

Western Electric No. 1140A Amplifiers

A three-stage, push-pull a.c.-d.c. amplifier with stabilized feedback for use in wired program service, but suitable for all applications where a moderate output power a.c.-d.c. amplifier is desired. Input circuit is for direct connection to telephone lines where local telephone company practices permit.

Consists of the No. 140 Amplifier and the No. KS-13678 Cabinet.

Frequency Response: ± 1 decibel, 50 to 10,000 cycles, from nominal impedances; ± 2 decibels, 50 to 15,000 cycles, from nominal impedances.

Source Impedance: nominal, 150 to 600 ohms.

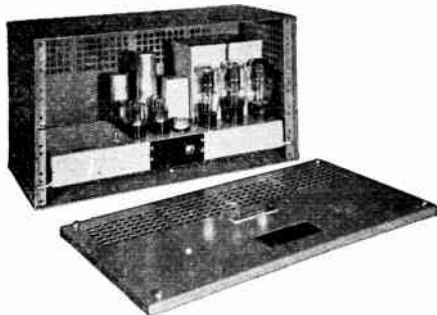
Load Impedance: 2 to 1500 ohms.

Maximum Gain: approximately 60 decibels.

Output Power: d.c. operation, 6 watts maximum; a.c. operation, 10 watts maximum; harmonic distortion, less than 5 per cent.

Power Supply: a.c. or d.c., 105 to 125 volts.

Dimensions: approximately 13x8x9 inches. Finish: chassis, gray enamel; cabinet, light aluminum gray.



No. 142A

Maximum Gain: basic chassis with No. 116B Pre-Amplifier, 105 decibels; basic chassis with No. 141A Pre-Amplifier, 115 decibels; basic chassis with line transformer, 40 decibels bridging, 63 decibels high gain.

Maximum Output Power: No. 142A, 25w., 50-7500 cy.,

Western Electric Nos. 142A and 143A Amplifiers

Basic, self-contained power amplifier units arranged for rack or cabinet mounting for fixed or portable use. Meets the requirements of the R.M.A.

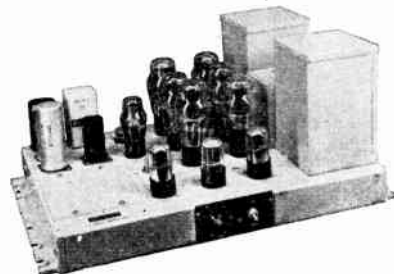
Frequency Response: ± 1 decibel, 35 to 15,000 cycles, with high source impedance arranged to work into grid circuits.

Load Impedance: 2 to 24 ohms.

Speaker Distribution Line: 70 volts.

Input Volts for Full Output: basic chassis, 1 volt.

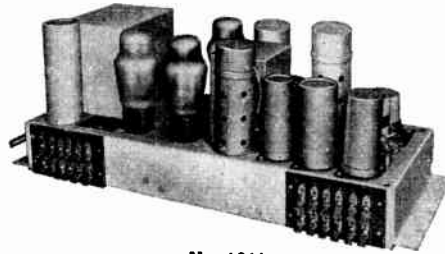
Power Supply: 110-120 volts, 50-60 cycles, a.c.



No. 143A

with less than 5 per cent harmonic distortion using Western Electric No. 350B tubes, 12 w. with No. 6L6 tubes; No. 143A, 75w., 50-7500 cy., with less than 5 per cent harmonic distortion, using Western Electric No. 350B tubes, 50 w. with No. 6L6 tubes.

Western Electric Nos. 124J and 124H Amplifiers

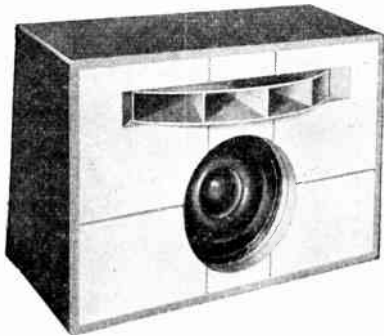


No. 124J

No. 124J makes use of the basic No. 124 Amplifier type of chassis and is arranged for single-channel operation. Equipped with an input transformer suitable for operation from telephone lines. Arranged for cabinet instead of relay rack mounting. Has its input and output connections brought out to screw terminals on the rear side wall of the chassis. Power is brought in through an attached cord and plug.

No. 124H is very similar to No. 124J except that it is arranged for two-channel operation; that is, a microphone channel is provided in addition to the line channel on the No. 124J. It differs from the No. 124J in the following respects: the microphone channel is obtained by adding a No. 116B amplifier and its associated control; a line-mike switch is provided for selection of either the microphone channel or the line channel.

Western Electric No. 757A Loudspeakers



Designed for highest quality public address and music reproduction systems and for wired program service, and for radio broadcast monitoring applications.

A two-band speaker consisting of a No. 728B Loudspeaker, No. 713C Receiver, No. KS-12027 Horn, and a No. 700A Attenuator, and a No. 702 Network mounted in a plain box.

Frequency Range: 60 to 15,000 cycles.

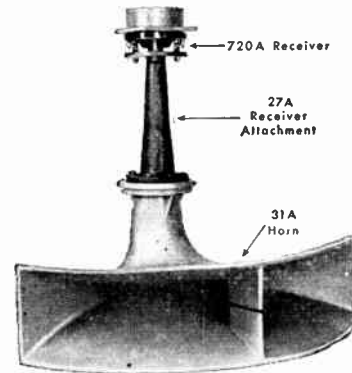
Impedance: 4 ohms.

Power Capacity: 25 watts.

Angle of Distribution: 90° horizontal, 90° vertical.

Dimensions: box, 20x30½x13¾ inches.

Western Electric No. 720A Receivers

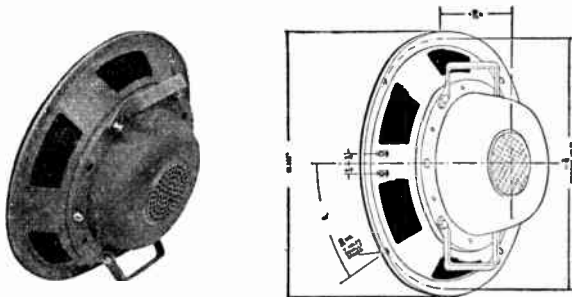


Permanent magnetic type used with the Western Electric No. 31A Horn for announcing and public address systems.

With the No. 31A Horn and No. 27A Receiver Attachment, the frequency range is 300 to 6500 cycles.

Has a phenolic diaphragm and a voice coil impedance of approximately 8 ohms and is capable, when used with a suitable horn, of handling peak powers up to 30 watts over the frequency range from 150 to 6500 cycles.

Western Electric No. 728B Loudspeakers



Intended for high quality reproduction of sound in applications such as radio monitoring of speech and music, public address systems, and radio broadcast receivers.

It is a single, direct radiator type of loudspeaker.

Nominal Frequency Response: 60 to 8,000 cycles with a gradual roll-off to 10 decibels down at 10,000 cycles.

Power Capacity: 30 watts.

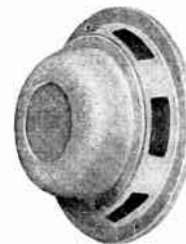
Impedance: 4 ohms.

Optimum enclosure, 3 cubic feet.

Dimensions, approximately 13x4 inches.

Weight, 17 pounds.

Western Electric No. 755A Loudspeakers



Designed for a variety of applications in wired program service, public address systems, radio broadcast receivers, and radio monitoring.

A single, direct radiator type loudspeaker.

Frequency Response: 70 to 13,000 cycles.

Impedance: 4 ohms.

Power Capacity: 8 watts maximum.

Optimum enclosure, 2 cubic feet.

Dimensions, 8½x3½ inches.

Weight, 4¼ pounds.

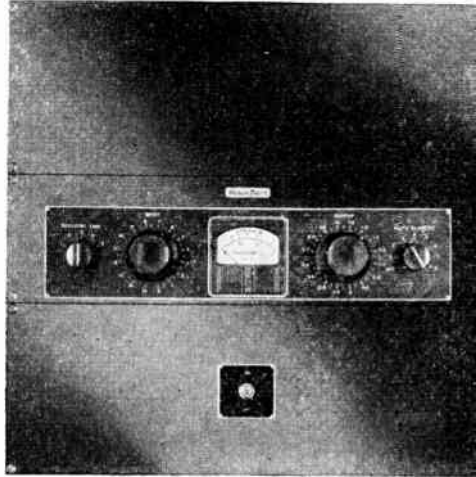
Western Electric No. 1126C Program Operated Level Governing Amplifiers

A program operated level governing amplifier containing automatic means to reduce its gain almost instantaneously when the input level reaches a predetermined amount and to restore the gain at an adjustable rate as the input level falls below that amount.

Consists of a No. 126C three-stage, push-pull amplifier; No. 298A Control Panel; No. 20B Rectifier; and is designed to reduce excessive peaks, protecting against over-modulation in AM. Also protects against over-swing in FM; also against instantaneous overload and consequent distortion in other transmission systems.

Has an extremely short attack time.

The self-contained, automatically regulated power supply stabilizes the operation of the amplifier over a wide range of power supply conditions.



Flexible in installation due to separability of three units.

Frequency Response: uniform within ± 1 decibel over the range 50 to 15,000 cycles, from nominal impedance.

Source Impedance: 600 ohms, nominal.

Load Impedance: 600 ohms.

Maximum Gain: 53.5 decibel maximum with all input and output fixed attenuators omitted (37 decibels as shipped with 10 decibel input and 6.5 decibel output attenuators connected) when working from 600 ohms and into 600 ohms, both adjustable attenuators at zero.

Output Power: +17 dbm, single frequency (as shipped and with adjustable output attenuator at zero) when gain reduction starts (+23.5 dbm., maximum, with all output fixed attenuators omitted).

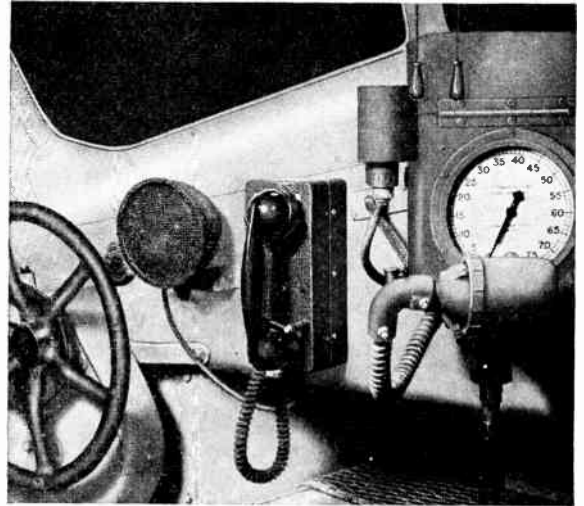
Power Supply: 105-125 volts, 0.7 ampere, 50-60 cycles, a.c.

Western Electric No. 540A Radio Transmitting Equipment



For use as fixed station in mobile radio telephone service, 250 watts output.

Western Electric Railroad Radio Telephone Communications



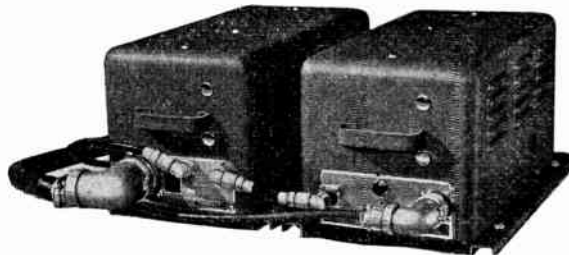
Loudspeaker and Handset Mounted in the Cab of a Diesel Locomotive

A mobile, phase-modulated radio telephone equipment designed specifically for railroad application.

Operating in the 152-162 megacycle frequency band, it provides telephone quality two-way communication for end to end of train, train to train, and fixed point to train service.

Designed for quick switching between any four frequencies located within one megacycle band.

Western Electric Type 238 Mobile Radio Telephones



Type 238 System, featuring phase modulation and direct crystal control, is for mobile radio telephone communication in the 152-162 megacycle band. Available in two models: No. 238B for operation from a six-volt power supply; No. 238 C for operation from a twelve-volt power supply.

Adaptable for use in boats in nearby waters. Also used in urban areas.

Consists of Nos. 38B or 38C Transmitter, No. 38A Receiver, and No. 41A Control Unit, and associated antenna and accessories.

GE Industrial Type Electronic Tubes

On this page and the next is found technical information and prices as of July 1, 1947 on a wide variety of General Electric tubes for industrial use. Any of Graybar's office and warehouse locations can furnish additional information, delivery available, and up-to-date price information (see back of catalog). Many of these tubes are carried in stock.

Thyratrons—Grid-Controlled Gaseous-Discharge-Rectifier Tubes

No.	Each	No. of Electrodes	CATHODE		ANODE			Starting Grid Voltage	Temp. Range Condensed Mercury C.	Shipping Wt., Lb.
			Volts	Amperes	Peak Inv. Volts	Peak Amperes	Average Amperes			
GL-546	\$1.70	4	6.3	0.15	500	0.100	0.020	Negative	-40—+80	3
GL-884	1.70	3	6.3	0.60	350	0.300	0.075	Negative	.....	3
GL-885	1.80	3	2.5	1.40	350	0.300	0.075	Negative	.....	3
GL-2051	1.70	4	6.3	0.60	700	0.375	0.075	Negative	.....	3
GL-502-A	1.80	4	6.3	0.60	1300	0.500	0.100	Negative	.....	3
GL-2050	1.70	4	6.3	0.60	1300	0.500	0.100	Negative	.....	3
FG-178-A	20.00	3	2.5	2.25	500	0.500	0.125	Negative	-20—+50	2
FG-81-A	14.50	3	2.5	5.00	500	2.000	0.500	Negative	-20—+50	2
FG-98-A	22.00	4	2.5	5.00	500	2.000	0.500	Negative	-20—+50	4
FG-97	20.00	4	2.5	5.00	1000	2.000	0.500	Variable	40—80	4
GL-5557	6.50	3	2.5	5.00	5000	2.000	0.500	Negative	40—80	3
GL-627	15.00	3	2.5	6.00	2500	2.500	0.640	Negative	25—70	1
GL-3C23	12.00	3	2.5	7.00	1250	6.000	1.500	Negative	-40—+80	3
GL-393-A	12.00	3	2.5	7.00	1250	6.000	1.500	Negative	-40—+80	3
GL-672	25.00	4	5.0	6.00	1500	30.000	2.500	Negative	40—80	1 3/4
FG-154	32.60	4	5.0	7.00	500	10.000	2.500	Negative	-20—+50	7
GL-559	40.00	3	5.0	7.50	15000	6.000	1.600	Negative	25—50	3
FG-27-A	19.00	3	5.0	4.50	1000	10.000	2.500	Negative	40—80	3
FG-33	19.00	3	5.0	4.50	1000	15.000	2.500	Positive	35—80	7
GL-559	17.50	3	5.0	4.50	1000	15.000	2.500	Negative	40—80	7
FG-67	21.00	3	5.0	4.50	1000	15.000	2.500	Variable	40—80	3
GL-5560	21.00	4	5.0	4.50	1000	15.000	2.500	Variable	40—80	7
			15.5	5.00	1000	40.000	0.500	Variable	40—80	7
			5.0	10.00	2500	40.000	6.400	Variable	40—80	7
FG-105	44.00	4	15.5	11.00	750	77.000	2.500	Variable	30—95	7
			15.0	10.00	10000	16.000	4.000	Variable	25—50	7
FG-172	42.00	4	5.0	10.00	2000	40.000	6.400	Variable	40—80	7
			15.5	11.00	750	77.000	2.500	Variable	30—95	7
FG-44	165.00	3	5.0	20.00	10000	75.000	12.500	Negative	40—65	8
GL-414	100.00	4	5.0	20.00	2000	100.000	12.500	Negative	40—80	9

Glow Tubes—Cold Cathode Tubes

For Use as Voltage Regulators

No.	Each	Minimum Starting Supply Voltages, D.C.	Approximate Operating Voltage Maintained, D.C.	OPERATING CURRENT, MILLIAMPERES		Shipping Wt., Lb.
				Minimum	Maximum	
GL-OA3/VR-75	\$1.20	105	75	5	40	3
GL-OB3/VR-90	1.20	125	90	10	30	3
GL-874	2.50	125	90	10	50	3
GL-OC3/VR-105	1.20	133	105	5	40	3
GL-OD3/VR-150	1.20	185	150	5	40	3

Phototubes—Light-Sensitive Tubes

No.	Each	Type	Spectral Response R.M.A. Standard	Anode Volts	Sensitivity in Microamperes per Lumen	Window Dimensions Inches	Maximum Ambient Temp. C.	Shipping Wt., Lb.
GL-1P29/FJ-401	\$2.55	Gas	S3	100	...	1 1/16 x 1 5/8	100	3
PJ-22	2.20	Vacuum	S1	500	20	1 1/16 x 1 5/8	100	3
GL-935	6.75	.....	.....	.....	.....	.....	.....	.....
GL-441	4.50	Vacuum	S4	250	45	1 1/16 x 1 5/8	50	3
GL-868/PJ-23	2.15	Gas	S1	100	50	1 1/16 x 1 5/8	100	3
GL-917	3.00	Vacuum	S1	500	20	1 1/16 x 1 5/8	100	3
GL-918	2.60	Gas	S1	100	110	1 1/16 x 1 5/8	100	3
GL-919	3.00	Vacuum	S1	500	20	1 1/16 x 1 5/8	100	3
GL-920	3.60	Gas	S1	100	75	1/4 x 1 (Each Unit)	100	3
GL-921	1.75	Gas	S1	90	135	5/8 x 7/8	100	3
GL-922	1.80	Vacuum	S1	500	20	5/8 x 5/8	100	3
GL-923	1.75	Gas	S1	90	135	1 1/16 x 7/8	100	3
GL-927	2.50	Gas	S1	90	125	7/16 x 7/8	100	3
GL-929	1.75	Vacuum	S4	250	45	1 1/16 x 7/8	50	3
GL-930	1.50	Gas	S1	90	135	1 1/16 x 7/8	100	3
GL-931-A	9.25	Vacuum	S4	1250	2.0 Amps.	1 1/2 x 1	50	3

Ballast Tubes—Resistor-Type Tubes Used to Maintain a Constant Average Current

No.	Each	VOLTS		AMPERS		Shipping Wt., Lb.
		Minimum	Maximum	Minimum	Maximum	
FB-50	\$5.50	5	8	0.225	0.275	3
B-25	5.00	7	16	1.070	1.160	3
B-47	6.00	8	18	2.050	2.350	3
B-46	6.00	8	18	2.700	3.250	3
B-6	7.00	15	21	0.950	1.010	3

*Inert gas-filled, and the temperature ratings are expressed in terms of the ambient temperature range over which the tubes will operate.

†Apply only when the tube is used for ignitor firing.

‡Apply only when the tube is used in Thyratron welding-control service.

GE Industrial Type Electronic Tubes—Concluded

Ignitrons—High-Peak-Current, Pool-Cathode Tubes

Welding Control Types

No.	Each	Kva. Demand	Corresponding Average Anode Current, Amps.	Maximum Average Anode Current, Amps.	Corresponding Kva. Demand	Type of Cooling	Shipping Wt., Lb.
GL-415	\$42.00	300	12.1	22.4	100	Water	5
FG-271	70.00	600	30.2	56.0	200	Water	12
FG-235-A	105.00	1200	75.6	140.0	400	Water	17
FG-258-A	230.00	2400	192.0	355.0	800	Water	41

Power Rectifier Types

No.	Each	Volts D.C.	Peak Amperes	Average Amperes	Average Amps. 1 Minute	Type of Cooling	Shipping Wt., Lb.
GL-427	\$70.00	125	30	5.0	.....	.....	3
FG-238-B	320.00	600	1800	300.0	400	Water	35
		600	1200	225.0	300	Water	35
FG-259-B	165.00	300	900	150.0	200	Water	22
		600	600	112.5	150	Water	22

Kenotrons—High-Vacuum Rectifier Tubes

No.	Each	No. of Electrodes	CATHODE		PLATE		Shipping Wt., Lb.
			Volts	Amperes	Peak Volts	Peak Amperes	
FP-400	\$18.00	2	4.0	2.25	100	0.025	3
FP-85-A	19.00	2	10.0	5.00	20000	0.100	3
GL-8020	20.00	2	5.0	6.00	40000	0.750	8
GL-411	190.00	2	10.0	11.50	100000	0.300	9
KC-4	210.00	2	20.0	24.50	150000	0.750	9

Phanotrons—Gaseous-Discharge Rectifier Tubes

No.	Each	No. of Electrodes	CATHODE		Peak Volts	Anode Peak Amperes	Average Amperes	Temp. Range Condensed Mercury, C.	Shipping Wt., Lb.
			Volts	Amperes					
GL-866-A/866	\$1.75	2	2.5	5.0	10000	1	0.25	3	
FG-190	29.00	3	2.5	12.0	175	5	1.25	*-20—+50	
GL-872-A/872	7.50	2	5.0	7.5	10000	5	1.25	20—60	
GL-8008	7.50	2	5.0	7.5	10000	5	1.25	20—60	
FG-32	12.00	2	5.0	4.5	1000	15	2.50	40—80	
GL-575-A	26.00	2	5.0	10.0	15000	6	1.50	20—60	
GL-673	26.00	2	5.0	10.0	15000	6	1.50	20—60	
GL-869-B	120.00	2	5.0	18.0	20000	15	2.50	30—40	
					15000		5.00		
FG-280	39.00	2	5.0	10.0	2000	40	6.40	40—80	
FG-104	33.00	2	5.0	10.0	3000	40	6.40	40—80	
GL-857-B	190.00	2	5.0	30.0	22000	20	5.00	30—40	
						10	10.00		
FG-166	100.00	2	2.5	100.0	1500	75	20.00	20—60	

Pliotrons—Grid-Controlled High-Vacuum Tubes

Control Types

No.	Each	No. of Electrodes	CATHODE		Maximum Volts	Maximum Amperes	Maximum Dis. Watts	Micron	Shipping Wt., Lb.
			Volts	Amperes					
PJ-21	\$10.00	3	4.5	1.10	350	0.0190	7.5	3.0	3
PJ-7	9.00	3	4.5	1.10	350	0.0100	10.0	30.0	3
PJ-8	8.00	3	4.5	1.10	350	0.0100	10.0	8.5	3
Specific Purpose									
FP-54	\$60.00	4	2.5	0.09	6	0.0060	Low Grid Current Measurement Tube		7
FP-62	40.00	3	4.5	1.48	112.5	0.0100	For Gas-Pressure Measurements		9

Therapy Types

No.	Each	No. of Electrodes	CATHODE		Maximum Volts	Maximum Amperes	Maximum Input Watts	Maximum Dis. Watts	Micron	Shipping Wt., Lb.
			Volts	Amperes						
FP-285	\$18.00	3	10	3.25	1350	0.200	270	100	12	6
FP-265	27.00	3	10	5.20	1500	0.200	350	160	75	6

Power Triodes—For High-Frequency Heating

No.	Each	No. of Electrodes	CATHODE		Maximum Volts	Maximum Amperes	Maximum Dis. Watts	Maximum Input Watts	Maximum Dis. Watts	Micron	Type of Cooling	Shipping Wt., Lb.
			Volts	Amperes								
GL-592	\$25.00	3	10.0	5.00	3500	0.250	200	24.0	.....	.....	8
GL-807	2.30	5	6.3	0.90	600	0.100	25	8.0	.....	.....	3
GL-810	12.50	3	10.0	5.40	2000	0.250	125	36.0	.....	.....	8
GL-833-A	45.00	3	10.0	10.00	3000	0.500	300	35.0	.....	.....	9
GL-851	230.00	3	11.0	15.50	2500	1.000	750	20.5	.....	.....	8
GL 8002	120.00	3	16.0	39.00	3500	1.000	1200	20.5	.....	Water	5
GL-889-A	190.00	3	11.0	125.00	8500	2.000	5000	21.0	.....	Water	8
GL-889R-A	280.00	3	11.0	125.00	8500	2.000	5000	21.0	.....	Forced-Air	52
GL-891	200.00	3	22.0	60.00	12000	2.000	6000	8.0	.....	Water	10
GL-891-R	345.00	3	11.0	60.00	10000	2.000	4000	8.0	.....	Forced-Air	..
GL-207	220.00	3	11.0	51.00	15000	2.000	10000	20.0	.....	Water	10
GL-892	200.00	3	22.0	60.00	15000	2.000	10000	50.0	.....	Water	10
GL-892-R	345.00	3	11.0	60.00	12500	2.000	4000	50.0	.....	Forced-Air	..
GL-880	440.00	3	12.6	320.00	10500	6.000	20000	20.0	.....	Water	21
GL-893-A	570.00	3	20.0	183.00	20000	4.000	20000	36.0	.....	Water	25
GL-862-A	1050.00	3	33.0	207.00	20000	10.000	100000	45.0	.....	Water	90
GL-893A-R	1050.00	3	10.0	61.00	20000	4.000	20000	25.0	.....	Forced-Air	290
GL-895	825.00	3	19.0	138.00	17000	9.000	40000	37.0	.....	Water	85
GL-895-R	1125.00	3	19.0	138.00	17000	9.000	20000	37.0	.....	Forced-Air	455
GL-8002-R	137.50	3	16.0	38.00	3500	1.000	1200	20.5	.....	Forced-Air	..

*Inert gas-filled, and the temperature ratings are expressed in terms of the ambient temperature range over which the tubes will operate.
 †For voltages of 600 volts rms and below. Ignitor requirements are 200 volts and 30 amperes.
 ‡Requirements are 75–125 volts, 15–20 amperes; minimum, 150 volts, 40 amperes. †Quadrature operation.

Thor Champion 1/4-Inch Portable Electric Drills

Light Duty

Universal Motor—110 Volts— 25 to 60 Cy.—Sgl. Ph.—A.C. or D.C.

For intermittent service. Ideal for maintenance work, automotive repair, electrical installation, plumbing, radio, cabinet work, and similar applications in wood or metal.

Capacity, 1/4-inch.

Oilite, self-lubricating bearings; special, alloy steel gears. Field case, handle and gear case are made of die-cast, aluminum alloy.

Free speed, 2000 rpm.

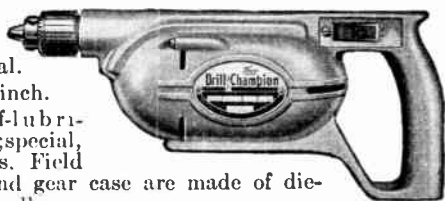
Standard equipment: 1/4-inch 3-jaw Jacobs chuck and key. Closed grip handle with recessed, thumb-control switch. 3-conductor cable with ground wire and plug.

Length, 11 3/4 inches.

Also available for 32, 220, 250 and special voltages.

Net weight, 4 pounds. Shipping weight, 6 pounds.

Each, Specify Voltage..... \$22.95



1/4-Inch Thor Portable Electric Drills

Universal Motor, A.C. or D.C.—For 110 Volts

A streamlined, ball bearing, lightweight drill. Heat treated alloy steel gears, extra long carbon brushes. Equipped with 3-jaw Jacobs chuck and key; 3-conductor cable with ground wire and plug. Standard voltage, 110; 220 and special voltages available if specified.

U14AP Series—Standard Duty

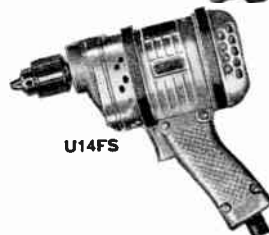
Available in four speeds for general use in maintenance and production service. Pistol grip handle, plunger switch.



No.	Each	Free Speed RPM.	Overall Length Inches	Wt. Lb.
U13AP	\$43.50	3750	7 3/4	3
U14AP	35.50	2500	7 3/4	3
U14DP	35.50	1900	7 3/4	3
U17AP	43.50	700	9	3 3/4

U14F Series—Heavy Duty

Pistol grip handle trigger switch. Add letter S to No. for side handle with trigger switch.

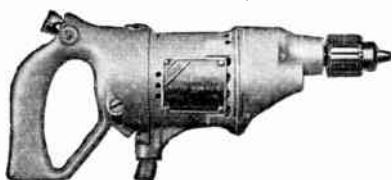


U12F	\$43.50	3750	8 9/16	3 3/4
U13F	43.50	5000	8 9/16	3 3/4
U14F	42.00	2500	8 3/4	3 7/8

All UFS series drills are \$13.00

No. UKD 1/4-Inch Heavy Duty Thor Portable Electric Drills

Universal Motor, A.C. and D.C.—For 110 Volts



Designed for heavy duty service up to its rated capacity in production work. Armature revolves on ball bearings. Nickel-chromium, alloy steel reduction gears.

Tangential ventilation keeps motor running cool.

Free speed, 1400 rpm. Length, 12 1/2 inches.

Standard equipment: 3-jaw Jacobs chuck and key, 3-conductor cable with ground wire and plug, closed grip handle.

Net weight, 5 1/2 pounds; shipping weight, 9 pounds.

No. UKD, Specify Voltage..... each \$41.00

Also available for 32, 220 or 250 volts, as specified.

Thor 1/4-Inch Thorite Plastic Portable Electric Drills

Heavy Duty—Ball Bearing

Universal Motor—110 Volts—25 or 60 Cycles—A.C. or D.C.

A light, sturdy, durable drill with housing, field case, gear case and grip handle made of tough, specially developed Thorite plastic, a nonconductor. The operating parts are encased within an inner skeleton metal frame, plastic housing serves as a protective shell. Great protection from shock, cool-running and easy to service. Internal parts are metal mounted.



Equipped with 3-jaw Jacobs chuck and key, 3-conductor cable with ground wire and attachment plug, pistol grip handle with trigger switch.

Weight, 3 1/4 pounds. Shipping weight, 5 pounds.

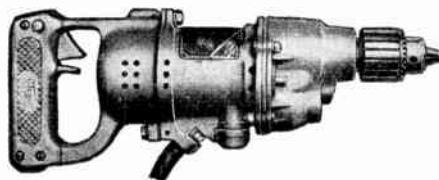
No.	U14K	U12K	U13K
Each.....	\$42.00	43.50	43.50
Free Speed.....	2500	3750	5000

No. UAD Thor 5/16-In. Portable Electric Drills

Heavy Duty—Ball Bearing

Universal Motor—110 Volts, 25 to 60 Cycles, A.C. or D.C.

For production drilling in wood or metal. Fully balanced. Also used for repair service in garages, and for general maintenance work.



Standard equipment includes 3-jaw Jacobs chuck and key, 3-conductor cable with ground wire

and plug, and closed grip handle with momentary trigger switch.

Also available in 32, 220 and 250 volts; specify voltage.

No.	UAD
Each.....	\$55.00
Free Speed.....	1700
Length.....	13 3/8
Net Weight.....	7 1/2
Shipping Weight.....	12

No. UBD Thor 3/8-In. Portable Electric Drills

Heavy Duty—Ball Bearing

Universal Motor—110 Volts, 25 to 60 Cycles, A.C. or D.C.

Used mainly in industrial plants and shops where it is necessary to drill all sizes of holes up to and including 3/8-inch.



Standard equipment includes 3-jaw Jacobs chuck and key, 3-conductor cable with ground wire

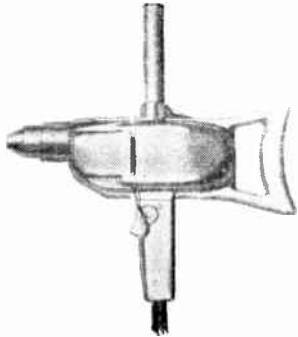
and plug, and closed grip handle with momentary trigger switch. Optional equipment includes a side switch at no extra charge; for side switch specify No. UBB.

Also available in 32, 220 and 250 volts; specify voltage.

No.	UBD
Each.....	\$59.50
Free Speed.....	750
Length.....	14 1/2
Net Weight.....	8 3/4
Shipping Weight.....	13

No. DMG Thor 1/2-Inch Portable Electric Drills

Universal Motor, A.C. and D.C.—For 110 Volts, 25-60 Cycles



For repair and construction work on the farm and in the home.

Can be used for wire brush work, buffing, polishing, carbon cleaning, rotary filing, and hole sawing (up to 3 inches).

Capacity in steel, 1/2 inch.

Capacity in wood, 1 inch.

Housings are heavy die-cast aluminum.

Triple-insulated motor has great overload capacity.

Bearings are permanently lubricated.

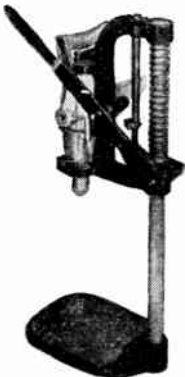
No load speed, 420 rpm. Overall length, 15 inches.

Standard equipment: Jacobs chuck with key, momentary switch with locking pin for continuous operation, side handle, closed grip handle and auxiliary handle, three-conductor cable (with ground wire), and a two-prong plug.

Weight, 9 1/2 pounds.

No. DMG.....each \$39.50

No. DMG-5 Thor Drill Press Stands



For No. DMG Portable Electric Drill

Converts Thor No. DMG portable electric drill into a powerful drill press. Sturdy bracket locks the tool in place quickly for stationary use.

Six-to-one leverage builds up great pressures.

Carefully machined parts assure accuracy.

Vertical movement, 7 inches.

Vertical adjustment, 12 1/2 inches.

Bench space required, 8 1/2 x 13 inches.

Weight, 40 pounds.

No. DMG-5.....each \$26.25

Thor Champion 1/2-Inch Portable Electric Drills

Light Duty

Universal Motor—110 Volts—25 to 60 Cy.—Sgl. Ph.—A.C. or D.C.

For intermittent work in all-around shop service and occasional light production work. Also used for driving hole saws, wood augers, etc.

Capacity, 1/2-inch.

Self-lubricating bearings; special, alloy steel gears. Die-cast aluminum alloy housing.

Free speed, 420 rpm.

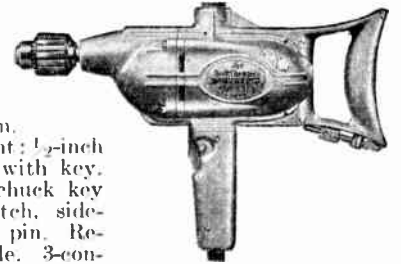
Standard equipment: 1/2-inch 3-jaw Jacobs chuck with key. Spade handle with chuck key holder. Trigger switch, side-handle with locking pin. Removable dead handle. 3-conductor cable with ground wire and plug.

Length, 15 inches.

Also available for 32, 220, 250 and special voltages.

Net weight, 9 1/2 pounds. Shipping weight, 15 pounds.

Each, Specify Voltage..... \$39.50



No. U44 1/2-Inch Heavy Duty Thor Portable Electric Drills

Universal Motor A.C. or D.C.—For 110 Volts, 25 to 60 Cy., Sgl. Ph.

Capacity, 1/2-inch. For continuous service on high production jobs.

Helical, alloy steel gears, insulated armature; ball bearings.

Free speed, 500 rpm.

Length, 12 inches.

Standard equipment:

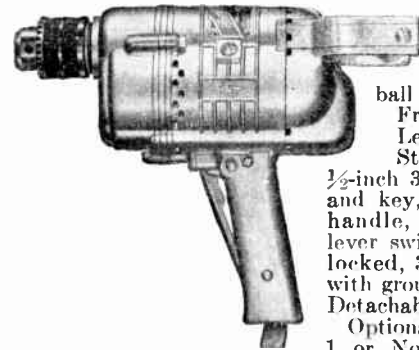
1/2-inch 3-jaw Jacobs chuck and key, horizontal spade handle, side handle with lever switch which can be locked, 3-conductor cable with ground wire and plug. Detachable dead handle.

Optional equipment: No. 1 or No. 2 Morse Taper socket instead of chuck, if specified.

Also available for 32, 220, 250 and special voltages.

Net weight, 9 1/2 pounds; shipping weight, 13 pounds.

No. U44, Specify Voltage..... each \$64.50



No. UDA 1/2-Inch Heavy Duty Thor Electric Drills

Universal Motor, A.C. and D.C.—For 110 Volts

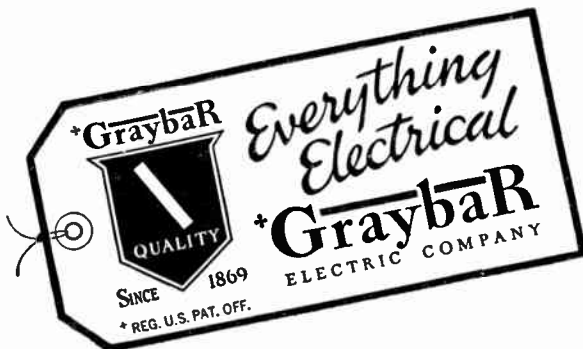
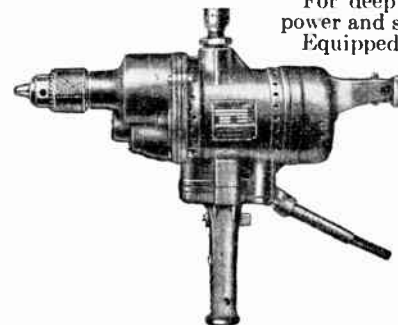
For deep drilling where great power and strength are required.

Equipped with Jacobs chuck, spade handle, side switch handle and dead handle. Feed screw may be substituted for space handle if desired.

Free speed 500 r.p.m. Overall length, 16 1/2 inches. Weight 21 pounds.

Also available in 220 and special voltages if desired.

No. UDA, Specify Voltage..... each \$79.50



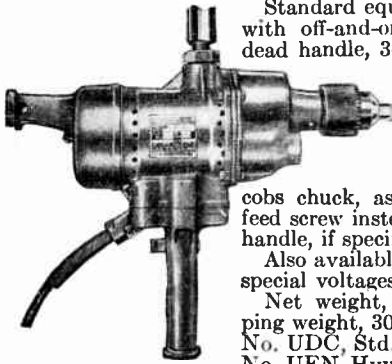
Thor 5/8-Inch Portable Electric Drills

Ball Bearing

Universal Motor, A.C. or D.C.—For 110 Volts, 25 to 60 Cy., Sgl. Ph.

No. UDC, Standard Duty. For ordinary heavy duty drilling. Free speed, 600 rpm. Length, 16 1/2 inches.

No. UEN, Heavy Duty. For extra heavy duty drilling, reaming, and wood boring. Free speed, 400 rpm. Lgth., 16 3/4 in. Capacity 5/8-inch. Gears of nickel-chromium alloy steel, heat treated, Housing of heavy section aluminum castings.



Standard equipment: Side handle with off-and-on switch, spade and dead handle, 3-conductor cable with ground wire and plug.

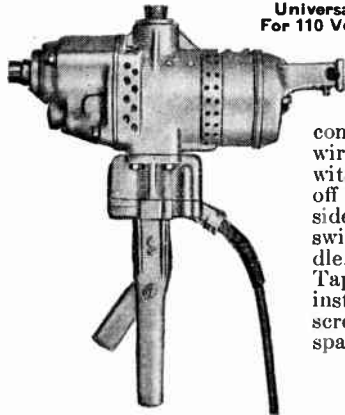
No. UDC with 3-jaw Jacobs chuck and key; No. UEN with No. 2 Morse Taper socket or 5/8-inch Jacobs chuck, as specified. Optional feed screw instead of standard spade handle, if specified.

Also available for 32, 220, 250 and special voltages. Specify voltage.

Net weight, 22 3/4 pounds. Shipping weight, 30 pounds.
No. UDC, Std. Duty...each \$87.00
No. UEN, Hvy. Duty...each 93.00

Thor 3/4-Inch Heavy Duty Portable Electric Drills

Universal Motor, A.C. and D.C.
For 110 Volts, 25 to 60 Cy., Sgl. Ph.



Std. equip.: Spade and dead handles, 3/4-inch Jacobs chuck, 3-conductor cable with ground wire and plug. No. UES, with side handle with on-and-off switch; No. UFH, with side handle with momentary switch. Ball bearing on spindle. Optional: No. 2 Morse Taper socket can be furnished instead of Jacobs chuck. Feed screw can be substituted for spade handle.

No.	For Low Speeds	For High Speeds
Each.....	UES	UFH
Free Speed.....rpm.	330	550
Length.....inches	16 3/4	18 3/4
Net Weight.....pounds	22	25 3/4
	\$97.50	105.00

Thor Portable Electric Drills

Heavy Duty—Ball Bearing

Universal Motor, A.C. or D.C.—For 110 Volts—25 to 60 Cy.—Sgl. Ph.

For extra heavy drilling in steel construction, etc. Gears of nickel-chromium alloy steel, heat treated.

Std. equip.: Side handle with momentary switch, spade and dead handles, 3-conductor cable with ground wire and plug. No. UFS, with No. 2 Morse Taper socket; No. UFZ, with No. 3 Morse Taper socket. Optional: Feed screw can be substituted for spade handle; No. 3 Morse Taper socket for No. 2.

Also available for 220, 250 and special voltages.

No.	UFS	UFZ
Each, Spec. Voltage..	\$110.00	132.00
Drilling Cap...in.	7/8	1
Reaming Cap...in.	3/16	1/16
Free Speed...rpm.	350	300
Length.....in.	16 7/8	20
Net Weight....lb.	25 1/4	29
Shipping Wt....lb.	39	39

No. U3Z 1 1/4-Inch Thor Portable Electric Drills

Universal Motor, A.C. or D.C.—
For 110 Volts, 25 to 60 Cycles—
Single Phase



Capacity: drilling, 1 1/4 inches; reaming, 1 1/16 inch. Has safety-type, quick-acting lever-switch. Free speed, 350 rpm. Length, 19 7/8 inches. Standard equipment: Thor quick-acting safety-switch; feed screw; dead handle; No. 3 internal Morse taper socket and knock-out pin. Spade handle can be supplied in place of feed screw. Net weight, 49 1/2 pounds; ship. wt., 71 lb. No. U3Z, Specify Voltage...each \$200.00
Available for 32, 220, 250, and special voltages on request. Furnished at speed of 500 rpm. at no extra cost.

Thor Electric Drill Stands



No. 8



No. 26

Quickly converts a portable electric drill to stationary service not requiring the extreme sensitivity of the drill press. Has six to one leverage which permits tremendous pressure on the work.

Stand constructed so drill is accurately and securely arranged with minimum effort and held square and rigid. No. 8 accommodates drills of capacities 3/16 to 1/2 inch.

No. 26 and No. 30 accommodate drills of capacities 1/2 to 1 inch. When ordering, specify for what size tool.

No.	Vertical Movement Inches	Can Be Used with the Following Drills	Adjusted Vertically Inches	Reach Space Inches	Wt. Lb.	Each
8	2	All U14 Class	11	13 x9	29	\$24.50
	3	UL, UK, UA, UB	9	11 1/2 x9 1/2	32	24.50
	3 3/4	U 44	10	13 x9	30	24.50
26	5	UDA, UEN, UFH, UFZ,	14	15 x9	50	36.00
30	5	UDA, UEN, UFH, UFZ,	14	*	68	40.00

*Wall to center of drill, 14 1/2 inches.

No. UBG-D Heavy Duty Thor Portable Electric Combination Screwdrivers and Drills

Universal Motor, A.C. and D.C.—For 110 Volts, 25 to 60 Cycles, Single Phase

Capacity: up to No. 16 wood screws; up to 5/16-inch machine screws and nuts; and 3/8-inch drilling. Aluminum alloy casing. Ball bearings.

Free speed, 750 rpm. Length overall, 15 1/4 inches.

Equipped with 3-conductor cable with ground wire and plug, three bits or one socket wrench shank with socket, 3/8-inch Jacobs chuck and adaptor, positive clutch, nut or screw driving attachment, and closed grip handle with momentary trigger switch.

Weight, 9 1/2 pounds.

No. UBG-D. Complete, Specify Voltage..... each \$94.00

Also available for 32, 220, 250, and special voltages.



1³/₁₆-Inch Thor Portable Electric Screwdrivers



**Universal Motor
A.C. or D.C.—
For 110 Volts,
25 to 60 Cycles**

For small screws and nuts in cabinet work, airplane assembly, etc. Capacity: up to No. 8 wood screw and ³/₁₆-inch machine screw or nut. Higher speed Nos. ULN and ULT are used for machine screws; slower speed No. ULP is ordinarily preferred for wood screws.

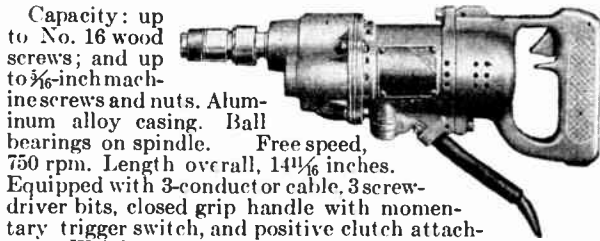
Equipped with Thor double slip clutch attachment.

No.	ULN	ULT	ULP
Each (Specify Voltage)	\$59.50	59.50	62.00
Free Speed	1500	1000	550
Length Overall	12 ³ / ₄	12 ³ / ₄	12 ³ / ₄
Weight	3 ³ / ₄	3 ³ / ₄	3 ³ / ₄

Available in lever switch type at \$5.00 extra; add letter W to No. Vertical suspension arrangement can also be furnished. Available in 32, 220, 250, and special voltages on request.

No. UBG ⁵/₁₆-Inch Heavy Duty Thor Portable Electric Screwdrivers

Universal Motor A.C. and D.C.— For 110 Volts, 25 to 60 Cycles, Single Phase

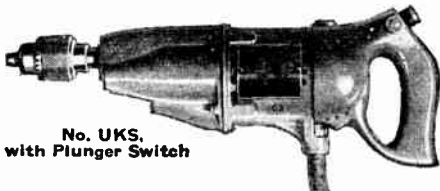


Capacity: up to No. 16 wood screws; and up to ⁵/₁₆-inch machine screws and nuts. Aluminum alloy casing. Ball bearings on spindle. Free speed, 750 rpm. Length overall, 14¹/₁₆ inches. Equipped with 3-conductor cable, 3 screwdriver bits, closed grip handle with momentary trigger switch, and positive clutch attachment. Weight, 8¹/₂ pounds.

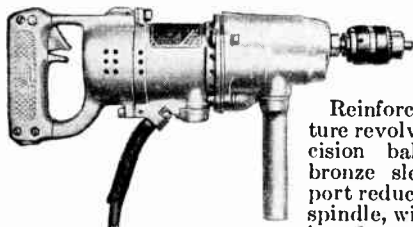
Thor Universal Portable Electric Tappers Heavy Duty—Ball Bearing

Universal Motor—110 Volts—25 to 60 Cy.—Sgle. Phase—A.C. or D.C.

Adapted to tapping thread holes in metal. Equipped with automatic reversing mechanism which backs tap out of the threaded hole quickly. A slight pull on the tool disengages the forward action and throws it into reverse motion.



**No. UKS,
with Plunger Switch**



**No. UBR,
with Momentary Trigger Switch**

Powered for continuous production service. Tangential ventilation insures cool running.

Reinforced casings. Armature revolves on oversize, precision ball bearings; long, bronze sleeve bearings support reducing gear shafts and spindle, with heavy ball bearing for spindle end thrust. Nickel-chromium, alloy steel reducing gears, heat treated.

STANDARD EQUIPMENT: Jacobs chuck and key, 3-conductor cable with ground wire and plug. Closed grip handle with on-and-off plunger switch. No. UBR has dead handle and momentary trigger switch.

No.	UKS	UBR
Each	\$78.00	97.50
Capacity in Steel	1/4	3/8
Free Speed	460	500
Size Jacob Chuck Furnished	5/16	3/8
Side of Case to Ctr. of Spindle	1	1 1/16
Overall Length	11 3/4	16 1/4
Weight	8 1/4	11 1/2

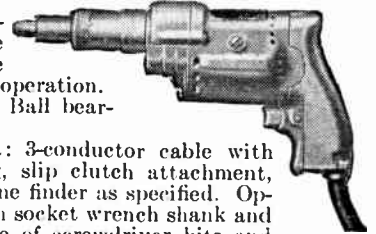
Prices on application for 32, 220, 250 or other voltage.

Thor Heavy Duty Portable Electric Screwdrivers and Nut Setters

Universal Motor, A.C. and D.C.—For 110 Volts, 25 to 60 Cy., Sgl. Ph.

Capacity: wood screws from No. 4 to No. 12, and machine screws and nuts up to 1/4-inch. Die-cast aluminum alloy casing.

Equipped with trigger momentary type switch which can be locked for continuous operation. One hand operating. Ball bearings on spindle.



Standard equipment: 3-conductor cable with ground wire and plug, slip clutch attachment, screwdriver bits and one finder as specified. Optional: Standard length socket wrench shank and socket wrench in place of screwdriver bits and finder, if specified. Can also be furnished with positive clutch attachment.

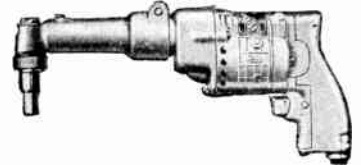
No.	U16CP	U18CP
Each, Specify Voltage	\$64.50	68.00
Free Speed	780	1000
Length	12 ⁹ / ₁₆	12 ⁹ / ₁₆
Net Weight	4 ¹¹ / ₁₆	4 ¹¹ / ₁₆

No. U19CP Thor Heavy Duty Portable Electric Screwdrivers and Nut Setters

Universal Motor, A.C. and D.C.—For 110 Volts, 25 to 60 Cy., Sgl. Ph.

Capacity: wood screw from No. 4 to No. 12, and machine screws and nuts up to 1/4-inch. Die-cast aluminum alloy casing.

Equipped with trigger momentary type switch which can be locked for continuous operation. Right angle, one hand operation. Ball bearings on spindle.



Free speed, 600 rpm. Length, 13¹/₄ inches.

Standard equipment: 3-conductor cable with ground wire and plug, slip clutch attachment, screwdriver bits and one finder as specified. Optional: Standard length socket wrench shank and socket wrench in place of screwdriver bits and finder, if specified. Can also be furnished with positive clutch attachment.

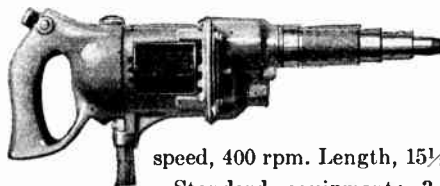
Net weight, 6 pounds.

No. U19CP, Specify Voltage.....each \$110.00

No. UKP Thor Portable Electric Screwdrivers and Nut Setters

Universal Motor, A.C. and D.C.—For 110 V., 25 to 60 Cy., Sgl. Ph.

Capacity: No. 12 wood screws, and machine screws and nuts up to 1/4 inch. For production service.



Reducing gears are of nickel-chromium alloy steel, heat-treated. Aluminum housing. Free speed, 400 rpm. Length, 15¹/₈ inches.

Standard equipment: 3-conductor cable with ground wire and plug; double slip clutch attachment with 3 screwdriver bits and one finder, as specified. Closed grip handle with thumb operated plunger switch. Optional: bonnet cap, for close-quarter operations; standard length socket wrench shank with socket wrench in place of bits and finder.

Also available for 32, 220, 250 and special voltages.

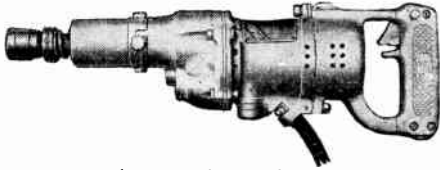
Net weight, 6¹/₂ pounds; shipping weight, 10 pounds.

No. UKP, Specify Voltage.....each \$78.00

No. UBGN 1/4-Inch Thor Portable Electric Nut Setters

Universal Motor, A.C. and D.C.—For 110 V., 25 to 60 Cy., Sgl. Ph.
For continuous production work. Free speed, 750 rpm. Length overall, 17¹/₁₆ inches. From side of case to center of spindle, 1³/₁₆ inches.

Equipped with 3-conductor cable with ground wire and plug, closed grip handle with momentary trigger switch, No. 140 kick-out clutch attachment, and one standard length socket wrench shank with one square or hex socket wrench.

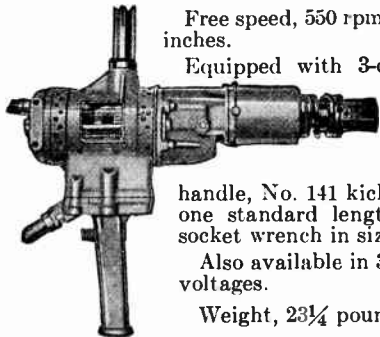


Weight, 11³/₄ pounds.
No. UBGN.....each \$96.50
No. UBGNR, Reversible.....each 102.25
Also available for 32, 220, 250 and special voltages.

No. UEH 1/2-Inch Thor Portable Electric Nut Setters

Universal Motor, A.C. and D.C.—For 110 V., 25 to 60 Cy., Sgl. Ph.

Free speed, 550 rpm. Length overall, 17¹/₂ inches.



Equipped with 3-conductor cable with ground wire and plug, side handle with off-and-on plunger switch, suspension cap and hook, dead handle, No. 141 kick-out attachment, and one standard length socket shank with socket wrench in size specified.

Also available in 32, 220, 250 and special voltages.

Weight, 23¹/₄ pounds.

No. UEH.....each \$155.00

No. UEG 1/2-Inch Heavy Duty Thor Portable Electric Nut Setters

Universal Motor, A.C. and D.C.—For 110 Volts, 25 to 60 Cycles

Used where constant severe service is required.

Length overall, 15 inches.

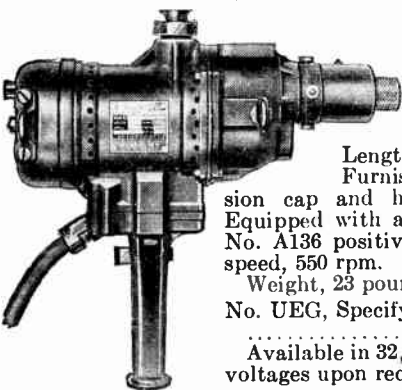
Furnished with a suspension cap and hook, dead handle. Equipped with a side switch and a No. A136 positive attachment. Free speed, 550 rpm.

Weight, 23 pounds.

No. UEG, Specify Voltage

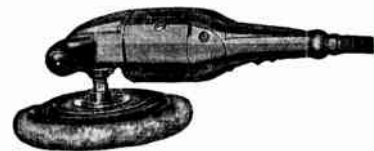
.....each \$138.00

Available in 32, 220, 250 and special voltages upon request.



7-Inch Thor Electric Polishers

Universal Motor, A.C. and D.C.—For 110 Volts



A lightweight, perfectly balanced and easily handled polisher.

Armature and spindle run in ball bearings. Alloy

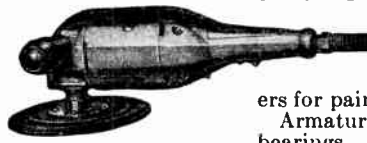
steel heat treated gears. Easily taken apart for cleaning by removing brush covers. Handle can be used on either side of machine. Equipped with one 7-inch flexible rubber pad; one 7-inch felt pad and one 8-inch sheep wool pad.

No.	U38	U70
Each.....	\$65.00	83.00
Free Speed.....	1950	2300
Length Overall.....	13 ³ / ₄	16 ³ / ₄
Weight.....	7 ³ / ₄	16 ¹ / ₂

Also available for 32, 220 or 250 volts, as specified.

No. U58 Thor 7-Inch Standard Duty Portable Electric Sanders

Universal Motor, A.C. and D.C.—For 110 Volts 25 to 60 Cycles, Single Phase



For sanding, grinding, cleaning, and preparing automobile bodies and fenders for paint jobs.

Armature and spindle run in ball bearings. Spiral bevel gears of alloy steel, heat-treated. Inspection of motor can be made while sander is running by removing 2 brush covers. Side handle can be used on either side of machine.

Free speed, 3800 rpm. Length, 14¹/₂ inches.

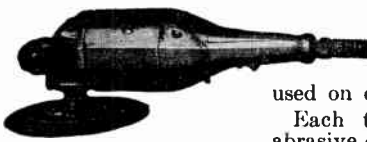
Equipped with 7-inch flexible rubber pad and a box of 3 assorted abrasive discs.

No. U58, Shipping Weight, 14 Pounds.....each \$55.00

Also available for 32, 220, 250 or special voltages as specified.

Heavy Duty Thor Electric Sanders

Universal Motor, A.C. and D.C.—For 110 Volts



For sanding, grinding, cleaning, etc.

Side handle can be used on either side of machine.

Each tool equipped with 3 abrasive discs, ground wire, rubber pad, and straight switch handle.

Speed, 4000 rpm. Length 16¹/₂ inches.

Shipping weight, 24 pounds.

No.	U68	U69
Each.....	\$80.00	85.00
Discs, Capacity.....	7	9

Also available for 32, 220, 250 or special voltages as specified.

U68 furnished equipped with cone-shaped cup wheel 6x2x 7/8-inch hole by specifying U67. U67 comes with adjustable wheel guard, if desired.

Thor Portable Electric Grinders

Universal Motor, A.C. and D.C.—For 110 Volts, 25 to 60 Cycles Single Phase

Has heat-treated, alloy steel, spiral helical gears, shock absorber spindle. Armature and spindle have large over-size ball bearings.

Outer end of spindle support has labyrinth grease seal reinforced with steel hub at wheel guard. Furnished with ground wire, wheel guard and 10 feet of cable. Width of wheel, 3/4 inch. Spindle thread, 1/2-inch x 13; spindle offset, 1 inch. Length, 19 1/2 inches. Shipping weight, 18 pounds.

No.	U54	U55
With Grinding Wheel.....	each \$69.00	90.00
Wheel Capacity.....	4	5
Free Speed.....	6000	4500

Also available for 32, 220 or 250 volts. Specify voltage.

.....rpm.

.....rpm.

No. U60 Thor Portable Electric Grinders

Universal Motor, A.C. and D.C.—For 110 Volts



Equipped with super-power motor, special heat-treated gears, large ball bearings. Carries a 6x1-inch wheel. Furnished with straight switch handle and grinding wheel and guard. Spindle thread 5/8x11 inches.

No. U60.....each \$112.00

No Load Speed.....rpm. 4000

Length Overall.....inches 26³/₈

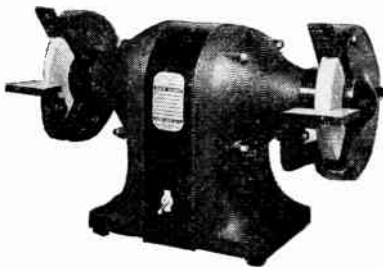
Weight.....pounds 21¹/₈

Also available for 220, 250 or special voltages as specified.

Thor Electric Grinders

Bench Type

For 110 or 220 Volts—3450 RPM.



For all-around service in grinding, buffing and wire wheel work.

Has a cool, quiet running, completely enclosed motor dynamically balanced for vibrationless operation. All ball bearings are over-size and dust-tight; require only annual greasing attention.

All sizes provided with freely adjustable tool rests and furnished with extra heavy wheel guards; those on 220-volt sizes are enclosed type with exhaust chute and tapered end bells to permit grinding on both sides of wheel.

Size.....inches	Std. Duty		Heavy Duty		
	6	6	6	7	7
Volts.....	110	110	220	110	220
Wheel Diameter inches	6	6	6	7	7
Wheel Width.....inches	1/2	1/2	3/4	1	1
Bore.....inches	1/2	1/2	1/2	5/8	5/8
Each.....	\$39.50	49.00	49.00	72.50	72.50

Prices include 1 medium grit and 1 fine grit wheel.

No. B6GS Thor 6-Inch Bench Grinders

Universal Motor, A.C. and D.C.—For 110 Volts, 50 or 60 Cycles



For sharpening tools and implements, and removing and cutting off metal.

Equipped with two grinding wheels, one coarse grit for fast roughing, and one fine grit for smooth finish.

Wheel diameter, 6 inches. Wheel width, 3/4 inch. Wheel bore, 1/2 inch.

Long wheel-spindle and tapered end bells permit handling odd-shaped pieces.

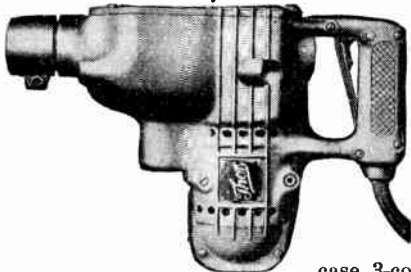
Standard equipment: wheelguards, adjustable tool rests, off-on toggle switch, three-conductor cable (with ground wire), and a two-prong plug.

Full load speed, 3450 rpm.

No. B6GS, Weight, 52 pounds.....each \$49.50

No. U100 1-Inch Heavy Duty Thor Portable Electric Hammers

Universal Motor, A.C. and D.C.—For 110 or 220 Volts

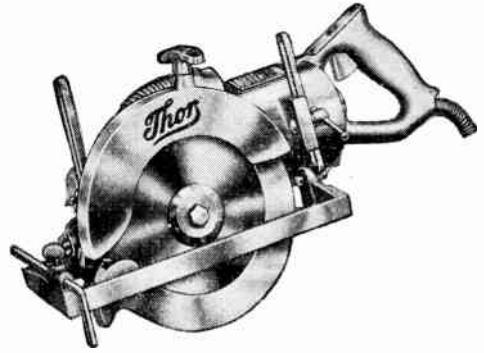


Capacity in concrete up to 1-inch Star drill; 1600 blows per minute. Length overall, 13 1/2 inches. Equipment includes 5/16-inch Star drill, turning handle, ejector pin, dust shield, carrying case, 3-conductor cable with ground wire and molded rubber plug, momentary grip switch with lock.

Net weight, 14 lb.; shipping weight with case, 32 lb.

No. U100, Complete, Specify Voltage.....each \$145.00

Thor Portable Electric Saws



A powerful saw for depth and bevel cutting to maximum angle of 45°.

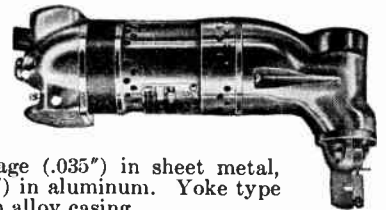
Convenient grip handle for comfortable operation. Automatic telescope guard assures safety. Adjustable without wrenches.

Size.....inches	6	7	8
Each.....	\$90.00	119.50	147.50
Blade Diameter.....inches	6 1/4	7 1/4	8 1/4
Free Speed.....rpm.	4500	4250	3500
Maximum Cutting Capacity in			
Wood.....in.	1 7/8	2 3/8	2 5/8
Weight.....pounds	10 3/4	17 3/4	21 3/4

No. U1N Thor Portable Electric Nibblers

Universal Motor, A.C. or D.C.—For 110 Volts, 25 to 60 Cycles, Single Phase

For cutting sheet metal and tubing. By cutting its own clearance, it cuts corrugated and curved sheets without distortion.



Capacity: No. 20 gage (.035") in sheet metal, and No. 16 gage (.065") in aluminum. Yoke type front head. Aluminum alloy casing.

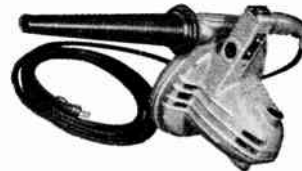
Overall length, 9 inches. Diameter of body, 2 1/2 inches. Weight, 3 3/4 pounds.

No. U1N, Complete, Specify Voltage.....each \$69.00

Also available for 32, 220, 250, and special voltages.

Ideal Hand Type Cleaners

1 1/2-Hp. Universal Motor, A.C. and D.C., 115 Volts



A powerful lightweight cleaner designed to blow, vacuum, spray, or dry better and faster. High velocity discharge blasts dust and dirt from dangerous electrical installations and inaccessible places. Blows large volumes of dry air at low pressure permitting cleaning of motor windings or delicate machinery without damage; vacuums those hard to clean places; sprays insecticides, paints, varnish, deodorants; dries paint, varnish, ink, etc. Can be used continuously for production drying. Cleaner has continuous duty universal motor with sealed precision ball bearings; no oiling or lubrication required. Has plug in for new detachable heater nozzle. Can be used with all Ideal cleaning attachments.

No. 22-110 22-113
 Each..... \$122.50 97.50
 Water Lift.....inches 52 30
 Air Volume Discharge.....cfm. 78.5 58.5
 Overall Size, Including Nozzle.....in. 21x12x9 19x9x7
 Shipping Weight.....pounds 20 14
 No. 22-109, Set Standard Suction Attachment.....each \$19.25
 No. 22-116, Heater Nozzle.....each 17.25

Thor Saw Blades

To provide long life and most economical service saw blades are made of correct gage to hold set; teeth of blades are properly shaped for different types of work intended; and metal is correctly and uniformly tempered and tensioned. High quality of steel blades means satisfaction to users of Thor saws.

Combination

Designed for all around work; suitable for ripping or cross-cutting.



Blade No.	Each	Diameter Inches	Thor Saw Size
73862	\$3.45	5 7/8	1, 1A
73863	3.75	6 1/4	6"
73875	4.10	7 1/4	7", 2A
73880	4.60	8	3
73881	4.95	8 1/4	8", 3A
73889	5.40	8 15/16	4, 4A
73894	5.80	9 7/8	5
73899	6.95	11 7/8	6, 6A, PS-12

Cutoff

For all types of cross-cut work.



Blade No.	Each	Diameter Inches	Thor Saw Size
73864	\$3.45	5 7/8	1, 1A
73865	3.75	6 1/4	6"
73876	4.10	7 1/4	7", 2A
73882	4.60	8	3
73883	4.95	8 1/4	8", 3A
73890	5.40	8 15/16	4, 4A
73895	5.80	9 7/8	5
73900	6.95	11 7/8	6, 6A, PS-12

Fine Tooth

Light gage, thin blade and is fitted with very small teeth. Used primarily for cutting Celotex or similar soft wallboard.



Blade No.	Each	Diameter Inches	Thor Saw Size
73868	\$3.80	5 7/8	1, 1A
73869	3.90	6 1/4	6"
73879	4.10	7	7", 2, 2A
73887	4.60	8	8", 3, 3A
73893	5.80	8 15/16	4, 4A, 5, 6, 6A, PS-12

Friction

A shallow notched steel disc for cutting by friction or burning, light gage flat or corrugated sheets of iron.



Blade No.	Each	Diameter Inches	Thor Saw Size
73870	\$7.60	5 7/8	6", 1, 1A
73871	8.00	6 1/4	7", 2A
73884	10.55	8	8", 3, 3A, 4, 4A

Mitre

For very smooth cutting. Ideal for interior finish. Hollow ground.



Blade No.	Each	Diameter Inches	Thor Saw Size
73866	\$6.30	5 7/8	1, 1A
73867	6.50	6 1/4	6"
73877	7.25	7 1/4	7", 2A
73885	7.95	8	8", 3, 3A
73891	9.25	8 15/16	4, 4A
73896	10.05	9 7/8	5, 6, 6A, PS-12

Rip

This is the fastest cutting blade for rough work, rip or cutoff. If rip cuts are to be made with Models No. 1A, 2A, or 4A saws, use combination blade.

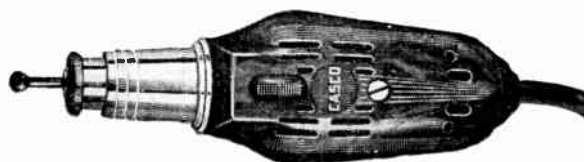


Blade No.	Each	Diameter Inches	Thor Saw Size
73898	\$5.80	9 7/8	5
73901	6.95	11 7/8	6, 6A, PS-12

These blades will fit new and old Thor Saws as indicated. Only saws now in production are new Thor Electric Saws, designated 6", 7" and 8" and the PS-12 pneumatic saw.

No. G12001-1 Casco Electri-Craft Hand Power Tool Kits

A.C. and D.C.—For 115 Volts, 60 Cycles



A complete, portable power workshop all in one kit.

For fine work or roughing when used by electrical maintenance men, laboratory workers, pattern makers, tool makers, model makers, and hobbyists.

Used for hundreds of operations in tool and model rooms and for exact work in metal, plastic wood, and glass.

Balanced for vibrationless operation. High speed (20,000 rpm.) motor is seated at all critical points on a light, sturdy aluminum frame for rigidity with a shockproof, plastic motor case for lightness.

Cooled by forced ventilation. Has high grade, self-oiled bearings and special finger grip for exact manipulation.

Chest is made of steel, walnut finished, with snap catch and lock with key. Metal tool tray is removable.

Lower compartment will hold materials and other tools.

Chest dimensions: width, 13 1/2 inches; depth, 6 inches; height, 4 1/2 inches.

Packed 3 kits to a carton. Ship. wt., approx. 14 lb.

Accessories

One 3/8-inch collet, one 1/8-inch collet, wrench, six mounted grinding stones, 3 drills, 3 steel cutters, saw, 5 mandrels, 5 abrasion discs, felt buffer wheel, 3 rubber-bonded polishing wheels, 3 brushes, crimped wire cleaning and etching brush, dressing stone, and a muslin buffer.

No. G12001-1 per kit

Fire Extinguishers

Approved by Underwriters' Laboratories and Factory Mutuals

**Pyrene Vaporizing Liquid
1 and 1½-Quart Pump Type**

Smothers all classes of incipient fire, particularly fires in flammable liquids and electrical equipment. Light, compact, and easily operated. Double acting pump. Discharges a steady 25 to 30 foot stream from any position. Vehicle type has shock absorber construction and clamp brackets for wall or steering post. Also available with chromium or painted finishes. Also approved by Good Housekeeping Institute. Liquid is a non-conductor of electricity, non-corrosive, anti-freezing to 50° below zero F. Sold with charge and bracket.

- No. C21, 1-Qt. Brass, Wall Bracket... \$15.00
- No. C21T, 1-Qt. Brass, Heavy Vehicle, Wall Bracket... 16.00
- No. C21TS, 1-Qt. Brass, Heavy Vehicle, Post Bracket... 18.00
- No. C31, 1½-Qt. Brass, Wall Bracket... 18.00
- No. C31T, 1½-Qt. Brass, Heavy Vehicle, Wall Bracket... 19.00
- No. CR2, 1-Qt. Pyrene Liquid... 1.60
- No. CR10, 2-Qt. Pyrene Liquid... 3.20
- No. CR4, 1-Gal. Pyrene Liquid... 5.80



C 21



S 13

**Pyrene Soda-Acid
2½-Gal. Seamless and Riveted Types**

Inverted, it discharges a 40-foot stream, effective on fires in wood, paper, textiles, etc. The Four-Star Drawn Shell type has patented press assembled collar and seamless dome and shell of one-piece copper. Strong and durable, tested to 500 pounds pressure.

The standard riveted shell type, at lower cost, has shell, dome and bottom of cold-rolled copper with seams backed with solder. Tested to 350 pounds pressure.

Chromium and painted finishes available. Must be discharged and recharged annually. High grade charges are full weight, accurately proportioned.

- No. S13, 4-Star Seamless, Polished Copper... \$34.00
- No. SX13, Riveted Shell, Standard Finish... 30.00
- If above supplied with relief valve, add \$2.00 to price.
- No. SXR1, 2½-Gallon Recharge... \$.60

40-Gallon on Wheels

- Narrow and wide gage.
- No. SD2L, 40-Gallon Indoor Loose Stopple... \$500.00
- No. SD2M, 40-Gallon Indoor Manual Operation... 525.00
- No. SD3M, 40-Gallon Outdoor Manual Operation... 575.00
- No. SR3, 40-Gallon Recharge... 7.20

**Pyrene Vaporizing Liquid
2-Quart and 1-Gallon Pressure Type**

For industrial and vehicular protection against flammable liquid and electrical fires, and incipient fires in ordinary combustibles. Discharge 30 to 40-foot stream without pumping. Inner chamber holds air under pressure; outer contains Pyrene Liquid. Air pressure gauge and liquid level sight glass make inspection easy. Equipped with flexible metal, rubber-covered hose. Available with or without built-in air pump.



C 103



C 43

- No. C103, 2-Qt. Pol. Copper, Without Pump... \$50.00
- No. C103M, 2-Qt. Polished Copper, With Pump... 54.00
- No. C43, 1-Gal. Polished Copper, With Pump... 80.00
- No. C43A, 1-Gal. Polished Copper, Without Pump... 75.00
- No. CR10, 2-Qts. Pyrene Liquid... 3.20
- No. CR4, 1-Gal. Pyrene Liquid... 5.80

Pyrene Water-Type

2½-Gallon Cartridge-Operated

Kills fire in ordinary combustibles by discharging a 40-foot stream of plain water—without pumping or chemicals—by means of pressure from a carbon dioxide gas cartridge. Operated by inverting and striking the plunger head on the floor. Annual recharging is not required. After use, refill with water; replace cartridge.

The Pyrene Anti-Freeze type is for ordinary hazards at freezing locations. Pyrene Freeze-Proof is anti-freezing to 40° below zero Fahrenheit. Both are also available in painted and chromium finishes.

- No. H13, Water-Type, Polished Copper... \$44.00
- No. W13, Anti-Freeze Type, Polished Copper... 46.00
- No. HV1, Replacement Pressure Relief Valve... 2.00
- No. HC1, Extra Cartridge for Water Type... 11.00
- No. WR1, Extra Anti-Freeze Charge and Cartridge... 13.00
- No. WC1, Extra Cartridge for Anti-Freeze Type... 11.00
- Recharging Cartridges... 4.00
- No. TR1, 5-Gallon Freeze-Proof Charge... 4.00
- No. TR2, 2½-Gallon Freeze-Proof Charge... 2.00



H 13

Pyrene Foam

2½-Gal. Seamless and Riveted Types

Discharges 22 gal. of foam that floats on flammable liquids, clings to solids and smothers the fire. The Four Star Drawn Shell type has one-piece shell and dome and solderless collar. Tested to 500 pounds pressure.

Standard riveted shell type available at lower cost. Tested to 350 pounds pressure.

Both seamless and riveted types are also available with chromium and painted finishes. Must be discharged and recharged annually, using only the specially compounded and accurately proportioned Pyrene Foam recharges.

- No. P13, 4-Star Seamless Pol. Copper... \$37.00
- No. PX13, Riveted Shell, Std. Fin... 33.00



P 13

- If above is supplied with pressure relief valve to meet U. S. C. G. requirements, add \$2.00 to price.
- No. PXR1, 2½-Gallon Recharge... \$1.60

10 and 40-Gallon on Wheels

- No. PD1P, 10-Gallon Indoor Type... \$390.00
- No. PD2PN, 40-Gallon Indoor Type... 550.00
- No. PD3PN, 40-Gallon Outdoor Type... 600.00
- No. PD4PN, 40-Gallon Airport Type (8" Tire)... 650.00
- No. PR3, 10-Gallon Recharge... 7.00
- No. PR6, 40-Gallon Recharge... 15.00

**C-O-Two Carbon Dioxide
2½ to 100-Pound Capacities**

Carbon dioxide hand and wheeled types are recommended for speedy extinguishment of highly inflammable liquids, paints, oils, etc., and for protection of electrical equipment. High pressure metallic and rubber hose. Horn of fabricated non-crackable material.

- | No. | Each | Valve | Lb. Gas |
|---------------|---------|------------------|---------|
| PS-2½ | \$21.00 | Squeeze-Grip | 2½ |
| PS-5 | 27.50 | Squeeze-Grip | 5 |
| PSH-10 | 46.00 | Squeeze-Grip | 10 |
| PSH-15 | 52.50 | Squeeze-Grip | 15 |
| PSH-20 | 59.00 | Squeeze-Grip | 20 |
| WB or WVF-50 | 178.00 | Seat or Pressure | 50 |
| WB or WVF-75 | 218.00 | Seat or Pressure | 75 |
| WB or WVF-100 | 350.00 | Seat or Pressure | 100 |

Information on hose units and automatic or manual systems are also available.



PSH-15

Cordley Electric Water Coolers

Equipped with non-rusting water system. Non-ferrous storage tanks and tubing are used throughout.

Complies with the requirements of U.S. National Bureau of Standards, CS127-45.

Has durable satiny neutral-tone, gray finish on heavy sheet furniture steel.

All cabinet panels are removable for easy access to mechanism.

Model HCS-10

A single-bubbler cooler with a hermetically sealed compressor unit.

Gooseneck filler is optional.

Cools up to 17 gallons per hour depending upon room and inlet water temperatures.

Precooling system uses waste water to cool incoming water to save electric current.

Available for 115-volt, 60 cycle power supply only.

Model CS-10 is identical except equipped with open-type compressor unit and is available for any a.c. or d.c. power supply.



Model CS-20

A two-bubbler cooler with extra (11½-gallon) storage reserve capable of handling heavy traffic or peak loads.

Gooseneck filler is optional.

Cools up to 33 gallons per hour.

Has open-type compressor unit and is available for any a.c. or d.c. power supply.

Model RCS-20 is similar except is equipped with two push-back glass fillers for restaurant or cafeteria service.



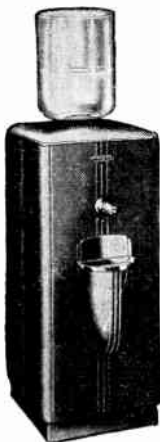
Model FCS-3

A bottled water cooler for moderate or small groups in offices, stores and other installations where traffic is relatively light.

No plumbing connections are required.

Accommodates any standard 3 or 5-gallon water bottle.

Has open-type compressor unit and is available for any a.c. or d.c. power supply.



Cory Commercial Electric Coffee Brewers

With ½ Gallon Decanters



Five Burner Unit

No. C122W 2-Burner Warming Units

Designed as auxiliary equipment with low heat only (80 watts). Safeguards against overheating coffee. Chrome finish. Furnished with two decanters and one spare lower bowl.

No. C122W, Warming Unit Only, Wt., 7¾ Lb. each **\$18.25**

No. 140, Warming Unit with Two No. CD2G Decanters, Wt., 14 Pounds..... each **26.15**

No. 143, Warming Unit with Two No. CDM Decanters, Wt., 14 Pounds..... each **27.00**

No. C122E 2-Burner

Has two heats (660-80 watts); a high heat for brewing and a low heat for keeping coffee at a serving temperature. Capacity, 80 cups per hour.

Furnished with two complete Cory brewers, extra filter cloths, funnel holder, coffee measure and spare glass, and one lower bowl.

Stove dimensions, 8x14½x4½ inches. Chrome finish.

No. C122E, Stove Only, Weight, 7¾ Pounds... each **\$20.10**

No. 240, No. C122E Stove with No. C2G Glassware, Weight, 19¼ Pounds..... each **33.00**

No. 243, No. C122E Stove with No. CMG Glassware, Weight, 19¾ Pounds..... each **34.25**

No. C123E 3-Burner

Two burners give high and low heat and one burner gives low heat only.

Capacity, 100 cups per hour.

Furnished with two complete Cory brewers, one serving decanter, extra filter cloths, funnel holder, coffee measure and spare glass, and one spare upper and lower bowl.

Low heat burner is protected by a stainless steel shield.

Stove dimensions, 8x22x4½ inches. Chrome finish.

No. C123E, Stove Only, Weight, 11 Pounds... each **\$29.45**

No. 340, No. C123E Stove with No. C2G Glassware, Weight, 25¼ Pounds..... each **47.80**

No. 343, No. C123E Stove with No. CMG Glassware, Weight, 26 Pounds..... each **49.60**

No. C125H 5-Burner Step-Up

The two upper burners are Cory Speed-Ray closed elements with both high and low heats (660-80 watts).

Special cooling area between two upper burners provides auxiliary space for working convenience.

The three front burners give low heat only (80 watts) with elements protected by stainless steel covers.

Capacity, 140 cups per hour.

Furnished with two complete Cory brewers, three serving decanters, extra filter cloths, funnel holder, coffee measure and spare glass, and one upper and one lower bowl.

Stove dimensions, 16x22x7½ inches. Chrome finish.

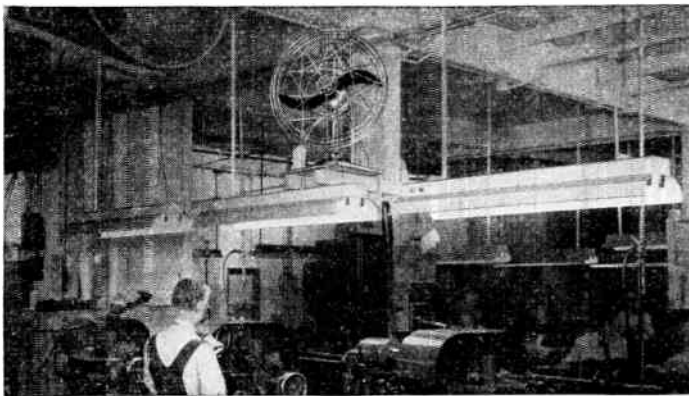
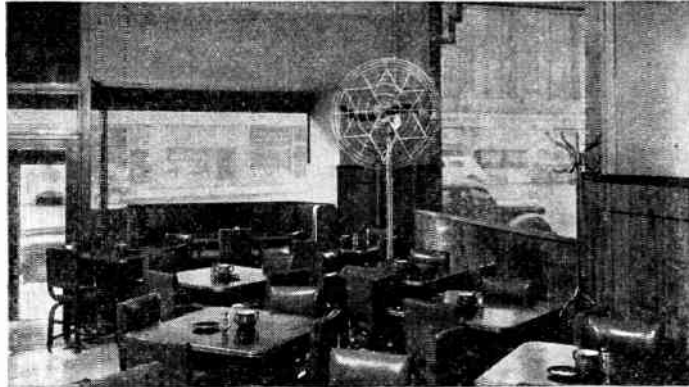
No. C125H, Stove Only, Weight, 23 Pounds... each **\$68.35**

No. 540H, No. C125H Stove with No. C2G Glassware, Weight, 41 Pounds..... each **92.60**

No. 543H, No. C125H Stove with No. CMG Glassware, Weight, 42 Pounds..... each **95.00**

Federal Manufacturer's Excise Tax to be added to prices.

Fresh'nd-Aire Circulators



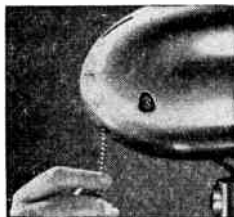
Fresh'nd-Aire circulator, successor to the fan, provides scientific overall no-draft air circulation for every requirement. It moves great volumes of air quietly, evenly—gives relief from the dulling effects of dead, stuffy air. In industry

it reduces fatigue, increases efficiency—brings high production rates. For commercial establishments Fresh'nd-Aire brings added customer comfort—increases rest store traffic.

Fresh'nd-Aire speed control, an exclusive feature, shows instantly on a visual dial the speed being used. Just a flick of the switch does it. Smaller models have three speeds—larger models have five speeds plus on and off switch.

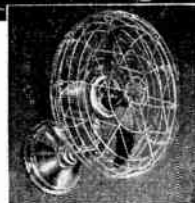


Low Stand Model



Speed Control

Low stand model has sturdy carrying handle. Base becomes wall mounting if desired. Becomes high stand model by simple addition of sub-base and tubing.



Wall Mounting

Fresh'nd-Aire is adjustable to a horizontally or vertically stand base becomes wall mounting.

Prop. No. and Size.....inches	14-R	17-R	20-R	23	26
Low Stand.....each	\$51.98	\$59.85	\$70.88	\$81.38	\$104.48
High Stand.....each	69.31	77.18	96.08	106.58	131.78
Type Motor, 115 Volts, 60 Cycles.....	Induction	Induction	Induction	Induction	Capacitor
Speeds.....rpm.	1600	1600	1600	1600	1600, 1
	1200	1200	1200	1250	1200, 1
No. of Speeds.....	800	800	800	850	800
	3	3	3	3	5
Shipping Weight: Low Stand.....pounds	25	26	35	37	60
	High Stand.....pounds	50	51	75	77	110

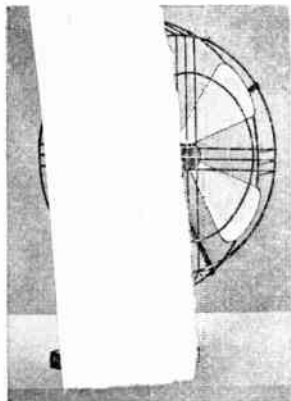
When ordering, specify current, cycle, voltage and phase. For motors of other specifications, write for special prices.

CODE BREA
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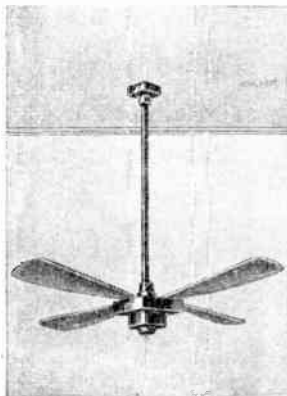
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Commercial Fans

Offices, Banks, Stores, and Institutions

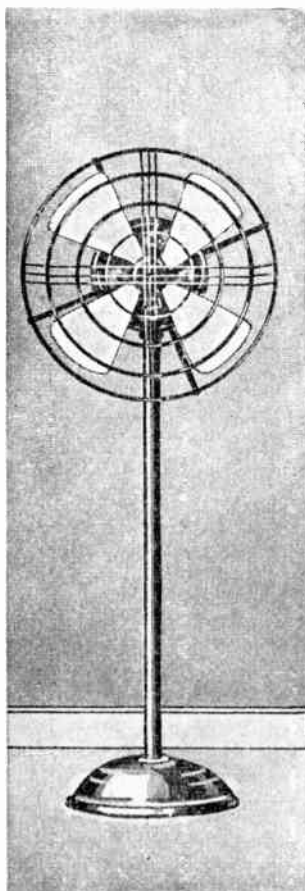


Desk Type
Available in Various Sizes
and Types, Oscillating
and Non-Oscillating



Ceiling Type
Available in Several Sizes
and Types for
Various Applications

Available in Several Sizes



Floor Type

Graybar distributes a complete line of desk, floor, wall and ceiling fans for office, store and institutional use. At the time this catalog went to press it was impossible to get complete data on the new items available. Therefore, we are merely showing three typical fans of current style—desk, ceiling and floor—and suggesting that when you need fan information you write or call our nearest office and warehouse (see list at back of catalog). They will be glad to send you complete information, prices and delivery information.

Ask Your Nearest Graybar Office and Warehouse for the Latest Fan Information

No. 428 Hg-Rollaire Cooling Fans

Portable—High Volume
220 Volts, 1 Phase



A plug-in unit mounted on rubber casters, for the night air cooling of small homes and apartments. Expels hot air and draws in cool air. Inside temperatures drop from 5° to 20° as an Hg-Rollaire fan is placed at one window, and other windows and doors are opened to make possible a complete air change. Casters lock in position.

Fan height is adjustable from 41 to 56 inches from floor to center of wheel.

Has a fine mesh safety guard, 25 inches in diameter.

Air capacity, 2600-1950 cfm. Air capacity carries a certified A.S.H.V.E. rating.

Rpm., 1140-855; 220 watts.

Direct connection of motor and fan eliminates friction and noise.

Rpm., 1140-855; 220 watts.

Direct connection of motor and fan eliminates friction and noise.

Fan is completely finished in bright chromium and is equipped with 20 feet of rubber covered cord and plug.

Shipping weight, 110 pound.

No. 428. each \$180.18

Hg Portable Floor Fans

For industrial air cooling. Discharges large volumes of air at high velocity. Propeller has 4 blades of cast aluminum protected by guards. Cast iron base.

The 12-inch fan is equipped with cord and plug; larger models with standard enclosed switch.

Size in.	12	24	30	36
220 or 440 V.,				
3-Ph. A.C.				
each	*\$140.60	401.31	487.31	567.84

115 or 230 V.,				
D.C. ea.	\$157.66	530.31	730.96	824.46

†CFM	3200	8000	16000	24000
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RPM	2400	1140	1140	1140
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Watts Input.	230	500	750	1200
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Weight . . . lb.	140	350	400	550
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*110 or 220 volts 1-phase only.

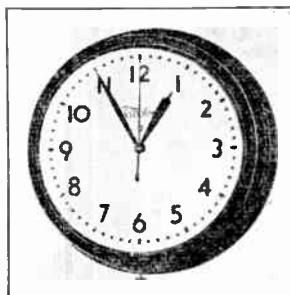
†Capacities include induced air volume.



Telechron Commercial Electric Clocks

Self-Starting

Approved by Underwriters' Laboratories



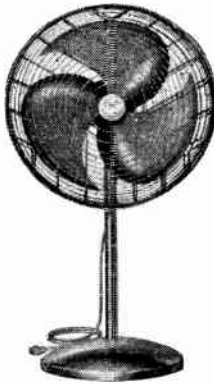
For indoor use only.

Surface type, round molded fiber case has a wrinkled statuary bronze enamel finish. Metal dial has black characters on a white background.

Movement constructed to insure quiet, long life.

No.	1H912	1B915
Each	\$11.95	16.95
Dial Size inches	12	15
Outside Diameter inches	14 1/4	17 1/2
Depth inches	3 1/4	4
Number per Carton	1	1
Shipping Weight pounds	7 1/2	11 3/4

**Ilgwind Fans
For Recirculation**

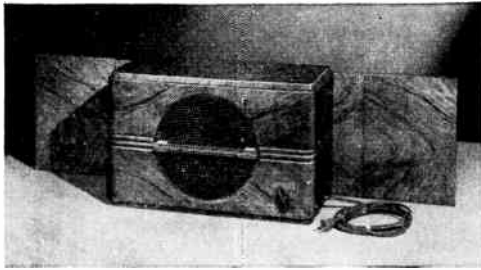


A portable plug-in unit used for cooling homes and apartments. Expels hot air and draws in cool air. Inside temperatures drop from 5° to 20° as an Ilgwind fan is placed at one window, and other windows and doors are opened to make possible a complete air change. For handling up to eight rooms.

Adjustable in height. Has a fine mesh safety guard. With 2-speed, 60-cycle, single-phase motor, 110 or 220 volts. Direct connection of motor and fan eliminates friction and noise. With 20-foot rubber-covered cord.

No.	271	331
Speed.....rpm.	1140	855
Each.....	\$196.56	244.34
Capacity.....cfm.	7000	12000
Hp.....	1/4	3/8
Watts.....	370	450
Ht. Floor to Hub.....in.	41-65	39-63
Net Weight.....lb.	95	160
Shipping Weight.....lb.	165	260

**No. BM388 Ilg Filter Type Ilgairator
Window Ventilators**



This is an electric fan and air filter unit that can be used with any sliding sash window for supplying fresh, filtered air to a room. Dust, soot, and plant pollens are filtered out of the air with over 98% efficiency.

The air volume is controlled by a regulator on the front panel. The No-Draft grille may be revolved to deflect the air in any direction.

The attractive cabinet is made of furniture steel and finished in natural walnut grain or rich ivory. Six adjustable panel widths are furnished for various window widths. The installation does not interfere with opening, closing or locking window. Filter is replaceable; a new cartridge is easily inserted.

With all necessary accessories including rubber covered cord and plug; operates from any electric light socket.

Single phase, 60 cycles, 110 volts.
Air capacity, 250 cfm. Speed, 1550 rpm. Watts, 40.
Also available for d.c. Prices on application.

Panel Adjustment.....inches	26-30	30-36	36-45
110 Volts, A.C.....each	\$75.00	75.00	75.00
Shipping Weight.....pounds	35	38	42

Replacement Filters, 6 to a Package, Shipping Weight, 9 Pounds.....per Filter **\$2.25**

Ilg Electric Propeller Fans

Selecting the Correct Size of Ilg Self-Cooled Motor Propeller Fan

The air change required in a room differs with the conditions found therein. The worse the air conditions, the faster the air should be changed; restaurants for instance need a more rapid air change than do offices. Air conditions in a given type of building are fairly uniform and it is possible to generalize on the rate of air change advocated for various classes of buildings. Note the listing below.

Air Changes

Class of Buildings	Air Should be Changed
Restaurant and Hotel Kitchens....	Every 1 to 2 Minutes
Offices and Stores, Depending on the Climate.....	Every 2 to 5 Minutes
Workrooms and Factories.....	Every 5 to 10 Minutes
Residence Kitchens.....	Every 1 to 2 Minutes
Garages.....	Every 5 to 10 Minutes
Theatres.....	Every 2 to 5 Minutes
Halls.....	Every 5 Minutes
Laundries.....	Every 2 to 5 Minutes
Farm Barns.....	Every 10 Minutes
Attic Cooling.....	Every 2 minutes on floor beneath attic

Self-Cooled Motor

The ingenious, exclusive self-cooling features of the Ilg ventilating fan motor combines the low operating cost of the open motor with the protection of the fully enclosed motor.

The Ilg self-cooled motor is an open motor, protected and enclosed by a metal hood. The fan action draws clean air through the vent-pipe from the outside, circulates it through the motor and exhausts it. The motor stays clean, stays cool; no foul air reaches it.

The value of this self-cooling feature is reflected in lower operating costs, quieter operation and longer service life.

Slow Speed—Quietness—Long Life

This motor propeller fan is made to operate efficiently at low speeds, from the 8-inch Ilg vent running at 1550 r.p.m. to the 72-inch Ilg fan at 315 r.p.m.; slow speeds characterize the Ilg line. Slow speeds permit quiet operation, smoother, effortless running, less vibration and bearing wear. Many an Ilg self-cooled motor propeller fan is as good as new after years of service. Slow speed is the answer.

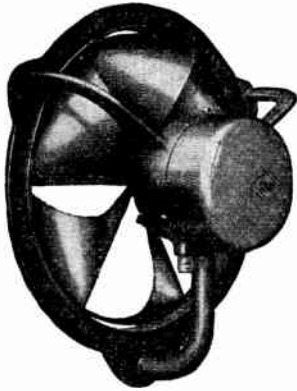
Two Fans in One

The Ilg self-cooled motor propeller fan for single phase operation is equipped with two speed controllers. In effect, this gives the user two fans for the price of one; at top speed a reasonably quiet ventilator for peak loads, and for hot weather duty; at low speed, a fan which is noiseless, ready for cold weather ventilation duty. Here is year round use, top capacity, silent operation, and flexibility of performance, all in one fan.

Improved Balanced Wheel

Slow speeds are possible because of the improved Ilg bucket type fan wheel. The deeply cupped blades scoop up the air, working efficiently at low speeds. Dynamic balancing on a costly machine makes the Ilg fan wheel quiet, vibration-free for life.

1lg Self-Cooled Electric Propeller Fans



Constructed with patented 1lg enclosed self-cooled motor which affords the low operating cost of the open motor with the protection of a fully enclosed motor.

Fan action draws clean air through vent pipe in the bottom of the fan from out-of-doors, circulates it through the motor and exhausts it.

Motor stays cool and clean and uses less power.

Ratings are certified to be in accordance with the A.S.H. & V.E.

Constant Speed, S. Ph. 110 or 220 Volts, 60-Cycle

Size In.	Type	Each	Speed RPM.	CFM.	Watts Input	Motor Frame No.	Ship. Wt. Lb.
8	1lgvent	\$26.00	1550	350	35	51	10
10	1lgette	34.13	1550	500	40	52	12
12	1lgair	54.60	1140	800	70	33	23
16	SH	90.09	1140	1400	100	15	48
18	SH	129.00	1140	2300	170	S87	80
20	SH	156.98	1140	3200	250	S87	96
24	SH	209.53	855	4100	275	DE102	186
30	SH	315.32	685	7300	450	DE101	216
36	SH	432.71	570	9650	500	104	445
*42	SH	556.24	490	12300	800	104	550
*48	SH	687.24	490	18400	1300	105	780

†Two-Speed, S. Ph. 110 or 220 Volts, 60-Cycle

Size In.	Type	Each	Speed RPM.	CFM.	Watts Input	Motor Frame No.	Ship. Wt. Lb.
16	S	\$120.12	855 1140	1000 1400	100	15	60
18	S	165.17	855 1140	1750 2300	170	D87	84
20	S	195.20	855 1140	2400 3200	250	D87	96
24	S	277.10	600 855	2880 4100	275	D102	190
30	S	361.73	500 685	5420 7300	450	D101	220
36	S	476.39	400 570	6900 9650	500	D104	450
*42	S	609.48	380 490	9800 12300	800	D104	568

For 50-cycle use same list price; speeds and capacities are 5/6 of those shown for 60-cycle.

A.C., 50-60-Cycle, 2 or 3-Phase

Size In.	Type	220 or 440 V. Each	550 V. Each	Speed RPM.	CFM.	Watts Input	Motor Frame No.	Ship. Wt. Lb.
18	M	\$174.72	\$210.90	1140	2300	120	87	80
20	M	195.20	242.29	1140	3200	290	87	110
24	M	225.23	270.96	855	4100	250	102	172
30	M	270.96	315.32	685	7300	400	101	228
36	ML	436.12	496.18	490	8300	460	104	450
36	M	395.85	454.55	570	9650	460	103	460
42	M	501.64	558.97	490	12300	800	104	630
48	M	587.64	659.30	490	18400	1300	105	780
54	M	951.41	1060.61	425	23200	1950	107	900

Fifty-cycle speeds and capacities are approximately 5/6 those shown for 60-cycle.

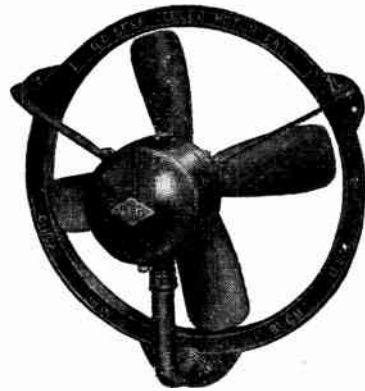
D.C.

Size In.	Type	115 or 230 V. Each	500 V. Each	Speed RPM.	CFM.	Watts Input	Motor Frame No.	Ship. Wt. Lb.
10	1lgette	\$34.13	.....	1550	500	70	54	12
12	1lgair	60.75	.....	1140	800	70	10	23
16	B	104.43	.....	1140	1400	100	1/8	48
18	B	150.84	.....	1140	2300	150	1/6	80
24	A	300.99	\$315.32	855	4100	300	1197	186
30	A	361.05	380.16	690	7300	440	1199	220
36	A	541.91	569.21	570	9650	600	1207	450
42	B	630.63	662.03	490	12300	800	1207	550
48	B	845.62	888.62	490	18400	1300	1211	800
54	B	1246.93	1309.04	425	23200	1800	1213	950
60	B	1719.90	1805.90	380	28400	2270	1215	1200
72	B	1920.56	2016.79	315	40500	2300	1217	1600

Enclosed speed controllers furnished with all d-c. fans except the Type 12 size.

*220 volts only.
†Two speed controller included.
‡115 volts only.

1lg Special High Speed Propeller Fans



Suitable for industrial or other uses where noise is no consideration.

Regular self-cooled motor construction with 4-blade cast aluminum fan wheel.

110 or 220 Volts, 1 Phase, 60 Cycles

Size	Each	RPM.	CFM.	Watts Input	Motor Frame	Ship. Wt. Lb.
18HS	\$200.66	1750	3100	300	87	90
24HS	343.98	1140	5500	500	102	190
*30HS	458.64	1140	10000	750	103	265

220 or 440 Volts, 2 or 3 Phase, 60 Cycles

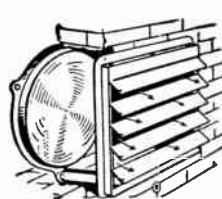
Size	Each	RPM.	CFM.	Watts Input	Motor Frame	Ship. Wt. Lb.
18HM	\$221.13	1750	3100	300	87	100
24HM	266.86	1140	5500	500	102	225
30HM	352.86	1140	10000	750	103	325
36HM	479.12	1140	15000	1200	104	500

110 or 220 Volts, D.C., with Regulator

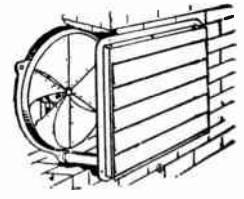
Size	Each	RPM.	CFM.	Watts Input	Motor Frame	Ship. Wt. Lb.
24HB	\$401.31	1140	5500	500	1197	235
30HB	487.31	1140	10000	750	1207	345

*220-volt.

1lg Automatic Shutters



Fan Running



Fan Not Running

These shutters are used on the outside of propeller fans to protect the fan when not running and also to keep out the wind, rain, snow and cold.

1lg Automatic Shutters are built of special hard rolled aluminum leaves, pressed on Whiting Alloy copper coated rods supported in cast frame.

When fan is running, the shutter is held open by the force of the air current. When fan is shut off, the shutter closes automatically by gravity.

Shutters are moisture proof and need no attention after they are installed.

Size of shutter corresponds to size of fan.

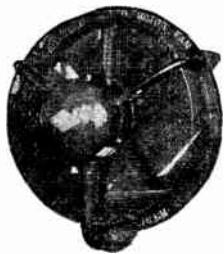
Motor operated shutters available at extra cost.

Size Inches	Approx. Shipping Wt., Lbs.	Each	Size Inches	Approx. Shipping Wt., Lbs.	Each
10	7	\$10.24	36	112	\$73.71
12	10	11.61	42	152	107.84
16	19	15.70	*48	188	143.33
18	30	19.11	*54	230	171.99
20	43	23.21	*60	210	243.66
24	67	27.30	*72	314	272.32
30	80	51.87			

*Built in 2 sections.

11g Propeller Fan Guards

11g Woven Wire Guards are strong and durable and do not obstruct flow of air to the fan. Furnished in one, two, or three sections; all sections are interchangeable. The Ilgette is a one-piece guard.

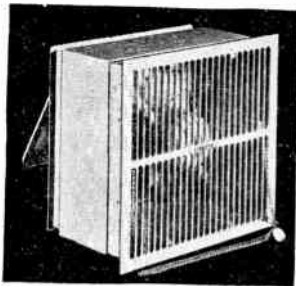


Propeller Fan with 3-Section Guard

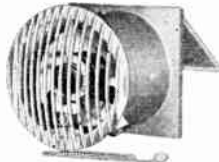
Size In.	Per Section Each	Complete	
		Each	Wt. Lb.
10	.....	\$1.64	1 1/2
12	\$4.43	12.97	2
16	4.78	13.65	2 1/2
18	5.12	15.02	3 1/2
20	7.51	22.53	4
24	8.88	27.17	5
30	10.58	31.73	8
36	12.62	37.88	11
42	13.65	40.27	15
48	17.07	50.17	24
54	21.50	64.49	38

11g Built-In Kitchen Ventilators

For New or Renovated Homes



Ilgette



Ilgent

This unit becomes an integral, permanent part of the building wall. Simple, easy to install by contractor.

One piece weather-tight door on outside of house is opened or closed by beaded pull chain, simultaneously causing fan motor to start or stop. Keeps out insects and cold air when fan is not operating.

Operates smoothly and freely. Fan wheel is accurately balanced and allowance is made for minute variations in paint coverage. Rugged framework keeps moving parts aligned, assures a solid, permanent installation.

Telescopic cabinets made of 16-gage rust-resisting steel permit depth adjustment for different wall thicknesses.

Ventilators for a.c. operation have shaded pole type motors free from radio interference.

Ilgent—For small kitchens. Standard sleeve fits wall from 5 3/4 to 8 1/2 inches or from 8 1/2 to 13 inches: sleeve to fit 5 3/4 to 8 1/2-inch wall shipped unless otherwise specified. Units with special sleeves available at \$2.05 extra for following wall thickness: 13 to 22-inch walls or 22 to 31-inch walls.

French gray cabinet, with polished aluminum grille.

Ilgette—For medium-size kitchens. Self-cooled motor. Standard sleeve fits wall from 8 1/2 to 13 inches. Units with special sleeves available at \$2.05 extra for following wall thickness: 12 to 16-inch walls: 16 to 20-inch walls: and 20 to 24-inch walls.

Ilgair—For larger kitchens. Self cooled motor. Cabinet has fixed depth of 8 5/8 inches. Baked ivory enamel finish.

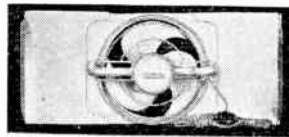
Automatic Ilgette—Equipped with an auxiliary self cooled small motor in place of pull chain and can be operated by an electrical wall switch.

Cabinet Dimensions Inches	Ilgent		Certified Ratings CFM.	RPM.	Ship. Wt. Lb.
	110-220V. 50 or 60 Cy. A.C. Each	115V. D.C. or 25 Cy. A.C. Each			
Flange, 10 1/8 x 10 1/8 Round Sleeve, 9 1/16 Diam.	\$46.21	\$55.90	350	1550	35 20
12x12	Ilgette \$60.06	60.06	500	1550	40 28
13 5/8 x 12 3/4	Ilgair \$81.90	81.90	800	1140	70 35
12x12	Automatic Ilgette \$85.32	.....	500	1550	55 28

*Not available for d.c.

11g Portable Kitchen Ventilators

For Rented Homes or Apartments



Also for installations where wall space or room arrangement does not permit use of a built-in ventilator.

Fits any ordinary window, requiring only four screws.

Mounted on window frame, back of sash, permitting window to be locked, opened or closed.

Fan mounted in all-steel ivory finish adjustable panel. Furnished complete with 10-foot cord, switch plug and sash lifting handles.

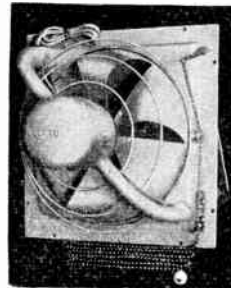
Standard panel width 26 to 36 inches, and 36 to 46 inches.

	Ilgent	Ilgette	Ilgair
110 or 220 V. 50 or 60 Cy. A.C.... each	\$30.03	\$39.59	\$57.33
110 V. D.C. or 25 Cycles A.C.... each	*37.70	39.59	62.79
For 20 to 24-Inch Panel..... add	1.50	1.50	1.50
For 46 to 56-Inch Panel..... add	3.50	3.50	5.00
Certified Ratings.....cfm.	350	500	800
RPM.....	1550	1550	1140
Watts.....	35	40	120
Shipping Weight.....pounds	18	22	35

*Not available for d.c.

11g Kitchen Ventilating Fans

Package Type—For Window Pane Installations
Listed by Underwriters' Laboratories, Inc.



Ilgette

Permanently installs in steel sash window, with unit replacing one pane of glass.

Can also be used in double hung windows with wood or metal mullions around panels.

Beaded pull chain opens and closes weather-tight outer door, simultaneously starting and stopping fan operation.

Ilgent is for small, compact kitchens; Ilgette for medium size or average kitchens.

Finished in ivory.

Model	110 or 220 V. 50 or 60 Cycles A.C. Each	110 V. D.C. or 25 Cycles A.C. Each	Panel Dimensions Inches	Certified Ratings CFM.	RPM.	Watts	Ship. Wt. Lb.
Ilgent	\$38.22	\$46.80	12 x12	350	1550	35	12
Ilgette	51.87	51.87	12 x12	500	1550	40	14

Special size panels available at extra cost.

11g 2-Speed Type Controllers

60-Cycle—2 and 3-Phase—A.C.



Full speed and approximately 40 per cent reduction.

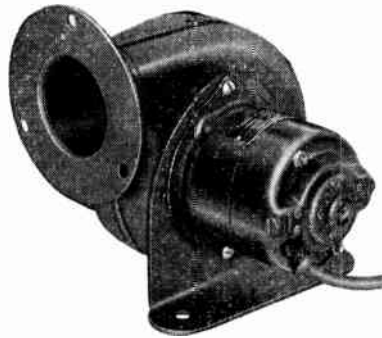
Size.....inches	18	20	24	30	36
Each.....	\$109.20	109.20	109.20	120.81	120.81
Ship. Weight. pounds	22	24	31	31	31

No. 6S IIg Utility Blowers

Motor Driven

110 Volts—60 Cycles—Single Phase—A.C.—3400 RPM.

Suitable for building into apparatus which requires ventilation or air movement. Unit can be supplied with or without stand, inlet flange or outlet flange.



Housing, stand and flanges are of die-stamped steel. Wheel is a zinc die casting, dynamically balanced for supremely quiet, highly efficient operation and is mounted on the motor shaft. Direct-connection of motor and wheel makes possible an extreme-

ly compact arrangement for engineering into a product.

Sleeve bearing type motor, series wound.

Furnished complete with short length of cord brought out of motor for making connections.

Performance Data in CFM. at Various Static Pressures

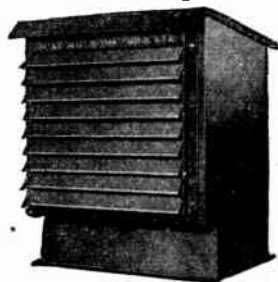
Free Air	INCHES											
	1/8	1/4	3/8	1/2	5/8	3/4	1	1-1/8	1-1/4	1-3/8	1-1/2	
70	68	66	63	60	58	54	50	46	41	36	30	21

No.	Each	Description
6 S	\$27.30	*Blower Only
6 S-S	29.25	Blower and Stand Only
6 S-1	29.25	Blower and Inlet Flange Only
6 S-D	29.25	Blower and Discharge Flange Only
6 S-1-D	31.20	Blower, Inlet and Discharge Flanges Only
6 S-S-1	31.20	Blower, Stand and Inlet Flange Only
6 S-S-D	31.20	Blower, Stand and Discharge Flange Only
6 S-S-1-D	33.15	Blower, Stand, Inlet and Discharge Flanges

*Blower includes housing, wheel and motor.

IIg Penthouses for Power Roof Ventilators

Penthouse is used with an IIg self-cooled motor propeller fan for use as a power roof ventilator. The penthouse is thoroughly weathertight in every respect. It is solidly constructed of rust resisting steel. The automatic shutter is standard equipment on the penthouse to protect the fan from the weather when it is not in operation. A door in the back of the penthouse which has provision for a lock furnishes easy access to the fan for periodic lubrication.



Available with insulated lining for use where condensation of moisture during the cold weather is a problem.

Furnished complete with shutter, no fan.

Size Ventilator In.	Stand-ard Each	Insu-lated Each	Size Shutter & Fan In.	DIMENSIONS, INCHES			Gage Metal	Approx. Ship. Wt. Lb.
				Ht.	Width	Depth		
12	\$90.09	\$131.73	12	28	19 7/8	15 7/8	20	90
16	90.09	135.14	16	28	19 7/8	15 7/8	20	95
18	105.11	165.17	18	35	25 7/8	17 7/8	18	105
20	121.49	187.69	20	35	25 7/8	17 7/8	18	135
24	141.96	210.90	24	41 1/4	29 7/8	21 3/8	18	170
30	203.39	285.29	30	46 3/4	35 7/8	25 1/8	18	300
36	270.96	358.32	36	54 3/4	43 7/8	27 1/8	18	400
42	401.31	501.64	42	62	50	32	18	580
48	515.97	644.97	48	72	56	36	18	740
54	788.29	645.95	54	82	63	40	16	820
60	902.95	1103.61	60	92	69	44	16	910
72	1332.93	1576.58	72	102	82	48	16	1070

Type P IIg Volume Blowers

Designed to handle small quantities of air. The housing is of heavy cast iron; the wheel is of cast aluminum.

Either ceiling or wall type. Quickly fitted into any one of four different discharges.

Particularly useful for exhausting fumes from chemical laboratories. Can also be used for handling light dust from polishing wheels and grinders and is suitable for any small exhaust purpose where a considerable amount of resistance is caused by a long run of small duct. The No. 7 1/2 P blower at 3400 rpm. can be satisfactorily used on single-fire blacksmith forges.



The No. 7 1/2 P blower at 3400 rpm. can be satisfactorily used on single-fire blacksmith forges.

Size No.	RPM.	Hp.	A.C.				D.C.	
			Sh. Wt. Lb.	60 CYCLE 1 Ph. CONSTANT SPEED 110 V. Each	220 V. Each	2 or 3 Phase 220 or 440 V. Each	110 V. Each	220 V. Each
7 1/2 P	3400	1/4	62	\$86.00	\$88.73	.....	\$81.90	\$86.00
10 P	1720	1/2	58	103.74	106.47	.....	106.47	111.93
10 P	3400	1/4	72	124.80	124.80	\$143.00	.....	.....
15 P	1720	3/4	115	129.68	136.50	195.20	146.06	154.25
15 P	3400	1	140	265.20	265.20	229.45	.....	.....
15 P	3400	1 1/2	150	292.50	292.50	260.00	.....	.....
20 P	1720	3/4	285	343.98	352.86	305.76	412.23	423.15

Size No.	Rated RPM.	PRESSURE, INCHES			
		1/4	1/2	3/4	1
7 1/2 P	3400	250	190	235	190
10 P	1420	175	100	145	90
10 P	1720	208	150	184	149
15 P	1420	320	130	250	105
15 P	1720	415	230	375	215
20 P	1420	1030	460	980	440
20 P	1720	1180	820	1130	780

Size No.	Rated RPM.	PRESSURE, INCHES					
		1	1 1/2	2	2 1/2	3	3 1/2
7 1/2 P	3400	215	180	190	175	165	170
10 P	1420	50	80	0	0	0	0
10 P	1720	118	116	0	0	0	0
15 P	1420	110	90	0	0	0	0
15 P	1720	280	190	150	165	0	0
20 P	1420	850	390	710	340	550	280
20 P	1720	1040	710	945	685	845	635

Size No.	RPM.	Hp.	CFM.										
			1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6	6 1/2
10 P	3400	1/4	411	374	360	330	296	261	223	175	.....	.....	.....
15 P	3400	1	610	575	535	490	385	300	.....	.....	.....	.....
15 P	3400	1 1/2	760	730	700	670	640	.....	.....	.....	.....	.....

IIg Variable Air Controllers For Type B and Type BW Universal Blowers

This controller is a shutter-like mechanism consisting of a bank of vanes connected together and operated by a quadrant control handle. Fastened to the discharge of the blower and operated either manually or indirectly by IIg electric remote control.

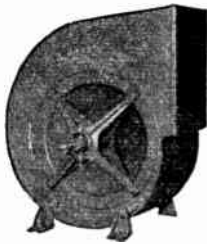
Permits the use of a constant speed, squirrel cage motor direct-connected to the blower. Advantages of this combination as compared to a variable motor speed are an actual saving in power with an improved power factor, simplicity of operation, compactness and sturdy dependable construction. Remote control is accomplished by electrical operation of the vanes, by means of a small motor operated by a switch station located at any desired point. A transformer is used to reduce the motor operating voltage to that which does not require elaborate conduit service.



For Blower Size No.	Each	Weight Pounds
B21	\$60.06	30
B25	62.79	40
B30	67.57	45
B35	73.03	50
B40	80.54	60
B45	90.09	65
B50	105.11	90
B55	117.39	95
B60	126.27	110
B65	136.50	120
B70	150.15	125
B80	206.80	150
B90	232.05	165

Remote Control, \$105.00 extra.

**Type BW 1lg Universal Blowers
For Belt Drive**



Sides of housing are of cast iron and the cast iron bearing bracket is recessed in the sheet metal bowl in blower's side. The multiblade wheel is overhung on the shaft which runs on ball bearings in cast iron bracket. This two bearing construction makes possible a completely unobstructed inlet. Special Whiting ribbon steel blades of wheel have slight forward curve developing high air volume at low tip speeds and against comparatively high static pressures. Blades are spot welded to rims, and rim and blade assembly mounted on cast iron spider.

Ball bearings make these blowers suitable for any installation requiring quietness. Bearings are oversized and grease lubricated.

Angle of discharge and direction of rotation can be changed at any time. Available in single width single inlet, and double width double inlet types.

No.	Outlet Area Sq. Ft.	SINGLE WIDTH, SINGLE INLET		DOUBLE WIDTH, DOUBLE INLET		
		Each	RPM	Shp. Wt. Lb.	Each	RPM.	Shp. Wt. Lb.
BW25	8	\$160.39	1800	175	.....	.....
BW30	1 2	195.20	1500	225	.....	.....
BW35	1 7	252.53	1300	295	.....	.....
BW40	2 3	315.32	1100	425	.....	.....
BW45	3 0	372.65	1000	550	.....	.....
BW50	3 7	450.45	850	725	\$831.29	850 925

Type B 1lg Volume Blowers

Gasoline Engine Driven



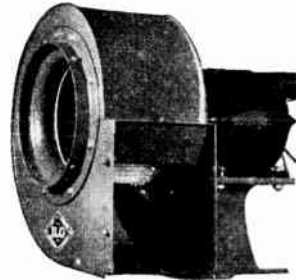
Driven by a direct connected 4-cycle gasoline engine, blower is for ventilating where electricity is not available. Manholes, vats, tanks and other places can be ventilated with this portable blower which is complete-

ly self-contained. Canvas hose is ordinarily used to convey the fresh air from blower to spot requiring ventilation.

The blower inlet is screened to prevent paper, leaves, etc. from entering. The outlet is fitted with a flange to accommodate a canvas hose. No batteries or other connections are required. Canvas hose not included.

No.	Each	B12	B15
Capacity	cfm.	630	1200
Speed	rpm.	1750	1750
Hp.		1/6	1/2
Gas Consumption	pints per hour	1/3	1
Tank Capacity	gal.	1 1/4	1
Height Over All	inches	14 1/2	21
Width Over All	inches	16	18
Depth Over All	inches	13	23 1/2
Shipping Weight	pounds	95	125
Net Weight	pounds	60	90

Type B 1lg Volume Blowers



Suitable for all kinds of small volume, low pressure installations. This blower combines high efficiency and low power consumption. Quiet and smooth running.

The housing and multiblade wheel are die-cut steel. The wheel is carefully balanced. The inlet flange and the base which bears both housing and the direct connected motor, are cast iron. Discharge is universal.

60 Cycle A.C. and D.C.

Size	RPM.	Hp.	Free Air CFM	Shp. Wt. Lb.	A.C.		D.C.	
					110 or 220 Volts 1-Phase Each	220 or 440 Volts 3-Phase Each	115 or 230 Volts *Less Regulator Each	230 Volts With Regulator Each
B 9	1140	1/70	180	45	\$64.16	+	\$86.00	\$94.87
B 9	1750	1/20	275	55	61.43	+	100.33	111.93
B12	1140	1/20	410	75	90.09	+	120.12	132.41
†B12	1750	1/6	630	85	75.08	+	129.00	143.33
B15	855	1/10	600	120	143.33	+	154.93	179.99
B15	1140	1/7	790	120	106.47	+	157.66	178.14
†B15	1750	1/2	1200	130	152.88	\$199.29	200.66	260.72
B18	855	1/7	1000	160	185.64	196.56	221.13	234.78
B18	1140	1/3	1340	170	207.48	234.78	226.59	253.53
†B18	1750	1 1/4	2050	195	315.32	286.65	304.40	407.46
B21	855	1/3	1580	225	275.73	223.86	307.13	329.65
B21	1140	3/4	2100	240	313.95	270.27	338.52	438.85

*One-half h.p. and larger require starter or regulator. †These units should not be used for free air delivery where quietness is essential.

†Use 220 volt, 1 phase unit and connect across 2 wires of the 3 phase line.

Performance Data in CFM. at Various Pressures

Size	RPM.	Hp.	Free Air	STATIC PRESSURE, INCHES					
				1/8	1/4	3/8	1/2	5/8	3/4
B 9	1140	1/70	180	145	100	.....	.....	.....	.....
B 9	\$1425	1/30	230	200	170	120	.....	.....	.....
B 9	1750	1/20	275	255	235	205	170	.....	.....
B12	1140	1/20	410	370	320	250	.....	.....	.....
B12	\$1425	1/10	515	480	450	400	350	250	.....
B12	1750	1/6	630	.....	.....	.....	515	475	435
B15	855	1/15	590	520	430	300	.....	.....	.....
B15	1140	1/7	790	725	680	610	530	400	.....
B15	\$1425	1/3	980	940	900	860	810	750	680
B15	1750	1/2	1200	.....	.....	.....	.....	1030	990
B18	\$ 710	1/8	840	750	630	400	.....	.....	.....
B18	855	1/7	1000	.....	820	710	500	.....	.....
B18	1140	1/3	1340	.....	.....	1140	1070	985	880
B18	\$1425	2/3	1670	.....	.....	.....	.....	1410	1350
B18	1750	1 1/4	2050	.....	.....	.....	.....	.....	1810
B21	\$ 710	1/5	1330	1210	1100	930	600	.....	.....
B21	855	1/3	1580	1480	1380	1260	1130	960	750
B21	1140	3/4	2100	.....	.....	1880	1800	1700	1620
B21	\$1425	1 1/2	2640	.....	.....	.....	2400	2340	2270

Size	RPM.	Hp.	Free Air	STATIC PRESSURE, INCHES				
				1/8	1/4	1/2	3/4	2
B 9	1140	1/70	180	.....	.....	.....	.....	.....
B 9	\$1425	1/30	230	.....	.....	.....	.....	.....
B 9	1750	1/20	275	.....	.....	.....	.....	.....
B12	1140	1/20	410	.....	.....	.....	.....	.....
B12	\$1425	1/10	515	.....	.....	.....	.....	.....
B12	1750	1/6	630	390	300	.....	.....	.....
B15	855	1/15	590	.....	.....	.....	.....	.....
B15	1140	1/7	790	.....	.....	.....	.....	.....
B15	\$1425	1/3	980	600	470	.....	.....	.....
B15	1750	1/2	1200	940	900	780	600	.....
B18	\$ 710	1/8	840	.....	.....	.....	.....	.....
B18	855	1/7	1000	.....	.....	.....	.....	.....
B18	1140	1/3	1340	720	.....	.....	.....	.....
B18	\$1425	2/3	1670	1280	1210	1030	.....	.....
B18	1750	1 1/4	2050	1770	1720	1610	1490	1360
B21	\$ 710	1/5	1330	.....	.....	.....	.....	.....
B21	855	1/3	1580	.....	.....	.....	.....	.....
B21	1140	3/4	2100	1500	1400	1000	.....	.....
B21	\$1425	1 1/2	2640	2200	2130	1980	1800	1570

\$720 rpm. and 1425 rpm. on 25-cycle and 50 cycle.

Prices for 25 cycle on application.

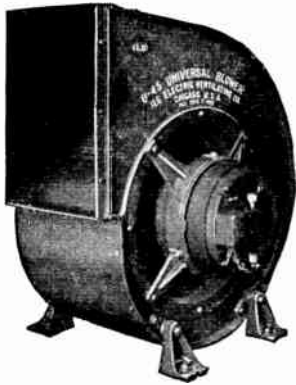
Type B IIg Universal Blowers

With Forward Curved Wheel

The motor is machined circular and held in a cast iron ring and recessed within the cast iron side of the blower in a sheet steel bowl. The multiblade wheel is mounted directly in the motor shaft. There is little overhang because the motor is recessed. This construction eliminates the inlet bearing, independent motor base, and alignment of motor and wheel. Mounted on 4 legs, the IIg Blower is quickly installed; the universal discharge is possible by relocation of the legs.

All direct current blowers are furnished with speed regulators and covers.

Give current, voltage, cycle, and phase—specify discharge arrangement on order.



Direct-Connected

Size	RPM.	A.C. —2 & 3 Phase 60 Cycle Constant Speed—			*D.C.			Single Phase A.C. —1 Phase 60 Cycle Constant Speed—		
		220 or 440 Volts Each	550 Volts Each	Ship. Wt. Lb.	110 or 220 Volts Each	500 Volts Each	Ship. Wt. Lb.	110 Volts Each	220 Volts Each	Ship. Wt. Lb.
B25W	685	\$265.50	\$293.48	220	\$386.98	\$415.65	210	\$354.90	\$302.35	250
B25W	855	308.49	337.16	220	458.64	483.21	360	414.96	349.44	250
B25W	1110	364.46	393.12	295	601.97	630.63	360	.....	.....	.....
B30W	685	414.96	442.95	350	587.64	616.30	410	515.97	472.98	405
B25W	855	457.28	485.94	380	689.33	717.99	410	.....	.....	.....
B30W	1110	556.24	584.91	460	831.29	859.95	650	.....	.....	.....
B35	570	485.94	514.61	470	742.56	771.23	510	559.65	532.35	550
B35	685	515.97	544.64	470	911.82	940.49	670	.....	567.84	550
B35	855	608.11	636.09	470	974.61	1003.28	670	.....	.....	.....
B40	570	592.41	621.08	630	971.88	1000.55	780	.....	648.38	725
B40	685	692.74	720.72	650	1106.34	1135.68	850	.....	.....	.....
B40	855	773.96	816.96	650	1404.59	1590.91	925	.....	.....	.....
B45	490	741.20	784.20	750	1094.73	1123.40	990	.....	824.46	850
B45	570	813.54	855.86	800	1266.72	1295.39	1050	.....	911.82	850
B45	685	966.42	1008.74	920	1304.26	1332.93	1050	.....	.....	.....
B50	490	941.85	982.80	955	1275.60	1318.59	1160	.....	1046.96	1040
B50	570	1016.93	1057.88	955	1490.58	1562.25	1410	.....	.....	.....

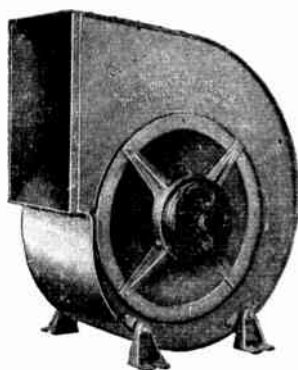
*Furnished with speed regulator.

Speed, Capacity and Brake Hp. at Various Pressures—For 60-Cycle and D.C.

Size	RPM.	Wheel Diam. In.	STATIC PRESSURE, INCHES																	
			1/8		1/4		3/8		1/2		5/8		3/4		7/8		1		1 1/4	
			CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.
B25	685	12 3/4	1750	.29	1580	.26	1400	.23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B25	855	12 3/4	2265	.58	2135	.54	2000	.51	1860	.47	1715	.44	.....	.....	.....	.....	.....	.....	.....	.....
B25	1140	12 3/4	.....	.....	.....	.....	.....	.....	.....	.....	2700	1.23	2600	1.18	2490	1.13	2390	1.09	2280	1.04
B30	685	15 1/2	3310	.80	3110	.75	2910	.71	2690	.65	2455	.60	.....	.....	.....	.....	.....	.....	.....	.....
B30	855	15 1/2	.....	.....	.....	.....	.....	.....	.....	.....	3550	1.32	3380	1.26	3200	1.19	3000	1.12	2795	1.04
B30	1140	15 1/2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B35	570	18 1/4	3744	.71	3440	.66	3130	.60	3130	.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B35	685	18 1/4	4640	1.28	4395	1.20	4140	1.14	3880	1.06	3600	1.00	3285	.91	.....	.....	.....	.....	.....	.....
B35	855	18 1/4	.....	.....	.....	.....	.....	.....	.....	.....	5090	2.16	4880	2.07	4665	2.00	4440	1.90	4190	1.79
B40	570	21	5890	1.49	5530	1.40	5180	1.32	4800	1.22	4432	1.13	3970	1.02	.....	.....	.....	.....	.....	.....
B40	685	21	.....	.....	.....	.....	.....	.....	6340	2.33	6030	2.22	5720	2.15	5370	1.98	5000	1.85	4560	1.69
B40	855	21	.....	.....	.....	.....	.....	.....	.....	.....	8200	4.65	7920	4.51	7740	4.40	7470	4.25	7200	4.10
B45	490	23 3/4	7330	1.72	6875	1.60	6400	1.51	5900	1.40	5070	1.21	4660	1.12	.....	.....	.....	.....	.....	.....
B45	570	23 3/4	8720	2.75	8340	2.64	7940	2.52	7530	2.40	7080	2.25	6620	2.12	.....	.....	.....	.....	.....	.....
B45	685	23 3/4	.....	.....	.....	.....	.....	.....	.....	.....	9300	4.40	8950	4.25	8620	4.09	8250	3.92	7850	3.74
B50	490	26 1/2	10420	3.05	9900	2.90	9380	2.75	8850	2.60	8300	2.45	7680	2.26	.....	.....	.....	.....	.....	.....
B50	570	26 1/2	.....	.....	.....	.....	.....	.....	.....	.....	10450	4.18	10000	4.00	9520	3.83	9000	3.50	8400	3.41

Type BC IIg Universal Blowers

With Backward Curved Non-Overloading Wheel



Non-overloading characteristics have been brought to a high state of development in the IIg Type BC Blowers. The motor load remains constant for a large range of air volume over a considerable change in static pressure.

This feature is of distinct value to the architect, the engineer, and contractor in installations where the actual resistance in the system does not agree with the calculated figure, for there is not a chance of a motor overload in case the resistance is less than calculated.

Blower has high efficiency available in direct-connected and belted single width, single inlet types and belted double width, double inlet type. The discharge is universal.

Enclosed speed regulators furnished with direct current blowers.

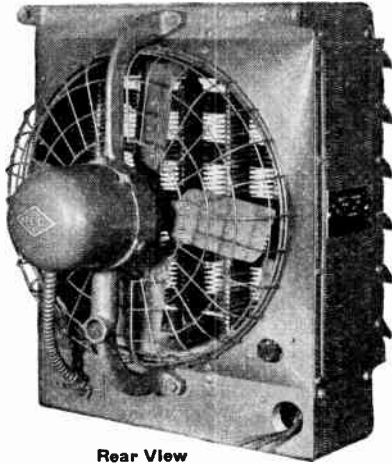
Size	RPM.	Direct Connected										*Belted			
		2 & 3 PHASE		1 PHASE		Ship. Wt. Lb.	D.C.		Ship. Wt. Lb.	SINGLE WIDTH SINGLE INLET		DOUBLE WIDTH DOUBLE INLET			
		220 or 440 Volts Each	550 Volts Each	110 Volts Each	220 Volts Each		110 or 220 Volts Each	550 Volts Each		Each	Wt. Lb.	Each	Wt. Lb.		
BC25	1140	\$286.65	\$308.49	\$353.49	\$322.83	220	\$307.13	\$328.29	230						
BC25	1750	293.48	315.32	428.61	343.98	220	410.87	432.71	230	\$160.39	175				
BC30	1140	313.95	337.16	421.79	354.90	300	346.71	368.55	310						
BC30	1750	321.46	342.62		405.41	300	492.77	514.61	330	195.20	225				
BC35	855	341.25	369.92	449.09	380.84	350	384.25	412.23	360						
BC35	1140	351.49	379.47	543.27	410.87	350	522.80	551.46	375						
BC35	1750	580.81				480	865.41	894.08	530	252.53	295				
BC40	855	379.47	472.29	582.86	444.99	500	557.61	586.27	525						
BC40	1140	507.78	536.45		600.60	530	832.65	861.32	580						
BC40	1750	709.80	737.10			625	1205.30	1233.96	725	315.32	425				
BC45	685	535.08	563.75		599.24	650	799.89	828.56	700						
BC45	855	543.27	571.94		630.63	650	835.38	864.05	700						
BC45	1140	659.30				750	1007.37	1036.04	880	372.65	550				
BC50	685	668.85	687.96		785.26	800	865.41	894.08	850						
BC50	855	690.69	719.36		828.56	875	1130.22	1158.21	1000						
BC50	1140	806.72	835.38			900	1422.33	1464.65	1090	450.45	725	\$996.42	925		
BC55	570	644.97	673.63		723.45	950	917.28	945.95	1000						
BC55	685	697.52	726.18		820.37	950	958.23	987.58	1000						
BC55	855	716.63	745.29			980	1128.86	1158.21	1080	515.97	850	1119.30	1075		
BC60	570	693.42	722.09		790.34	1200	1190.30	1147.97	1330						
BC60	685	745.29	773.96		931.62	1200	1304.94	1332.93	1420						
BC60	855	854.49	897.49			1225	1898.72	1942.40	1580	582.18	1025	1221.68	1275		
BC65	570	1037.40	1078.35			1400	1624.35	1665.30	1750						
BC65	685	1180.73	1221.68			1400	1870.05	1911.00	1950						
BC65										621.08	1200	1411.41	1500		
BC70	570	1233.96	1276.28			1600	1856.40	1897.35	1760						
BC70	685	1411.41	1455.09			1625	2265.90	2313.68	1920						
BC70										682.50	1400	1861.86	1825		
BC80										887.25	1800	2416.74	2375		
BC90										1086.54	2400		3200		

*Motor and drive not included.

Speed, Capacity and Brake Hp. at Various Pressures for 60 Cy. and D.C.—Direct Connected

Size	RPM.	STATIC PRESSURE, INCHES																	
		1/4		1/2		3/4		1		1 1/4		1 1/2		2		2 1/2		3	
		CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.	CFM.	Hp.
BC25	1140	1050	.10	825	.10	550	.10												
BC25	1750	1790	.37	1650	.37	1520	.37	1375	.37	1225	.37	1065	.37	860	.36				
BC30	1140	2010	.28	1760	.28	1480	.28	1200	.27										
BC30	1750	3300	.99	3135	.99	2960	.99	2785	.99	2610	.99	2440	.99	2260	.99	2090	.99	1695	.98
BC35	855	2350	.30	1950	.30	1500	.25												
BC35	1140	3400	.60	3100	.60	2800	.60	2475	.60	2150	.60	1750	.58						
BC35	1750	5470	2.22	5300	2.22	5100	2.22	4900	2.22	4700	2.22	4500	2.22	4300	2.22	4080	2.22	3650	2.22
BC40	855	3750	.55	3280	.55	2800	.55	2250	.55	1800	.45								
BC40	1140	5300	1.25	4950	1.25	4600	1.25	4240	1.25	3850	1.25	3480	1.25	3100	1.25	2625	1.24		
BC40	1750	8375	4.52	8160	4.52	7950	4.52	7720	4.52	7500	4.52	7260	4.52	7050	4.52	6800	4.52	6350	4.52
BC45	685	4220	.50	3600	.50	2850	.50	1800	.46										
BC45	855	5570	.98	5050	.98	4500	.98	3950	.98	3400	.98	2500	.92						
BC45	1140	7700	2.31	7300	2.31	6900	2.31	6500	2.31	6100	2.31	5660	2.31	5250	2.31	4850	2.31	3900	2.31
BC50	685	6050	.85	5300	.85	4500	.85	3750	.85	2000	.70								
BC50	855	7850	1.65	7250	1.65	6660	1.65	6100	1.65	5450	1.65	4850	1.65	4050	1.65				
BC50	1140	10780	3.93	10350	3.93	9890	3.93	9450	3.93	9000	3.93	8500	3.93	8070	3.93	7600	3.93	6700	3.93
BC55	570	6690	.82	5600	.82	4580	.82	3300	.82										
BC55	685	8300	1.42	7500	1.42	6650	1.42	5800	1.42	4900	1.42	3600	1.32						
BC55	855	10700	2.77	10000	2.77	9370	2.77	8700	2.77	8010	2.77	7350	2.77	6690	2.77	6000	2.77		
BC60	570	8900	1.27	7750	1.27	6600	1.27	5500	1.27	3800	1.15								
BC60	685	11020	2.22	10100	2.22	9200	2.22	8250	2.22	7300	2.22	6400	2.22	5100	2.10				
BC60	855	14200	4.30	13500	4.30	12750	4.30	12000	4.30	11250	4.30	10500	4.30	9750	4.30	9000	4.30	7400	4.30
BC65	570	13400	2.80	12250	2.80	11000	2.80	9650	2.80	8000	2.44	5900	2.18						
BC65	685	16400	4.80	15500	4.80	14660	4.80	13550	4.80	12450	4.80	11250	4.80	9950	4.60	8350	4.60		
BC70	570	14700	2.85	13400	2.85	12200	2.85	10800	2.85	9500	2.85	8150	2.85	5500	2.50				
BC70	685	18150	4.85	17100	4.85	16000	4.85	14900	4.85	13800	4.85	12800	4.85	11700	4.85	10600	4.85	6500	4.2

Ilg Electric Unit Heaters



Rear View

Unit is of the black heat type. The heating elements, individually replaceable, are enclosed in a finned metal sheath. No oxidation is possible. Self-cooled motor propeller fan unit and elements connected within the unit, single set of leads brought out.

Nos. 513 to 1517 can be furnished only for those currents for which controllers are listed, since controller is necessary to obtain operation of thermal safety switch on unit heater.

Controller equipment includes enclosed magnetic starter and remote control switch.

Frame Size	13EU	17EU
Width.....inches	15½	18½
Height.....inches	21	24¾
Depth.....inches	18½	19¼
Width Between Hangar Bolts.....inches	13¼	16¼

All Nos. except Nos. 1213 and 1513 are available for 110 or 220 volts a.c., 230 volts, d.c. The No. 513 is also available for single phase a.c. and d.c. and for 3 phase. All Nos. except Nos. 1217 and 1517 are available for 440 volts a.c., 550 volts a.c. or d.c.

No.	Cap. KW.	RPM.	CFM.	Cap. Btu.	Frame Size	Ship. Wt. Lb.
513	5	1140	335	17100	13EU	75
613	6	1140	465	20500	13EU	75
913	9	1140	600	30800	13EU	80
1213	12	1140	800	41000	13EU	85
1217	12	855	800	41000	17EU	125
1513	15	1140	1000	51200	13EU	90
1517	15	855	1000	51200	17EU	125

Prices, including automatic thermal safety switch, furnished upon application.

*Controller Equipment

KW. Cap.	†1 Phase		†2-3 Phase	
	110 V. No.	220 V. No.	220 V. No.	440 V. No.
5	H7879592	H6849592	H6979592	H6989592
6	H579592	H7889592	H6979592	H6989592
9	H579592	H7889592	H6979592	H6989592
12	H1359592	H589592	H8019592	H6989592
15	H1359592	H589592	H8019592	H6989592

KW. Cap.	†2-3 Phase 550 V. No.		Direct Current	
	550 V. No.	230 V. No.	550 V. No.	
5		H566005		
6	H6999592	H566005		H576005
9	H6999592	H566005		H576005
12	H6999592	H596005		H576005
15	H6999592	H596005		H576005

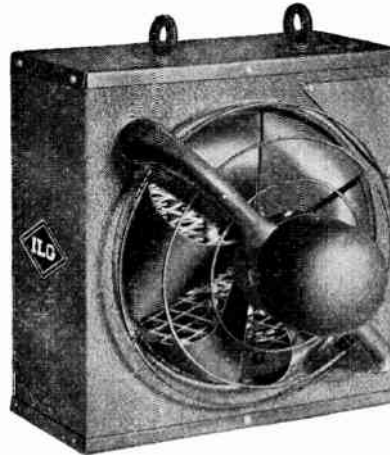
*No. 1025H289 pilot switch is included in the controller prices and should be specified on the order.

†Available in 25, 30, 40, 50 and 60-cycles.

‡Upon application.

Type HT Ilg Electric Unit Heaters

No Controller Is Required



For space heating or drying. Eye bolts provided for suspension of unit.

Heating element is non-overheating and interchangeable. Its temperature, whether fan is running or not, does not exceed 400°F. Self-adjusting to temperature, having a slightly higher kilowatt capacity in a cold room than in a warm room.

Suitable for connection to 110 or 220 volts single-phase and to 220 volts 3-phase.

Dimensions over all: Width, 12¾ inches; height, 15 inches; depth, 12¼ inches. Dimensions of case only excluding fan and hangar bolts: Width, 12¾ inches; height, 13¼ inches; depth, 5⅞ inches; distance between eye bolts, 5½ inches. Speed, 1550 rpm.

Complete unit is finished in brown crinkle enamel.

When ordering, specify exact voltage. Units for direct current and special voltages can also be supplied.

Shipping weight, 26 pounds. Net weight, 20 pounds.

No.	110HT	210HT	310HT	410HT
Each.....	\$50.07	52.00	54.60	58.50
Capacity.....kw.	1½	2	3	4
CFM.....	250	250	400	400
Capacity..... Btu.	5,100	6,800	10,200	13,600

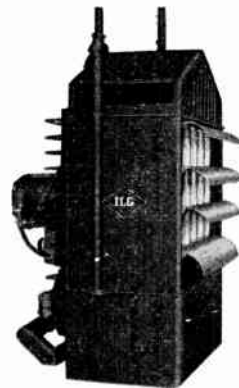
Ilg Gas Fired Unit Heaters

For Heating.—A complete heating unit in itself, consisting of radiator, fan, electric motor, Bunsen type burner, and electric automatic controls. No water or steam is needed.

For Ventilation.—Unit can be located so that complete air circulation is effected without drafts.

For Cooling.—During the summer months the gas may be turned off and the fan will force air circulation.

For Drying.—In drying room and in the manufacture of products requiring dehydration, this unit heater will be found quick, safe and economical.



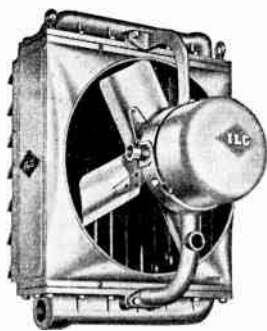
Can also be furnished with an exhaust fan for the flue products. Exhaust fan is so designed to force the flue products out a 4-inch pipe, and no flue is needed. Complete details upon request.

Venting tubes made of steel; burner, combustion chamber, tube sheets and draft hood made of cast iron. Has tested safety pilot, which automatically turns off the gas if for any reason the pilot goes out, or burns too low to insure perfect ignition.

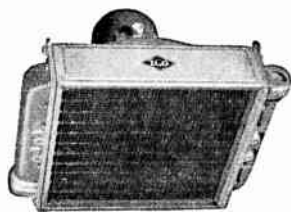
Brown wrinkle finish with chromium louvers.

No.	Each	Input BTU.	Output BTU.	Air Delivery CFM.	Ship. Wt. Lb.
85U	85,000	68,000	1520	216
100U	100,000	80,000	1820	316
130U	130,000	104,000	2320	327
160U	160,000	128,000	2930	462
200U	200,000	160,000	3500	475

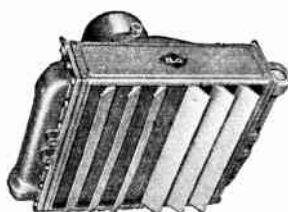
ILG Unit Heaters



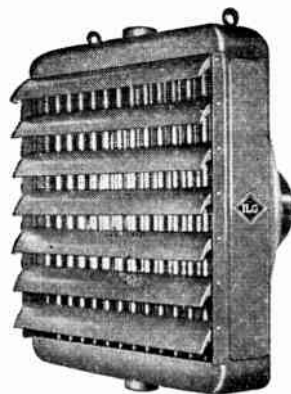
Low Ceiling Type



Vertical Type



Vertical Type with Variable Air Deflectors



Horizontal Type

Powerful Ilg self-cooled motor propeller fan enables a stream of warm air to be concentrated at the floor level and minimizes heat loss above the working zone. Can be operated manually, by electric thermostat or steam regulator.

Uniformity of design and construction assures balanced performance.

Tested and rated in accordance with the standard code adopted by the Industrial Unit Heater Association and the American Society of Heating and Ventilating Engineers.

Each heater is given a 500-pound hydrostatic test and a complete electrical test.

Standard finish is Ilg green.

Unit heater prices include fan, motor, casing, individually adjusted air deflectors and heating element. Speed regulator is included where specifically stated. No air valves or other accessories are included.

The exact motor voltage must be specified when ordering.

Specifications—All Types

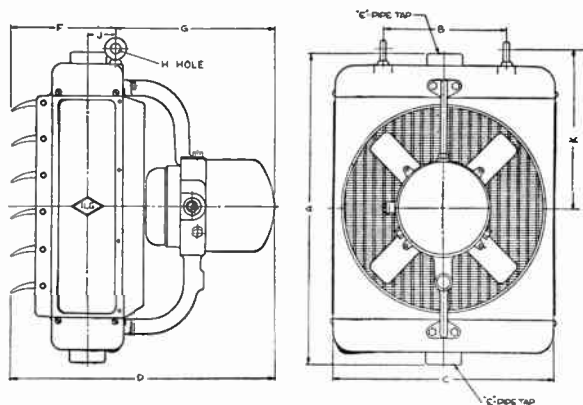
Basis of Rating: 2 Lb. Steam Pressure 60°F. Entering Air

SIZE AND TYPE			60 Cy. A.C. and D.C. Motor Speed		Final Temp. Deg. F.		*CFM. Watts		Condensation †E.D.R. lb.	
Horizontal	Vertical	Low Ceiling	RPM.	BTU.	F.	*CFM.	Watts	†E.D.R.	lb.	
10-1S6			1550	18,600	111	385	40	77.5	18	
10-S6			1550	28,400	134	385	40	118	30	
13-G6	V13-G6	S13-G6	1140	40,000	134	500	60	167	42	
13-D6	V13-D6	S13-D6	1140	50,500	132	650	70	210	53	
13-E6	V13-E6	S13-E6	855	53,900	131	700	65	224	56	
			1140	68,300	128	930	110	285	71	
13-H6	V13-H6	S13-H6	855	61,500	129	820	75	256	64	
			1140	77,900	125	1100	130	324	81	
13-F6	V13-F6	S13-F6	1750	90,500	118	1430	290	377	94	
			855	73,500	135	900	145	306	77	
17-D6	V17-D6	S17-D6	1140	91,000	130	1200	115	379	95	
			855	85,200	131	1100	125	355	89	
17-T6	V17-T6	S17-T6	1140	106,000	126	1480	140	442	111	
			855	106,000	126	1480	155	442	111	
17-H6	V17-H6	S17-H6	1140	128,000	120	1980	230	553	133	
			1750	144,000	108	2750	500	600	150	
19-D6	V19-D6	S19-D6	855	115,000	124	1650	155	479	120	
			1140	151,000	123	2200	195	629	157	
19-E6	V19-E6	S19-E6	855	145,000	124	2090	185	604	151	
			1140	171,500	120	2640	275	715	179	
19-H6	V19-H6	S19-H6	855	164,000	121	2470	220	684	171	
			1140	195,000	115	3300	415	813	203	
19-F6	V19-F6	S19-F6	1750	213,000	105	4100	765	888	222	
			685	195,400	131	2540	155	814	204	
25-D6	V25-D6	S25-D6	855	229,000	126	3190	250	954	239	
			685	231,500	126	3250	200	965	241	
25-E6	V25-E6	S25-E6	855	268,200	121	4080	370	1118	280	
			1140	286,000	117	4670	515	1191	298	

Ratings apply only in recirculation and free discharge:
 *CFM. Cubic feet per minute of standard air at 70°F. and standard basis of rating (2 pounds steam pressure 60°F. entering air). Where steam pressure is referred to as a condition of rating it is meant to be the gauge pressure maintained on the heating surface and to determine the pressure required at the boiler a suitable line drop must be allowed for. Where heaters are to handle air at temperatures below freezing it is recommended that a minimum pressure of 5 pounds gauge should be maintained on the heating surface.

†E.D.R. Equivalent direct radiation at standard basis of rating.

Horizontal Type Dimensions



Size No.	DIMENSIONS, INCHES				
	A	B	C	D	E
10	18	5 5/8	12 1/2	15 1/16	1 1/4
13	21	8 1/2	15 1/2	18 3/8	1 1/4
17	24	11 1/2	18 1/2	20 5/16	1 1/2
19	27	15	21 1/2	25 3/4	1 1/2
25	35	20	27 3/4	27 1/16	2 1/2

Size No.	DIMENSIONS, INCHES				
	F	G	H	J	K
10	7 5/16	7 3/4	3/4	2	7 15/16
13	7 5/16	11 1/16	3/4	2	9 7/16
17	7 5/16	13	3/4	2	10 5/16
19	7 1/2	18 1/4	3/4	2	12 7/16
25	9 3/4	17 5/8	3/4	2 3/8	15 5/8

Net Face Areas

Outlet velocities of Ilg Unit Heaters of all types can be computed on the basis of the following net face areas:
 Size No. 10 13 17 19 25
 Net Face Area sq. ft. 1.00 1.56 2.25 3.06 5.06

Dimensions for Vertical, Horizontal (Size No. 19-2) and Low Ceiling types furnished upon request.

G-E Natural-Convection-Type Horizontal Unit Heaters

A convenient, easily installed heater for heating out-of-the-way places.

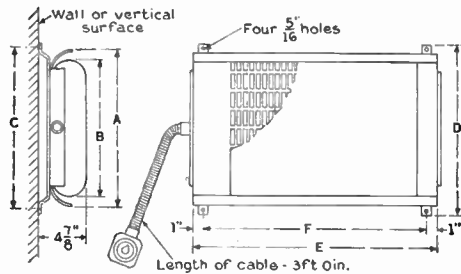
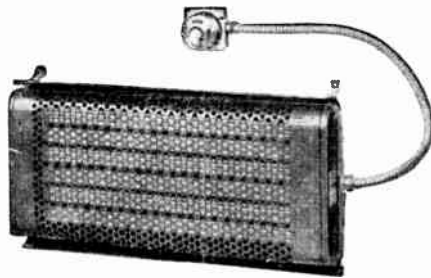
Common typical applications: substations, valve houses, pump houses, warehouses, crane cabs, airplane hangars, electric locomotives, blower rooms, repair shops, service stations, laboratories, garages, scale rooms, watchmen's houses, elevators, drying rooms, waiting stations, and ticket booths.

Free air circulation provides maximum heat. Heater is easily installed, simply mount on wall or floor and connect to power line. Easily moved from one job to another.

Heat is available at the turn of the switch. The 3-heat switch provides simple regulation of temperature and economy of operation.

Heater consists of a number of G-E strip heaters mounted in a perforated, pressed-steel case with heat-resisting painted finish.

Wall-Mounted Style

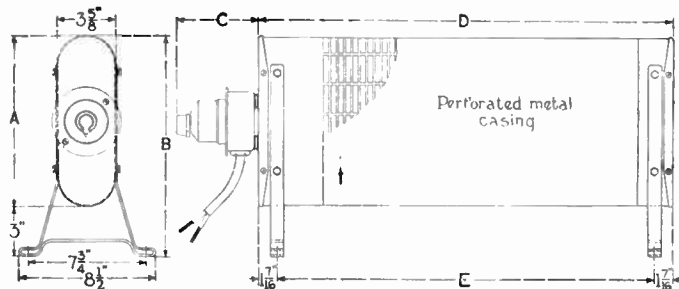
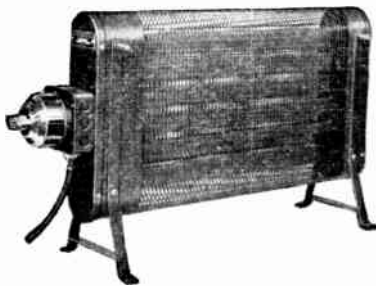


Designed for mounting directly on wall with main axis horizontal. Can be mounted with cable emerging from either right or left end.

Equipped with heat baffles to prevent overheating and scorching of wall surfaces.

Watts	With 3-Ft. Armored Cable and 3-Heat Snap Switch				Without Armored Cable and Switch				DIMENSIONS, INCHES						Approx. Ship. Wt. Lb.	
	A.C. or D.C.		A.C. Only		A.C. or D.C.		A.C. Only		A	B	C	D	E	F		
	115 Volts No.	230 Volts No.	*Each	440 Volts No.	*Each	115 Volts No.	230 Volts No.	440 Volts No.	*Each							
1000	2A290G40	2A290G41	\$28.00	2A290G42	\$33.00	2A290	2A290G2	2A290G3	\$23.65	9 1/2	7 3/4	10 3/8	11 1/4	25 3/4	23 3/4	22
2000	2A291G40	2A291G41	38.00	2A291G42	43.00	2A291	2A291G2	2A291G3	32.00	12 1/4	10 1/2	13 1/8	14	25 3/4	23 3/4	32
3000	.....	2A292G41	47.00	2A292G42	52.00	.....	2A292G2	2A292G3	40.00	16	14 1/4	16 7/8	17 3/4	25 3/4	23 3/4	40
4500	.....	2A293G41	63.00	2A293G42	68.00	.....	2A293G2	2A293G3	54.00	16	14 1/4	16 7/8	17 3/4	32 3/8	30 3/8	50

Floor-Mounted Style



Each heater is equipped with a 3-heat snap switch mounted on one end and a 10-foot rubber-covered heater cord.

Watts	A.C. or D.C.			A.C. Only		DIMENSIONS, INCHES					Approx. Ship. Wt. Lb.
	115 Volts No.	230 Volts No.	*Each	440 Volts No.	*Each	A	B	C	D	E	
1000	2A294G20	2A294G21	\$22.30	2A294G22	\$27.30	7 3/4	10 3/4	4 1/4	25 5/8	22 3/4	25
2000	2A295G20	2A295G21	29.00	2A295G22	34.00	10 7/16	13 7/16	5	25 5/8	22 3/4	33
3000	.....	2A296G21	36.00	2A296G22	41.00	14 1/4	17 1/4	5 1/4	25 5/8	22 3/4	40
4500	.....	2A297G21	47.00	2A297G22	52.00	14 1/4	17 1/4	5 1/4	32 1/4	29 3/8	50

*Add Federal manufacturer's excise tax of 10 per cent of net price of heaters and controls.

Suitable G-E Control Is Available for These Unit Heaters. Ask Your Distributor for Complete Details.

G-E Forced-Convection-Type Unit Heaters

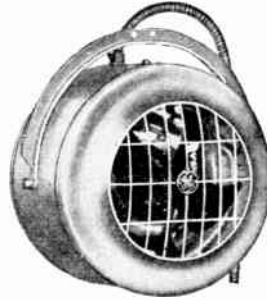
50-60 Cycles, A.C.



Portable Style



Suspension Styles



Available in two styles: portable, primarily for floor mounting; suspension, for wall or ceiling mounting.

Heater. Equipped with G-E Calrod heater with strong radiating fins that multiply its radiating surface. These fins are electric-furnace-brazed to the heater to provide maximum heat-transfer efficiency.

Fan. With G-E aphonic pressure-type fan with matching outlet orifice. Provides efficient and quiet operation.

Motor. A G-E totally enclosed motor with sleeve bearings. Motor is protected against direct radiation from heating units by an ingenious baffle. Cool air is drawn over the motor frame at all times through the space between motor and the baffle.

Automatic Protection Against Overheating. Heaters

rated under 10 kilowatts have a convenient reset button located on outside of case. On heaters rated 10 kilowatts and higher, remote push-button control is used, and the push button provides the necessary reset feature.

Housing. Heater may be directed upward or downward as much as 30 degrees from horizontal, to serve required area. The absence of louvers allows free flow of air.

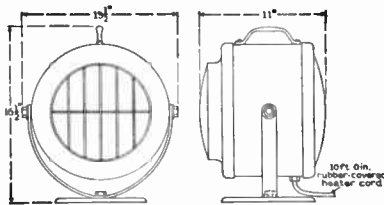
Wide Utility. The two smaller sizes of heaters are so designed that they can be used as fans during hot weather.

To operate motor and fan independently of heaters, the 2-, 3-, and 4-kw heaters are provided with tumbler switch mounted on casing. On the 5- and 7.5-kw heaters, fan-motor leads are brought out so that fan can be connected to manual switch.

Portable Style—For Floor Mounting

Can be arranged for suspension mounting. Unbolt foot pedestal and supporting arm and readjust arm so that it will be 180 degrees from standard location.

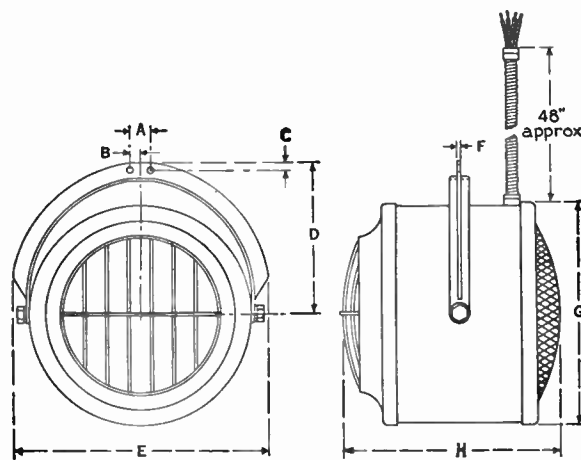
APPROX. CONDITIONS UNDER NORMAL OPERATION



Kw.	No.		Btu. per Hr.	†E.D.R. at 240 Btu. per Sq. Ft. Min.	Aver. Velocity Air per Min.	Air Cu. Ft. at Outlet Temp.	TEMP. DEGREES F.		Approx. Ship. Wt. Lb.	
	115 Volts Sgl.-Ph.	*230 Volts Sgl.-Ph.					Inlet	Outlet		
2	2A174G31	2A174G30	\$58.00	6,824	28.4	480	140	70	113	40
3	2A175G23	2A175G30	66.00	10,236	42.7	730	206	70	113	43
4	.....	2A176G30	75.00	13,648	56.9	750	212	70	127	46

Suspension Style—For Wall or Ceiling Mounting

Kw.	*230 Volts, Sgl.-Ph. No.	*230 Volts, 3-Phase No.	†E.D.R. at 240 Btu. per Sq. Ft. Min.	Average Velocity Air per Min.	Vol. Air Cu. Ft. per Min. at Outlet Temp.	TEMP. DEGREES F.	Approx. Ship. Wt. Lb.
5.0	2A177G27	.....	\$81.00	80	15	13 1/4	80
7.5	2A178G27	.....	115.00	90	15	13 1/4	90
10.0	.....	2A201G20	139.00	140	22	19 1/2	140
12.5	.....	2A202G20	158.00	150	22	19 1/2	150
15.0	.....	2A203G20	175.00	160	22	19 1/2	160



Kw.	DIMENSIONS, INCHES							
	A	B	C	D	E	F	G	H
5.0	1 1/2	3/4	1/2	10 5/16	17 1/4	3/16	15	13 1/4
7.5	1 1/2	3/4	1/2	10 5/16	17 1/4	3/16	15	13 1/4
10.0	2	1	5/8	14 3/8	25 1/8	1/4	22	19 1/2
12.5	2	1	5/8	14 3/8	25 1/8	1/4	22	19 1/2
15.0	2	1	5/8	14 3/8	25 1/8	1/4	22	19 1/2

Approximate Conditions under Normal Operation

Kw.	Btu. per Hr.	†E.D.R. at 240 Btu. per Sq. Ft. Min.	Average Velocity Air per Min.	Vol. Air Cu. Ft. per Min. at Outlet Temp.	TEMP. DEGREES F.	
					Inlet	Outlet
5.0	17,060	71.1	850	510	70	99
7.5	25,590	106.4	865	520	70	113
10.0	34,120	142.0	1725	1540	70	90
12.5	42,650	178.0	1753	1565	70	95
15.5	51,180	213.0	1782	1590	70	100

For all such specials, add as follows to price of standard heater.

Quantity (Inclusive)	Price Addition
1 to 9	\$10.00
10 to 24	5.00
25 or more	none

†EDR: Equivalent direct radiation.

‡Price includes 4 feet of armored connecting cable.

§Add Federal manufacturer's excise tax of 10 per cent of net price of heaters and controls.

*Standard 230-volt heaters operated on 208 volts, 50-60 cycles, a-c, will dissipate approximately 82% of listed kw. Special unit heaters can be supplied for connection of both fan motor and heating elements to circuits listed: 50-60 cycles, 115 volts, single-phase, a-c 208 or 440 volts, a-c single-phase, 2 to 7.5 kw; 3-phase, 10 to 15 kw.; d-c, 115 volts, 2 and 3 kw; d-c, 230 or 250 volts, 2 to 15 kw.

Suitable G-E Control Is Available for These Unit Heaters. Ask Your Distributor for Complete Details

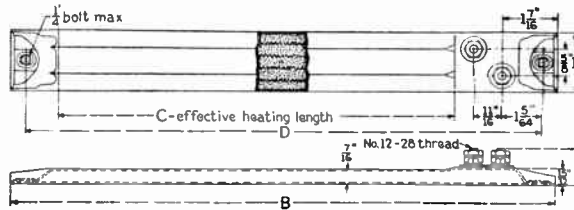
G-E Strip Heaters



Serve as an air and clamp-on heaters. A few of the common applications are for: process machinery, drying ovens, warming tables, glue tables, water baths, drying cabinets, pipe lines, incubators, valve and pump houses, etc.

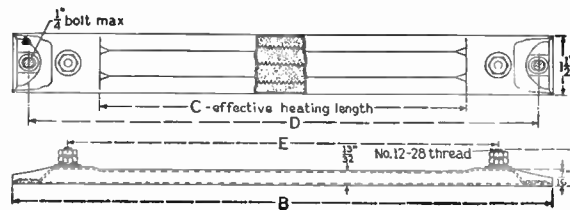
Features: uniform heat distribution; ridged construction that withstands vibration; compressed insulation.

With Offset Terminals at One End



Steel Sheath				Chrome Steel Sheath				DIMENSIONS, INCHES				Approx. Ship. Wt. Lb.
No.	Each	Watts	Volts	No.	Each	Watts	Volts	B	C	D	E	
2A155G2	\$4.50	1000	115	2A409	\$6.95	1500	115	35 1/2	31 1/2	34 3/4	....	3
2A155	4.50	1000	230	2A409G2	6.95	1500	230	35 1/2	31 1/2	34 3/4	....	3
2A154G3	3.90	750	115	2A408G2	6.95	1000	230	35 1/2	31 1/2	34 3/4	....	3
2A154	3.90	750	230	2A407	6.05	1000	115	30 1/8	26 1/8	29 3/8	....	3
2A153	3.10	500	115	2A407G2	6.05	1000	230	30 1/8	26 1/8	29 3/8	....	3
2A153G2	3.10	500	230	2A406G2	6.05	750	230	30 1/8	26 1/8	29 3/8	....	3
2A153G5	3.10	500	275	2A405	5.10	750	115	23 1/2	19 1/2	22 3/4	....	2
2A152	2.90	350	115	2A405G2	5.10	750	230	23 1/2	19 1/2	22 3/4	....	2
2A152G2	2.90	350	230	2A404	5.10	500	115	23 1/2	19 1/2	22 3/4	....	2
2A339	2.65	250	115	2A404G2	5.10	500	230	23 1/2	19 1/2	22 3/4	....	2
2A339G2	2.65	250	230	2A403	4.60	500	115	17 5/8	13 5/8	16 7/8	....	2
2A338	2.55	150	115	2A403G2	4.60	500	230	17 5/8	13 5/8	16 7/8	....	2
2A338G2	2.55	150	230	2A402	4.60	350	115	17 5/8	13 5/8	16 7/8	....	2
				2A402G2	4.60	350	230	17 5/8	13 5/8	16 7/8	....	2
				2A401	4.05	350	115	11 3/4	7 3/4	11	....	2
				2A401G2	4.05	350	230	11 3/4	7 3/4	11	....	2
				2A400	3.60	200	115	7	3	6 1/4	....	2
				2A400G2	3.60	200	230	7	3	6 1/4	....	2

With Terminals on Both Ends



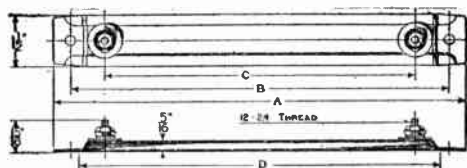
Steel Sheath				Porcelain-Enameled Steel Sheath				DIMENSIONS, INCHES				Approx. Ship. Wt. Lb.
No.	Each	Watts	Volts	No.	Each	Watts	Volts	B	C	D	E	
51X348	\$3.10	500	115	2A414	\$5.10	750	115	23 1/2	19	22 3/4	20 3/4	2
51X349	3.10	500	230	2A414G2	5.10	750	230	23 1/2	19	22 3/4	20 3/4	2
2A125	3.10	500	250	2A413G2	5.10	500	230	23 1/2	19	22 3/4	20 3/4	2
51X346	2.90	350	115	2A412	4.60	500	115	17 5/8	13 1/8	16 7/8	14 7/8	2
51X347	2.90	350	230	2A412G2	4.60	500	230	17 5/8	13 1/8	16 7/8	14 7/8	2
51X344	2.65	250	115	2A411	4.05	350	115	11 3/4	7 1/4	11	9	2
51X345	2.65	250	230	2A411G2	4.05	350	230	11 3/4	7 1/4	11	9	2
51X342	2.55	150	115	2A410	3.60	200	115	7	2 1/2	6 1/4	4 1/4	1

Can be connected in series for 440 or 550-volt circuits. For these voltages, secondary insulation is required.

Type S Chromalox Electric Strip Heaters

With One Bolt Terminal at Each End

For 115 or 230 Volts



Dimensions

Size In.	DIMEN., INCHES				Size In.	DIMEN., INCHES			
	A	B	C	D		A	B	C	D
8	8	7	5	6 1/2	24	23 3/4	22 3/4	20 3/4	22 1/4
12	12	11	9	10 1/2	25 1/2	25 1/2	24 1/2	22 1/2	24
14	14	13	11	12 1/2	26 3/4	26 3/4	25 3/4	23 3/4	25 1/4
15 1/4	15 1/4	14 1/4	12 1/4	13 3/4	30 1/2	30 1/2	29 1/2	26 1/2	28
18	17 7/8	16 7/8	14 7/8	16 3/8	33 1/2	33 3/8	32 3/8	29 3/8	31
19 1/2	19 1/2	18 1/2	16 1/2	18	36	35 7/8	34 7/8	31 7/8	33 1/2
21	21	20	18	19 1/2	43	42 1/2	41 1/2	38 1/2	40

Dimension D indicates overall length of Style 5 heaters.

Maximum Sheath Temperature 750°F.

(Sheath of Rust-Resisting Iron)

No.	Each	OVERALL LENGTH INCHES		Watts
		*Standard	†Style 5	
S-815	\$2.30	8	6 1/2	150
S-1225	2.40	12	10 1/2	250
S-1430	2.55	14	12 1/2	300
S-1532	2.60	15 1/4	13 3/4	325
S-1850	2.65	17 7/8	16 3/8	500
S-1950	2.70	19 1/2	18	500
S-2050	2.75	21	19 1/2	500
S-2425	2.80	23 3/4	22 1/4	250
S-2450	2.80	23 3/4	22 1/4	500
S-2575	3.05	25 1/2	24	750
S-2670	3.10	26 3/4	25 1/4	700
S-3075	3.55	30 1/2	28	750
S-3375	3.85	33 1/2	31	750
S-3610	4.10	35 7/8	33 3/8	1000
S-4312	4.90	42 1/2	40	1250

Maximum Sheath Temperature 1200°F.

(Sheath of Heat-Resisting Chrome Steel)

S-802	\$3.30	8	6 1/2	250
S-1202	3.70	12	10 1/2	250
S-1205	3.70	12	10 1/2	500
S-1405	3.85	14	12 1/2	500
S-1505	3.90	15 1/4	13 3/4	500
S-1805	4.20	17 7/8	16 3/8	500
S-1807	4.25	17 7/8	16 3/8	750
S-1801	4.30	17 7/8	16 3/8	1000
S-1905	4.30	19 1/2	18	500
S-1907	4.45	19 1/2	18	750
S-1901	4.45	19 1/2	18	1000
S-2405	4.65	23 3/4	22 1/4	500
S-2407	4.65	23 3/4	22 1/4	750
S-2401	4.85	23 3/4	22 1/4	1000
S-2501	4.95	25 1/2	24	1000
S-3007	5.50	30 1/2	28	750
S-3601	6.35	35 7/8	33 3/8	1000
S-4301	7.25	42 1/2	40	1500

*Standard type has fastening tabs at each end with slotted mounting holes 5/16 inch wide by 1/2 inch long for bolting to supports.

†Style 5 (blunt end) has fastening tabs cut off about 3/4 or 1 1/4 inches, depending on overall length from each end, for clamp-on applications.

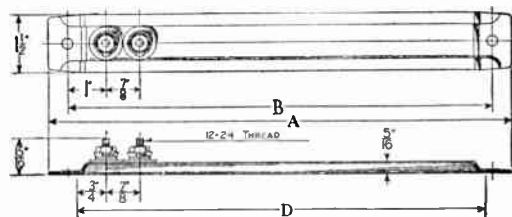
‡Also 250 volts.

When ordering specify if Style 5 is desired, also No. and voltage.

Type SE Chromalox Electric Strip Heaters

With 2 Bolt Terminals at One End

For 115 and 230 Volts



Dimensions

Size In.	DIMEN., INCHES			Size In.	DIMEN., INCHES		
	A	B	D		A	B	D
8	8	7	6 1/2	25 1/2	25 1/2	24 1/2	24
12	12	11	10 1/2	26 3/4	26 3/4	25 3/4	25 1/4
14	14	13	12 1/2	30 1/2	30 1/2	29 3/8	28
15 1/4	15 1/4	14 1/4	13 3/4	33 1/2	33 1/2	32 3/8	31
18	17 7/8	16 7/8	16 3/8	36	36	34 3/4	33 1/2
19 1/2	19 1/2	18 1/2	18	38 1/2	38 1/2	37 3/8	36
21	21	20	19 1/2	43	42 5/8	41 3/8	40 1/8
24	23 3/4	22 3/4	22 1/4	...	...	...	...

Dimension D indicates overall length of Style 5 heaters.

Maximum Sheath Temperature 750°F.

(Sheath of Rust-Resisting Iron)

No.	Each	OVERALL LENGTH, IN.		Watts
		*Standard	†Style 5	
SE-815	\$2.30	8	6 1/2	150
SE-1225	2.40	12	10 1/2	250
SE-1430	2.55	14	12 1/2	300
SE-1532	2.60	15 1/4	13 3/4	325
SE-1850	2.65	17 7/8	16 3/8	500
SE-1950	2.70	19 1/2	18	500
SE-2050	2.75	21	19 1/2	500
SE-2450	2.80	23 3/4	22 1/4	500
SE-2475	2.95	23 3/4	22 1/4	750
SE-2575	3.05	25 1/2	24	750
SE-2670	3.10	26 3/4	25 1/4	700
SE-3075	3.55	30 1/2	28	750
SE-3375	3.85	33 1/2	31	750
SE-3610	4.10	35 7/8	33 3/8	1000
SE-3880	4.35	38 1/2	36	800
SE-4312	4.90	42 1/2	40	1250

Maximum Sheath Temperature 1200°F.

(Sheath of Heat-Resisting Chrome Steel)

SE-802	\$3.30	8	6 1/2	250
SE-1202	3.70	12	10 1/2	250
SE-1205	3.70	12	10 1/2	500
SE-1405	3.85	14	12 1/2	500
SE-1505	3.90	15 1/4	13 3/4	500
SE-1805	4.20	17 7/8	16 3/8	500
SE-1807	4.25	17 7/8	16 3/8	750
SE-1801	4.30	17 7/8	16 3/8	1000
SE-1905	4.30	19 1/2	18	500
SE-1901	4.45	19 1/2	18	1000
SE-2405	4.65	23 3/4	22 1/4	500
SE-2407	4.65	23 3/4	22 1/4	750
SE-2401	4.85	23 3/4	22 1/4	1000
SE-2501	4.95	25 1/2	24	1000
SE-3007	5.50	30 1/2	28	750
SE-3601	6.35	35 7/8	33 3/8	1500
SE-4301	7.25	42 1/2	40	1500

*Standard type has fastening tabs at each end with slotted mounting holes 5/16 inch wide by 1/2 inch long for bolting to supports.

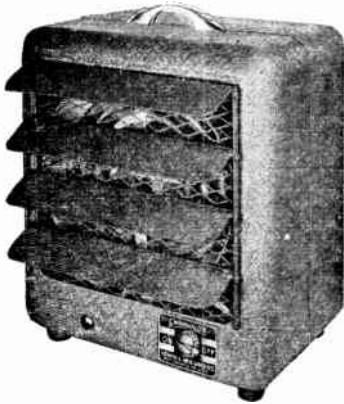
†Style 5 (blunt end) has fastening tabs cut off about 3/4 or 1 1/4 inches, depending on overall length from each end, for clamp-on applications.

When ordering specify if Style 5 is desired, also No. and voltage.

Type HF Chromalox Electric Unit Heaters

Blower Type

115-230 Volts, 60 Cycles, Single Phase



Used to heat watchmen's shelters, factory offices, stockrooms, warehouses, etc.; in place of steam heating system for heating offices and rooms in spring and fall; to supplement steam heating in cold weather in rooms inadequately heated; and for temporary heating where a portable or easily mounted heater is needed.

Steel heater case provided with handle and rubber feet or pads for portable use. Brackets available for permanent wall mounting. Adjustable louvres will direct air in desired direction. Chromalox Koilstrip elements within the heater warm air drawn in back of heater and forced out the front by cadmium-plated fan. Enclosed type electric motor drives fan.

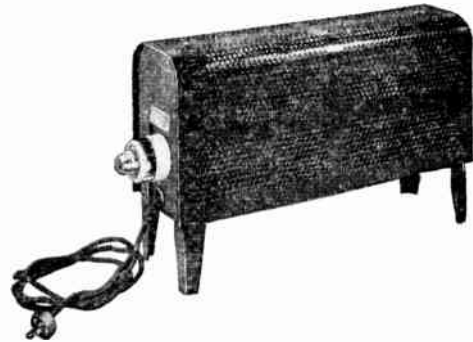
Positive acting thermostatic switch automatically opens heater circuit if normal operating temperatures are exceeded. Manually operated reset button closes heater circuit when normal temperatures are restored.

Manual control switch turns on heater circuit and fan for winter use, and fan only for summer use. For automatic temperature control, order PA thermostat; prices upon request.

The 1500-watt heaters supplied with 10 feet of heater cord and attachment plug; all other sizes supplied with 10 feet of heater cord only.

Type D Chromalox Electric Air Heaters

For 115, 230, and 250 Volts



Recommended for small offices or shops.

The 1000-watt and 1500-watt heaters are supplied complete with 3 heat switch, 6 feet of heater cord and attachment plug. The two larger sizes are furnished with 3-heat switch and 6 feet of heater cord for connection to power line.

No.	EH-810	EH-815	EH-420	EH-430
Each	\$20.25	23.40	26.55	32.90
Wattage	1000	1500	2000	3000
Overall Length...inches	22	22	28	28
Overall Width...inches	6	6	6	6
Overall Height...inches	13	13	13	13
Approx. Ship. Wt....lb.	33	33	38	38

Type H Chromalox Electric Air Heaters

Listed Under Underwriters' Laboratories, Inc.
Re-Examination Service—Reference No. 7601
For 115 and 230 Volts



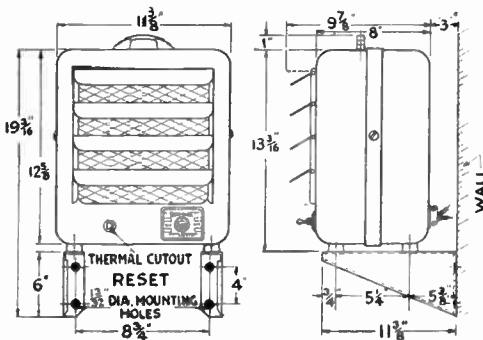
No. EH-2405

Designed for those many hard-to-heat places where heat must be concentrated near the floor. Ideal for mounting underneath low windows.

This heater discharges heated air horizontally into the room where it is needed (not up to the ceiling), thereby providing even heat distribution and eliminating the usual hot spots and cold corners. Mounting side (back part) is always cool, therefore this heater can be fastened to walls or wooden partitions without fire hazard.

Fully assembled with 3 feet of flexible cable and 3-heat switch mounted on standard conduit box ready to connect to power line.

No.	EH-1801	EH-2405	EH-2406	EH-2407
Complete...each	\$25.30	\$29.75	\$34.15	\$43.00
Without Switch or Cable...each	21.50	25.95	29.10	36.70
Wattage	1000	1500	2000	3000
Length...inches	20 ³ / ₄	26 ³ / ₄	26 ³ / ₄	26 ³ / ₄
Height...inches	7 ¹ / ₂	7 ¹ / ₂	11 ¹ / ₄	11 ¹ / ₄
Depth...inches	4 ¹ / ₂	4 ¹ / ₂	4 ¹ / ₂	4 ¹ / ₂
Approx. Ship. Wt.	28	38	49	49
.....pounds				



No.	HF-151	HF-201	HF-301	HF-401
Each	\$31.20	36.70	43.00	48.70
Kilowatts	1.5	2.0	3.0	4.0
No. of Volts	115-230	115-230	115-230	230
BTU.....per hour	5118	6824	10236	13648
Approx. Air Temp. Rise °F.	32	42	55	75
Approx. Air Velocity fpm.	130	130	180	180
Approx. Ship. Wt....lb.	21 ¹ / ₂	21 ¹ / ₂	24	24

G-E Calrod Immersion Heaters

G-E immersion heaters offer the most economical method of heating liquids in tanks, kettles, metal barrels, etc. They are of substantial construction and high efficiency, utilizing the well-known G-E Calrod sheath wire.



Fig. 1

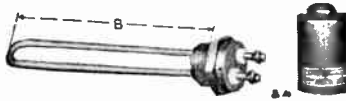


Fig. 2

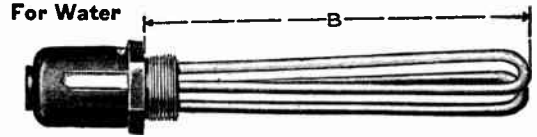


Fig. 3

For heating water, a copper-sheathed unit of high heat density, and having a threaded brass header, is used. Typical heaters are shown.

No.		Each	Kw.	No. Heats	Lgth. from End of Unit to Nut on Threaded "B" Dimen., In.	Diam. Threaded Collar, In.	Length Overall, In.	Fig. No.	Approx. Lb. Wt.	Snap Switches for Hand Control 250 Volts Maximum (FURNISHED SEPARATELY)		Description
115 Volts	230 Volts									No.	Each	
15X820	15X821	\$11.00	0.6	1	5	1 1/4	8 1/2	1	2	60451	\$1.80	Single-Heat
15X822	15X823	11.70	0.75	1	8	1 1/4	11 1/2	2	2	60451	1.80	Single-Heat
15X824	15X825	13.00	1.0	1	10	1 1/4	13 1/2	2	2	60451	1.80	Single-Heat
15X826	15X827	16.30	1.2	3	8	1 1/4	11 1/2	3	3	278608	3.00	3-Heat
15X828	15X829	18.90	2.0	3	10	1 1/4	13 1/2	3	3 1/2	296569	4.50	3-Heat
*15X830	*15X831	21.50	2.0	3	1 1/8	1 1/8	4 1/2	4	3 1/2	296569	4.50	3-Heat
15X832		22.30	3.0	3	14	2	18	3	6	296569	4.50	3-Heat
	†15X833	22.30	3.0	3	14	2	18	3	6	1794	7.20	3-Heat
15X834	†15X835	25.65	4.0	3	18	2	22	3	7	1794	7.20	3-Heat
15X836	†15X837	29.00	5.0	3	22	2	26	3	8	1794	7.20	3-Heat
	†50X595	37.00	7.5	3	30	2	34	3	11	1794	7.20	3-Heat
	†14X426	46.00	10.0	3	42	2	46	3	14			

For Water—Self-Protecting Type

For service in devices where the unit may accidentally be exposed at times. This heater will operate partly or totally uncovered for a limited period without injury. For its operation,

it depends upon the high temperature coefficient of resistance of a special alloy which is used as the heating element. Sheath is made of nickel silver.

1A384		\$16.85	0.75	1	10	1 1/4	13 1/2	2	3	60451	\$1.80	Single-Heat
1A385		24.55	1.5	3	10	1 1/4	13 1/2	3	3 1/2	296569	4.50	3-Heat
	1A385G2	24.55	1.5	1	10	1 1/4	13 1/2	3	3 1/2	60451	1.80	Single-Heat
1A386	1A386G2	29.00	2.5	3	14	2	18	3	6	1794	7.20	3-Heat
1A387	1A387G2	33.00	3.5	3	18	2	22	3	7	1794	7.20	3-Heat
1A388		38.00	4.5	3	22	2	26	3	8			
	1A388G2	38.00	4.5	3	22	2	26	3	8	1794	7.20	3-Heat

For Noncirculating Oils

For heating liquids such as oil and paraffin. A low watts density is used because of possible damage to the liquids and to the heaters through carbonization, etc. Steel is used

as the sheath and header material. Equipped with an efficient seal at the terminal to protect the G-E Calrod heating element against accidental contact with oil.

33X825	33X826	\$18.90	1.0	3	10	1 1/4	13 1/2	3	5	278608	\$3.00	3-Heat
32X820	†32X821	22.30	1.5	3	14	2	18	3	6	278608	3.00	3-Heat
32X822	†32X823	24.65	2.0	3	18	2	22	3	7	296569	4.50	3-Heat
15X838	†15X839	29.00	2.5	3	22	2	26	3	8	296569	4.50	3-Heat
32X824		32.00	3.0	3	26	2	30	3	10	296569	4.50	3-Heat
	†32X825	32.00	3.0	3	26	2	30	3	10	1794	7.20	3-Heat
32X826	†32X827	39.00	4.0	3	36	2	40	3	12	1794	7.20	3-Heat
32X828	†32X829	45.00	5.0	3	42	2	46	3	14	1794	7.20	3-Heat

Water-Immersion Heaters with Switch in Cap



No.		Each	Kw.	No. Heats	"B," In.	Std. Pipe Thrd. Collar, In.	Lgth. Overall, In.	Approx. Ship. Wt. Lb.
115 Volts	230 Volts							
1A389	1A389G2	\$29.00	3.0	3	14	2	20 1/2	8
1A390	1A390G2	32.00	4.0	3	18	2	24 1/2	9
1A391	1A391G2	35.00	5.0	3	22	2	28 1/2	10
.....	1A392	44.00	7.5	3	30	2	36 1/2	13

*This heater differs from the other heaters in that it is installed from within the container instead of being screwed in from the outside. Therefore, it is provided with a shoulder on the header and with the necessary gasket and tightening nut.

†This heater, for operation on a 230-volt circuit, can be operated single-heat on a 440-volt circuit by running the two elements in series. Switches listed should not be used for circuits of over 250 volts.

‡Straight thread, not pipe thread.

§Diameter is standard pipe thread of size given.

G-E Heating Cable



A flexible, lead-covered cable which can be bent and formed readily to fit almost any low-temperature heating job.

Applications

Used for melting ice from eaves and downspouts, protecting sprinkler systems, protecting pipes and valves from freezing, warming valves and pipe lines that carry viscous material, floor heating, freeing sidewalks and other surfaces from ice, kennel floors, and soil heating.

Can also be immersed in solutions, suspended on walls or in air, laid on surfaces, etc.

Ready Assemblies Fit Most Applications

Many requirements can be met with a heating cable of 400 watts on 110 volts, or a cable of 800 watts on 220 volts. For such jobs, the cable assemblies shown will be very convenient. They are ready to be plugged in. No wiring, no interconnections; just a simple outlet is required.

In many cases, a thermostat assembly for providing automatic temperature control is desirable. It is plugged into the power circuit, and the cable assemblies are plugged into the duplex receptacle on the thermostat assembly—even three or four cable assemblies can be plugged in by using triple taps.

Quantity (Inclusive)	*Thermostat Assembly, No. 4984571G2 Each	†Cable Assembly, No. 4915978G1 Each	‡Cable Assembly, No. 4915978G2 Each
1-9	\$15.85	\$7.50	\$13.50
10-39	15.15	7.25	13.10
40-99	14.30	7.10	12.80
100 or More	13.80	6.95	12.50

*No. 4984571G2 thermostat assembly consists of No. 4980281G18 thermostat, adjustable range 30 to 120°F., duplex receptacle, and 3-foot all-rubber cord, with plug. Approximate shipping weight, 5 pounds. Capacity, 15 amperes up to 250 volts, a.c. only.

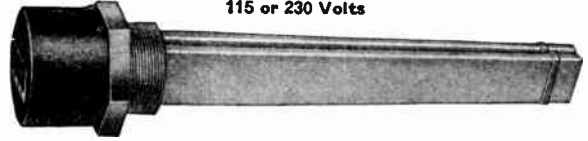
†No. 4915978G1 cable assembly consists of 60 feet of heating cable, with the two ends assembled into one rubber plug. Approximate shipping weight, 11 pounds. Rating, 400 watts, 110 volts.

‡No. 4915978G2 cable assembly consists of 120 feet of heating cable, with two ends assembled into one rubber plug. Approximate shipping weight, 22 pounds. Rating, 800 watts, 220 volts.

G-E heating cable is also available by the foot. Use in lengths of at least 60 feet on 115 volts, 400 watts; 120 feet on 220 volts, 800 watts. Price in lengths of 1-599 feet, 9 cents per foot.

Chromalox Immersion Heaters

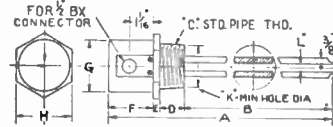
115 or 230 Volts



Provided with standard pipe-threaded screw plug for easy mounting through walls of tanks, in pipes, etc. Heated section must be completely immersed to be heated.

Type M. For heating water and solutions that readily absorb heat. Copper sheath, bronze screw plug and brazed joints are standard. For Oakite solution cleaning tanks, where copper is attacked, specify steel sheath, iron screw plug with welded joints at same price.

Type MO. For heating mineral oils, paraffin, etc. Has steel sheath, iron screw plug and welded joints as standard.

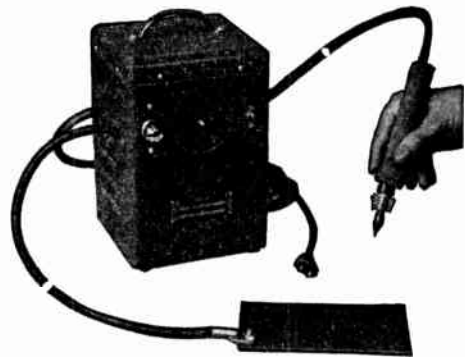


Type	TYPE M or MO DIMENSIONS, INCHES								
	*C	D	E	F	G	H	K	L	L
M or MO	1 1/4	3/4	3/8	2	2 7/32	2 3/8	1 3/8	3 1/16	3 1/16
M or MO	2	1	1/2	2	2 7/8	3	2	7/16	7/16
Type M									
No.	Each	Watts	Heats	Thrd. In.	Size Pipe	Overall Length Inches	Heated or Blade Lgth. In.		
M-150	\$9.50	500	1	1 1/4	1 1/4	11 1/8	7		
M-110-3	14.80	1000	3	1 1/4	1 1/4	11 1/8	7		
M-220-3	17.20	2000	3	2	2	14 3/8	9 7/8		
M-230-3	20.25	3000	3	2	2	18 5/8	14 1/8		
Type MO									
MO-110	\$17.20	1000	3	1 1/4	1 1/4	13 1/8	9		
MO-220	23.30	2000	3	2	2	21 5/8	17 1/8		
MO-230	29.10	3000	3	2	2	28 5/8	24 1/8		

*Refers to standard pipe thread.

Ideal Heavy Duty Etchers

For Etching Large Parts



For marking permanent identifications on smooth castings, big parts, and other large smooth-surfaced metal objects.

Etching heats vary in 100-watt steps from 300 to 1100 watts. Top heat is 1300 watts. Prominence of marking is governed by heat used and speed at which point travels over metal.

Furnished with 10-tap switch, on-off switch indicating lamp, large ground clamp, 6-ounce heat-resisting etching tool and 4x7-inch work plate.

Weight, 30 pounds.

No. 11-017, 115 Volts, 50-60 Cycles.....	each	\$66.00
No. 11-018, 230 Volts, 50-60 Cycles.....	each	74.50
No. 11-019, 115 Volts, 25 Cycles.....	each	78.00
No. 11-020, 230 Volts, 25 Cycles.....	each	80.00
No. L-887, Extra Etcher Points.....	each	2.75

Ideal Portable Electric Markers

A powerful small marking tool that permanently cuts in any kind of material, including alloys, brass, tile, wood, glass, etc. Shaped to fit the hand, it can be held and used to write almost as easily as a pencil. Has the balance of a fine writing pen. Complete marker only 6½ in. long, 1½ in. wide, and 1¼ in. thick. Has a steel point furnished for ordinary uses. For materials up to 64 Rockwell scale C, a diamond point is recommended. Furnished with a 5-foot cord. Case of marker is black plastic. Packed in cardboard box. Weight complete, 10 ounces.

No. 14-022, Model U with Steel Point, 115 V. 60 Cy. \$11.65
 No. L-2180, Hardened Steel Point..... 2.94
 No. L-2647, Diamond Point..... 6.88



No. 225 Drake Electric Soldering Irons

Recommended for light radio work. Nichrome wire wound on amber mica. An 80-watt iron with 3/8-inch tip, complete with 6-foot heater cord and rubber plug. Nickel plated.

No. 225, Weight, 1½ Pounds..... complete \$4.05
 Element..... each 2.13
 Tip..... each .53



No. 450 Drake Electric Soldering Irons

80 to 140 Watts—110 Volts—A.C. or D.C.

For fine instruments, telephone and other light soldering uses. Plug tip, 5/8 inch with 6-foot Cord and Stand.

No. 450, Complete with 6-Foot Cord and Stand. each \$5.50
 No. 450, Element..... each 3.20
 Plug Tip, 5/8-Inch..... each .53
 Shipping Weight, Complete..... pounds 2



No. 600 Drake Electric Soldering Irons

100 Watts—120 Volts—A.C. or D.C.

For switchboards, radio and other light manufacturing uses. Plug tip, 3/8 inch with 6-foot cord and stand.

No. 600, Shipping Weight, 2 Pounds..... each \$6.50
 Element..... each 3.73
 Tip..... each .53



No. 800 Drake Electric Soldering Irons

200 Watts—120 Volts—A.C. or D.C.

For art glass, medium tin work and general factory soldering. Plug tip, 5/8 inch. With 6-foot cord and stand.

No. 800, Shipping Weight, 3 Pounds..... each \$9.00
 Element..... each 6.39
 Tip..... each .85



Drake Electric Soldering Irons



Finished in gunmetal. With 6-foot heater cord and rubber plug. Shipping weight, 2 pounds.

No. 700—60-Watt Iron with 5/8-Inch Copper Tip

For light soldering, high quality Nichrome wire used in porcelain element.

No. 700..... each \$1.96

No. 701—100-Watt Iron with 7/8-Inch Copper Tip

For light medium work. High quality Nichrome wire used in porcelain element.

No. 701..... each \$2.56

No. 703—150-Watt Iron with 1 1/8-Inch Copper Tip

For garages, machine shops, etc. High quality Nichrome wire wound on amber mica.

No. 703..... each \$6.00

No. 1100 Drake Electric Soldering Irons

300 Watts—110 Volts—A.C. or D.C.



For automobile radiators and small branding irons. Plug tip, 7/8 inch. With 6-foot cord and stand.

No. 1100, Shipping Weight, 4 Pounds..... each \$12.00

Element with Housing..... each 8.52

Tip..... each 1.07

No. 1200 Drake Electric Soldering Irons

300 Watts—110 Volts—A.C. or D.C.



For tin-smiths, automobile radiators and small branding irons. Screw tip, 1 1/4 inches. With 6-foot cord and stand. Shipping weight, 4 pounds.

No. 1200..... each \$13.00

Heating Element..... each 9.59

Screw Tip..... each 2.66

No. 1400 Drake Electric Soldering Irons

500 Watts—110 Volts—A.C. or D.C.



For heavy soldering on tanks, roofs, large branding irons, etc. Screw tip, 1 1/2 inches. With 6-foot cord and stand.

No. 1400, Shipping Weight, 4 Pounds..... each \$15.00

Element..... each 10.65

Tip..... each 3.20

Extra Tips for American Beauty Electric Soldering Irons



3738 for Iron
 3138 for Iron
 3778 for Iron
 3798 for Iron

No.	3738	3758	3778	3798
Each.....	\$.50	1.10	1.90	2.20
Weight.....	ounces 2 1/2	7	16	28

Heating Elements for American Beauty Electric Soldering Irons



No.	9273	9275	9277	9279
Each.....	\$3.60	4.80	6.50	8.55
For Iron No.	3138	3158	3178	3198
Weight.....	ounces 4	8	12	18

No. S-76 American Beauty Electric Soldering Irons

For 110-120 Volts



For small, light work; consumes 50 watts. Specially treated copper core with aluminum head, to which tip screws with taper fit.

For all standard voltages and for 12 and 32 volts.

Diameter tip 1/16-inch; length, 11 5/8 inches.

Net weight, 6 ounces.

No. S-76.....	each \$5.00
No. 9276 Element.....	each 3.00
No. 3734, Tip.....	each .40

American Beauty Electric Soldering Irons



No. 3138



No. 3158

All irons are made with a special baffle plate at the shank to prevent free conduction of heat to handles.

Copper tips are treated with special nickel coating to prevent oxidation and corrosion.

The heating element core is made of solid steel rod. The outer surface is heat treated to prevent or reduce to the minimum oxidation and corrosion.

Stands are supplied with all irons.

Pyramid type tips are regularly supplied with Nos. 3138 and 3158, chisel type with Nos. 3178 and 3198. All numbers can be supplied with either type tip, when so specified. A special long drawn semi-chisel shape tip can be furnished for No. 3138.

No. 3138. Primarily adapted for light work; radio, telephone, telegraph, ignition work, etc.

No. 3158. For the same purposes as No. 3138 iron and work of a somewhat heavier nature; for electric starter and ignition manufacturers, repair work, etc.

No. 3178. For use on heavy work; connections, light commutators, and for service and production work.

No. 3198. For shop, service, production work, etc. Supplies a large volume of heat at high temperature.

No.	3138	3158	3178	3198
Each	\$8.00	9.60	12.90	16.80
Diameter Tip.....inches	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{7}{8}$	$1\frac{1}{8}$
Watts	100	200	300	550
Length Overall.....inches	$12\frac{7}{8}$	$13\frac{5}{8}$	$14\frac{3}{8}$	15
Diameter Overall.....inches	$\frac{7}{8}$	$1\frac{1}{4}$	$1\frac{9}{16}$	$1\frac{3}{4}$
Net Weight.....pounds	1	$1\frac{1}{4}$	$2\frac{5}{8}$	$3\frac{3}{4}$
Shipping Weight.....pounds	2	3	4	$5\frac{3}{4}$

No. 475 American Beauty Temperature Regulating Stand



A thermostatically controlled device for regulating the temperature of electric soldering irons. The soldering iron, when placed on this stand, is maintained at working temperature ready for instant use.

Through an adjustment on bottom of stand, thermostat may be set for the maintenance of any desired temperature.

Body of stand is of molded plastic. Soldering iron holder is of copper.

For use with electric soldering irons up to 660 watts consumption and for circuits up to 240 volts, a.c. only.

Stand is provided with cord and attachment plug cap for connection to current and with a receptacle for connection of the electric soldering iron.

Packed 1 in a paper box.

Net weight, 27 ounces.

No. 475.....each \$5.50

G-E Calrod Soldering Irons

For industrial use to provide the following advantages: High Speed Soldering Long Life and Low Maintenance Uniform Performance Convenient Tip Renewal All furnished with 6-foot rubber covered cord and plug; also supporting stand (except extra-heavy duty iron.)

No. 6A161—75 Watts, 115 Volts



For light, intermittent soldering on switchboards, wiring devices, ignition systems, meters, and instruments.

Diam. Tip In.	Calorized Tip Each		Wt. Oz. Without Cord	Wt. Oz. With Cord	Shipping Wt. Oz.
	Calorized Tip Each	Ironclad Tip Each			
$\frac{3}{8}$	\$9.55	\$10.20	15	20	26
$\frac{1}{2}$	9.55	10.20	15	20	26
$*\frac{1}{2}$	10.10	10.90	15	20	26

No. 6A162—100 Watts, 115 Volts



For light, high-speed soldering on telephones, switchboards, appliances, and meters. For service and repair men.

Diam. Tip In.	Calorized Tip Each		Wt. Oz. Without Cord	Wt. Oz. With Cord	Shipping Wt. Oz.
	Calorized Tip Each	Ironclad Tip Each			
$\frac{3}{8}$	\$9.55	\$10.20	15	20	26
$\frac{1}{2}$	9.55	10.20	15	20	26
$*\frac{1}{2}$	10.10	10.90	15	20	26

No. 6A200—100 Watts, 115 Volts



For light, high-speed soldering on radios and switchboards; medium, intermittent soldering on tinware and wiring. Excellent for shop and farm.

Diam. Tip In.	Calorized Tip Each		Wt. Oz. Without Cord	Wt. Oz. With Cord	Shipping Wt. Oz.
	Calorized Tip Each	Ironclad Tip Each			
$\frac{3}{4}$	\$10.80	\$12.20	16	21	27

No. 6A201—200 Watts, 115 Volts



For medium, high-speed soldering of automobile and airplane assembly, electric equipment, light tanks, and containers of copper and steel. For manufacturing plants.

Diam. Tip In.	Calorized Tip Each		Wt. Oz. Without Cord	Wt. Oz. With Cord	Shipping Wt. Oz.
	Calorized Tip Each	Ironclad Tip Each			
1	\$13.55	\$15.10	24	29	34

No. 6A202—300 Watts, 115 Volts



For heavy work on light commutators, large diameter pipe, medium-gage copper or steel tank and container material, roofing, and heavy tinware.

Diam. Tip In.	Calorized Tip Each		Wt. Oz. Without Cord	Wt. Oz. With Cord	Shipping Wt. Oz.
	Calorized Tip Each	Ironclad Tip Each			
$1\frac{1}{4}$	\$16.40	\$17.95	37	42	48

For Extra-Heavy Duty—650 and 1250 Watts, 115 or 230 Volts



For heavy continuous soldering. Equipped with G-E Calrod unit which is cast directly into copper heating head. Tip is made of Calorized copper, chisel type, and is brazed to copper heating head. To renew tip, unbrazed it from heating head and braze (silver-solder) on a new one.

Diam. Tip In.	115 Volts		230 Volts		Watts	Wt. Lb.
	No.	Each	No.	Each		
$1\frac{5}{8}$	6A318	\$30.00	6A318G2	\$30.00	650	6
2	6A319	54.00	6A318G2	54.00	1250	$8\frac{1}{2}$

Ironclad Renewal Tips



No corroding, no filing. Lower upkeep cost, less maintenance, and longer life. Illustration shows the effect of solder (250°C. for 363.5 hours) on plain copper (bottom) and Ironclad copper (top) soldering tips.

*Long tip.

Available for 230 volts at no extra cost.

Ideal Thermo-Grip Soldering Tools

1000 Watt Power Units



The Ideal Thermo-Grip is adaptable to practically all soldering jobs—closely grouped parts, difficult positions, cramped spaces, inflammable surroundings. Does all types of soldering quicker, safer and easier. Heats instantly and concentrates heat only on part to be soldered. Eliminates fire hazard and danger of melting nearby joints or burning other parts. Does not oxidize the tin in solder, weaken the solder or discolor the finished job. Reaches soldering temperature in less than one minute. Handy thumb-switch permits close heat control for better soldering. All parts fully insulated. Current is reduced to harmless low voltage. Operates on resistance heating principle. Can be used for long periods of time without overheating. A Thermo-Grip consists of combination power unit and carrying case, secondary lead assembly, and one or more of the attachments described below:

1000 Watt Power Units

- No. 12-062, 115 Volts, 50-60 Cycles..... each **\$38.60**
- No. 12-063, 115 Volts, 25 Cycles..... each **49.95**
- No. 12-064, 230 Volts, 50-60 Cycles..... each **42.50**
- No. 12-066, Secondary Lead Assembly..... each **5.95**

Attachments for 1000 Watt Power Units

No. 12-067 Plier Attachment.
(Illustrated with Power Unit)

Used for most soldering applications where work may be held in jaws and heated, i.e., removing or applying solder lugs up to 450 amperes, sweating and unsweating copper tube and fittings up to 1¼ inches in diameter, soldering joints, etc.

- No. 12-067..... each **\$9.95**

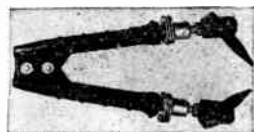
No. 12-069 Pencil Attachment.



For spot soldering—where ground clamp may be attached to a metal part of work to complete secondary circuit, i.e., spot soldering, soldering sheet metal, wire joints, commutator risers, etc. Includes "C" type ground clamp.

- No. 12-069..... each **\$10.95**

No. 12-068 Fork Attachment.

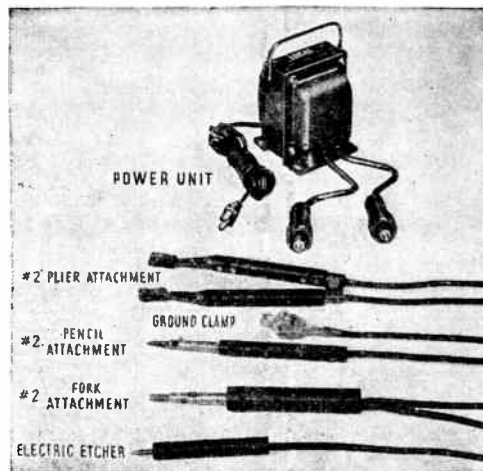


For soldering in restricted places—where straight tools cannot be used, i.e., soldering lugs, terminals or connections in switch boxes, switchboards, inside machines, etc. The electrode holders can be turned and locked in any position.

- No. 12-068..... each **\$7.95**

When ordering, please specify power unit, secondary lead assembly and one or more of the attachments listed.

Midget Size Power Units



Has quick-make-and-break connectors for easy interchangeability of attachments. With Hi-Lo heat switch—Hi heat, 300 watts; Lo heat, 225 watts. Furnished with 5-foot primary cord, and 1-foot secondary leads.

Weight, 9 pounds.

- No. 12-019, 115 Volts, 50-60 Cycles..... each **\$23.50**
- No. 12-021, 230 Volts, 50-60 Cycles..... each **29.00**
- No. 12-020, 115 Volts, 25 Cycles..... each **35.00**

Attachments for Midget Power Units

No. 12-023 Plier Attachments

For small work such as small terminals and lugs up to 150-ampere size, threadless copper tubing or fittings up to ¾ inch in diameter.

Rating, 300 watts.

Furnished with 5-foot leads.

Weight, 2 pounds.

- No. 12-023..... each **\$15.75**
- No. L-505, Extra Carbons..... per set **.55**

No. 12-024 Pencil Attachments

For light seam and spot soldering; ¼-inch diameter carbon electrode may be fixed either in line with or at 45 degrees to the handle.

Rating, 180 watts.

Furnished with 5-foot lead and ground clamp.

Weight, 1½ pounds.

- No. 12-024..... each **\$8.00**
- No. L-583, Extra Carbons..... each **.20**

No. 12-025 Fork Attachments

Only 8½ inches long, including carbons. For soldering in tight places, etc., where bi-carbon end moves between parts and only heats metal where it is held and lightly pressed.

Rating, 200 watts.

Furnished with 5-foot leads.

Weight, 1½ pounds.

- No. 12-025..... each **\$10.50**
- No. L-619, Extra Carbons..... per set **.55**

No. 12-043 Etcher Attachments

Electrically marks on iron, steel and their alloys. Makes a permanent mark on tools, gages, dies, etc.

Rating, 320 watts.

Furnished with workplate, carbon resistor and etcher tool with 5-foot leads.

Weight, 3¾ pounds.

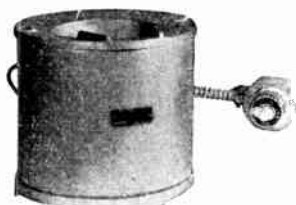
- No. 12-043..... each **\$16.50**
- No. R-247, Extra Points..... each **1.75**

Chromalox Electric Melting Pots

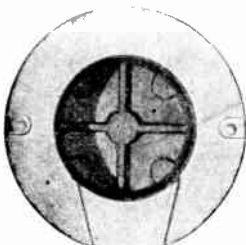
For Soft Metals

115, 230, and 460 Volts

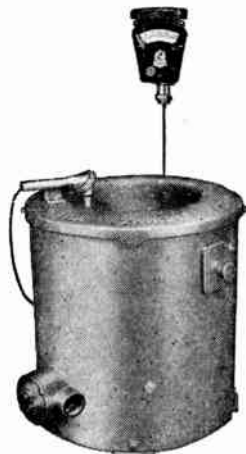
900°F. Maximum Operating Temperature



Nos. P-15, P-25 and P-50 Showing Flexible Conduit and 3-Heat Switch



Top View of No. P-50 Showing Large Capacity with No Interior Obstructions



Nos. P-100 to P-750 Inclusive, with Lifting Lugs. With Model M Thermostat for Automatic Control

For melting solder, lead, babbitt, tin, type metal; but not zinc.

Heated by Chromalox ring units clamped to the bottom of the pot. The larger pots also have strip heaters clamped to the sides. Interior of pots left free for maximum capacity and low radiation losses.

Nos. P-15 to P-50 inclusive for manual control have the 3-heat switch mounted on conduit box, connected to pot by 3 feet of flexible conduit. The No. P-8 pot is single heat only, and has 3 feet of flexible conduit with armored attachment plug.

Nos. P-100 to P-750 inclusive for automatic temperature control are wired for single-heat operation, and have terminal box for line connections mounted on the side. Thermostat Model M or Z and correct magnetic contactor should be used. When thermostat is ordered with melting pot, a steel protecting tube for the thermostat bulb is furnished.

Nos. P-100 to P-750 pots inclusive, can be furnished for 3 phase 230 volt operation and should always be used with automatic temperature control.

All pots can be furnished for single-phase operation.

No.	For Single-Heat Operation Each	With 3-Heat Control Switch Each	CAPACITY, POUNDS				Ship. Wt. Lb.
			50-50 Solder	Lead	15-85 Babbitt	Tin	
*P-8	\$14.40	.....	8	10	9	6	15
P-15	23.40	\$26.15	15	18	17	12	20
P-25	30.00	35.50	29	36	34	23	26
P-50	54.00	60.25	52	64	60	41	54
P-100	102.00	.....	114	139	131	89	118
P-350	162.00	.....	368	450	420	290	280
P-750	258.00	.....	750	920	860	600	390

No.	Wattage	Voltage	DIMENSIONS, INCHES			
			Inside		Outside	
			Diam.	Depth	Diam.	Height
*P-8	250	115 Only	2½	2½	5	6
P-15	500	115, 230	4	4	7	8½
P-25	750	115, 230	5¼	4¼	8	11
P-50	1380	115, 230	6¼	5¼	11	11
P-100	3000	115, 230, 460	8	7½	15	15
P-350	5000	115, 230, 460	10¾	14	18½	20¼
P-750	9000	230, 460	14	20	23	26

*Furnished single-heat with flexible conduit and armored plug.

G-E Metal-Melting Pots

For Soft Metals

Maximum Operating Temperature, 950°F.



Nos. 2881146G2, 2881146G3, 2881146G4, or 2881146G5



Nos. 2666404G1, 2666404G2, 2666407G1, or 2666407G2

For melting lead, babbitt, tin, solder, type metal, and similar alloys or metals, except spelter or zinc.

Each pot consists of a sheet-steel cylindrical casing in which is supported a cast-iron crucible. Space between casing and crucible is heat-insulated.

G-E Calrod cast-in immersion-type heating units are suspended from rim of pot and extend directly into metal to be melted.

No.	Each	APPROX. CAP., LB.						WATTAGE			Approx. Ship. Wt. Lb.
		50/50	Solder	Lead	Babbitt	Tin	High	Med.	Low		
2881146G3	\$41.00	230	28	35	†	25	750	.....	.....	50
2881146G2	41.00	115	23	35	†	25	750	.....	.....	50
2881146G5	41.00	230	28	35	33	25	1000	.....	.....	50
2881146G4	41.00	115	28	35	33	25	1000	.....	.....	50
2666404G1	120.00	230	100	135	125	90	2500	1500	1000	130	
2666404G2	120.00	115	100	135	125	90	2500	1500	1000	130	
2666407G1	172.00	230	330	425	390	270	5000	3000	2000	250	
2666407G2	172.00	115	330	425	390	270	5000	3000	2000	250	

No.	Each	DIMENSIONS, IN.		No.	Each	Rat. ing Watts	Approx. Ship. Wt. Lb.
		INSIDE Diam. Dpth.	OUTSIDE Diam. Lpth.				
2881146G3	6	4	9	10	3A227G4	\$25.30	750 12
2881146G2	6	4	9	10	3A227G3	25.30	750 12
2881146G5	6	4	9	10	3A228G4	28.00	1000 12
2881146G4	6	4	9	10	3A228G3	28.00	1000 12
2666404G1	8	6	14	14	3A229G4	28.00	1000 14
					3A230G4	32.00	1500 14
2666404G2	8	6	14	14	3A229G3	28.00	1000 14
					3A230G3	32.00	1500 14
2666407G1	12	9	18¾	20½	3A231G4	35.00	2000 30
					3A232G4	43.00	3000 30
2666407G2	12	9	18¾	20½	3A231G3	35.00	2000 30
					3A232G3	43.00	3000 30

Small Portable Pots for Solder and Lead

Maximum Operating Temperature, 750°F.



Similar in construction to the pots listed above.

Heater is of G-E Calrod construction using heavy-wall steel tubing, and provided with a terminal cup.

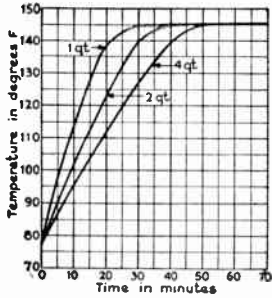
Equipped with bail and 6-foot cord with suitable attaching plug, affording ready portability.

Approximate capacity: 50/50 solder, 12 lb.; lead, 16 lb. Watts, 550.

Inside dimensions: diameter, 4¼ inches; depth, 3¾ inches. Outside dimensions: diameter, 9 inches; depth, 6½ inches.

No.	Each	Volts	Single Heating Units		No.	Each	Approx. Ship. Wt. Lb.
			Approx. Ship. Wt. Lb.	Approx. Ship. Wt. Lb.			
3887185G2	\$23.45	115	18		48X260	\$10.10	3
3887185G3	23.45	230	18		48X261	10.10	3

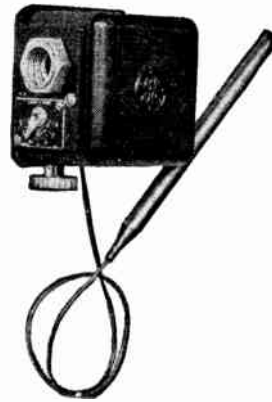
G-E Automatic Gluepots



Has removable copper container for holding glue, heated copper jacket in contact with glue container, and steel protecting casing.
Heat insulation is placed between heated jacket and outer casing. Heating unit surrounds jacket and is completely mica-insulated.

Each pot is equipped with contact plug, 8 feet of rubber-covered cord, and socket attaching plug.
A sensitive snap-acting thermostat is mounted on jacket and maintains a glue temperature at 140-150°F.

G-E Industrial Heating Thermostats



For nearly any application of electric heaters and devices. Consists of a switch mechanism actuated by a bulb-and-bellows system. Current capacity, 25 amps., a.c., non-inductive, 115 or 230 volts. For higher currents and voltages, use G-E contactors.

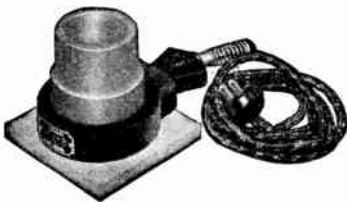
Has capillary-tube length of 25 inches. Similar devices with capillary-tube lengths of 8, 60, or 120 inches are available at the same prices.

No.	Each	TEMP. RANGE OR POSSIBLE SETTING IN DEG. F.		BULB SIZE, INCHES			
		Min.	Max.	Length	Liam.		
4980281G111	\$16.50	65	135	7 1/8	1/2		
4980281G113	16.50	120	190				
4980281G117	16.50	170	240				
4980281G121	16.50	220	290				
4980281G125	16.50	270	370				
4980281G129	16.50	350	450				
4980281G133	19.25	430	530				
4980281G137	19.25	600	600				
4980281G49	16.50	30	120			6 5/8	3/16
4980281G92	16.50	70	175				
4980281G96	16.50	145	250				
4980281G100	16.50	225	330				
4980281G104	16.50	320	470				
4980281G108	19.25	450	600	4 1/2	3/16		
4980281G4	16.50	85	245				
4980281G2	16.50	145	305				
4980281G83	16.50	250	480				
4980281G87	19.25	370	600	3 3/8	5/8		
4980281G158	23.40	500	600				
4980281G160	23.40	575	675				
4980281G162	23.40	650	750	3	1/2		
4980281G156	23.40	500	750				

No.		Each	Cap. Qt.	Watts	OUTSIDE DIMEN., IN.		Approx. Shp. Wt. Lb.
115 V. A.C.	230 V. A.C.				Ht.	Diam. Casing	
6A126G4	6A126G5	\$22.75	1	150	5 1/4	7 1/4	7
6A111G4	6A111G5	25.30	2	250	7 1/4	7 1/4	8
6A139G4	6A139G5	30.00	4	350	9	8 3/4	10

Vulcan Electric Solder Pots

High Speed and Standard



No. 1600

For tinning parts, leads, and fast dip soldering. Rate of speed of pot soldering depends on correct size of pot, size of parts, and melting point of the solder used.

Replaceable element. Always specify voltage wanted when ordering.

No. 1600 is cast in one piece and attached to a square base of heat resisting material. Flat type element.

No. 1606 is cast in two pieces well insulated from each other against heat loss. Disc type element.

No. 1701 has cast iron pot securely assembled in an outer casing of heavy sheet steel. Disc type element.

No. 1703 comprises a replaceable unit and cast iron pot.

Nos. 1700, 1702, 1704, 1705, and 1716 have heavy cast iron pots with outer casing of heavy sheet steel. Cartridge type elements.

No.	Each	WATTS			DIMENSIONS, INCHES				Approx. Solder Cap. Lb.
		High	Med.	Low	INSIDE Diam.	Depth	OUTSIDE Diam.	Ht.	
1600	\$6.05	150	Single	Heat	1 1/16	1 3/8	3 1/4	3 5/16	7 8
1606	6.70	350	Single	Heat	3 3/8	1 1/2	5	3 1/2	3
1700	19.00	200	120	80	2	1 1/2	5	4 1/2	11 1/4
1701	10.75	250	Single	Heat	3	1 1/2	5	4 1/2	4
1702	19.00	250	150	100	3	2 1/2	5	4 1/2	5
1703	10.75	200	Single	Heat	1 1/2	1 3/8	4 3/16	4 3/16	7 8
1704	25.30	350	200	150	3 3/4	3	6	5 1/2	10
1706	25.30	750	375	187	5	3 1/2	7 1/2	6 1/2	20
1716	69.60	2000	Single	Heat	8	4	12	6 1/2	45

Vulcan Electric Glue Pots

Water Jacket Type with Thermostat Control

For 110-120 or 220-230 volts. Holds glue to a maximum temperature of 150°F. The use of a liquid heating medium permits controlled transfer of heat to glue without danger of localized overheating.

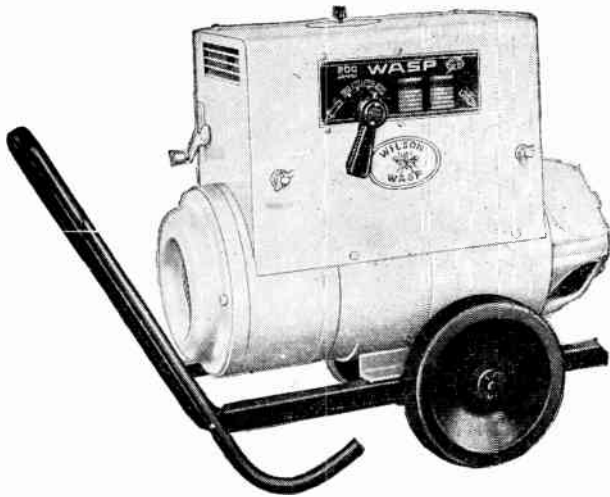


Heavy cast aluminum with attached base. Inside pot is aluminum lined. With 6-foot Underwriters' listed heater cord and plug.

Specify voltage and if for a.c. or d.c.

No.	1879	1810	1811	1812
Each	\$10.90	13.80	21.25	34.80
Capacity	1 Pt.	1 Qt.	2 Qt.	4 Qt.
Outside Diameter	6 1/4	7	8 1/2	8 3/4
Outside Height	6 1/2	7 1/4	8 1/2	11 1/8
No. Min. Req. to Heat from 70° to 145°F	45	45	45	50
Watts	200	250	450	700
Shipping Weight	8	10	15	20

Model GA Wasp Arc Welders Capacity, 150-200 Amperes—Direct Current



The 150-ampere welder is adapted to light work and thin materials and is very compact, occupying only 2½ square feet of floor space.

The 200-ampere welder meets the demand for a wide range machine that can handle light work and heavy work such as large thick plates and heavy castings.

Dual control is used. A selector switch provides full range control with three steps on Model GA-150 and four steps on Model GA-200. Fine adjustment is by calibrated field rheostat. Polarity is reversed by switching welding cable connections. Welding ranges: Model GA-150, 20-200 amperes at 25 volts; Model GA-200, 25-250 amperes at 30 volts. Both models are limited to operating not more than 60 per cent of time, at maximum output.

Hornet Single Operator Motor Generator Arc Welders

Capacity, 200, 300 or 400 Amperes—20 to 40 Volts—
Direct Current—1800 RPM.

A two-bearing unit, with the motor rotor and generator armature mounted on the same shaft. Within its range,

this machine is able to handle an endless variety of production, assembly-line or maintenance jobs. Used in factories, welding shops and heavy construction projects. Particularly recommended for use with shielded arc electrodes, but will be found equally satisfactory for operations where bare electrodes are permitted. Two or more

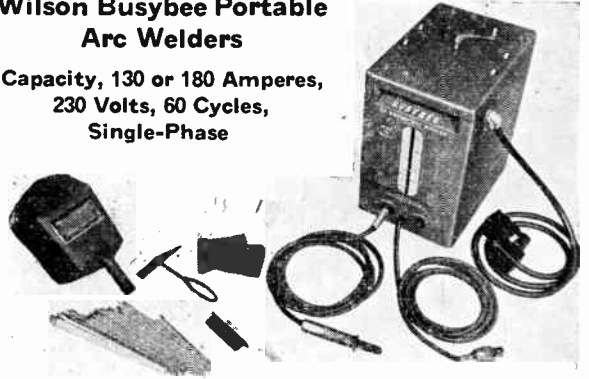
welders can be operated in parallel without use of conventional equalizing circuit.

Two controls accurately adjust and indicate all current settings. Two-range switch has only two positions, a low point for light welding and a high position for medium and heavy jobs. As both ranges overlap, there are no blind spots. Exact welding current for any job can be infinitely adjusted by a glove grip handwheel with a calibrated dial, graduated in amperes. A rotary pointer within wheel indicates each current value as selected by operator. Meters are not necessary. Polarity can be changed by a handy snap switch. Accidental reversal even under heavy loads is impossible due to a patented electric circuit feature. Adequate ventilation is furnished by propeller blades attached to revolving shaft, which draws air in at both ends of machine and expels it downward at center.



Wilson Busybee Portable Arc Welders

Capacity, 130 or 180 Amperes,
230 Volts, 60 Cycles,
Single-Phase



Used in garages and repair shops as a light capacity welder for intermittent operation on rural power supply lines.

Available in 130 and 180-ampere sizes. The 130-ampere size uses electrodes up to ¼-inch diameter and the 180-ampere size uses electrodes up to ½-inch diameter.

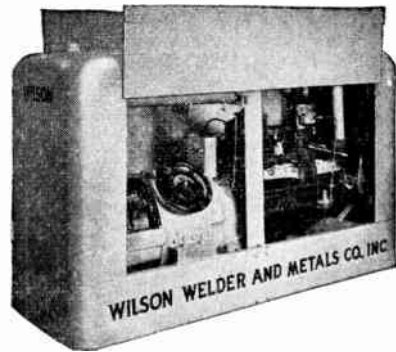
Furnished with input lead; ground clamp; electrode holder; face shield; chipping hammer; scratch brush; one pair of leather gloves; 5 pounds of assorted, shielded, arc mild steel type electrodes; one easy-arc starter; and book of instructions. Can be furnished with capacitors.

Finished in blue enamel.

No.	130-Ampere		180-Ampere	
	BB11A1	BB11A2	BB12A1	BB12A2
Each, Complete:				
Without Power Factor Correction.....	\$162.00		\$182.00	
With Power Factor Correction.....		\$173.00		\$198.00
Dimensions:				
Length.....in.	17	17	17	17
Width.....in.	12	12	12	12
Height.....in.	20½	20½	22½	22½
Weight.....pounds	115	115	150	150

Yellow Jacket Engine Driven Arc Welders

Capacity, 200, 300 or 400 Amperes—20 to 40 Volts—
Direct Current—1800 RPM.



A sturdy, dependable gas engine driven welding machine. The machine is adaptable to all types of welding, from sheets to heavy castings. Simplified control obtained through a large, easily propelled handwheel which permits infinite adjustments in either high or low range. Current is indicated on an accurately calibrated, easily read dial. In addition to convenient current control, the generator embodies variable stabilizer which is automatically regulated by the patented adjustable upper pole. No external resistance or brush shifting devices are used. A convenient switch is provided for shifting polarity to suit different types of electrodes. The machine is equipped with all necessary engine accessories such as self-starter, storage battery, governor, battery charging generator, 22-gallon gasoline tank, and large capacity radiator. In addition, a vacuum electric type idling device is furnished which automatically reduces engine speed when welding stops, and increases to full speed when the arc is struck.

No. 323A Duralite Coverglas Goggles

Protects against particles striking from above, below, in front, or either side. Fits over most any type or style of glasses or spectacles. Anatomically shaped eyecups made of lightweight material which does not conduct heat or electricity. Is moisture-proof, strong, and durable. Permanent adjustment of bridge can be made instantly. One-piece headband is quickly and easily adjusted. Has indirect ventilated side shields, solid lens rings, and is equipped with filter lenses to protect against dazzling glare and injurious light rays. Troy weight, 68 pennyweight.



No. 323A, with Noviweld and Cover Lenses..... each
 With Noviweld-Didymium and Cover Lenses... each

No. 404A Duraweld Goggles

Eyecups anatomically molded for right and left eye, have larger, more comfortable edges, rounded to fit flush against contour of face. Improved nasal fitting. Side shields provide increased ventilation to keep eyes cool and to help prevent fogging of lenses. Louvers are so designed that it is impossible for stray light rays or sparks to reach eyes. Non-slip, one-piece headband is easily adjusted. Ball-chain bridge, covered with curved plastic tubing which fits snugly over bridge of nose, easily adjusted. Fitted with 50 mm. Noviweld lenses in 3, 4, 5, 6 or 8 shades.



No. 404A, Troy Weight, 63 Pennyweight..... each

No. 3080 Flash Goggles



Especially designed for work in the vicinity of electric welding operations and exposure to the glare of flashes encountered in arc welding. Protects the eyes against impact hazards

striking from in front, from above, below, or from the side. Sturdy, non-corroding, spectacle type frames. Fitted with soft leather side shields. Bridge guards prevent flying particles or stray light getting into the eyes. Fitted with 50 mm. super armorplate calobar lenses, medium, dark and extra dark shades. When ordering specify shade of calobar. No. 3080.....per pair

Tweco Redhead Cable Ground Clamps For Electric Welding



Junior

For heavy duty electric welding service. Gives a quick, positive and portable ground connection. Increases machine and operator efficiency. Helps to eliminate arc blow; makes holders and cable run cool, last longer. Cuts current consumption.

Made of special high copper alloy. Insulated spring.

Junior and Senior Models have shunted jaws.

	Midjet	Junior	Senior
Capacity..... amperes	125	300	500
Each.....	\$1.25	2.75	3.75
Jaw Opening..... inches	1	1½	2
Capacity, Cable No.....	2	1/0	4/0
Length Overall..... inches	4½	8½	10
Weight..... pounds	½	1½	3

Twecotong Electrode Holders



No. A-14

Internal-keyed tubular insulation gives holder jaws maximum protection. Wide opening jaws with ample

spring tension and proper leverage assure easy electrode insertion and positive grip. The interchangeable top, and bottom jaw insulators as well as the body insulators are made from molded-laminated woven glass cloth bakelite. Holder tongs are made of high copper alloy. Deeply recessed insulation holding screws. Ventilated fiber handle. Fully insulated spring.

Cable connection on No. A-316 and No. A-14 permits soldering and clamping of cable to holder. No. A-38 is provided with detachable (pipe thread) solder fitting.

No.....	A-316	A-14	A-38
Each.....	\$4.75	5.00	6.00
Amperage Capacity.....	250	300	500
Electrode Capacity..... inches	¼-¾	¼-¼	¾-¾
Length..... inches	9	11	11¼
Handle Diameter..... inches	1¼	1¼	1¼
Weight..... ounces	18	22	30

Tweco Hol-Grip Electrode Holders

For Manual Metallic Arc Welding



No. 300

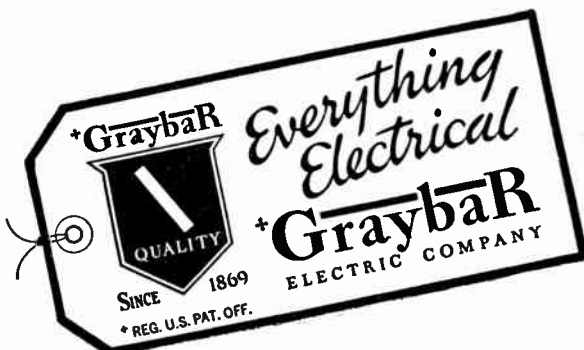
Fully insulated, hole type, providing positive 45° (bottom nole) and 90° (side hole) electrode positions.

One hand lever operation permits easy rod insertion and stub removal.

Sturdy one-piece keyed bakelite tip cover.

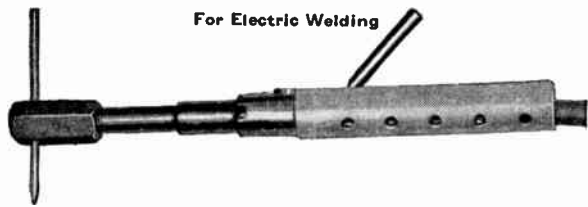
No.....	150	200	300	500
Each.....	\$3.75	4.50	5.00	6.50
Capacity..... amperes	150	200	300	500
*Electrode Size..... inches	¼-¾	¼-¾	¼-¼	¼-¾
Length..... inches	7	9½	10½	12
Weight..... ounces	7½	13½	22	28

*Sizes are inclusive.



Tweco Carbon Electrode Holders

For Electric Welding



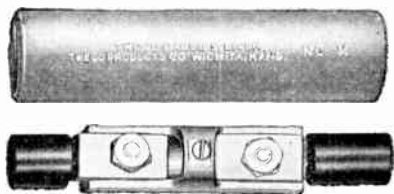
The carbon is held by a spring actuated plunger from the handle of the holder. The hexagon head of the holder, as well as exposed conductor tube and plunger, are made of steel.

No. 150-C is designed for light welding; No. 200-C for light welding and cutting; No. 300-C for medium welding and cutting; and No. 500-C handles heavy welding and cutting.

Nos. 150-C and 200-C are furnished with or without quick-attach whip cables and connections. Specify when ordering.

No.	150-C	200-C	300-C	500-C
Each.....	\$7.50	10.00	12.50	15.00
Amperage Capacity.....	150	200	300	500
Carbon Diameter..... in.	1/8-1/4	3/16-3/8	1/4-1/2	3/8-3/4
Length..... in.	10 3/4	13	14 3/4	19 3/4
Diameter Handle..... in.	1	1 1/4	1 1/2	1 3/4
Weight..... oz.	13 1/2	20	36	55

Tweco Cable Splicers



For quick repair of broken welding cables or the salvaging of short lengths.

Has soldering provision between bolted ends.

A heavy fiber sleeve covers the spliced cable.

No. S, For No. 6, 4, or 2 Cable Size..... each \$.80

No. M, For No. 1 Through 2/0 Cable Size..... each 1.00

No. L, For No. 3/0 and 4/0 Cable Size..... each 1.20

Tweco Sol-Con Cable Connectors

Solder Cable Connection
For Electric Welding



Detachable type, quickly disconnected by a turn and toggle of the two ends, male plug and female receptacle.

Made from precision machined hexagon brass stock, 5/8-inch on the No. 1 and 1 3/16-inch on the No. 2 connector.

Cable solders in with acid core solder.

The bore of the female receptacle is broken by a pin-key. The flattened end of the male plug, when inserted in the female receptacle, passes the pin-key; then a slight turn of the male plug locks the pin-key securely in the ring groove on the male plug.

Heavy wall red fiber insulation sleeves are securely held in place by fillister head machine screws.

No. 1, For 1, 2, 4 Cable..... each \$1.35

No. 2, For 1/0 Through 4/0 Cable..... each 1.85

No. 4T, For 3/0 and 4/0 Cable. High Amperage..... each 2.40

Bakelite covers can be furnished at extra cost where moisture is a hazard.

Male or female half-connector, one-half price full connector.

Tweco Sol-Con Machine Terminals

Solder Cable Connection

For Electric Welding



Terminal bolts directly to the positive and negative studs on any welding machine providing a quick-detach or jumping-in of cables right at the machine.

When moving machine or repairing cables, much time is saved by the quick removal of the male connector which slips from the female receptacle of the terminal.

Made in 45° angle and 180° offset; two sizes of each, No. 1-A for angle and No. 1-O for offset use the male plug of No. 1 connector. No. 2-A and No. 2-O use the male plug of No. 2 connector.

Complete, Female Terminal and Male Connector

No. 1-A or 1-O, For 1 2 4 Cable..... each \$1.75

No. 2-A or 2-O For 1/0 Through 4/0 Cable..... each 2.25

Female Terminal Only

No. 1-AF or 1-OF..... each 1.15

No. 2-AF or 2-OF..... each 1.35

Male Half, Plug Only

No. 1 For 1-A or 1-O..... each .675

No. 2 For 2-A or 2-O..... each .925

Twecolugs

Mechanical Cable Lugs

No Solder Type



Insert Cable Strands, Turn
Screw Into Nut Held Stationary

Designed primarily for use on arc welding cables where high amperages are used.

Operates on the principle of a tapered screw terminal wedging into a hollow seated body.

Precision machined. Terminal is made of high copper alloy. Brass body of lug is hexagon for ease of holding while installing.

Hole type, all sizes, is drilled 2 1/32-inch to accommodate as large as 5/8-inch machine studs. Slotted or open type will also fit 5/8-inch machine studs.



Open Type



Hole Type

No. 2S or 2H, For No. 1, 2, 4 Cable..... each \$.75

No. 0S or 0H, For No. 0, 2/0 Cable..... each .85

No. 40H, For No. 3/0, 4/0 and 250,000 Cable..... each 1.20

No. 1779 Painters' Wire Scratch Brushes



Short trimmed, full stiff brush for removing paint, varnish and wax, and for cleaning and preparing flat surfaces. Solid block, 7 1/4 x 2 1/8 in. Rows, 9x21. Steel wire, 1 3/16 inches long.

Packed 12 in a container; weight 10 pounds.

Osborn Fine Wire Scratch Brushes



For removing paint and varnish from surfaces to be refinished. Solid block, 7 $\frac{1}{4}$ x 2 $\frac{1}{4}$ in. Rows 6x19. Packed 12 in a container; weight, 9 pounds.

No. 1780-S-20. With stainless steel wire, .010 inch. 1 $\frac{23}{32}$ inches long.

No. 1777 Osborn Steel Wire Scratch Brushes



An automobile brush. Solid block. Packed 1 dozen in a container.

No.	1777
Per Dozen	
Width Block.....inches	$\frac{3}{4}$
Trim.....inches	1 $\frac{1}{16}$
Length Brush Part.....inches	6
No. of Rows.....	3x19
Length Overall.....inches	13 $\frac{11}{16}$
Approx. Ship. Weight per Doz.....pounds	5

No. 7998 Osborn Combination Wire Brushes and Scrapers

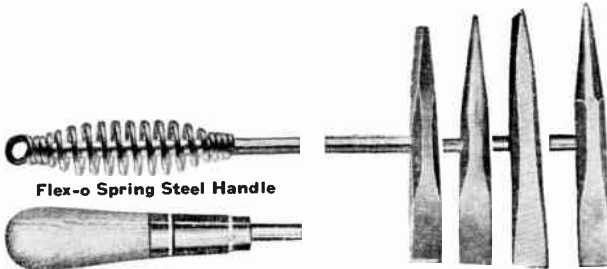


A straight handle brush with scraper attached. For scraping and cleaning wood or metal in preparation for refinishing.

Solid block, 11 $\frac{3}{8}$ x 1 $\frac{1}{2}$ inches; 4x11 rows. Length of brush part, 5 $\frac{1}{2}$ inches; trim, 1 $\frac{5}{8}$ inches. Width of blade edge, 2 $\frac{1}{8}$ inches. Packed 1 dozen in a box. Wt. per dozen, 7 $\frac{1}{2}$ pounds.

No. 7998......per dozen

Atlas Weld Cleaning Tomahawks



Flex-o Spring Steel Handle

Solid Wood Hand Grip

Models G, K H, L I, M J, N

Models G, K. Tool steel chisel point chipping faces at right angles to each other. Flex-o spring steel handle. Length, 9 $\frac{1}{2}$ inches.

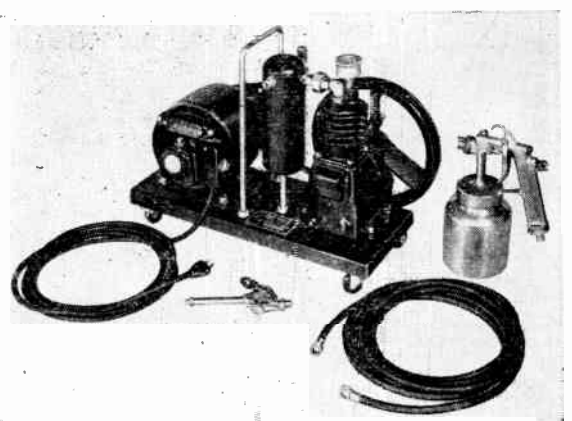
Models H, L. Tool steel cone and chisel point faces. Flex-o spring steel handle. Length, 9 $\frac{1}{2}$ inches.

Models I, M. Tool steel chisel point chippings faces at right angles to each other. Solid wood handle. Lgth. 9 $\frac{1}{2}$ in.

Models J, N. Tool steel cone and chisel point faces. Solid wood handle. Length, 9 $\frac{1}{2}$ inches.

	12-Oz. Std. Wt.				16-Oz. Heavy Duty Wt.			
Model	G	H	I	J	K	L	M	N
Each	\$1.50	1.50	1.50	1.50	1.75	1.75	1.75	1.75

No. 1 Saylor-Beall Farm and Home Units
 1/4-Horsepower Motor—110-Volt, 60-Cycle, Single-Phase A. C.



Used for spraying liquid germicides on gardens and all forms of close-in planting; animal sprays and disinfectants for barns and milk houses.

The blow-gun is a handy device for blowing dust and dirt from radiator grilles of tractors and for general maintenance of equipment.

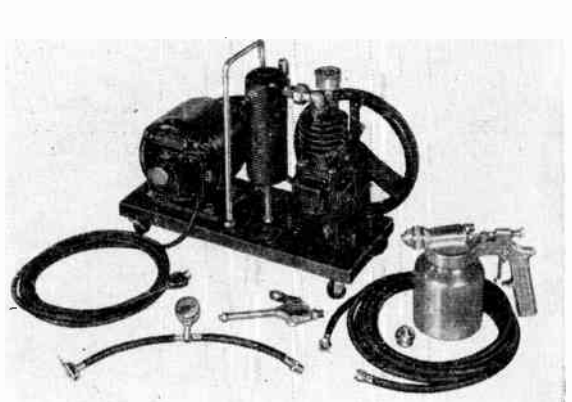
Steady flow of air-power is furnished by a compact 1/4-horsepower motor.

The 2-inch bore with 1 $\frac{3}{4}$ -inch stroke of piston delivers approximately 2 cubic feet of air per minute.

Speed of compressor, 750 rpm. Piston displacement, 2.39 cubic feet per minute. Weight, 55 pounds.

- No. 1, Complete**.....each \$65.75
- No. 116KC, Compressor, Split Phase Motor and Cord**.....each 52.50
- No. 2810K, Insecticide Gun and Clip**.....each 8.75
- No. 311K, 12 $\frac{1}{2}$ -Foot Air Hose**.....each 2.25
- No. 2583K, Blow Gun**.....each 2.25

No. 2 Saylor-Beall Farm and Home Units
 1/4-Horsepower Motor—110-Volt, 60-Cycle, Single-Phase, A. C.



Used for spray painting automobiles, trucks, tractors, and other equipment; painting and whitewashing outbuildings; spraying insecticides on shrubbery, animals, chicken roosts, etc. Furnished with tire adapter and gauge for inflating pneumatic tires.

Specifications: bore, 2 inches; stroke, 1 $\frac{3}{4}$ inches; speed of compressor, 750 rpm.; piston displacement, 2.39 cubic feet per minute; approximate weight, 55 pounds. Safety valve is set at 45 pounds.

- No. 2, Complete**.....each \$74.50
- No. 116KC, Compressor, Split Phase Motor and Cord**.....each 52.50
- No. 1210K, Paint Gun, Cup, No. 1 Nozzle**.....each 13.70
- No. 1177K, Insecticide Nozzle**.....each 1.45
- No. 311K, 12 $\frac{1}{2}$ -Foot Air Hose**.....each 2.25
- No. 392K, Tire Adapter and Gauge**.....each 2.35
- No. 2583K, Blow Gun**.....each 2.25

No. 3 Saylor-Beall Farm and Home Unit

1/2-Horsepower Motor—110-Volt, 60-Cycle, Single-Phase A. C.



Used for spray painting large surfaces such as barns and houses; insecticide spraying on close-in shrubbery, animals, and chicken roosts. Also used with tire adapter and gauge for inflating pneumatic tires and has a blow-gun attachment for blowing dust and dirt from machinery and equipment.

Specifications: bore, 2 1/2 inches; stroke, 1 3/4 inches; speed of compressor, 540 rpm.; piston displacement, 2.70 cubic feet per minute. Approximate weight, 70 pounds.

Safety valve is set at 60 pounds.

Features a material tank which holds 2 gallons.

No. 3, Complete.....	each	\$136.50
No. 1690K, Compressor Split Phase Motor & Cord.....	each	70.00
No. 1210KA, Gun and Cup.....	each	13.70
No. 1177K, Nozzle.....	each	1.45
No. 522K, Material Hose Connection.....	each	.30
No. 438K, Material Tank.....	each	34.25
No. 371K, 12 1/2-Foot Material Hose.....	each	5.15
No. 357K, 12 1/2-Foot Air Hose.....	each	2.65
No. 250K, 25-Foot Air Hose.....	each	4.50
No. 392K, Tire Adapter.....	each	2.35
No. 2583K, Blow Gun.....	each	2.25

No. 1 Saylor-Beall Farm and Home Kits

Insecticide



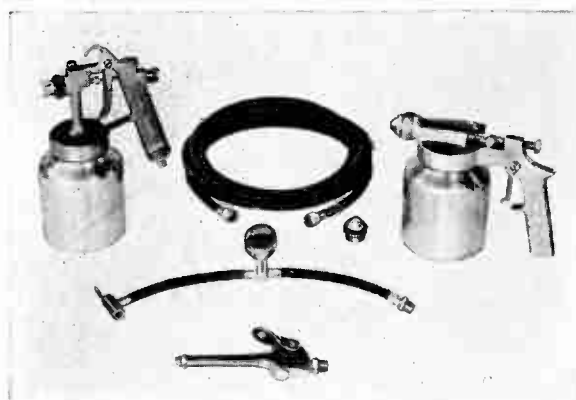
Designed for use with Nos. 1, 2, and 3 compressors or with any compressor which the safety valve is set at not more than 60 pounds.

Contains a spray gun for spraying of liquid insecticide on close-in plantings of shrubbery, as well as animal and building insecticide spraying; 14-foot air hose; and blow gun for blowing dust and other foreign matter from machinery, clothing, etc.

No. 1, Complete.....	each	\$13.25
No. 2810K, Spray Gun and Cup.....	each	8.75
No. 311K, 12 1/2-Foot Air Hose.....	each	2.25
No. 2583K, Blow Gun.....	each	2.25

No. 2 Saylor-Beall Farm and Home Kits

Whitewash and Insecticide



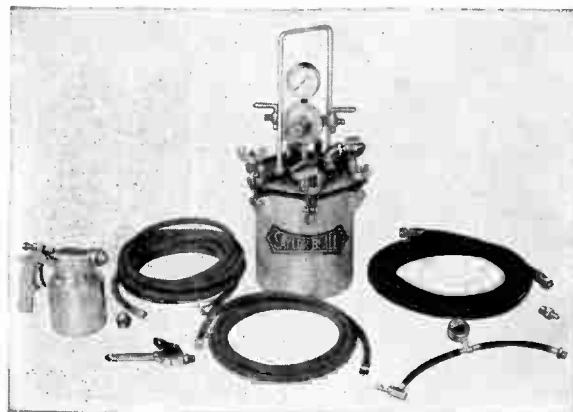
Designed for use with Nos. 1, 2, and 3 compressors or with any compressor on which the safety valve is set at not more than 60 pounds.

Contains the same accessories as Kit No. 1 plus the addition of a paint spray gun and one additional nozzle and a tire adapter and gauge.

No. 2, Complete.....	each	\$30.75
No. 1210KA, Paint Gun, Cup, No. 1 Nozzle.....	each	13.70
No. 1177K, Round Nozzle.....	each	1.45
No. 2810K, Insecticide Gun and Cup.....	each	8.75
No. 311K, 12 1/2-Foot Air Hose.....	each	2.25
No. 392K, Tire Adapter and Gauge.....	each	2.35
No. 2583K, Blow Gun.....	each	2.25

No. 3 Saylor-Beall Farm and Home Kits

Deluxe



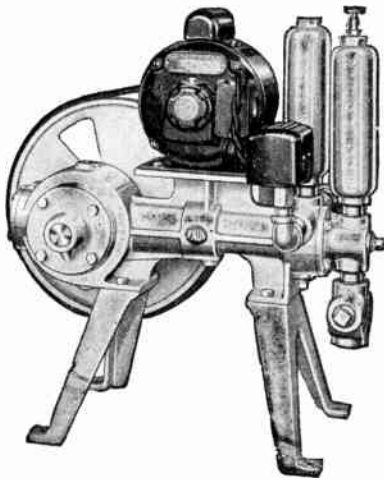
Designed for use with Nos. 1, 2, and 3 compressors or with any compressor on which the safety valve is set at not more than 60 pounds.

Contains the same accessories as Kits Nos. 1 and 2 with the exception of No. 2810K insecticide gun, the functions which are performed by the No. 1210KA gun using the round insecticide nozzle, and a 2-gallon material tank.

No. 3, Complete.....	each	\$66.50
No. 1210KA, Gun and Cup.....	each	13.70
No. 1177K, Nozzle.....	each	1.45
No. 522K, Material Hose Connection.....	each	.30
No. 438K, Material Tank, 2-Gallon.....	each	34.25
No. 371K, 12 1/2-Foot Material Hose.....	each	5.15
No. 357K, 12 1/2-Foot Air Hose.....	each	2.65
No. 250K, 25-Foot Air Hose.....	each	4.50
No. 392K, Tire Adapter and Gauge.....	each	2.35
No. 2583K, Blow Gun.....	each	2.25

Paul Shallow Well Pumps

115-Volt, 60 Cycle Single-Phase Motor—1725 RPM.



Used to supply the normal requirements of farm and home.

Should not be used where the source of supply is more than 22 feet below the level of the pump.

Standard equipment includes: self-priming suction pump, with one-piece cast body, complete with air charger, V-belt drive, and strainer; motor with built-in overload protector, two-bearing shaft, horizontally

mounted; two-pole control switch with range of 60 lbs., adjustable differential, 15 to 30 lbs. (normally set to cut in at 20 pounds and off at 40 pounds), vertical visible silver contact.

Fitted with a brass relief valve.

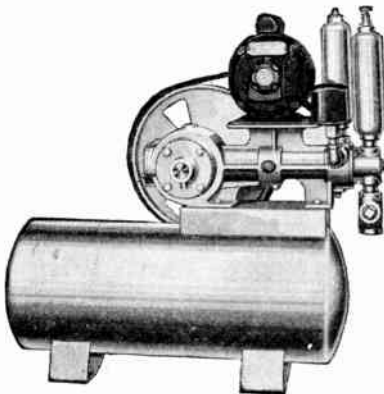
With legs or wall bracket for choice of mounting.

No.	200	250
Each.	\$77.00	\$1.40
Pump Capacity per Hour..... gallons	200	250
Motor.....horsepower	1/6	1/4
Pipe Sizes: Suction.....inches	3/4	3/4
Service.....inches	3/4	3/4
Dimensions: Height.....inches	27	27
Width.....inches	12	12
Length.....inches	32	32
Approximate Shipping Weight... pounds	145	150

Paul Shallow Well Water Systems

With 10-Gallon Storage Tanks

115-Volt, 60 Cycles Single-Phase Motor—1725 RPM.



Should be used only where the source of supply is not more than 22 feet below the level of the pump.

Has self-priming suction pump with one-piece cast body, air charger, V-belt drive, and strainer.

Motor has a built-in overload protector, two-bearing shaft, and is horizontally mounted.

Tank is electric welded, galvanized inside and out, and is tested for 85 pounds working pressure.

Furnished with two-pole control switch with a range of 60 pounds, adjustable differential, 15 to 30 pounds, (normally set to cut in at 20 pounds and off at 40 pounds), and vertical visible silver contact.

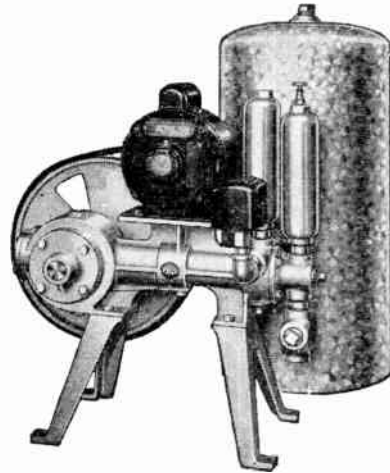
Fitted with brass relief valve.

Pipe sizes, suction and service, 3/4 inch. Height, 29 inches. Width, 14 inches. Length, 32 inches.

No.	200HT10	250HT10
Each.	\$94.40	\$99.70
Pump Capacity per Hour..... gallons	200	250
Motor.....horsepower	1/6	1/4
Approximate Shipping Weight. pounds	165	170

Paul Shallow Well Water Systems With 12-Gallon Storage Tank

115-Volt, 60 Cycle Single-Phase Motor—1725 RPM.



Recommended for shallow well (22-foot vertical lift) installations where occasional peak loads do not more than slightly exceed the capacity of the pump.

Has self-priming suction pump with one-piece cast body, air charger, V-belt drive, and strainer.

Motor has a built-in overload protector, two-bearing shaft, and is horizontally mounted.

Tank is mounted

vertically and is galvanized inside and out.

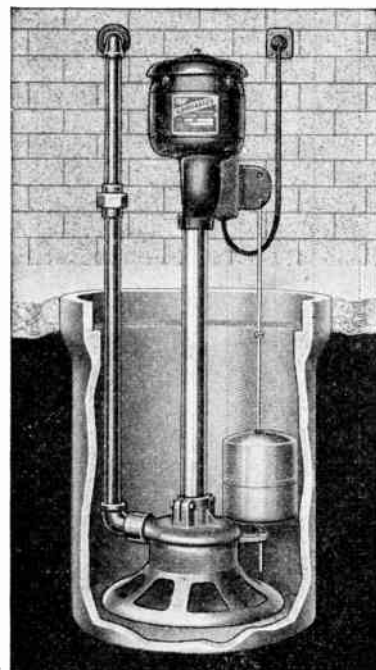
Furnished with two-pole control switch with a range of 60 pounds, adjustable differential, 15 to 30 pounds (normally set to cut in at 20 pounds and off at 40 pounds), and vertical visible silver contact. Fitted with brass relief valve.

No.	200T12	250T12	300T12	400T12
Each.	\$88.00	\$92.70	.....	.....
Pump Cap. per Hour.gal.	200	250	300	400
Motor.....hp.	1/6	1/4	1/2	1/2
Pipe Sizes: Suction.in.	3/4	3/4	1	1
Service.in.	3/4	3/4	1	1
Dimensions: Height .in.	26	26	27	27
Width.in.	24	24	27	27
Length.in.	33	33	40	40
Approx. Ship. Weight..lb.	150	185	235	245

No. CD-2 Paul Sump Pumps

With 1/4-Horsepower Motor

115 Volts, 60 Cycles



Operates successfully wherever water collects at a point below the drain level of sewer facilities, or where drainage water must be lifted over intervening obstacles.

Recommended for buildings with deep basements, boiler rooms, settling basins, flywheel and elevator sumps, tunnels, scale pits, etc.

Total discharge: 5-foot head, 2500 gallons per hour; 10-foot head, 2000 gallons per hour; 15-foot head, 1500 gallons per hour.

All Brass.

Pipe connection, 1 1/4 inches.

Overall height, 42 inches.

Maximum sump depth, 2 feet.

Shipping weight, 150 pounds.

Each.....	\$65.00
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Advantages of Purchasing General Electric Motors

General Electric motors are manufactured in a wide variety of types and ratings. The most widely used motors—those fulfilling the requirements of the great majority of industrial applications—are listed in this catalog. Motors of large size, non-standard rating, or special construction are described in other publications.

General Electric motors possess the exacting characteristics needed to power modern industrial machinery. They are mechanically sturdy; they incorporate the latest developments in electrical design; and they provide the essential benefits of long life and unusually trouble-free service. Specified values of current, torque, and speed can be depended upon in every unit.

Electric motors form a most versatile type of drive. They permit the application of power directly to the job. They frequently eliminate gearing and belting requirements altogether. They make it possible to bring processing operations directly into a production line.

The wide choice available in G-E motors permits the efficient application of motors in widely varying types of drives. The different enclosures offered permit the selection of motors that will stand up under the most severe conditions and that can be safely operated in the most hazardous locations. Enclosures can be obtained for installation in the presence of explosive and corrosive fumes, magnetic and abrasive dusts, splashing liquids, outdoor weather, and other adverse conditions.

General Electric motors are backed up by renewal-parts and exchange-plan services that mean economy and long life to any motor installation. G-E renewal parts are built of the same materials and to the same specifications as the original equipment. G-E exchange-plan motors eliminate long delays in repair or replacement of motors in fractional-horsepower sizes.

Selection of Motors and Control

The selection of an electric motor and control for a given application depends upon the following factors:

Available Power

Whether a.c. or d.c., the voltage, and if a.c. the number of phases, the frequency, and whether a 2, 3, or 4-wire system.

Surrounding Conditions

G-E motors are exceptionally well protected and insulated to withstand atmospheric and other conditions to which the majority of motors are subjected. For unusual conditions, however, the Company is prepared to furnish motors especially designed to withstand the extraordinarily severe conditions under which they will operate. If motors or control are to be used under any of the following conditions, ask for engineering recommendations:

1. Inflammable gases or dusts where a spark would cause an explosion.
2. Rooms filled with hot vapors.
3. Where strong acid or alkaline vapors are encountered.
4. Excessive moisture.
5. Room temperature more than 40°C. (104°F.) or below 0°C. (32°F.).
6. Where windings are exposed to excessive amounts of conducting dusts: iron, carbon, coke, etc.
7. Where windings are exposed to excessive amounts of abrasive dusts: stone dust, cement, etc.

8. Occasional or repeated submergence, as on the deck of a ship.

9. Excessive vibration.

Full particulars of the condition to be met must be given in each case.

In some cases, particularly where very dusty conditions are encountered, as in foundries, etc., even though a standard open motor may operate successfully, a totally enclosed motor should be considered because of the prevention of frequent shutdowns for cleaning purposes.

Starting Conditions

In many cases, the user knows, from past experience in similar applications, the type and rating of motor he wants, or frequently the manufacturer of the machine to be driven will supply the desired information. This makes easy the selection of the correct motor for a particular application. If it is not possible to get accurate information as to the size of the motor needed, the amount of pull actually required to start the load can usually be measured. Since the frequency of starting and the duration of the starting period, as well as unusual starting-current limitations, are very vital factors in determining the type and size of control and motor selected, they should be determined. Otherwise, a generalization of starting conditions as light, medium, heavy, or extremely heavy can be made. From this, an estimate as to the proper motor and control can be obtained. It is desirable, where information as to the requirements is not available, to conduct tests and, on the basis of the results, to select a motor suitable for the particular job.

Continued

Selections of Motors and Control

Continued

Running Conditions

Speeds

Motors are usually selected with as high a standard normal speed as good engineering practice will allow, because, within limits, the lower the speed of the motor, the more costly it is to build, and frequently its operating characteristics are not quite so good as those of higher speed, standard motors. However, the increased cost of mechanical transmission sometimes offsets such advantages where the driven machine operates at a very low speed.

Constant vs. Adjustable Speeds

Constant-speed motors are found best in the vast majority of cases. Adjustable-speed motors are more expensive and, in ordinary sizes, are seldom justified unless the quantity or quality of the output of the driven machines will be improved or the range of their capacity will be materially increased.

Speed Regulation

(Change in speed from no load to full load.)

1. Close speed regulation is desirable for machine tools, textile machinery, and similar work.

2. Wide speed regulation is desirable with flywheel-type loads where the work strokes occur less than 25 times per minute, or where peak loads occur which might greatly overload the motor if it did not automatically slow down to take care of this.

Note—Motor of the so-called adjustable-varying-speed type, like the wound-rotor motor, or d.c. motors with armature regulation, give adjustable-varying speed with close speed regulation if the torque required by the driven machine is constant; wide speed regulation, if the torque required is fluctuating. These types are, therefore, not suited for machine tools or for similar work.

Load Conditions

All standard, general-purpose, G-E motors are designed to carry reasonably fluctuating loads both below and above normal rating. The equivalent average load determines the size of the motor.

Note—Because of the wide variety of requirements of driven machines, the starting, rather than the running, duty sometimes determines the size of the motor selected, and, in some cases, peak loads become the determining factor.

Service Factor (General-Purpose Motors)

The nameplates of general-purpose motors (except fractional-horsepower motors) bear a statement: "Service factor 1.15 at rated volts and cycles."

(This wording has been standardized by the National Electrical Manufacturers' Association for use by all member motor manufacturers.)

The *service factor* is a multiplier, which, applied to the normal horsepower rating, indicates a permissible loading within the accepted safe limits of temperature rise for the insulation. Of course, all guarantees of efficiency, power factor, etc., are based on the normal horsepower rating, and do not apply at the horsepower rating obtained by using the service factor.

This service factor of 1.15 may be used for any general-purpose motor (except fractional-horsepower motors) as defined above, even though the nameplate does not bear the service-factor clause.

As an example of the application of the service factor, assume that a purchaser has a load which requires 55 hp. as a maximum. Instead of using a 60-hp. motor, as heretofore, a 50-hp. motor may be used (as the service factor indicates a permissible loading of $50 \times 1.15 = 57.4$), provided the starting and maximum torques of the 50-hp. motor are sufficient and the rated voltage and frequency are maintained.

Ball-Bearing Motors

The application of grease-packed ball bearings is especially advantageous:

1. Where the motor frame does not remain in a stationary position after installation.
2. Where the motor is located in an inaccessible place.

The selection of the type of bearing, i.e., ball or sleeve, is largely one of individual preference, since both of these types, when properly selected, applied, and maintained, will give excellent service.

Voltage and Frequency Range

Motors will operate successfully under the following conditions of voltage and frequency variations, but not necessarily in accordance with the standards established for operation at normal rating:

Where the variation in voltage does not exceed 10 per cent above or below normal.

Where the frequency variation does not exceed 5 per cent above or below normal.

Where the sum of the voltage and frequency variation does not exceed 10 per cent (provided the variation in frequency does not exceed 5 per cent) above or below normal rating as stamped on motor nameplate.

The starting and maximum running torque of a.c. induction motors will vary as the square of the voltage, the speed varying directly with the frequency.

Control

Dial-type rheostats are used only where starting requirements are not severe, and starting is infrequent. Hand (except drum-type) control is used where starting service is infrequent. Remote magnetic control is used where starting is frequent; where control is used in conjunction with various pilot auxiliaries, as pressure or float switches; where it may be desirable to place control some distance from motor, yet have full control over it at all times, such as with push-button stations.

For all applications involving reversing service, engineering recommendations should be obtained.

Full-Load Speeds of Motors

The full-load speeds of synchronous and d.c. motors and of all gear-motors are as listed in the motor ratings. The full-load speeds of induction motors are less than the synchronous speeds listed and approximate the speeds shown in the accompanying table.

Approximate Full-Load Speeds of Induction Motors

Syn-chronous RPM.	Poly-phase Type K	Poly-phase Type KG	Poly-phase Type M	Single-phase Type KC	Single-phase Type SCR
3600	3470	.....	3520	3425	3500
1800	1750	1740	1720	1720	1760
1200	1160	1150	1140	1140	1160
900	870	865	855	865	870
720	695	690	690	.....	.....
600	575	570	575	.....	.....

Selection Chart of G-E Motors and Control

Type of Motor	Starting Duty	Speed	Max Torque, Per Cent Full Load	Suggested Control	Remarks
Polyphase, Squirrel-Cage, Normal-Starting-Torque, Type K	Medium	Constant Close regulation	175-250	¼-15 Hp Hand control: CR1062* Magnetic: CR7006† 15-200 Hp Hand compensator: CR1034† Automatic starting compensator: CR7051†	The simplest and most widely used motor made.
Polyphase, Squirrel-Cage, High-Starting-Torque, Type KG	Heavy, but at not too frequent intervals	Constant Close regulation	200	Full-voltage, magnetic: CR7006† Hand compensator: CR1034†	High-starting torque per ampere. Simple control. Especially suited for pumps, compressors, and the like.
Polyphase, Wound-Rotor, Type M	Heavy, governed by type of control furnished	Constant or adjustable-varying, depending upon type of control used	175-250	Constant-Speed ½-15 Hp, Hand Starting† Primary switch: CR7006 Secondary rheostat: CR1028 Above 15 Hp, Hand Starting† Primary switch: CR7006 Secondary: CR3204 drum switch with CR3290 resistor All Ratings Remote Control† CR7022 Adjustable-Varying-Speed ¾-15 Hp† Primary switch: CR7006 Secondary rheostat: CR1263 or CR 1264 Above 15 Hp, Hand Control† Primary switch: CR7006 Secondary: CR3204 drum switch with CR3290 resistor	For use where frequent and heavy starting is required, or where low starting current is imperative, or where adjustable-varying speed is desired.
Single-Phase, Capacitor, Type KC	Medium	Constant Close regulation	200 approx.	CR7006 magnetic switch†	Will accelerate practically any load it can start.
Single-Phase, Repulsion-Induction, Type SCR	Heavy	Constant Close regulation	175-250	Full-Voltage Hand control: CR1062* Magnetic: CR7006† Reduced-Voltage Rheostat: CR1026	For use in ratings not available in capacitor-type motor.
Synchronous, Type TS Type QS	Medium	Constant	150-250	Recommendations made on request	For use where (1) maximum power factor and operating efficiency in larger ratings are desired, (2) where constant speed is essential, (3) where power-factor improvement is advantageous.
Direct-Current, Constant-Speed, Shunt-Wound, Types B and CD	Medium	Constant Close regulation	Limited by commutation	Hand rheostat: CR1003† Remote: CR4052† or CR4061†	25 per cent increase in speed possible with adjustable-speed field control.
Direct-Current, Constant-Speed, Compound-Wound, Types B and CD	Heavy	Constant 25 per cent regulation	Limited by commutation	Hand rheostat: CR1003† Remote: CR4052† or CR4061†	For flywheel loads and other widely fluctuating loads that occur less than 25 times a minute.
Direct-Current, Adjustable-Speed Shunt-Wound, Types B and CD	Medium	Adjustable Close regulation	Limited by commutation	Hand control: CR3105 drum switch with CR3190 and CR3144 resistors Remote control: CR4161† with CR9070 field rheostat	For machine-tool and other work requiring adjustable speed.

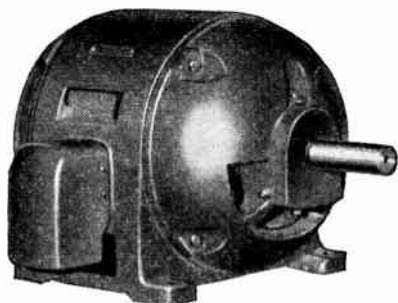
*Provides overload protection.

†Provides overload and undervoltage protection.

‡Provides undervoltage protection.

G-E Tri-Clad Squirrel-Cage Induction Motors

Type K—Normal Starting Torque
Type KG—High Starting Torque
 1/3 to 200 Hp., Constant-Speed, 2 and 3-Phase,
 *60 Cycles, Continuous Duty, 40°C. Rise



Tri-Clad Open (Drip-Proof), Sleeve-Bearing Motor

Type K—Normal Starting Torque

The Type K induction motor is suitable for either full voltage or reduced voltage starting depending upon the permissible starting current of the particular application. It has the highest efficiency and power factor of all the standard lines of induction motors, and is well fitted for driving pumps, fans, blowers, line shafting, and similar equipment requiring continuous operation with fairly constant load.

In general, this motor can be used for any application where continuous operation and constant speed are required, together with a fairly constant load.

Type KG—High Starting Torque

The Type KG motor has high starting torque and low starting current and is intended to supply the need for motors having a higher percentage of starting torque than can be obtained from the Type K motors with full voltage applied, yet having a starting current equal to the Type K motor, together with high full-load efficiency and power factor.

Recommended for such drives as compressors without unloading valves, conveyors which must be started loaded, and other applications requiring high starting torque.

Type KG motors starting at full voltage should be applied only where high torque at start is actually required and only when the driven mechanism will not be injured by the sudden application of this torque. This latter caution applies especially to drives or driven machines utilizing belts, either of the flat or V type, chains, or other flexible or flat elements.

Hp. at 40°C.	Frame	Sync. Speed RPM.	†Volts	Type K Only	
				Sleeve Bearing Each	Ball Bearing Each
1/3	204	720	208	\$70.	\$70.
	224	600	110-220 440-550	82.	82.
1/2	204	900	208	62.	62.
	224	720	110-220	82.	82.
	225	600	440-550	91.	91.
3/4	203	1200	208	56.	56.
	224	900	208	72.	72.
	225	720	110-220	91.	91.
	254	600	440-550	109.	109.
1	284	514	127.	127.	
	203	1800	208	51.	51.
	204	1200	208	60.	60.
	225	900	110-220	81.	81.
	254	720	440-550	109.	109.
	254	600	121.	121.	
	284	514	138.	138.	

*Listed open motors will operate on 50 cycles at maintained voltages without injurious heating, except that motors in Frames 364 and larger rated 720 rpm. and lower must be specifically ordered for 50-cycle operation. The 60-cycle horsepower ratings and prices apply. Synchronous speeds are 5/6 of those of 60 cycles.

†All standard 220 and 440-volt, polyphase, squirrel-cage motors in Frames 203 to 445 inclusive have sufficient leads brought out so that they can be reconnected at the terminal board for either 220 or 440 volts.

Continued

G-E Tri-Clad Squirrel-Cage Induction Motors

General-Purpose, Open, Dripproof
Type K—Normal Starting Torque
Type KG—High Starting Torque
 1/3 to 200 Hp., Constant-Speed, 2 and 3-Phase,
 *60 Cycles, Continuous Duty, 40°C. Rise
 Continued

Hp. at 40°C.	Frame	Sync. Speed RPM.	†Volts	Type K Only		Type KG Only	
				Sleeve Brg. Each	Ball Brg. Each	Sleeve Brg. Each	Ball Brg. Each
1 1/2	203	3600		\$62.	\$62.	....	....
	204	1800		60.	60.	....	....
	224	1200	208	69.	69.	....	....
	254	900	110-220	96.	96.	....	....
	254	720	440-550	121.	121.	....	....
	284	600		133.	133.	....	....
2	324	514		176.	176.	....	....
	204	3600		72.	72.	....	....
	224	1800		69.	69.	....	....
	225	1200	208	77.	77.	....	....
	254	900	110-220	111.	111.	....	....
	281	720	440-550	133.	133.	....	....
3	324	600		168.	168.	....	....
	326	514		211.	211.	....	....
	224	3600		81.	81.	....	....
	225	1800	208	77.	77.	....	....
	254	1200	110-220	92.	92.	\$97.	\$97.
	284	900	440-550	126.	126.	132.	132.
5	324	720		168.	168.	....	....
	326	600		200.	200.	....	....
	224	3600		200.	200.	210.	210.
	225	1800	208	200.	200.	210.	210.
	254	1200	110-220	200.	200.	210.	210.
	284	900	440-550	200.	200.	210.	210.
7 1/2	326	600		200.	200.	210.	210.
	365	514	220-440 550	276.	276.	....	....
	225	3600		96.	96.	....	....
	254	1800	208	92.	92.	97.	97.
	284	1200	110-220	120.	120.	126.	126.
	324	900	440-550	161.	161.	169.	169.
10	326	720		200.	200.	210.	210.
	364	600	208	265.	265.	285.	285.
	404	514	220-440 550	322.	338.	....	....
	254	3600		126.	126.	....	....
	284	1800	208	120.	120.	126.	126.
	324	1200	110-220	153.	153.	161.	161.
15	326	900	440-550	192.	192.	202.	202.
	364	720	208	265.	265.	285.	285.
	365	600	220-440	325.	325.	349.	349.
	405	514	550	380.	399.	....	....
	284	3600		161.	161.	....	....
	324	1800	110-220	153.	153.	161.	161.
20	326	1200	440-550	183.	183.	192.	192.
	364	900	208	241.	241.	259.	259.
	365	720	208	325.	325.	349.	349.
	404	600	220-440	363.	381.	390.	410.
	444	514	550	437.	459.	....	....
	324	3600		192.	192.	....	....
25	326	1800	110-220	183.	183.	192.	192.
	364	1200	440-550	241.	241.	259.	259.
	365	900	208	295.	295.	317.	317.
	404	720	220-440	363.	381.	390.	409.
	405	600	550	417.	438.	448.	470.
	445	514		545.	572.	....	....
30	324	3600		229.	229.	....	....
	326	1800	110-220	229.	229.	....	....
	364	1200	440-550	218.	218.	234.	234.
	365	900	208	295.	295.	317.	317.
	404	720	220-440	330.	347.	355.	373.
	405	600	550	417.	438.	448.	470.
40	444	600		520.	546.	598.	628.
	504U	514		629.	660.	....	....

*Listed open motors will operate on 50 cycles at maintained voltages without injurious heating except that motors in Frames 364 and larger rated 720 rpm and lower must be specifically ordered for 50-cycle operation. The 60-cycle horsepower ratings and prices apply. Synchronous speeds are 5/6 of those of 60 cycles.

†All standard 220 and 440-volt, polyphase, squirrel-cage motors in Frames 203 to 445 inclusive have sufficient leads brought out so that they can be connected for either 220 or 440 volts.

‡Type KG motors are built in a larger frame size.

Continued

G-E Tri-Clad Squirrel-Cage Induction Motors

**General-Purpose, Open, Dripproof
Type K—Normal Starting Torque
Type KG—High Starting Torque
1/2 to 200 Hp., Constant-Speed, 2 and 3-Phase,
*60 Cycles, Continuous Duty, 40°C. Rise
Continued**

Hp. at 40°C.	Frame	Sync. Speed RPM.	†Volts	Type K Only Sleeve Brg. Each	Ball Brg. Each	Type KG Only Sleeve Brg. Each	Ball Brg. Each	
25	\$364S	3600		\$265.	\$265.	....	....
	364	1800	208	252.	252.	\$271.	\$271.	
	404	1200	220-440	320.	347.	355.	373.	
	405	900	550	380.	399.	409.	429.	
	†444	720	220-440	550	520.	546.	598.	628.
			208					
	†445	600	220-440	550	602.	632.	692.	727.
			208					
		505	514	220-440	741.	778.	....	....
	30	\$364S	3600		364.	364.	....	....
		365	1800	220-440	347.	347.	373.	373.
		405	1200	550	380.	399.	409.	429.
444		900	220-440	550	473.	497.	544.	571.
			208					
†445		720	220-440	550	602.	632.	692.	727.
			208					
†504U		600	220-440	550	710.	746.	817.	858.
40		\$365S	3600		439.	439.	....	....
		404	1800	220-440	399.	419.	429.	450.
		444	1800	†2300	572.	601.	....	....
				208				
	444	1200	220-440	550	473.	497.	544.	571.
			208					
	445	1200	†2300	646.	678.	....	....
			208					
	445	900	220-440	550	547.	574.	629.	660.
			208					
	504U	900	†2300	705.	740.	....	....
	†504U	720	220-440	550	710.	746.	817.	858.
50	\$404S	3600		521.	547.	....	....
	\$405S	1800	220-440	497.	522.	534.	561.	
	\$445S	1800	2300	670.	704.	....	....
			208					
	445	1200	220-440	550	547.	574.	629.	660.
			208					
	504U	1200	2300	705.	740.	....	....
	504U	900	220-440	550	645.	677.	742.	779.
			208					
	505	900	2300	802.	842.	....	....
	60	\$405S	3600	220-440	603.	633.	....	....
		\$444S	3600	†2300	776.	815.	....	....
208								
\$444S		1800	220-440	550	575.	604.	661.	694.
			208					
\$445S		1800	2300	732.	769.	842.	884.	
			208					
504U		1200	220-440	550	645.	677.	742.	779.
			208					
505		1200	2300	802.	842.	922.	968.	

G-E Tri-Clad Squirrel-Cage Induction Motors

**General-Purpose, Open, Dripproof
Type K—Normal Starting Torque
Type KG—High Starting Torque
1/2 to 200 Hp., Constant-Speed, 2 and 3-Phase,
*60 Cycles, Continuous Duty, 40°C. Rise
Concluded**

Hp. at 40°C.	Frame	Sync. Speed RPM.	†Volts	Type K Only Sleeve Brg. Each	Ball Brg. Each	Type KG Only Sleeve Brg. Each	Ball Brg. Each	
75	†444S	3600	208	\$779.	\$818.	....	....
	†445S	3600	220-440	550	952.	1000.
			208					
	†445S	1800	220-440	550	677.	711.	\$779.	\$818.
			208					
	†504S	1800	2300	835.	877.	960.	1008.	
			208					
	100	†445S	3600	220-440	1083.	1137.
		†504S	3600	550	1240.	1302.
				2300	866.	909.	996.	1046.
		†505S	1800	208-220	984.	1033.	1132.	1189.
				440-550	2300	984.	1033.	1132.	1189.
†6323S		1200	208-220	1013.	1064.	1165.	1223.	
			440-550	2300	1013.	1064.	1165.	1223.
†6323S		1200	2300	1170.	1229.	1346.	1413.	
			208-220	900	1071.	1125.	1232.	1294.
6325		900	440-550	1236.	1298.	1421.	1492.	
			2300	1236.	1298.	1421.	1492.	
125		†504S	3600	208-220	1342.	1409.
	†504S	3600	440-550	1499.	1574.	....	....
			2300	1499.	1574.	....	....
	†505S	1800	206-220	1032.	1084.	1187.	1246.	
			440-550	2300	1032.	1084.	1187.	1246.
	†6323S	1800	2300	1144.	1201.	1316.	1382.	
			208-220	1200	1206.	1266.	1387.	1456.
	†6324S	1200	440-550	1351.	1419.	1554.	1632.	
			2300	1351.	1419.	1554.	1632.	
	6333	900	208-220	1356.	1424.	1559.	1637.	
			440-550	900	1466.	1539.	1686.	1770.
	150	†505S	3600	208-220	1555.	1633.
†505S		3600	440-550	1694.	1779.	....	....
			2300	1694.	1779.	....	....
†6324S		1800	208-220	1196.	1256.	1375.	1444.	
			440-550	1800	1196.	1256.	1375.	1444.
†6324S		1800	2300	1303.	1368.	1498.	1573.	
			208-220	1200	1401.	1471.	1611.	1692.
†6325S		1200	440-550	1535.	1612.	1765.	1853.	
			2300	1535.	1612.	1765.	1853.	
†6334S		900	208-220	1567.	1645.	1802.	1892.	
			440-550	900	1658.	1741.	1907.	2002.
†6334S		900	2300	1658.	1741.	1907.	2002.	
	208-220		3600	1986.	....	....	....
200	†6326S	3600	440-550	2084.	....	....	....
	†6326S	3600	2300	2084.	....	....	....
			208-220	1800	1528.	1604.	1757.	1845.
	†6325S	1800	440-550	1603.	1683.	1843.	1935.	
			2300	1603.	1683.	1843.	1935.	
	†6334S	1200	208-220	1833.	1925.	2108.	2213.	
			440-550	1200	1908.	2003.	2194.	2303.
	†6334S	1200	2300	1976.	2075.	2272.	2386.	
			208-220	900	2037.	2139.	2343.	2460.
	†6335S	900	440-550	2037.	2139.	2343.	2460.	

*Listed open motors will operate on 50 cycles at maintained voltages without injurious heating, except that motors in Frames 364 and larger rated 720 rpm. and lower must be specifically ordered for 50-cycle operation. The 60-cycle horsepower ratings and prices apply. Synchronous speeds are 5/6 of those at 60 cycles.

†All standard 220 and 440-volt polyphase, squirrel-cage motors in Frames 203 to 445 inclusive have sufficient leads brought out so that they can be connected for either 220 or 440 volts.

‡Type KG motors are built in a larger frame size.

§These motors are recommended for direct connection only. For motors in Frames 444S and larger, 3600 rpm., state direction of rotation.

¶Three-phase only.

Continued

*Listed open motors will operate on 50 cycles at maintained voltages without injurious heating, except that motors in Frames 364 and larger rated 720 rpm. and lower must be specifically ordered for 50-cycle operation. The 60-cycle horsepower ratings and prices apply. Synchronous speeds are 5/6 of those at 60 cycles.

†All standard 220 and 440-volt polyphase, squirrel-cage motors in Frames 203 to 445 inclusive have sufficient leads brought out so that they can be connected for either 220 or 440 volts.

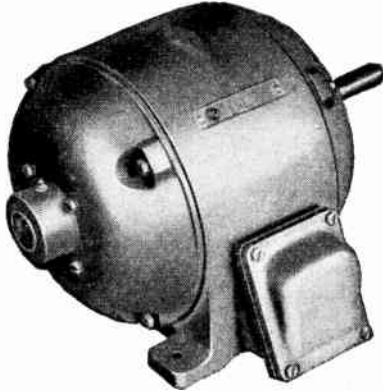
‡These motors are recommended for direct connection only. For motors in Frames 444S and larger, 3600 rpm., state direction of rotation.

G-E Tri-Clad Totally Enclosed and Totally Enclosed, Fan-Cooled Squirrel-Cage Induction Motors

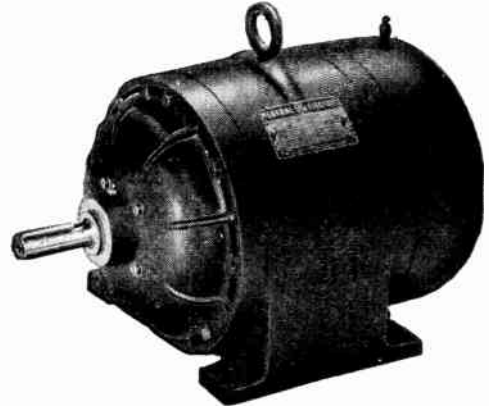
Type K—Normal Starting Torque

Standard and Explosion-Proof—Enclosed, 1/4 to 5 Hp.; Fan-Cooled, 3/4 to 200 Hp.

Constant Speed, 2 and 3-Phase, 60 Cycles, Continuous Duty, 55°C. Rise



Type K Totally Enclosed Motor



Type K Totally Enclosed, Fan-Cooled Motor

General Electric has a complete line of totally enclosed motors which have been tested and listed by the Underwriters' Laboratories for Class I, Group D (gasoline); Class II, Group E (magnesium or aluminum dust); Class II, Group F (coal or coke dust); and Class II, Group G (grain dust) service. Motors must be specified for the respective service in order that they may bear the proper Underwriters' label indicating their suitability for the conditions applied.

In the smaller ratings, motors are built in totally enclosed (not fan-cooled) frames. In the larger ratings, the totally enclosed, fan-cooled design is standard. The latter type permits total enclosure of a motor, yet allows full open-motor horsepower rating in those sizes which would otherwise require frames larger than those of open ratings.

The fan-cooled type of enclosure essentially involves motors totally enclosed with an additional housing which has an external fan mounted at the end opposite the pulley. This fan draws air and directs it over the motor frame along especially designed ventilating paths, and exhausts it at the pulley end. The fans on the motor rotor keep the air inside the motor agitated, thus dissipating heat from the motor to the frame.

The explosion-proof motors are furnished with an external fan, made of nonsparking metal, similar to that on the standard totally enclosed, but otherwise fan-cooled motors.

Totally Enclosed—Not Fan-Cooled

Hp. at 55°C.	Frame	Sync. Speed RPM.	*Volts	Type K, Motor Only Ball Bearing		Hp. at 55°C.	Frame	Sync. Speed RPM.	*Volts	Type K, Motor Only Ball Bearing	
				Standard Each	Class I, Group D and Class II, Groups E, F, and G Each					Standard Each	Class I, Group D, and Class II, Groups E, F, and G Each
1/4	†204	600		\$75.	\$96.	1 1/2	†\$203	3600		\$88.	\$111.
							†\$204	1800		76.	99.
1/3	†204	720		75.	96.		†\$224	1200		84.	107.
	†224	600		89.	112.		†\$254	900		105.	134.
1/2	†204	900		67.	88.		†\$324	720		188.	...
	†224	720		89.	112.	2	†\$326	600		220.	...
	†225	600	208	98.	121.		†\$224	1800		101.	...
3/4	†\$203	1200	110-220	61.	82.		†\$254	1200	208	101.	130.
	†224	900	440-550	79.	102.		†\$284	900	110-220	140.	...
	†254	720		118.	147.		†\$326	720	440-550	220.	...
	†254	600		130.	159.	3	†\$284	3600		175.	...
1	†\$203	1800		65.	86.		†\$284	1800		134.	...
	†204	1200		76.	99.		†\$324	1200		173.	...
	†225	900		88.	111.		†\$324	900		181.	...
	†284	720		147.	...	5	†\$324	3600		212.	...
	†324	600		188.	...		†\$326	1800		203.	...

*All standard 220 and 440-volt, polyphase, squirrel-cage motors, in Frames 204 to 326 inclusive, except those 2-phase ratings as noted, have sufficient leads brought out so that they can be connected at the terminal board for either 220 or 440 volts.

†Standard totally enclosed motors in these frames are

Tri-Clad. Explosion-proof motors are not Tri-Clad.

‡Two-phase motors in these ratings are not reconnectable for 220-440 volts in explosion-proof construction.

§Size for standard construction only. Explosion-proof motors are built in a larger frame size.

¶Not Tri-Clad.

G-E Tri-Clad Totally Enclosed, Fan-Cooled Squirrel-Cage Induction Motors

Type K—Normal Starting Torque

Standard and Explosion-Proof— $\frac{3}{4}$ to 200 Hp., Constant Speed, 2 and 3-Phase

60 Cycles, Continuous Duty, 55°C. Rise

Hp. at 55°C. Frame	Sync. Speed RPM.	*Volts	Type K, Motor Only —Ball Bearing— Class I, Group D and Class II, Groups E, F and G			Hp. at 55°C. Frame	Sync. Speed RPM.	*Volts	Type K, Motor Only —Ball Bearing— Class I, Group D and Class II, Groups E, F and G			Hp. at 55°C. Frame	Sync. Speed RPM.	*Volts	Type K, Motor Only —Ball Bearing— Class I, Group D and Class II, Groups E, F and G		
			Standard Each	F Each	G Each				Standard Each	F Each	G Each				Standard Each	F Each	G Each
3/4 †\$225	720	208	\$121.	\$144.	20	326	3600	110-220	\$299.	\$339.	60	504U	1200	208	\$1064.	\$1182.	
1 †254	720		145.	174.		204	326	3600	440-550	208		505	1200	220-440-550	2300	1221.	1339.
1 1/2 †254	720	208	157.	186.	25	364	1800	208	319.	378.	75	**504S	3600	208	1275.	1393.	
†284	600		184.	215.		365	1200	208	418.	477.		†**504S	3600	220-440-550	2300	1448.	1566.
2 †204	3600	110	95.	116.	25	404	900	220-440	607.	693.	75	†504S	1800	208	1168.	1286.	
†225	1800		122.	157.		444	720	550	757.	875.		†505S	1800	220-440-550	2300	1326.	1444.
225	1200	208	107.	130.	25	445	600	208	366.	425.	75	†505S	1800	208	1437.	1555.	
254	900		147.	176.		†365S	3600	208	353.	412.		505	1200	220-440-550	2300	1609.	1727.
†284	720	220	184.	215.	30	365	1800	220-440	493.	579.	100	†505S	3600	208	1686.	1804.	
†324	600		238.	278.		404	1200	550	570.	656.		570.	656.	†505S	3600	2300	1843.	1961.
3 †224	3600	110	111.	134.	30	405	900	208	570.	656.	100	†505S	3600	208	1458.	1576.	
225	1800		107.	130.		445	720	220-440-550	710.	828.		†505S	1800	220-440-550	2300	1576.	1694.
254	1200	208	128.	157.	30	504U	600	208	958.	1076.	100	†6325S	1800	208	1676.	1844.	
284	900		177.	208.		†404S	3600	208	487.	546.		†6325S	1800	220-440-550	2300	1833.	2001.
†324	720	220	238.	278.	30	404	1800	208	470.	529.	100	†6325S	1200	208	1676.	1844.	
†326	600		270.	310.		405	1200	208	570.	656.		†6325S	1200	220-440-550	2300	1833.	2001.
5 †225	3600	110	126.	149.	40	444	900	220-440-550	710.	828.	125	†6325S	1800	208	1767.	1885.	
254	1800		128.	157.		504U	720	208	958.	1076.		†6325S	1800	220-440-550	2300	1833.	2001.
284	1200	208	171.	202.	40	505	600	208	1129.	1247.	125	†6325S	1200	208	1676.	1844.	
324	900		231.	271.		†405S	3600	208	582.	641.		†6325S	1200	220-440-550	2300	1833.	2001.
†326	720	220	270.	310.	40	405	3600	208	562.	648.	125	†6325S	3600	208	2226.	2344.	
365	600		366.	425.		445	1800	220-440-550	735.	821.		†6325S	3600	220-440-550	2300	2383.	2501.
7 1/2 †254	3600	110-220	162.	191.	44	444	1200	208	710.	828.	150	†6325S	1800	208	1901.	2019.	
284	1800		171.	202.		444	1200	208	710.	828.		†6325S	1800	220-440-550	2300	2013.	2131.
324	1200	440-550	223.	263.	50	504U	1200	2300	883.	1001.	150	†6326S	1200	208	2291.	2520.	
326	900		262.	302.		445	900	208	903.	1021.		†6326S	1200	220-440-550	2300	2436.	2665.
365	720	220-440	366.	425.	50	504U	900	2300	1061.	1179.	150	†6326S	1200	208	2436.	2665.	
404	600		448.	507.		505	720	208	1129.	1247.		†6326S	1200	220-440-550	2300	2649.	2767.
10 †284	3600	110-220	212.	243.	50	†444S	3600	208	811.	897.	150	†6326S	3600	208	2788.	2906.	
324	1800		223.	263.		†444S	1800	208	786.	872.		†6326S	1800	220-440-550	2300	2272.	2499.
326	1200	440-550	253.	293.	50	†444S	1800	208	786.	872.	150	†6326S	1800	208	2379.	2606.	
364	900		342.	401.		†504S	1800	2300	959.	1045.		†6333S	1200	220-440-550	2300	2662.	2928.
404	720	220-440	448.	507.	60	445	1200	208	903.	1021.	200	†6333S	1200	208	2796.	3062.	
405	600		526.	612.		504U	1200	208	1061.	1179.		†6333S	1200	220-440-550	2300	2993.	3193.
15 †324	3600	110-220	262.	302.	60	504U	900	208	1064.	1182.	200	†6328S	3600	208	3384.	3722.	
326	1800		253.	293.		†445S	3600	208	956.	1042.		†6328S	3600	220-440-550	2300	3482.	3820.
364	1200	208	342.	401.	60	†**504S	3600	208	1129.	1215.	200	†6328S	1800	208	2903.	3193.	
365	900		418.	477.		†445S	1800	208	927.	1045.		†6328S	1800	220-440-550	2300	2978.	3268.
405	720	550	526.	612.	60	†504S	1800	220-440-550	1084.	1202.	200	†6335S	1200	208	3483.	3831.	
444	600		607.	693.		†504S	1800	2300	1084.	1202.		†6335S	1200	220-440-550	2300	3558.	3906.

*All standard 220 and 440-volt polyphase, squirrel-cage motors in Frames 204 to 505 inclusive, except those 2-phase ratings as noted, have sufficient leads brought out so that they can be connected at the terminal board for either 220 or 440 volts (except 60 hp., 900 rpm.; 75 hp., 1200 rpm.; and 100 hp., 3600 and 1800 rpm.).

†Not Tri-Clad.

‡Size for standard construction only. Explosion-proof ratings are built in a larger frame size.

§Two-phase motors in these ratings are not reconnectable for 220-440 volts.

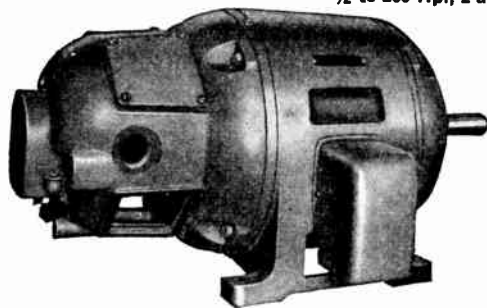
¶These motors are recommended for direct connection only. Orders should specify direction of rotation.

||Class II, Group E, motors available in Frames 505 and smaller only.

**Two-pole, 3600 and 3000-rpm. motors in Frames 504S and larger, will be furnished with oil-lubricated sleeve bearings as standard.

G-E Tri-Clad General Purpose Wound-Rotor Induction Motors

Type M—Constant-Speed and Adjustable-Varying-Speed
 ½ to 200 Hp., 2 and 3-Phase, 60 Cycles, Continuous Duty, 40°C. Rise



Type M Tri-Clad Wound-Rotor Motor

Type M wound-rotor induction motors have both constant and adjustable-varying-speed characteristics, the desired speed characteristics being obtained by selecting controllers of the proper types. This type of motor is suitable for constant-speed applications requiring frequent starting or reversing under heavy load, or where exceptionally high starting torque is encountered. It can also be used on applications requiring adjustable-varying-speed characteristics. For this type of service, the speed can be adjusted by any value over a considerable range but, once adjusted, will vary with change in load.

Open 40°C. rise, Type M, 60-cycle, polyphase motors will operate without injurious heating on 50-cycle circuits of 110, 220, 440, 550, and 2300 volts (except that motors in Frames 364 and larger, rated 720 rpm. and lower, must be specifically ordered for 50-cycle operation, if required). Sixty-cycle horsepower ratings and prices apply. Synchronous speeds are 5/6 of those at 60 cycles.

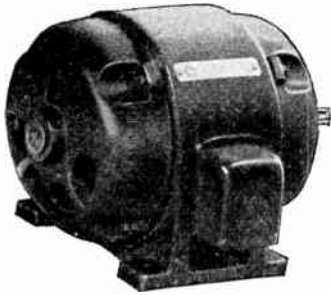
Hp. at 40°C.	Sync. Speed RPM.	Volts	Type M Motor Only		Hp. at 40°C.	Frame	Sync. Speed RPM.	Volts	Type M Motor Only		Hp. at 40°C.	Frame	Sync. Speed RPM.	Volts	Type M Motor Only			
			Sieve Brg. Each	Ball Brg. Each					Sieve Brg. Each	Ball Brg. Each					Sieve Brg. Each	Ball Brg. Each		
1/2	1200	110 208 220 440 550	\$137.	\$137.	20	3600	208 220 440 550	\$786.	\$786.	75	6324	900	208-220-440-550	\$1265.	\$1328.		
....	900		148.	148.	364	1800		524.	524.	720	6325	720	208-220-440-550	1447.	1519.	
....	720		190.	190.	404	1200	405		900	645.	677.	600	6333	600	208-220-440-550	1534.	1611.
3/4	1200		198.	198.	405	900	900		826.	867.	1200	6324S	1200	208-220-440-550	1681.	1765.	
1224	900		148.	148.	445	720	720		891.	936.	1800	6325S	1800	208-220-440-550	1803.	1893.	
....	720		216.	216.	504U	600	600		885.	929.	100	¶**6326S	3600	208-220-440-550	1937.		
....	600		302.	302.	¶404S	3600	3600		590.	590.	1800	¶505S	1800	208-220-440-550	2117.	
1	1800		155.	155.	365	1800	1800		619.	650.	1200	¶6323S	1200	208-220-440-550	1291.	1356.	
1224	1200		166.	166.	404	900	900		712.	748.	900	¶6324S	900	208-220-440-550	1411.	1482.	
1224	900		196.	196.	504U	720	720		911.	957.	600	¶6324S	600	208-220-440-550	1430.	1502.	
1225	900		300.	300.	505	600	600		987.	1036.	900	6325	900	208-220-440-550	1537.	1614.	
1254	720		306.	306.	¶405S	3600	3600		932.	979.	720	6325	720	208-220-440-550	1469.	1542.	
1284	600	236.	236.	404	1800	1800	621.	652.	....	720	6333	720	208-220-440-550	1684.	1768.		
1284	1800	157.	157.	444	1200	1200	683.	717.	....	600	6334	600	208-220-440-550	1788.	1877.		
1284	1200	182.	182.	445	900	900	788.	827.	....	600	6335	600	208-220-440-550	1882.	1976.		
1254	900	213.	213.	505	720	720	987.	1036.	....	600	6334	600	208-220-440-550	1962.	2060.		
1284	720	306.	306.	6323	600	600	1073.	1127.	....	600	6334	600	208-220-440-550	2050.	2153.		
1324	600	316.	316.	¶444S	3600	208-220-440-550	1104.	1159.	....	3600	¶**6328S	3600	208-220-440-550	2244.	....		
2	3600	248.	248.	405	1800	208-220-440-550	736.	773.	....	1800	¶6324S	1800	208-220-440-550	2391.	....		
1225	1800	165.	165.	444	1200	208-220-440-550	879.	923.	....	1200	¶6324S	1200	208-220-440-550	1496.	1571.		
1225	1200	196.	196.	445	900	208-220-440-550	802.	842.	....	900	¶6325S	900	208-220-440-550	1594.	1674.		
1254	900	234.	234.	504U	900	208-220-440-550	997.	1047.	....	900	¶6325S	900	208-220-440-550	1669.	1752.		
1324	720	309.	309.	6323	720	208-220-440-550	909.	954.	....	900	6333	900	208-220-440-550	1759.	1847.		
1326	600	330.	330.	6323	600	208-220-440-550	1087.	1141.	....	720	6334	720	208-220-440-550	1837.	1929.		
3	3600	279.	279.	¶445S	3600	208-220-440-550	1123.	1179.	....	720	6334	720	208-220-440-550	1919.	2015.		
1225	1800	186.	186.	¶444S	1800	208-220-440-550	1227.	1288.	....	600	6335	600	208-220-440-550	2015.	2116.		
1254	1200	225.	225.	¶444S	1800	208-220-440-550	836.	878.	....	600	6335	600	208-220-440-550	2106.	2211.		
1284	900	265.	265.	¶445S	1200	208-220-440-550	980.	1029.	....	3600	150¶**6328S	3600	208-220-440-550	2215.	2326.		
1326	720	325.	325.	504U	1200	208-220-440-550	914.	960.	....	3600	¶6325S	1200	208-220-440-550	2297.	2412.		
1365	600	378.	378.	2300	....	....	1096.	1151.	....	3600	¶6325S	1800	208-220-440-550	2540.	....		
5	3600	339.	339.	505	900	208-220-440-550	1026.	1077.	....	1800	¶6325S	1800	208-220-440-550	2673.	....		
1254	1800	226.	226.	6323	720	208-220-440-550	1192.	1252.	....	1200	¶6333S	1200	208-220-440-550	1693.	1778.		
1284	1200	274.	274.	6324	600	208-220-440-550	1249.	1311.	....	900	¶6333S	900	208-220-440-550	1782.	1871.		
1324	900	328.	328.	6324	600	208-220-440-550	1383.	1452.	....	900	¶6334S	900	208-220-440-550	1919.	2015.		
365	720	503.	503.	¶445S	1800	208-220-440-550	1365.	1433.	....	720	¶6334S	720	208-220-440-550	2015.	2116.		
404	600	523.	549.	¶445S	1200	208-220-440-550	836.	878.	....	600	6335	600	208-220-440-550	2106.	2211.		
7 1/2	3600	404.	404.	504U	1200	208-220-440-550	914.	960.	....	600	6335	600	208-220-440-550	2215.	2326.		
1284	1800	269.	269.	2300	....	....	1096.	1151.	....	3600	150¶**6328S	3600	208-220-440-550	2297.	2412.
1324	1200	329.	329.	505	900	208-220-440-550	1026.	1077.	....	1800	¶6325S	1800	208-220-440-550	2540.	....		
1326	900	328.	328.	6323	720	208-220-440-550	1192.	1252.	....	1200	¶6325S	1200	208-220-440-550	2673.	....		
404	720	503.	503.	6324	600	208-220-440-550	1249.	1311.	....	900	¶6333S	900	208-220-440-550	1782.	1871.		
405	600	523.	549.	6324	600	208-220-440-550	1383.	1452.	....	900	¶6333S	900	208-220-440-550	1919.	2015.		
10	3600	404.	404.	¶504S	3600	208-220-440-550	1365.	1433.	....	720	¶6334S	720	208-220-440-550	2015.	2116.		
1324	1800	269.	269.	¶504S	1800	208-220-440-550	836.	878.	....	600	6335	600	208-220-440-550	2106.	2211.		
1326	1200	329.	329.	¶504S	1200	208-220-440-550	914.	960.	....	600	6335	600	208-220-440-550	2215.	2326.		
365	900	393.	393.	2300	....	....	1096.	1151.	....	3600	150¶**6328S	3600	208-220-440-550	2297.	2412.
405	720	551.	579.	505	1200	208-220-440-550	1026.	1077.	....	1800	¶6325S	1800	208-220-440-550	2540.	....		
444	600	592.	622.	6323	900	208-220-440-550	1192.	1251.	....	1200	¶6325S	1200	208-220-440-550	2673.	....		
15	3600	473.	473.	6324	600	208-220-440-550	1249.	1311.	....	900	¶6333S	900	208-220-440-550	1782.	1871.		
1326	1800	315.	315.	6324	720	208-220-440-550	1365.	1433.	....	720	¶6334S	720	208-220-440-550	1919.	2015.		
365	1200	376.	376.	6324	720	208-220-440-550	1365.	1433.	....	600	6335	600	208-220-440-550	2106.	2211.		
365	900	465.	465.	6324	720	208-220-440-550	1492.	1567.	....	600	6335	600	208-220-440-550	2215.	2345.		
405	720	605.	635.	6324	720	208-220-440-550	1498.	1573.	....	600	6335	600	208-220-440-550	2233.	2345.		
444	600	644.	676.	6333	600	208-220-440-550	1611.	1692.	....	900	¶6335S	900	208-220-440-550	2282.	2396.		
15	3600	657.	657.	¶505S	3600	208-220-440-550	1610.	1691.	....	900	¶6335S	900	208-220-440-550	2454.	2577.		
1326	1800	438.	438.	¶504S	1800	208-220-440-550	1818.	1909.	....	720	6343	720	208-220-440-550	2517.	2643.		
365	1200	473.	473.	¶505S	1200	208-220-440-550	1073.	1127.	....	600	6344	600	208-220-440-550	2727.	2863.		
404	900	549.	576.	¶6323S	1200	208-220-440-550	1182.	1241.	....	600	6344	600	208-220-440-550	2777.	2916.		
444	720	712.	748.	2300	....	....	1321.	1387.	....	3600	200¶**6328S	3600	208-220-440-550	2930.	3077.
445	600	770.	809.	2300	....	....	1321.	1387.	....	3600	¶**6334S	1800	208-220-440-550	2956.	3104.

*The horsepower output at 50 per cent below normal speed will be approximately 40 per cent of normal horsepower without injurious heating. †Motors for 220 and 440 volts in Frames 505 and smaller, but not exceeding 75 hp., are dual-voltage, 220-440 volts, except for a few 2-phase ratings marked. ‡Motors in these frames are not Tri-Clad. §Two-phase motors in these ratings are for single-voltage only. ¶These motors are recommended for

direct connection only. For motors in Frames 444S and larger at 3600 rpm., orders must state direction of rotation (viewing end opposite driving end) desired so that fan may be properly arranged for ventilation. The temperature ratings of 3600-rpm. motors in Frames 504S and larger are 40°C. rise on stator and 75°C. rise with Class B insulation on rotor. ††Three-phase motors only. †††This motor will be furnished as standard with sleeve bearings only.

G-E Integral-Hp. Single-Phase Capacitor-Type Tri-Ciad Induction Motors

Type KC—Normal Starting Torque
Type KCJ—High Starting Torque



Open, Horizontal, Constant-Speed, Dual-Rotation
60 Cycles, 40°C. Rise, Continuous

The Type KC motor is designed for applications requiring moderate starting torques.

The Type KCJ motor is designed for applications requiring high starting torque.

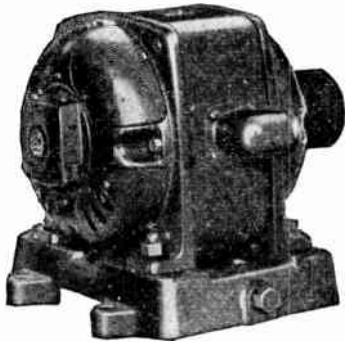
Type KC Normal-Torque Motor

Hp.	Sync. Speed RPM.	*Volts	Motor Only			†Thermo-Tector	
			Sleeve Bearing Each	Ball Bearing Each	Frame (Dripproof)	115-230 Volts Each	230 Volts Each
1/2	900	115-230	\$111.	\$111.	224	\$2.00	...
	1200		80.	80.	204	2.00	...
1	900		140.	140.	225	2.00	...
	1800		62.	62.	203	2.00	...
1 1/2	1200		102.	102.	224	2.00	...
	3600		83.	83.	203	3.00	...
2	1800	80.	80.	204	3.00	...	
	3600	129.	129.	225	3.00	\$3.00	
3	1800	107.	107.	204	...	...
	3600	102.	102.	224	...	...
5	1800	140.	140.	224	...	...
	3600	129.	129.	225	...	...
1	1800	230	\$227.	\$227.	225	...	...
	3600		...	...	...	...	...
1 1/2	1800		\$62.	\$62.	203	\$2.00	...
	3600		80.	80.	204	...	\$3.00
2	1800		102.	102.	224	...	3.00
	3600		129.	129.	225	...	...

*Motors for 110 and 220 volts are available at same prices corresponding to motors for 115 and 230 volts. †An automatic-reset, thermal-overload device used as a line-interrupting switch. The usual short circuit protection is also required in accordance with the National Electrical Code.

G-E Type SCR Integral-Horsepower Single-Phase Repulsion-Induction Motors

Open, Horizontal, Constant-Speed, 60 Cycles
40°C. Rise, Continuous



The Type SCR motor combines the high starting torque of a repulsion motor with the excellent speed characteristics of an induction motor. It is available in ratings which supplement those of the Types KC and KCJ capacitor motors. Some of the many applications for which it is well adapted include refrigerating machines, pumps, stokers, floor surfacers, and dairy machinery.

Hp.	Sync. Speed RPM.	Volts	Motor Only		Frame
			Sleeve Bearing Each	Ball Bearing Each	
1	900	115-230	\$165.00	\$165.00	254
1 1/2	900		209.00	209.00	254
2	1200		189.00	189.00	254
	900		248.00	248.00	255
3	1200		228.00	228.00	255
	900		315.00	315.00	324
5	1800	189.00	189.00	254	
	1200	266.00	266.00	324	
7 1/2	900	440.00	440.00	326	
	3600	287.00	287.00	...	
10	1800	266.00	266.00	324	
	1200	378.00	378.00	326	
10	3600	...	390.00	326	
	1800	...	353.00	326	

G-E Type KH Split-Phase Fractional-Horsepower Industrial Motors

Single-Phase, Dripproof, General-Purpose
Sleeve-Bearing, Resilient Base

60 Cycles, 40°C. Rise, Continuous, Constant-Speed



Type KH resilient-base motors are recommended where long-lived, inexpensive motors with moderate starting torque are required and where quietness and freedom from vibration resulting from the resilient base are desirable. The resilient base also offers a convenient means for side-wall mounting of the motor.

Frames 43 to 49 are available with automatic-reset Thermo-Tector at slight price addition.

Hp.	Speed RPM.	115 Volts	
		Model No.	*Each
1/20	1725	KH23AC3	\$14.25
	1140	KH33FD17	17.25
1/12	3450	KH23AC27	21.55
	1725	KH31FD8	14.25
1/6	1725	KH43AB837	14.25
	1140	KH47AB55	22.55
1/4	1725	KH45AB1738	16.15
	3450	KH47EB58	23.75
1/3	1725	KH45AB2235	20.25

*Prices for motors rated 230 volts, or 50 or 25 cycles furnished on request.

G-E Type KH Split-Phase Fractional-Horsepower Industrial Motors

Single-Phase, Dripproof, General-Purpose
Sleeve-Bearing, Solid Base

60 Cycles, 40°C. Rise, Continuous, Constant-Speed



Type KH motors are recommended where long-lived, inexpensive motors with moderate starting torque are required. They are ideal for use on belt-driven fans and blowers, office devices, centrifugal pumps, and miscellaneous devices where motors with high starting torque are unnecessary.

Frames 43 to 49 are available with automatic-reset Thermo-Tector at slight price addition.

Hp.	Speed RPM.	115 Volts	
		Model No.	*Each
1/20	1725	KH23AC1	\$13.35
	1140	KH33KD16	16.35
1/12	3450	KH23AC25	20.65
	1725	KH31FD4	13.35
1/6	1725	KH43AB835	13.35
	1140	KH47AB14	21.65
1/4	1725	KH45AB1736	15.25
	3450	KH47EB34	22.85
1/3	1725	KH45AB2233	19.35

*Prices for motors rated 230 volts, or 50 or 25 cycles furnished on request.

G-E Type K Fractional-Horsepower Industrial Motors

3-Phase, Totally Enclosed, Ball Bearing, Solid Base

60 Cycles, 55°C. Rise, Continuous, Constant-Speed



Type K totally enclosed motors with steel base and ball bearings are for general application and have a wide field of use where long life, ability to withstand end thrust, and protection from dirty atmospheric conditions are necessary. They will start and drive any device which can be operated by single-phase motors of corresponding strength.

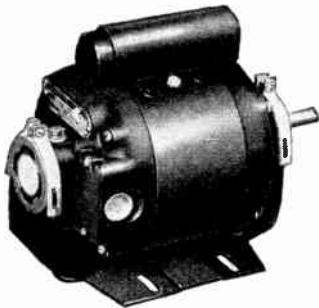
Hp.	Speed RPM.	208-220 Volts		440 Volts	
		Model No.	*Each	Model No.	*Each
1/6	1725	K43AC1563	\$29.70	K43AC1620	\$32.25
1/4	1725	K43AC516	29.70	K43AC964	32.25
	1140	K45AC540	40.95	K45AC537	44.65
1/3	3450	K47EC41	32.80	K47EC42	35.70
	1725	K45AC506	32.90	K45AC417	35.80
	1140	K63AC3333	47.80	K63AC3333	47.80
1/2	3450	K49BC790	40.85	K49BC756	44.55
	1725	K63AC3330	40.50	K63AC3330	40.50
	1140	K73DC2686	56.55	K73DC2686	56.55
3/4	3450	K67BC1433	49.70	K67BC1433	49.70
	1725	K73DC2654	50.75	K73DC2654	50.75
1	3450	K77BC658	61.50	K77BC658	61.50

*Prices for motors rated 220 or 440 volts, or 50 or 60 cycles, furnished on request.

G-E Type KC Capacitor-Start Fractional-Horsepower Industrial Motors

Single-Phase, Dripproof, General-Purpose Sleeve-Bearing, Resilient Base

60 Cycles, 40°C. Rise, Continuous, Constant-Speed



These motors are designed for high starting and pull-up torque. They are for use in general applications where dripproof sleeve-bearing motors are suitable and where quietness and freedom from vibration resulting from the resilient-base mounting are desirable. The resilient-base mounting also offers a convenient means of obtaining side-wall mounting of the motor.

Available with automatic-reset Thermo-Tector at slight price addition.

HP.	Speed RPM.	Volts	Model No.	*Each
1/6	1725	115	KC43AB282	\$16.25
1/4	1725	115	KC45AB1402	18.00
	1140	115	KC48AB202	33.40
	860	115-230	KC67AB343	47.50
1/3	3450	115-230	KC47EB15	25.95
	1725	115-230	KC47AB900	25.35
	1140	115-230	KC65AB568	39.90
	860	115-230	KC77AB481	58.95
1/2	3450	115-230	KC49BB515	32.95
	1725	115-230	KC63AB692	36.70
	1140	115-230	KC67AB334	47.50
3/4	3440	115-230	KC67AB522	41.55
	1725	115-230	KC65AB553	46.50
1	3450	115-230	KC67BB523	51.80

*Prices for motors rated 230 volts, or 50 or 25 cycles furnished on request.

G-E Type KC Capacitor-Start Fractional-Horsepower Industrial Motors

Single-Phase, Dripproof, General-Purpose Sleeve-Bearing, Solid Base

60 Cycles, 40°C. Rise, Continuous, Constant-Speed



These motors are designed for high starting and pull-up torque. They are for use in general applications where dripproof, sleeve-bearing motors are suitable, applications such as for water pumps, compressors, and industrial equipment operating in favorable ambient conditions.

Available with automatic-reset Thermo-Tector at slight price addition.

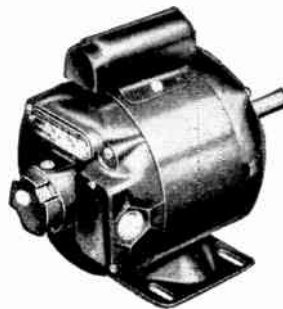
Hp.	Speed RPM.	Volts	Model No.	*Each
1/6	1725	115	KC43AB280	\$15.35
1/4	1725	115	KC45AB1400	17.10
	1140	115	KC48AB201	32.50
1/3	3450	115-230	KC47EB2	25.05
	1725	115-230	KC47AB899	24.45
	1140	115-230	KC65AB566	38.10
1/2	3450	115-230	KC49BB514	32.05
	1725	115-230	KC63AB666	34.90
	1140	115-230	KC67AB333	45.70
3/4	3450	115-230	KC67BB520	39.75
	1725	115-230	KC65AB554	44.70
1	3450	115-230	KC67BB521	50.00

*Prices for motors rated 230 volts, or 50 or 25 cycles, and prices for d.c. motors (Type BC), furnished on request.

G-E Type KC Capacitor-Start Fractional-Horsepower Industrial Motors

Single-Phase, Totally Enclosed, Ball Bearing, Solid Base

60 Cycles, 55°C. Rise, Continuous, Constant-Speed



These motors are designed for high starting and pull-up torque. They are for use in general applications where the added protection gained from totally enclosed construction is required or where end thrust conditions make ball bearings necessary.

Available with automatic-reset Thermo-Tector at slight price addition.

Hp.	Speed RPM.	Volts	Model No.	*Each
1/6	860	115	KC48AB215	\$41.40
1/6	1725	115	KC45AB1191	21.65
1/4	1725	115	KC47AB433	23.65
	1140	115	KC48AB207	41.40
	860	115-230	KC67AB344	56.55
1/3	3450	115-230	KC47EB19	32.80
	1725	115-230	KC49AB67	32.10
	1140	115-230	KC65AB570	47.80
	860	115-230	KC77AB483	69.70
1/2	3450	115-230	KC48BB41	40.85
	1725	115-230	KC65AB571	40.15
	1140	115-230	KC77AB482	56.55
3/4	3450	115-230	KC69BB84	49.70
	1725	115-230	KC75AB186	55.40
1	3450	115-230	KC78BB85	61.50

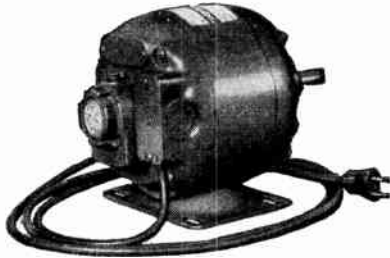
*Prices for motors rated 230 volts, or 50 or 25 cycles, and prices for d.c. motors (Type BC), furnished on request.

G-E Fractional Horsepower Utility Motors

G-E utility motors are especially designed and manufactured to provide the casual purchaser with a high quality, low cost source of power for incidental use. Five ratings are available, giving good selection of motors for home workshop and similar uses where close motor application is not required. The motors are distinguished by an attractive blue-gray color and a large yellow nameplate particularly legible and distinctive.

Model No. 1E152

¼ Hp.—1725 RPM.—115 Volts—60 Cycles Split-Phase



Sleeve bearings, solid base, dripproof. Shaft, 1½ inches long, ½ inch in diameter, with flat. Eight-foot rubber covered cord set with molded-on plug attached to motor.

Model No. 1E152.....each \$13.44

Model No. 1E153

½ Hp.—1725 RPM.—115 Volts—60 Cycles Split-Phase

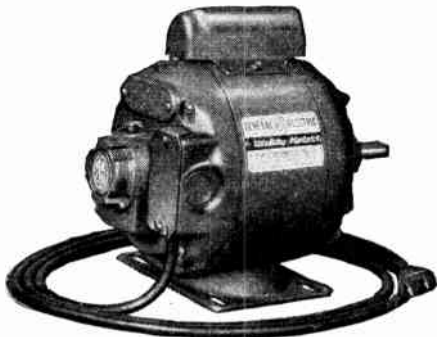


Sleeve bearings, solid base, dripproof. Manual-reset Thermo-Tector. Shaft, 1½ inches long, ½ inch in diameter, with flat, out each end of motor. Eight-foot rubber covered cord set with molded-on plug attached to motor. On-off switch mounted on motor end shield.

Model No. 1E153.....each \$21.66

Model No. 1E154

½ Hp.—1725 RPM.—115 Volts—60 Cycles Capacitor-Start

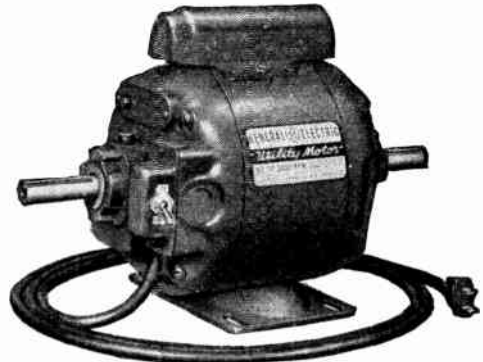


Sleeve bearings, solid base, dripproof. Shaft, 1½ inches long, ½ inch in diameter, with flat. Eight-foot rubber covered cord set with molded-on plug attached to motor.

Model No. 1E154.....each \$27.17

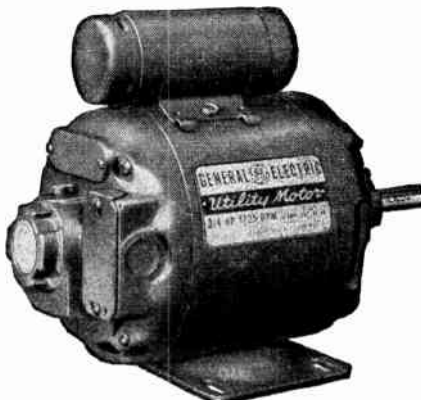
Model No. 1E155

½ Hp.—3450 RPM.—115 Volts—60 Cycles Capacitor-Start



Sleeve bearings, solid base, dripproof. Manual-reset Thermo-Tector. Shaft, 1⅞ inches long, ⅝ inch in diameter, with key, out each end of motor. Eight-foot rubber covered cord set with molded-on plug attached to motor. On-off switch mounted on motor end shield.

Model No. 1E155.....each \$38.23



Model No. 1E156

¾ Hp.—1750 RPM.—115 Volts—60 Cycles Capacitor-Start

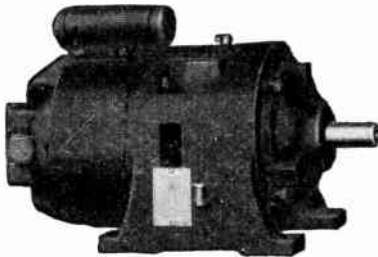
Sleeve bearings, solid base, dripproof. Shaft, 1⅞ inches long, ⅝ inch in diameter, with key. Built-in conduit box on end shield with easily connected stud terminals.

Model No. 1E156.....each \$44.66

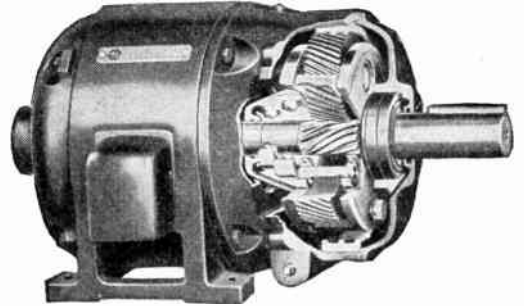
G-E Gear-Motors

Fractional and Integral-Horsepower Sizes

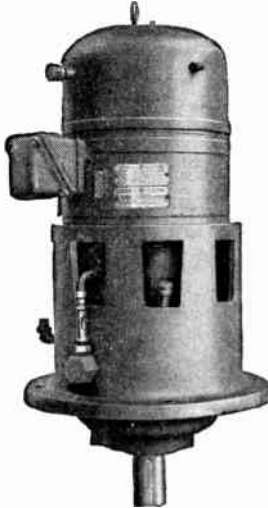
Polyphase, Single-Phase, and D.C. Types



Fractional-Hp. Capacitor-Type
Gear-Motor



Cutaway View of Concentric-Shaft, Planetary-Type
Gear Motor



Vertical Gear-Motor of To-
tally Enclosed, Fan-Cooled
Induction Design

G-E gear motors are the most economical means of obtaining a dependable source of power for operation of many types of machines. The gear-motor consists of a normal-speed motor in combination with a built-in reduction gear. The combination results in an integral, self-contained unit that is highly efficient, extremely compact, and sturdily built.

General Electric offers a complete line of gear-motors in ratings from $\frac{1}{8}$ horsepower up. A wide selection of output-shaft speeds is available, ranging from 780 to 5.7 rpm. with standard 1800-rpm. motors. Three basic gear systems are used as follows: (1) Offset shaft, for speeds of 780 to 520 rpm., (2) Planetary, for speeds of 520 to 13.5 rpm., and (3) Right-angle worm, for speeds of 197 to 5.7 rpm.

Gear-motors have a higher operating efficiency than any other type of low-speed drive of comparable installation cost. The motor, running at 1800 rpm., operates at its maximum efficiency and power factor. The gear-type transmission prevents slippage. The motor and gear are closely connected, minimizing mechanical losses.

Gear motors save space. G-E gear-motors have a compact, balanced arrangement of parts and a housing of small physical proportions. They require only slightly more mounting space than a standard motor.

Gear-motors reduce maintenance costs. The inherent smoothness of operation and the sturdiness of G-E gear-motors permit them to operate dependably with little more attention than an infrequent change of lubricant. The simple design, careful workmanship, adequate lubrication, and ample factors of safety in all parts mean long, reliable service and freedom from production delays.

G-E gear-motors are unusually quiet. Gears running in oil and a balanced distribution of load between multiple gears eliminate the noises usually associated with geared speed reduction.

Gear-motors are easy to install and are safe to operate. The concentric output shaft of the planetary system and the gear-motor's similarity in physical proportions to a general-purpose motor contribute to low installation costs.

The elimination of the need for leveling bases and for providing safety devices for couplings and external chains, gears, or belts reduces installation costs and contributes toward safety.

Typical applications of gear-motors include the following:

Machine Tools	Car Pullers
Conveyors	Blowers
Agitators	Screens
Fans	Hoists
Mixers	Ball and Pebble Mills
Cooling Towers	Textile Machinery
Compressors	Steel Mills
Pumps	Elevators
Steering Gears	Line Shafts
Winches, Davits	Valves, Gates
Kilns	Rolls
Grinders	Sewage Equipment

G-E Fractional-Horsepower Gear-Motors

Concentric-Shaft—Planetary Gear-Reduction

Type KH—Split-Phase—115 or 230 Volts—60 Cycles
 Type KC—Capacitor—Type—115 or 230 Volts—60 Cycles
 Type K—2 or 3-Phase—208, 220, or 440 Volts—60 Cycles
 Type BC—D.C.—115 Volts

Rated Motor Hp.	Full-Load Output		Open, Horizontal Gear-Motor			Add for Vertical Flange-Mounted Open	Rated Motor Hp.	Full-Load Output		Open, Horizontal Gear Motor			Add for Vertical Flange-Mounted Open
	Nom. Speed RPM.	Torque in Lb.—In.	Type KH Each	Type K Each	Type BC Each			Nom. Speed RPM.	Torque in Lb.—In.	Type KC Each	Type K Each	Type BC Each	
Gear-Motor Frame.....													
1/6	520	19	\$50.00	\$55.50	\$63.65	\$10.00	Gear-Motor Frame.....						
	420	23	52.00	57.50	65.65	10.00	Capacitor Case.....						
	350	28	54.00	59.50	67.65	11.00	1/3	56	314	\$103.00	\$103.70	\$116.65	\$21.00
	280	35	57.00	62.50	70.65	11.00		45	394	110.00	110.70	123.65	22.00
	230	42	60.00	65.50	73.65	12.00		37	477	118.00	118.70	131.65	24.00
	190	51	62.00	67.50	75.65	12.00		30	593	127.00	127.70	140.65	25.00
	155	63	65.00	70.50	78.65	13.00		25	703	135.00	135.70	148.65	27.00
Gear-Motor Frame.....													
1/6	125	73	\$69.00	\$74.50	\$82.65	\$14.00	Gear-Motor Frame.....						
	100	94	72.00	77.50	85.65	14.00	Capacitor Case.....						
	84	111	75.00	80.50	88.65	15.00	1/3	20	878	\$147.00	\$147.70	\$160.65	\$29.00
	68	138	79.00	84.50	92.65	16.00		16.5	1080	157.00	157.70	170.65	31.00
								13.5	1325	169.00	169.70	182.65	34.00
Gear-Motor Frame.....													
1/6	56	154	\$84.00	\$89.50	\$97.65	\$17.00	Gear-Motor Frame.....						
	45	193	89.00	94.50	102.65	18.00	Capacitor Case.....						
	37	234	94.00	99.50	107.65	19.00	1/2	520	58	\$77.00	\$73.85	\$89.35	\$15.00
	30	292	101.00	106.50	114.65	20.00		420	71	80.00	76.85	92.35	16.00
	25	346	108.00	113.50	121.65	21.00		350	86	83.00	79.85	95.35	17.00
								280	108	86.00	82.85	98.35	17.00
								230	131	90.00	86.85	102.35	18.00
								190	159	93.00	89.85	105.35	19.00
								155	194	97.00	93.85	109.35	19.00
Gear-Motor Frame.....													
1/6	20	432	\$119.00	\$124.50	\$132.65	\$24.00	Gear-Motor Frame.....						
	16.5	530	129.00	134.50	142.65	26.00	Capacitor Case.....						
	13.5	650	140.00	145.50	153.65	28.00	1/2	125	229	\$101.00	\$97.85	\$113.35	\$20.00
								100	281	106.00	102.85	118.35	21.00
								84	335	110.00	106.85	122.35	22.00
								68	417	115.00	111.85	127.35	23.00
Gear-Motor Frame.....													
1/4	520	28	\$55.00	\$58.75	\$69.95	\$11.00	Gear-Motor Frame.....						
	420	35	57.00	60.75	71.95	12.00	Capacitor Case.....						
	350	43	59.00	62.75	73.95	12.00	1/2	56	477	\$121.00	\$117.85	\$133.35	\$24.00
	280	53	62.00	65.75	76.95	13.00		45	530	129.00	125.85	141.35	26.00
	230	64	65.00	68.75	79.95	13.00		37	723	137.00	133.85	149.35	27.00
	190	78	68.00	71.75	82.95	14.00							
	155	96	71.00	74.75	85.95	14.00							
Gear-Motor Frame.....													
1/4	125	112	\$74.00	\$77.75	\$88.95	\$15.00	Gear-Motor Frame.....						
	100	140	78.00	81.75	92.95	16.00	Capacitor Case.....						
	84	165	82.00	85.75	96.95	16.00	1/2	16.5	1635	\$182.00	\$178.85	\$194.35	\$36.00
	68	207	87.00	90.75	101.95	17.00		13.5	2020	195.00	191.85	207.35	39.00
Gear-Motor Frame.....													
1/4	56	235	\$91.00	\$94.75	\$105.95	\$18.00	Gear-Motor Frame.....						
	45	295	98.00	101.75	112.95	20.00	Capacitor Case.....						
	37	356	105.00	108.75	119.95	21.00	3/4	520	88	\$93.00	\$88.95	\$110.80	\$19.00
	30	445	113.00	116.75	127.95	23.00		420	108	97.00	92.95	114.80	19.00
	25	527	121.00	124.75	135.95	24.00		350	130	100.00	95.95	117.80	20.00
	20	657	133.00	136.75	147.95	27.00		280	162	104.00	99.95	121.80	21.00
								230	197	107.00	102.95	124.80	21.00
								190	240	111.00	106.95	128.80	22.00
								155	294	115.00	110.95	132.80	23.00
Gear-Motor Frame.....													
1/4	16.5	807	\$144.00	\$147.75	\$158.95	\$29.00	Gear-Motor Frame.....						
	13.5	992	157.00	160.75	171.95	31.00	Capacitor Case.....						
							3/4	125	350	\$120.00	\$115.95	\$137.80	\$24.00
								100	432	126.00	121.95	143.80	25.00
								84	514	131.00	126.95	148.80	26.00
								68	640	138.00	133.95	155.80	28.00
Gear-Motor Frame.....													
1/3	520	38	\$62.00	\$62.70	\$75.65	\$12.00	Gear-Motor Frame.....						
	420	47	65.00	65.70	78.65	13.00	Capacitor Case.....						
	350	57	67.00	67.70	80.65	13.00	3/4	56	756	\$145.00	\$140.95	\$162.80	\$29.00
	280	70	71.00	71.70	84.65	14.00		45	950	155.00	150.95	172.80	31.00
	230	86	74.00	74.70	87.65	15.00		37	1150	165.00	160.95	182.80	33.00
	190	104	77.00	77.70	90.65	15.00		30	1425	176.00	171.95	193.80	35.00
	155	127	80.00	80.70	93.65	16.00							
Gear-Motor Frame.....													
1/3	125	144	\$84.00	\$84.70	\$97.65	\$17.00	Gear-Motor Frame.....						
	100	181	88.00	88.70	101.65	18.00	Capacitor Case.....						
	84	212	92.00	92.70	105.65	18.00	3/4	25	1700	\$187.00	\$182.95	\$204.80	\$37.00
	68	266	97.00	97.70	110.65	19.00		20	2130	201.00	196.95	218.80	40.00
Gear-Motor Frame.....													
1/3	16.5	2580	\$214.00	\$209.95	\$231.80	\$43.00	Gear-Motor Frame.....						
	13.5	3210	228.00	223.95	245.80	46.00	Capacitor Case.....						

G-E Integral-Horsepower Gear-Motors
Concentric-Shaft—Planetary Gear-Reduction

Type K—Normal Torque—Normal Starting Current—Squirrel-Cage—2 and 3-Phase—60 Cycles—220, 440, or 550 Volts
Type KC—Single-Phase—Capacitor-Type—116-230 Volts
Type B—D.C.—Shunt-Wound—115-230 Volts

The listed integral-horsepower gear-motors are for Class I service, which in accordance with recommendations of the American Gear Manufacturers' Association, is for steady loads not exceeding the normal rating

of the motor and eight hours service per day, or for moderate shock loads where the service is intermittent.

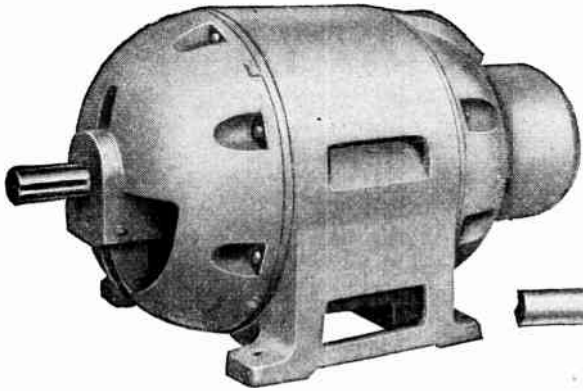
1 Hp., Continuous										3 Hp., Continuous									
Horizontal					Vertical					Horizontal					Vertical				
*Gear-Motor Frame No.	Nom. Full Load Speed RPM.	Type K			Totally Enclosed Fan-Cooled Type K	Explosion Proof Type K	Shaft Down Only Type K		*Gear-Motor Frame No.	Nom. Full Load Speed RPM.	Type K			Totally Enclosed Fan-Cooled Type K	Explosion Proof Type K	Shaft Down Only Type K			
		Open Type K	Open Type KC	Type B			Standard Each	Explosion Proof Each			Open Each	Fan-Cooled Each	Open Each			Open Type KC	Type B	Standard Each	Explosion Proof Each
203A928	780	\$107.	\$118.	\$168.	\$127.	\$148.	.....	.....	225A936	780	\$168.	\$220.	\$265.	\$207.	\$230.	.....	.....
203A928	640	108.	119.	169.	128.	149.	.....	.....	225A936	640	170.	222.	267.	209.	232.	.....	.....
203A928	520	110.	121.	171.	130.	151.	.....	.....	225A936	520	173.	225.	270.	213.	236.	.....	.....
203A128	420	111.	122.	172.	131.	152.	\$136.	\$156.	225A136	420	176.	228.	273.	216.	239.	\$214.	\$254.		
203A128	350	114.	125.	175.	134.	155.	139.	159.	225A136	350	178.	230.	275.	218.	241.	217.	258.		
203A128	280	116.	127.	177.	137.	158.	143.	164.	225A140	280	182.	234.	279.	223.	246.	222.	263.		
203A128	230	120.	131.	181.	141.	162.	147.	168.	225A140	230	192.	244.	289.	234.	257.	233.	275.		
203A132	190	124.	135.	185.	145.	166.	152.	173.	225A144	190	194.	246.	291.	236.	259.	237.	278.		
203A132	155	130.	141.	191.	152.	173.	159.	181.	225A144	155	206.	258.	303.	249.	272.	250.	294.		
203A232	125	136.	147.	197.	159.	180.	167.	190.	225A244	125	220.	272.	317.	264.	287.	266.	311.		
203A232	100	148.	159.	209.	172.	193.	182.	206.	225A244	100	234.	286.	331.	280.	303.	285.	331.		
203A232	84	151.	162.	212.	175.	196.	184.	208.	225A244	84	246.	298.	343.	293.	316.	298.	346.		
203A232	68	159.	170.	220.	184.	205.	194.	219.	225A244	68	264.	316.	361.	313.	336.	320.	368.		
203A336	56	168.	179.	229.	194.	215.	206.	232.	225A344	56	280.	332.	377.	330.	353.	338.	388.		
203A336	45	180.	191.	241.	207.	228.	219.	246.	225A344	45	300.	352.	397.	352.	375.	362.	415.		
203A336	37	191.	202.	252.	219.	240.	232.	260.	225A344	37	320.	372.	417.	374.	397.	386.	440.		
203A336	30	204.	215.	265.	233.	254.	248.	277.	225A348	30	344.	396.	441.	401.	424.	425.	482.		
203A340	25	218.	229.	279.	249.	270.	270.	301.	225A352	25	364.	416.	461.	423.	446.	457.	516.		
203A340	20	234.	245.	295.	266.	287.	288.	320.	225A352	20	393.	445.	490.	455.	478.	490.	554.		
203A344	16.5	251.	262.	312.	285.	306.	310.	344.	225A356	16.5	426.	478.	523.	491.	514.	541.	606.		
203A344	13.5	268.	279.	329.	304.	325.	331.	367.	225A356	13.5	453.	505.	550.	521.	544.	573.	640.		
1½ Hp., Continuous										5 Hp., Continuous									
*Gear-Motor Frame No.	Nom. Full Load Speed RPM.	Type K			Totally Enclosed Fan-Cooled Type K	Explosion Proof Type K	Shaft Down Only Type K		*Gear-Motor Frame No.	Nom. Full Load Speed RPM.	Type K			Totally Enclosed Fan-Cooled Type K	Explosion Proof Type K	Shaft Down Only Type K			
		Open Type K	Open Type KC	Type B			Standard Each	Explosion Proof Each			Open Each	Fan-Cooled Each	Open Each			Open Type KC	Type B	Standard Each	Explosion Proof Each
204A928	780	\$125.	\$145.	\$192.	\$148.	\$171.	.....	.....	254A940	780	\$207.	\$212.	\$392.	\$255.	\$284.	.....	.....
204A928	640	128.	148.	195.	151.	174.	.....	.....	254A940	640	209.	214.	394.	257.	286.	.....	.....
204A928	520	131.	151.	198.	154.	177.	.....	.....	254A940	520	213.	218.	398.	261.	290.	.....	.....
204A128	420	135.	155.	202.	159.	182.	\$163.	\$187.	254A140	420	217.	222.	402.	266.	295.	\$271.	\$320.		
204A128	350	137.	157.	204.	161.	184.	167.	191.	254A140	350	221.	226.	406.	270.	299.	275.	324.		
204A132	280	141.	161.	208.	165.	188.	171.	195.	254A144	280	225.	230.	410.	274.	303.	280.	329.		
204A132	230	149.	169.	216.	174.	197.	180.	205.	254A144	230	231.	236.	416.	281.	310.	287.	337.		
204A136	190	152.	172.	219.	177.	200.	184.	209.	254A148	190	241.	246.	426.	292.	321.	299.	350.		
204A136	155	159.	179.	226.	185.	208.	192.	218.	254A148	155	256.	261.	441.	308.	337.	317.	369.		
204A236	125	167.	187.	234.	194.	217.	201.	228.	254A248	125	272.	277.	457.	326.	355.	336.	390.		
204A236	100	177.	197.	244.	205.	228.	215.	243.	254A248	100	292.	297.	477.	348.	377.	360.	416.		
204A236	84	185.	205.	252.	214.	237.	224.	253.	254A248	84	308.	313.	493.	366.	395.	379.	437.		
204A236	68	191.	211.	258.	220.	243.	231.	260.	254A248	68	327.	332.	512.	387.	416.	401.	461.		
204A336	56	208.	228.	275.	239.	262.	251.	282.	254A348	56	348.	353.	533.	410.	439.	427.	489.		
204A336	45	216.	236.	283.	248.	271.	260.	292.	254A348	45	375.	380.	560.	439.	468.	459.	523.		
204A336	37	231.	251.	298.	264.	287.	279.	312.	254A348	37	399.	404.	584.	466.	495.	488.	555.		
204A340	30	247.	267.	314.	282.	305.	303.	338.	254A352	30	428.	433.	613.	498.	527.	531.	601.		
204A344	25	263.	283.	330.	299.	322.	321.	357.	254A356	25	459.	464.	644.	532.	561.	577.	650.		
204A344	20	283.	303.	350.	321.	344.	345.	383.	254A356	20	479.	484.	664.	554.	583.	601.	676.		
204A348	16.5	304.	324.	371.	344.	367.	381.	421.	254A360	16.5	535.	540.	720.	615.	644.	668.	748.		
204A348	13.5	323.	343.	390.	365.	388.	403.	445.	254A360	13.5	559.	564.	744.	642.	671.	697.	780.		
2 Hp., Continuous										7½ Hp., Continuous									
*Gear-Motor Frame No.	Nom. Full Load Speed RPM.	Type K			Totally Enclosed Fan-Cooled Type K	Explosion Proof Type K	Shaft Down Only Type K		*Gear-Motor Frame No.	Nom. Full Load Speed RPM.	Type K			Totally Enclosed Fan-Cooled Type K	Explosion Proof Type K	Shaft Down Only Type K			
		Open Type K	Open Type KC	Type B			Standard Each	Explosion Proof Each			Open Each	Fan-Cooled Each	Open Each			Open Type KC	Type B	Standard Each	Explosion Proof Each
224A936	780	\$145.	\$178.	\$218.	\$185.	\$206.	.....	.....	284A944	780	\$261.	\$267.	\$476.	\$326.	\$357.	.....	.....
224A936	640	148.	181.	221.	188.	209.	.....	.....	284A944	640	265.	271.	480.	331.	362.	.....	.....
224A936	520	150.	183.	223.	190.	211.	.....	.....	284A944	520	271.	277.	486.	337.	368.	.....	.....
224A132	420	153.	186.	226.	193.	214.	\$189.	\$229.	284A144	420	277.	283.	492.	344.	375.	\$345.	\$412.		
224A132	350	158.	191.	231.	199.	220.	194.	235.	284A144	350	283.	289.	498.	350.	381.	351.	418.		
224A136	280	164.	197.	237.	206.	227.	201.	243.	284A148	280	288.	294.	503.	356.	387.	357.	425.		
224A136	230	172.	205.	245.	214.	235.	210.	252.	284A148	230	293.	299.	508.	361.	392.	364.	432.		
224A140	190	176.	209.	249.	219.	240.	216.	259.	284A152	190	307.	313.	522.	377.	408.	380.	450.		
224A140	155	185.	218.	258.	229.	250.	225.	269.	284A152	155	327.	333.	542.	399.	430.	404.	476.		
224A240	125	194.	227.	267.	239.	260.	238.	283.	284A252	125	347.	353.	562.	421.	452.	428.	502.		
224A240	100	212.	245.	285.	258.	279.	258.	304.	284A252	100	373.	379.	588.	449.	480.	460.	536.		
224A240	84	216.	249.	289.	263.	284.	264.	311.	284A252	84	392.	398.	607.	470.	501.	483.	561.		
224A240	68	226.	259.	299.	274.	295.	277.	325.	284A252	68	409.	415.	624.	489.	520.	503.	583.		
224A340	56	240.	273.	313.	289.	310.	293.	342.	284A352	56	444.	450.	659.	527.	558.	545.	628.		
224A340	45	249.	282.	322.	299.	320.	304.	354.	284A352	45	476.	482.	691.	563.	594.	583.	670.		
224A340	37	266.	299.	339.	318.	339.	325.	377.	284A352	37	507.	515.	722.	597.	628.	620.	710.		
224A344	30	285.	318.	358.	339.	360.	346.	400.	284A356	30	536.	542.	751.	629.	660.	664.	757.		
224A348	25	302.	335.	375.	357.	378.	377.	432.	284A360	25	584.	590.	799.	681.	712.	723.	820.		
224A348	20	329.	362.	402.	387.	408.	409.	467.	284A360	20	607.	613.	822.	707.	738.	849.	849.		
224A352	16.5	353.	386.	426.	413.	434.	446.	506.	284A364	16.5	680.	686.	895.	787.	818.	855.	962.		
224A352	13.5	376.	409.	449.	439.	460.	473.	536.	284A364	13.5	697.	703.	912.	806.	837.	876.	985.		

*Type K explosion-proof motors will be furnished in motor Frames 204, 224, and 225 for 1, 1½, and 2 hp. respectively, instead of in the frames shown. For 1½-hp. Type K explosion-proof, use gear frames

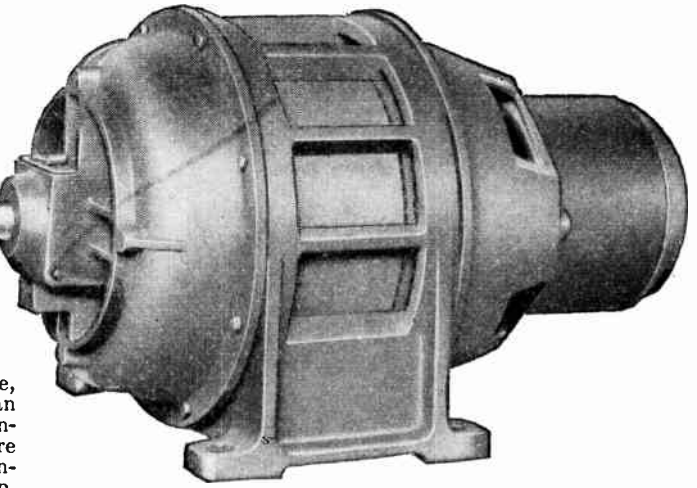
936, 132, 240, and 340, instead of 928, 128, 236, and 336.
 †Not fan-cooled in ratings of 1, 1½, and 2 hp.
 ‡Not fan-cooled in ratings of 1 and 1½ hp.

G-E General-Purpose Synchronous Motors

Type TS, 3-Phase—Type QS, 2-Phase
 High-Speed—Open—Horizontal—2 Bearing—60 Cycles
 40°C. Rise—Continuous



Tri-Clad Synchronous Motor with Direct-Connected Exciter



Synchronous Motor with Exciter, Typical of Skeleton-Frame Construction

G-E general-purpose synchronous motors make complete, compact power units which simply require connection to an a.c. power supply for operation. They are especially advantageous where (1) good power factor is desired, (2) where power-factor improvement is needed, (3) where high efficiency is sought (in the case of steady, continuous loads of 75 hp. and larger), or (4) where exact speeds must be maintained. These motors have a mechanical simplicity comparable to that of squirrel-cage motors. Where direct-connected exciters are used, the exciter forms an integral part of the motor structure and saves both space and installation cost over other types.

The well known Tri-Clad construction is available in many commonly used ratings. (See price listings.) This

construction offers the benefits of smooth contours, attractive appearance, and extra physical protection to the synchronous motor line.

G-E synchronous motors are particularly suited for driving centrifugal pumps, centrifugal compressors, belt-driven reciprocating compressors, fans, blowers, line shafts, d.c. generators, rubber and paper mills, and the like.

Hp.	Speed RPM.	Volts	1.0 Power Factor Sleeve Bearings			0.8 Power Factor Direct-Connected Exciter Sleeve Bearings		
			Frame	*Motor Only Each	†Direct-Connected Exciter Each	Frame	*Motor Only Each	†Direct-Connected Exciter Each
20	1200	220, 440, 550	934S	\$728.	\$181.	934	\$766.	\$203.
25	1200	2300	934	766.	181.	934	804.	203.
		2300	934	804.	181.	934	840.	203.
		900	944	871.	345.	944	915.	345.
30	1200	2300	934	800.	181.	935	858.	203.
		2300	934	840.	181.	935	901.	203.
		900	944	871.	312.	944	944.	345.
40	1800	2300	934S	1326.	157.	†934S	1385.	157.
		2300	†934S	1392.	157.	†944	1454.	157.
		1200	935	858.	203.	944	923.	237.
50	1800	2300	†934S	1454.	157.	†935S	1513.	174.
		2300	†934S	1454.	157.	†935S	1513.	174.
		1200	944	923.	203.	945	988.	237.

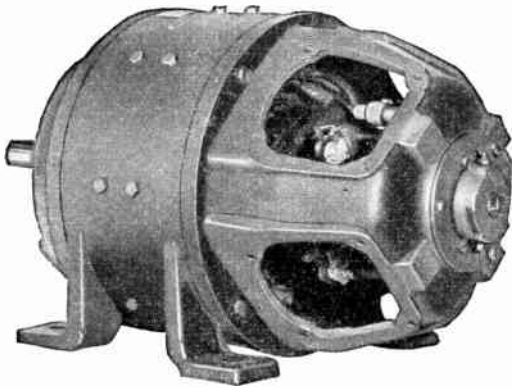
Hp.	Speed RPM.	Volts	1.0 Power Factor Sleeve Bearings			0.8 Power Factor Direct-Connected Exciter Sleeve Bearings		
			Frame	*Motor Only Each	†Direct-Connected Exciter Each	Frame	*Motor Only Each	†Direct-Connected Exciter Each
75	1800	220, 440	†944S	\$1554.	\$157.	†945S	\$1712.	\$174.
		2300	945	1073.	203.	953	1216.	237.
		1200	954	1203.	345.	954	1359.	394.
100	1800	220, 440	†945S	1712.	174.	†953S	1862.	174.
		2300	†953S	1216.	237.	†954S	1359.	345.
		1200	954	1359.	345.	955	1521.	394.
125	1800	220, 440	963	1625.	495.	963	1794.	582.
		2300	964	2048.	567.	972	2210.	662.
		1200	†953S	1862.	174.	†954S	2014.	199.

*Motor with shaft and two bearings.

†Tri-Clad (drip-proof).

‡May be used for V-belt drive if ordered with standard long shaft.

G-E Direct-Current Motors
Type B, Frames 204 to 284—Type CD, Frames 66 and Larger
 Open—Horizontal—Constant and Adjustable Speed



Type B or CD Motor, Typical of Frames 204 to 284 and Frames 66 to 95

Their flexibility permits close matching of motor speed to the driven load. Choices of speed and torque characteristic provide a selection of motors tailored to suit the application requirements—whether they be for heavy-starting duty, for widely varying speed, or subject to speed change with change of load.

Use constant-speed motors (1) where the power supply is d.c., (2) where it is desirable to obtain a large variety of accurately controllable speeds over speed ranges less than 3:1 from a constant voltage source, or (3) where an adjustable-voltage system is used for speed control from near zero speed to maximum. Typical applications include centrifugal pumps, fans, blowers, etc. Use adjustable-speed motors where speed ranges of 3:1 or greater are required by field control. Adjustable-speed motors of constant horse-power, continuous rating are suitable for such applications as driving metal, paper, and textile winding reels. Motors of constant horse-power, one-hour rating are selected for lathes, planers, etc. Motors of tapered horse-power, continuous rating are used in driving centrifugal pumps, fans, blowers and paper making machines. Select shunt-wound motors for medium starting duty and close speed regulation. Select compound-wound motors for use where heavy starting torque is required.

General-Purpose—Constant Speed—Shunt or Compound-Wound

Adjustable-Speed—Shunt-Wound

Hp. at 40°C.	Basic Full-Load Speed RPM.	Max. Speed by Field Control (Shunt-Wound) RPM.	Volts	MOTOR ONLY			Frame	HORSEPOWER		115-230 Volts SPEED, RPM.		Motor Only		Frame		
				Shunt-Wound Brg. Each	Ball Brg. Each	Add for Compound Winding		Tapered Cont. 40°C.	Constant Cont. 40°C.	Basic 1 Hour Full-Load 50°C.	Maximum by Field Control 3:1 4:1 or Less	Sleeve Brg. Each	Ball Brg. Each			
3/4	1150	2300	115	\$116.	\$116.	\$3.	203	1/2-3/4	1/2	3/4	850	2550	3400	\$138.	\$138.	204
1	1750	2199		112.	112.	3.	203	3/4-1	3/4	1	575	1725	2300	185.	185.	225
1 1/2	1150	2300	131.	131.	3.	204	850				2550	3400	151.	151.	224	
2	1750	2190	230	127.	127.	3.	204	1-1 1/2	1	1 1/2	575	1725	2300	205.	205.	225
	1150	2300		151.	151.	5.	224				850	2550	3400	166.	166.	225
3	3500	.....	230	156.	156.	5.	204	1 1/2-2	1 1/2	2	690	2070	2760	201.	201.	225
	1750	2190		142.	142.	3.	224				575	1725	2300	306.	306.	254
5	1150	2300	115	176.	176.	5.	225	2-3	2	3	500	1500	2000	360.	360.	284
	3500	.....		186.	186.	5.	224				690	2070	2760	306.	306.	254
7 1/2	1750	2190	230	174.	174.	5.	225	3-5	3	5	1150	3450	.....	194.	194.	226
	1150	2300		267.	267.	8.	254				690	2070	2760	335.	335.	284
10	1750	2190	115	277.	277.	8.	254	5-7 1/2	5	7 1/2	850	2550	.....	\$354.	\$354.	67
	1150	2300		337.	337.	13.	284				575	1725	2300	441.	441.	68
15	1750	2190	230	335.	335.	13.	284	7 1/2-10	7 1/2	10	690	2070	2300	493.	493.	68
	1150	1725		410.	410.	13.	66				575	1725	2300	559.	559.	77
20	1750	2190	115	471.	471.	13.	67	10-15	10	15	690	2070	2300	610.	610.	85
	1150	1725		469.	469.	13.	67				575	1725	2300	684.	684.	85
25	1750	2190	230	576.	576.	21.	83	15-20	15	20	575	1725	2300	763.	802.	87
	1150	1725		543.	543.	13.	83				500	1500	2000	835.	877.	96
30	1750	2190	115	672.	672.	21.	85	20-25	20	25	400	1200	1600	1181.	1240.	1129
	1150	1725		777.	816.	39.	95				500	1500	1800	1155.	1213.	1129
40	1750	2190	230	891.	936.	39.	95	25-30	25	30	300	900	1200	1696.	1780.	1138
	1150	1725		611.	611.	21.	85				400	1200	1600	1312.	1377.	1131
50	1750	2190	115	727.	763.	21.	93	30-40	30	40	500	1500	.....	1460.	1533.	1136
	1150	1725		807.	847.	39.	95				400	1200	1600	1600.	1677.	1855.	1236
60	1750	1925	230	993.	1043.	39.	1126	40-50	40	50	500	1500	.....	1767.	1855.	1236
	1150	1440		789.	828.	39.	93				300	900	1200	2168.	2276.	1337
75	1750	1925	115	751.	789.	39.	93	50-60	50	60	400	1200	1600	1749.	1836.	1138
	1150	1275		1014.	1065.	39.	95				400	1200	1600	2092.	2196.	1242
100	1750	1925	230	966.	1014.	39.	95	60-75	60	75	300	900	1200	2563.	2691.	1441
	1150	1440		1245.	1307.	39.	1129				500	1500	.....	2009.	2110.	1238
125	1750	1925	115	1186.	1245.	39.	1129	75-100	75	100	500	1500	.....	2009.	2110.	1238
	1150	1275		958.	1006.	39.	*95				400	1200	.....	2391.	2511.	1341
150	1750	1925	230	913.	959.	39.	*95	100-125	100	125	300	900	1200	2930.	3076.	1445
	1150	1440		1174.	1233.	39.	1130				300	900	1200	2256.	2369.	1341
200	1750	1925	115	1118.	1174.	39.	1128	125-150	125	150	500	1500	.....	2256.	2369.	1341
	1150	1440		1435.	1507.	51.	1135				300	900	1200	3243.	3406.	1539
250	1750	1925	230	1366.	1434.	51.	1131	150-200	150	200	500	1500	.....	2593.	2722.	1441
	1150	1275		983.	1032.	39.	*96				300	900	1200	3692.	3876.	1543
300	1750	1925	115	1271.	1335.	39.	1136	200-250	200	250	400	1200	.....	3631.	3812.	1543
	1150	1440		1541.	1618.	51.	1133				300	900	1200	4363.	4582.	1550
350	1750	1925	230	1162.	1220.	39.	1129S	250-300	250	300	400	1200	.....	4162.	4370.	1553
	1150	1440		1485.	1559.	51.	1133				300	900	1200	4931.	5178.	1645
400	1750	1925	115	1776.	1865.	51.	1235	300-350	300	350	400	1200	.....	4581.	4810.	1645
	1150	1440		1827.	1918.	51.	1239S				300	900	1200	5500.	5774.	1654
450	1750	1925	230	2152.	2260.	51.	1341	350-400	350	400	400	1200	.....	5507.	5783.	1657
	1150	1440		2152.	2260.	51.	1242S				300	900	1200	6516.	6842.	1752
500	1750	1925	115	2512.	2638.	87.	1345	400-450	400	450	400	1200	.....	5783.	5783.	1657
	1150	1440		2465.	2588.	87.	1341S				300	900	1200	.....	.....	.....
600	1750	1925	230	2851.	2994.	87.	1444S	450-500	450	500	400	1200	.....	.....	.....	.....
	1150	1440		3069.	3222.	87.	1447S				300	900	1200	.....	.....	.....
700	1750	1925	115	3498.	3673.	105.	1549S	500-550	500	550	400	1200	.....	.....	.....	.....
	1150	1440		4043.	4245.	121.	1556				300	900	1200	.....	.....	.....

*Recommended for V-belt, but not for flat-belt drive.

*Tapered Horsepower: From basic speed up to 150 per cent basic speed, motor delivers minimum rated horsepower with temperature rise not exceeding 50°C. Above 150 per cent basic speed, temperature rise will not exceed 40°C.
 Constant Horsepower: From basic speed up to 150 per cent basic speed, temperature rise will not exceed 50°C. Above 150 per cent basic speed, the temperature rise will not exceed 40°C.

GENUINE G-E RENEWAL PARTS

Observe these few simple rules in ordering renewal parts, and you will save time, get the parts you need, and have your electric equipment back in first-class operating condition with little delay.

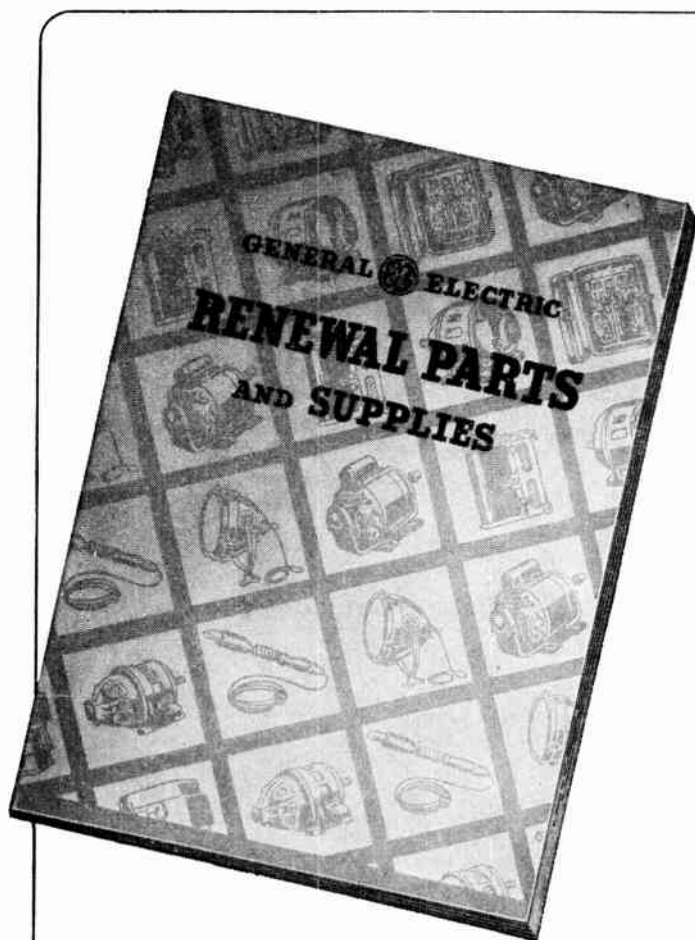
1. Give complete nameplate rating of apparatus requiring parts.
2. Give quantity of each part.

3. Give catalog number of each part, using the G-E renewal-parts catalog or bulletins.

4. Give exact description of each part.

5. When immediate delivery is essential, telephone your order to us. The part you need is probably carried in stock.

If you do not have a copy of the General Electric renewal parts catalog, ask for one. It's free. It will help you to order parts quickly and correctly.

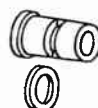


In addition to the items pictured, this catalog lists rubber mountings and capacitors for small G-E motors, parts for G-E industrial heating devices, street-lighting equipment, and floodlights; and gives data on supplies for G-E recording instruments, magnet wire, and testing instruments. Ask your nearby Graybar office or warehouse for a copy.

Motor Brushes



Motor Bearings and Oil Rings



Motor Centrifugal Mechanisms and Switches



Motor Collectors



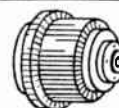
Motor Short-circuiting Devices



Motor Brush Holders and Brush-holder Parts



Motor Commutators and Segments



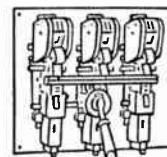
Control Contacts and Contact Parts



Control Coils



Air- and Oil-circuit-breaker Parts



G-E CR1061 Motor Starting Switches
For Fractional-Hp. Motors—Manually Operated

Maximum Ratings { A. C. { Single Pole, 1 Hp., 110 to 220 Volts
 { Double Pole, 1 Hp., 110 to 220 Volts
 { Single Pole, 1 Hp., 115 to 230 Volts
 { Double Pole, 3/4 Hp., 115 to 230 Volts

Listed by Underwriters' Laboratories, Inc.



For Wall Mounting

This small, compact, hand-operated starting switch incorporates positive overload protection. It is designed for use with fractional-horsepower motors, and can be supplied for a.c. or d.c. circuits.

For flush-mounted type, order an open-type switch by nomenclature designation and number. For a single switch, order from a local dealer the following material: one flush plate—No. GE2316 Textolite or No. GE1701 brass; and one conduit box 2 1/2 inches deep—No. SP6971 for rigid conduit and No. SP6972 for BX or flexible conduit. For gang mounting, specify flush plate and/or conduit box "similar to number _____" and state number of switches to be

included in gang.

For all other types, order switch by nomenclature designation and number. Order one heater for overload device by number. Select heater, from table at bottom of this column, in accordance with full-load motor current.

Example: 1 CR1061-C1A, motor starting switch
1 No. 81D70 heater

Open Type—Also for Flush Mounting

No.	*Each	Power Supply	No. of Poles	Nomenclature	Approx. Shp. Wt. Lb.
4983952	\$2.65	A.C.	1	CR1061-C1C	1
4983960	3.00	A.C.	2	CR1061-C2C	1
4983956	2.65	D.C.	1	CR1061-C1G	1
4983964	3.00	D.C.	2	CR1061-C2G	1

Enclosed Type for Surface Wall Mounting

4983950	\$3.15	A.C.	1	CR1061-C1A	2
4983958	3.50	A.C.	1	CR1061-C2A	2
4983954	3.15	D.C.	1	CR1061-C1E	2
4983962	3.50	D.C.	2	CR1061-C2E	2

Dust-Tight and Weather-Resisting Type

4988807A	\$10.50	A.C.	1	CR1061-F1A	1
4988807B	11.00	A.C.	2	CR1061-F1B	2
4988807C	10.50	D.C.	1	CR1061-F1C	1
4988807D	11.00	D.C.	2	CR1061-F1D	2

Explosion-Proof Type

For Class 1, Group D, Hazardous Locations

4986903G1	\$13.00	A.C.	1	CR1061-B2A	1
4986903G2	13.50	A.C.	2	CR1061-B2B	2
4986903G3	13.00	D.C.	1	CR1061-B2C	1
4986903G4	13.50	D.C.	2	CR1061-B2D	2

*Prices include one overload device heater which must be ordered separately. Heater may be omitted or additional heaters may be ordered at 75 cents each.

†Open type is adaptable to flush mounting when used with standard (2 1/2 inches deep) conduit box and flush plate.

No. 5187946G1 replaceable solder-film-type overload device, 60 cents each.

Heaters for Thermal Overload Devices

Interchangeable heaters are available for a variety of motor current ranges as shown in the table below.

Listed values are for motors rated 40°C. continuous. For motors rated 50°C. or 55°C. continuous, use heaters one size smaller than listed.

No.	Full-Load Current of Motor, Amperes	No.	Full-Load Current of Motor, Amperes	No.	Full-Load Current of Motor, Amperes
81D64	0.44-0.49	81D74	1.51-1.61	81D84	4.37-5.04
81D65	0.50-0.56	81D75	1.62-1.78	81D85	5.05-5.56
81D66	0.57-0.63	81D76	1.79-1.93	81D86	5.57-6.47
81D67	0.64-0.72	81D77	1.94-2.18	81D87	6.48-7.0
81D68	0.73-0.82	81D78	2.19-2.56	81D88	7.1-7.8
81D69	0.83-0.93	81D79	2.57-2.77	81D89	7.9-8.8
81D70	0.94-1.04	81D80	2.78-3.01	81D90	8.9-10.1
81D71	1.05-1.20	81D81	3.02-3.45	81D91	10.2-11.5
81D72	1.21-1.32	81D82	3.46-3.83	81D92	11.6-13.1
81D73	1.33-1.50	81D83	3.84-4.36		

G-E CR1062 Motor Starting Switches
For Small A.C. Motors—Manually Operated

25, 40, 50 and 60 Cycles



Two CR1062-C5 Switches Mounted on Pedestal

These switches are single throw with double-break contacts. Overload protection is provided by means of hand-reset thermal overload device, and are used for throwing small a.c. single or 3-phase 60, 50, 40 or 25-cycle motors directly across the line. Operating mechanism trips free from handle. Contacts are of silver.

Cases have conduit knockouts and sufficient wiring space for No. 8 line wires with soldered terminals. Protects against single-phase operation of polyphase motors.

Order by CR number and switch number and form number. Also give rating of motor with which switch is to be used. Specify if heaters are required for overload protection.

CR1062-B6, Single-Phase, for Wall Mounting

No.	*Each	Max. Hp. Rating	Volts	No. of Poles
4981887	\$9.00	{ 1 1 1/2	110 220, 440, 550, 600	2 2

CR1062-B7, 3-Phase, for Wall Mounting

4981888	\$10.00	{ 1 1/2 2	110 220, 440, 550, 600	3 3
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Type CR1062-B8, 3-Phase, for Pedestal Mounting

4981889	\$10.00	{ 1 1/2 2	110 220, 440, 550, 600	3 3
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CR1062-C4, Single-Phase, for Wall or Pedestal Mounting

4981890	\$11.50	{ 1 1/2 3 5	110 220 440, 550, 600	2 2 2
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CR1062-C5, 3-Phase, for Wall or Pedestal Mounting

4981891	\$12.50	{ 3 5 7 1/2	110 220 440, 550, 600	3 3 3
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CR1062, Explosion-Proof or Watertight

Complete information furnished on application. *Price includes heaters. Heaters may be omitted or additional heaters may be ordered at 75 cents each.

Heaters for Thermal Overload Devices

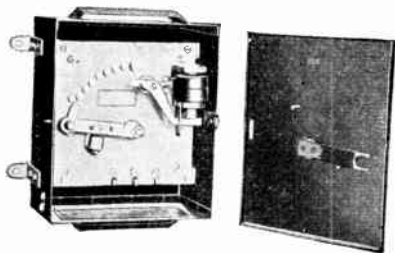
For use with standard or high-reactance squirrel-cage motors rated 40°C. rise continuous. For totally-enclosed fan-cooled motors or for motors rated 50°C. rise continuous, use one size smaller than listed below.

No.	FULL-LOAD CURRENT OF MOTOR, AMPS.		No.	FULL-LOAD CURRENT OF MOTOR, AMPS.	
	For CR1062B Switches	For CR1062C Switches		For CR1062B Switches	For CR1062C Switches
81D106	45-	50-0.36-0.40	81D123	3 24-	3 59-2 65-2 98
81D107	51-	57-41-	81D124	3 60-	3 99-2 99-3 36
81D108	58-	64-47-	81D125	4 00-	4 49-3 37-3 64
81D109	65-	74-53-	81D126	4 50-	5 09-3 65-4 18
81D110	75-	84-61-	81D127	5 10-	5 79-4 19-4 63
81D111	85-	96-69-	81D128	5 8-	6 59-4 64-5 27
81D112	97-1.09	78-88	81D129	6 6-	7 39-5 28-6 09
81D113	1.10-1.24	89-1.03	81D130	7 4-	8 39-6 10-6 73
81D114	1.25-1.39	1.04-1.14	81D131	8 4-	9 39-6 74-7 82
81D115	1.40-1.56	1.15-1.27	81D132	9 4-	10 4-7 83-8 54
81D116	1.57-1.76	1.28-1.45	81D133	10 5-	11 7-8 55-9 55
81D117	1.77-1.96	1.46-1.61	81D134	11 8-	13 4-9 56-10 7
81D118	1.97-2.16	1.62-1.82	81D135	13 5-	15 2-10 8-12 4
81D119	2.17-2.37	1.83-1.96	81D136	15 3-	17 2-12 5-14 0
81D120	2.38-2.59	1.97-2.16	81D137	17 3-	19 7-14 1-15 7
81D121	2.60-2.89	2.17-2.42	81D138		15 8-18 2
81D122	2.90-3.23	2.43-2.64			

G-E CR1026 A.C. Enclosed Starting Rheostats

For Single-Phase Repulsion-Induction Motors

40, 50 and 60 Cycles, Single-Phase



May be used with motors that do not require more than 150 per cent torque to start or longer than 30 seconds to attain full speed. Complies with N.E. M.A. Standard Resistor Classification No. 135.

Primarily for use with the single-phase repulsion-induction motors (Type SCR) where the inrush of current resulting from throwing the motor directly upon the line is objectionable. When started by being thrown directly upon the line, it requires from 250 to 300 per cent full-load current. While in many cases this starting current may not be objectionable, it is recommended that a starter be installed in every case with the 7½ and 10-hp. motors and with the smaller motors when it is desired to reduce the starting current.

Starter for use with motors up to and including 5-hp. 110 volts and 7½-hp. 220 volts is provided with button contacts. Larger size has renewable segments.

Motor Hp.	110 Volts Each	220 Volts Each	440 Volts Each
Up to 1	\$30.80	\$30.80	.....
1½	33.60	33.60	.....
2	33.60	33.60	.....
3	33.60	33.60	.....
5	36.00	36.00	.....
7½	69.00	50.00	\$53.00
10	70.00	74.00	53.00

When ordering state CR Number of rheostat and hp., voltage and frequency of motor.

G-E CR1034 A.C. Manual Reduced Voltage Starters

For Squirrel-Cage Induction Motors

For starting squirrel-cage induction motors on applications requiring not more than 15 seconds to attain full speed, once every 4 minutes for an hour.

Consists of an auto-transformer with taps, a switching device, an instantaneous under-voltage protective device and a hand-reset overload relay.

For wall mounting. The 2200-volt size is floor mounted. Switch is oil immersed. Can be furnished with ammeter attachment (including ammeter) at \$90. additional.

When ordering, specify the complete motor rating. Order ammeter attachment if desired.

220, 440, 550-Volt Motor Rating Starter Incl.

Hp.	Starter Incl. Relay Each	Form	Size	Hp.	Starter Incl. Relay Each	Form	Size
5-10	\$141.	K1	1	30	\$153.	K1	1
15	141.	K1	1	60	277.	K1	2
20	147.	K1	1	75	287.	K1	2
25	147.	K1	1	.....	.....	.....	.....
440, 550-Volt Motor Rating							
40	\$161.	K1	1	125	\$312.	K1	2
50	161.	K1	1	150	312.	K1	2
100	287.	K1	2	200	427.	K33	33
2200-Volt Motor Rating							
20	\$563.	F1A	.....	75	\$612.	F1A	.....
25	584.	F1A	.....	100	623.	F1A	.....
30	584.	F1A	.....	125	631.	F1A	.....
40	591.	F1A	.....	150	641.	F1A	.....
50	591.	F1A	.....	200	659.	F1A	.....
60	612.	F1A	.....	.....	.....	.....	.....
220-Volt Motor Rating							
40	\$259.	K1	2	125	\$410.	K33	3
50	267.	K1	2	150	1070.	K22	3
100	391.	K33	3	.....	.....	.....	.....

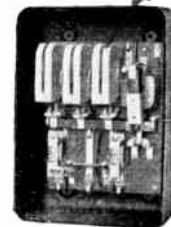
G-E CR7006 A.C. Magnetic Switches

For Throwing Single, 2 or 3-Phase Motors Directly on the Line

25, 50 and 60 Cycles



CR7006-D50B, Size 0, with Cover Removed



CR7006-D30B, Size 2, with Cover Removed

Believe Asbestos Acc Shield Similar to Types Used on Skid

These switches consist of a 2 or 3-pole magnetically-operated contactor with overload relays mounted on a base and enclosed in a suitable case. Provides undervoltage protection or release. May be operated by means of a push button station, float or pressure switch, etc.

Prices will be quoted on request on these switches designed specially for installation in dusty or corrosive atmospheres or in Class I Group D hazardous gas locations.

Order by CR number and specify rating of motor with which to be used and heater units required for overload protection.

110 Volts

Nomenclature	*Switch Each	†Push Button Station Each	—OMISSION PRICES—			MAX. HP.			No. Poles
			En-clos-ing Case Each	Neces-sary Relay Heaters Each	Re-lay Each	3 Ph.	2 Ph.	1 Ph.	
CR7006-D50A	\$15.00	\$2.50	\$1.25	\$.75	.....	.....	1	0	2
CR7006-D50B	17.50	2.50	1.25	1.50	.....	.....	1½	0	3
CR7006-D40G	17.50	2.50	1.25	.75	.....	.....	1½	1	2
CR7006-D40H	20.00	2.50	1.25	1.50	.....	.....	3	1½	1
CR7006-D30B	38.00	2.50	4.00	1.50	.....	.....	7½	3	2
CR7006-D 7B	63.00	2.50	9.00	1.50	.....	.....	10	7½	3
CR7006-D54B	140.00	2.50	18.75	1.50	.....	.....	25	4	3
CR7006-D38A	283.00	7.50	32.00	.....	\$45.00	.....	50	5	3

220 Volts

CR7006-D50A	\$15.00	\$2.50	\$1.25	\$.75	.....	.....	1½	0	2
CR7006-D50B	17.50	2.50	1.25	1.50	.....	.....	2	0	3
CR7006-D40G	17.50	2.50	1.25	.75	.....	.....	3	1	2
CR7006-D40H	20.00	2.50	1.25	1.50	.....	.....	5	3	1
CR7006-D30B	38.00	2.50	4.00	1.50	.....	.....	15	7½	2
CR7006-D7B	63.00	2.50	9.00	1.50	.....	.....	25	15	3
CR7006-D54B	140.00	2.50	19.00	1.50	.....	.....	50	4	3

440-600 Volts

CR7006-D50A	\$15.00	\$2.50	\$1.25	\$.75	.....	.....	1½	0	2
CR7006-D50B	17.50	2.50	1.25	1.50	.....	.....	2	0	3
CR7006-D40G	17.50	2.50	1.25	.75	.....	.....	5	1	2
CR7006-D40H	20.00	2.50	1.25	1.50	.....	.....	7½	5	1
CR7006-D30B	38.00	2.50	4.00	1.50	.....	.....	25	10	2
CR7006-D 7B	63.00	2.50	9.00	1.50	.....	.....	50	25	3

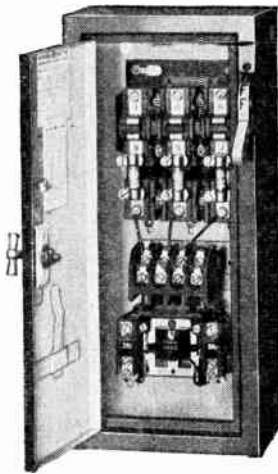
*Price of switch includes necessary relay heaters or relay, but no push button.

†Separately mounted.

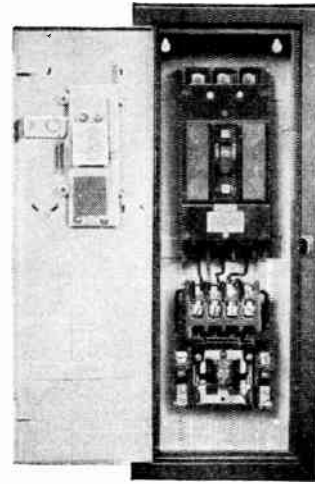
G-E CR7008 A.C. Combination Magnetic Switches

Full-Voltage Starters for Induction Motors

Air-Break or Oil-Immersed—Undervoltage Protection or Release—Thermal Overload Protection
Maximum Voltage, 600—25-60 Cycles—3 or 2-Phase



Size 1 Fusible Switch in Type 1 General-Purpose Case



Size 1 Switch with Air Circuit Breaker in Type 1 General-Purpose Case

This combination device consists of a standard full-voltage starter enclosed in the same case with a motor-circuit switch or an air circuit breaker, operated from the outside of the case. Fusible motor-circuit switches can be furnished with the air-break switches.

A CR7008 combination magnetic switch and a CR2940 momentary-contact "start"-"stop" push-button station make a simple and reliable equipment for starting a small alternating-current motor. The combination provides complete protection to both the motor and the operator. The switch and push-button station are completely enclosed, which prevents accidental contact with any live parts.

These switches can be used with any pilot control, such as float switches or pressure governors. They also are suitable for use as primary switches in connection with wound-rotor motors.

The fuse clips will accommodate fuses for average values of motor current when the fusing practice is in accordance

with the 1937 National Electrical Code recommendations, which require that:

1. Squirrel-cage motors should be fused at not more than 300% of rated motor current.
2. High-reactance motors rated at not more than 30 amperes should be fused at not more than 250% of rated motor current, or, if rated at more than 30 amperes, should be fused at not more than 200% of rated motor current.
3. Wound-rotor motors should be fused at not more than 150% of rated motor current.

Fuse clips must likewise be of a size which will accommodate the maximum rating of fuse calculated in accordance with the above percentages. It is always desirable to check the fuse-clip recommendations for a particular value of motor current, to insure that a fuse of suitable size can be used. In no case should the size of fuse used exceed 400% of rated motor current.

MAXIMUM HP.					Fuse-Clip Capacity, Amp.	208 and 220 Volts		In Type 5 Dust-Tight Case with Motor-circuit Switch		Oil-Immersed Switch for Corrosive Atmospheres (Type 5 Case) with Circuit Breaker		Oil-Immersed Switch in Type 8 Case for Hazardous Gas Locations with Circuit Breaker			
Squirrel-Cage	High-Reactance	Wound-Rotor	Single-Phase	Size No.		Including Relay Heaters Each	Approx. Ship. Wt. Lb.	Including Relay Heaters Each	Approx. Ship. Wt. Lb.	Including Relay Coils and Oil Each	Approx. Ship. Wt. Lb.	Including Relay Coils and Oil Each	Approx. Ship. Wt. Lb.		
3	3	5	2	1	30	\$41.00	25	...	\$59.00	40	\$126.00	125	\$145.00	140	
5	5	...	3	1	60	44.00	30	\$48.00	30	62.00					45
5	5	5	3	1	Unfused	36.00	25	...	...	54.00	40	176.00	174	201.00	200
7 1/2	7 1/2	10	...	2	60	70.00	55	74.00	55	93.00	90				
10	15	15	7 1/2	2	100	74.00	55	91.00	55	97.00	90	263.00	180	307.00	210
15	...	...	...	2	200	87.00	55	91.00	55	110.00	90				
15	15	15	7 1/2	2	Unfused	63.00	50	...	...	86.00	80	263.00	180	307.00	210
...	20	20	...	3	100	113.00	105	...	...	143.00	145				
25	25	25	10	3	200	119.00	105	125.00	105	149.00	145	263.00	180	307.00	210
25	25	25	...	3	Unfused	101.00	95	...	...	131.00	135				
30	30	30	15	3	Unfused	...	...	...	...	...	...	...	...	...	...
440 Volts															
7 1/2	7 1/2	7 1/2	5	1	30	\$45.00	30	\$57.00	30	\$63.00	45	\$126.00	125	\$145.00	140
7 1/2	7 1/2	7 1/2	5	1	Unfused	36.00	25	...	...	54.00	40				
15	15	25	7 1/2	2	60	74.00	55	88.00	55	97.00	90	176.00	174	201.00	200
25	25	...	10	2	100	79.00	55	88.00	55	102.00	90				
25	25	25	10	2	Unfused	63.00	50	...	...	86.00	80	263.00	180	307.00	210
...	40	50	...	3	100	113.00	105	...	...	143.00	145				
50	50	...	...	3	200	131.00	105	138.00	105	161.00	145	263.00	180	307.00	210
50	50	50	...	3	Unfused	101.00	95	...	...	131.00	135				

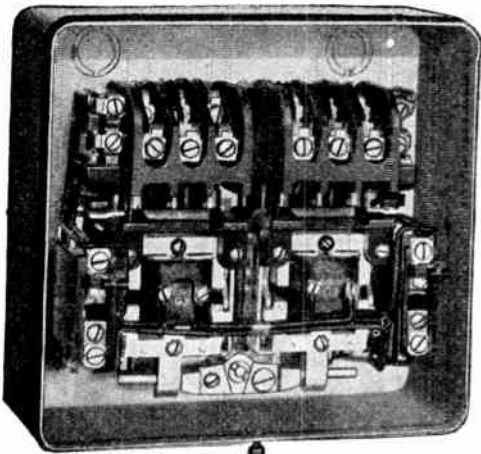
*Prices do not include fuses. Relay heaters may be omitted or additional ones furnished at 75 cents each.

†Also available in Type 5 Dust-Tight case.

Heaters for above switches are listed on another page.

G-E CR7009 A.C. Magnetic Reversing Switches—Sizes 1, 2, 3 and 4

110 to 600 Volts—Up to 100 Hp.



Size 1 Magnetic Reversing Switch with Cover Removed

G-E Type CR7009 Magnetic Switches are suitable for use with reversing motors which are thrown directly across the line or which are controlled by automatic starters. Each switch consists of two mechanically interlocked, magnetically operated, three-pole contactors with overload relay. The entire assembly is mounted in a suitable enclosure. The switches can be controlled remotely through push-button stations, limit switches, or other pilot devices.

Undervoltage Protection or Release. These switches are ordinarily operated by a momentary-contact Forward-Reverse-Stop push-button station. A normally open interlock is furnished on both the forward and the reverse contactors of all sizes of switches, and completes the holding circuit.

Overload Protection. Each switch is provided with a two-element hand-reset thermal overload relay. Provision is made for external resetting of the overload relays on Sizes 1 to 3 inclusive. On Size 4, it is necessary to open the door to reset the relay.

Type 1, General-Purpose Enclosures. Sizes 1 to 3 switches are enclosed in wall-mounted cases which have covers hinged on the side and which are held closed by clasps. Size 4 is provided with a floor-mounted case.

Ordering Directions. Order a magnetic reversing switch by CR number and complete number (root number plus suffix number).

Order a relay or two heaters from table at the bottom of this page.
Order CR2943-A300A push-button station separately.

110 Volts

Nomenclature	Root No.	SUFFIX No.			Without Push-Button Station Each	MAXIMUM Hp.		Size No.	Approx. Shp. Wt. Lb.	OMISSION PRICES	
		60 Cycles	50 Cycles	25 Cycles		3 or 2-Phase	Single Phase			Enclosing Case Each	Heater Each
CR7009-B50L	8235160	G2	G7	G17	\$38.00	1½	1	0	18	\$2.00	\$1.50
CR7009-B51L	8235184	G2	G7	G17	44.00	3	1½	1	19	3.00	1.50
CR7009-B18C	4383048	G2	G7	G17	84.00	7½	3	2	80	8.00	1.50
CR7009-B24A	4383441	G102	G107	G117	131.00	10	7½	3	90	13.00	1.50
CR7009-B33A	8234521	G2	G7	G17	131.00	15	.....	3	125	13.00	1.50
CR7009-B34A	8234522	G2	G7	G17	329.00	25	.....	4	165	24.00	1.50
220 Volts											
CR7009-B50L	8235160	G3	G8	G18	\$38.00	2	1½	0	18	\$2.00	\$1.50
CR7009-B51L	8235184	G3	G8	G18	44.00	5	3	1	19	3.00	1.50
CR7009-B18C	4383048	G3	G8	G18	84.00	15	7½	2	80	8.00	1.50
CR7009-B24A	4383441	G103	G108	G118	131.00	25	15	3	90	13.00	1.50
CR7009-B33A	8234521	G3	G8	G18	131.00	30	.....	3	125	13.00	1.50
CR7009-B34A	8234522	G3	G8	G18	329.00	50	.....	4	165	24.00	1.50
440 Volts											
CR7009-B50L	8235160	G4	G9	G19	\$38.00	2	1½	0	18	\$2.00	\$1.50
CR7009-B51L	8235184	G4	G9	G19	44.00	7½	5	1	19	3.00	1.50
CR7009-B18C	4383048	G4	G9	G19	84.00	25	10	2	80	8.00	1.50
CR7009-B24A	4383441	G104	G109	G119	131.00	50	.....	3	90	13.00	1.50
CR7009-B34A	8234522	G4	G9	G19	329.00	100	.....	4	165	24.00	1.50
550 Volts											
CR7009-B50L	8235160	G5	G10	G20	\$38.00	2	1½	0	18	\$2.00	\$1.50
CR7009-B51L	8235184	G5	G10	G20	44.00	7½	5	1	19	3.00	1.50
CR7009-B18C	4383048	G5	G10	G20	84.00	25	10	2	80	8.00	1.50
CR7009-B24A	4383441	G105	G110	G120	131.00	50	.....	3	90	13.00	1.50
CR7009-B34A	8234522	G5	G10	G20	329.00	100	.....	4	165	24.00	1.50
600 Volts											
CR7009-B50L	8235160	G6	G11	.....	\$38.00	2	1½	0	18	\$2.00	\$1.50
CR7009-B51L	8235184	G6	G11	G21	44.00	7½	5	1	19	3.00	1.50
CR7009-B18C	4383048	G6	G11	G21	84.00	25	10	2	80	8.00	1.50
CR7009-B24A	4383441	G106	G111	G121	131.00	50	.....	3	90	13.00	1.50
CR7009-B34A	8234522	G6	G11	G21	329.00	100	.....	4	165	24.00	1.50

Price includes overload relays or heaters.

Accessories



Two-Button Station for General-Purpose Applications



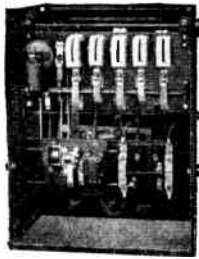
Master Switch Control Station

These magnetic reversing switches are generally controlled by push-button stations. They can also be controlled by a small master switch. Many applications, such as motor-operated doors and windows, valves and machine tools, require either a geared-type or track-type limit switch in addition to the reversing switch and push-button station. Complete information and prices will be furnished on application.



G-E CR7051 A.C. Magnetic Reduced Voltage Starters

For Squirrel-Cage Induction Motors
60 Cycles



Size 1 Starter

Provides remote control for constant-speed squirrel-cage induction motors on compressors, blowers and any application that does not require longer than 15 seconds to attain full speed, once every 4 minutes for an hour.

Consists chiefly of an autotransformer for supplying reduced voltage to motor during acceleration, accelerating contactor which connects autotransformer to line and motor to low-voltage taps, line contactor, temperature overload relay, a definite time relay which causes accelerating contactor to open and line contactor to close after a predetermined time.

Size No. 1—3-Phase, 3-Wire

MOTOR RATING H.P.	Volts	†No.	*Each	MOTOR RATING H.P.	Volts	†No.	*Each
5	220	4386985G3	\$236.00	20	440	4386985G7	\$259.00
	440	4386985G4	236.00		550	4386985G8	259.00
	550	4386985G5	236.00	25	220	4386985G6	277.00
7½	220	4386985G3	236.00	440	4386985G7	259.00	
	440	4386985G4	236.00	550	4386985G8	259.00	
	550	4386985G5	236.00	30	220	4386985G9	287.00
10	220	4386985G3	236.00	440	4386985G10	287.00	
	440	4386985G4	236.00	550	4386985G11	287.00	
	550	4386985G5	236.00	40	440	4386985G12	311.00
15	220	4386985G3	236.00	550	4386985G13	311.00	
	440	4386985G4	236.00	50	440	4386985G12	311.00
	550	4386985G5	236.00	550	4386985G13	311.00	
20	220	4386985G6	277.00				

Size No. 1—2-Phase, 3-Wire

5	220	4386983G2	\$236.00	20	440	4386983G6	\$259.00
	440	4386983G3	236.00		550	4386983G7	259.00
	550	4386983G4	236.00	25	220	4386983G5	277.00
7½	220	4386983G2	236.00	440	4386983G6	259.00	
	440	4386983G3	236.00	550	4386983G7	259.00	
	550	4386983G4	236.00	30	220	4386983G8	287.00
10	220	4386983G2	236.00	440	4386983G9	287.00	
	440	4386983G3	236.00	550	4386983G10	287.00	
	550	4386983G4	236.00	40	440	4386983G11	311.00
15	220	4386983G2	236.00	550	4386983G12	311.00	
	440	4386983G3	236.00	50	440	4386983G11	311.00
	550	4386983G4	236.00	550	4386983G12	311.00	
20	220	4386983G5	277.00				311.00

Ammeter Attachment (Includes Ammeter)...each \$90.00

*Price is for compensator, relay heater units and push-button station. Relay heater units may be omitted or additional ones supplied at 75 cents each; push-button station may be omitted or additional ones supplied at \$2.50 each.

†No. does not include relay heater units.

G-E Synchronous Motor Controllers

2 or 3-Phase, 3-Wire 50 or 60 Cycles
Undervoltage Protection (Time Delay above 600 Volts)
Thermal Overload Protection of Stator and Squirrel-Cage Windings
Automatic Speed-Responsive Field Control



Typical CR7061 Reduced-Voltage Magnetic Controller for Low-Voltage Application (below 600 Volts)

Available in three types: full-voltage, magnetic; reduced-voltage, magnetic; and reduced voltage, semi-magnetic. Magnetic controllers are controlled by push buttons, whereas semi-magnetic controllers are equipped with manual starting devices. Both types have automatic field application and removal equipment.

The following equipment is common to all types: a.c. line ammeter, d.c. field ammeter, field applying contactor and field discharge contactor with discharge resistor; slip cycle impedance relay and auxiliary devices to apply field at critical speed and favorable angle and to remove field on pull-out within first slip-cycle, stator temperature overload relay and temperature squirrel-cage protective relay, and drilling for exciter field rheostat.

The full-voltage magnetic controllers employ a magnetically operated contactor for connecting the motor to the line, and the semi-magnetic type is equipped with a manually-operated compensator.

Reduced-voltage magnetic controllers are furnished with starting and running contactors and an auto-transformer for supplying reduced voltage to the motor in starting. The accelerating time is automatically determined by a Telechron motor operated transfer relay, which is adjustable.

The reduced-voltage semi-magnetic controllers are similar to the magnetic type except that the starting and running devices are manually-operated.

Rating of Controller Hp.	Power-Factor	Voltage Range	Reduced-Voltage Controller Magnetic CR7061		Controller Semi-Magnetic CR7062		Full-Voltage Controller Magnetic CR7065	
			Each	Panel No.	Each	Panel No.	Each	Panel No.
25	20	220	\$868.00	111	\$728.00	121	\$623.00	131
		440	801.00	111	728.00	121	595.00	131
		550	801.00	111	728.00	121	595.00	131
		2200	1905.00	212	1144.00	221	1098.00	412
30	25	220	868.00	111	728.00	121	623.00	131
		440	801.00	111	728.00	121	595.00	131
		550	1905.00	111	728.00	121	595.00	131
		2200	801.00	212	1165.00	221	1098.00	412
40	30	220	886.00	112	734.00	121	623.00	132
		440	886.00	111	734.00	121	623.00	131
		550	886.00	111	734.00	121	623.00	131
		2200	1931.00	212	1165.00	221	1098.00	412
50	40	220	1085.00	112	840.00	123	693.00	132
		440	899.00	111	742.00	121	623.00	131
		550	899.00	111	742.00	121	623.00	131
		2200	1945.00	212	1172.00	221	1098.00	412
60	50	220	1085.00	112	848.00	123	693.00	132
		440	927.00	111	742.00	121	623.00	131
		550	927.00	111	742.00	121	623.00	131
		2200	1945.00	212	1172.00	221	1098.00	412
75	60	220	1275.00	114	858.00	123	847.00	134
		440	1098.00	112	858.00	123	693.00	132
		550	1098.00	112	858.00	123	693.00	132
		2200	1973.00	212	1193.00	221	1098.00	412

Cabinetrol Unit Control Cabinets

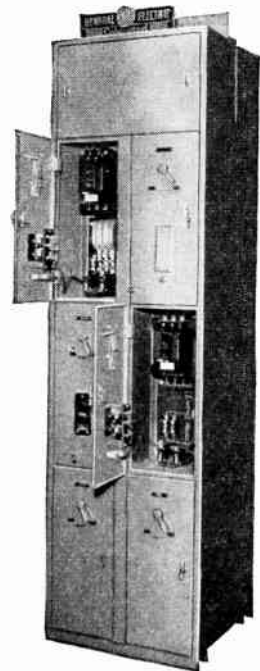
A dead-front unit control cabinet which is completely assembled at the factory, so that the user needs only to make connections for his motor and control cables at the time of installation.

Each individual panel is completely coordinated to give proper short circuit protection to bus, wiring, and all branch circuits. Thermal protection is provided for each individual motor circuit.

Case is made from special, smooth $\frac{3}{8}$ -inch sheet steel with welded outside joints which are seam welded and ground to a smooth finish.

Each compartment has its own door and is segregated from the neighboring compartments by steel barriers.

Doors are of the pan type with edges turned back 90° and mounted on fully concealed hinges. Doors close into deep, L-shaped flanges providing a construction which effectively excludes dust. Each door is equipped with T-shaped operating handles and provided with key-operated cylinder locks. A engraved Textolite nameplate on each door identifies each control unit.



Operating handles for motor circuit switches and breakers, except incoming line breakers, are mounted on the compartment doors.

Operating mechanisms for incoming line breakers are inside of the door to prevent unintentional shutdown of entire equipment.

Operating mechanisms for motor starters are so interlocked that the door cannot be opened unless the handle is in the Open position. A locking bar is provided for all motor-starter mechanisms so that they can be padlocked in either the On or Off position. A reset button is provided in the door of each compartment for resetting the overload relay with the door closed.

Terminal boards are accessible through full-length rear doors whose handles have cylinder-type, key-operated locks.

Furnished with a 4-inch lifting angle to facilitate installation.

Starters are available for synchronous, squirrel-cage, or wound-rotor motors requiring up to N.E.M.A. size 6 contactors. Either reduced-voltage or full-voltage, reversing or non-reversing control units are available.

Can be arranged for throat connection to the source of power.

All devices, including starters, transformers, reactors, rheostats, resistors, meters, or instruments are wired, assembled, and tested at the factory. Push button stations, selector switches, and indicating lights can be mounted on the doors of standard compartments. Dry-type transformers up to 7½ kilovoltamperes, for control or lighting, can be installed, if required.

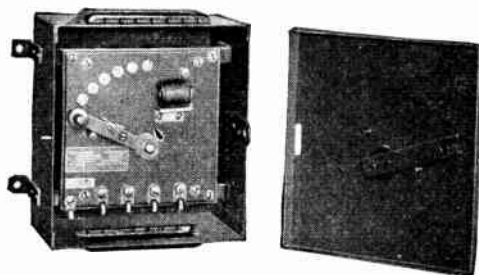
Available in 24 or 40-inch depth.

Pearl-gray lacquer finish is standard.

G-E CR1003 D.C. Enclosed Heavy Duty Starting Rheostats

For Series, Shunt or Compound-Wound Motors

N.E.M.A. Resistor Class. $\left\{ \begin{array}{l} \text{Up to 30 Hp., 32 \& 115 Volts; 50} \\ \text{Hp., 230 \& 350 Volts; No. 115} \\ \text{Above 30 Hp., 32 \& 115 Volts; 50} \\ \text{Hp., 230 \& 530 Volts; No. 135} \end{array} \right.$



This heavy duty starting rheostat affords a convenient, simple means of providing starting and smooth acceleration for all kinds of d.c. motors.

Provides undervoltage protection.

Order by CR number and number and state rating of motor with which rheostat is to be used.

32 Volts

No.	Each	Motor Hp.	Approx. Ship. Wt. Lb.	No.	Each	Motor Hp.	Approx. Ship. Wt. Lb.
2021100G15	\$19.60	1/4	20	2021000G31	\$28.00	1 1/2-2	40
2021100G17	19.60	1/2	20	2042441G7	59.00	3	120
2021000G29	28.00	3/4-1	40	2042441G8	66.00	5	120

115 Volts

2021100G3	\$19.60	1/8-1/2	20	2042593G2	\$101.00	20	175
2021100G7	19.60	3/4-1	20	2042593G3	123.00	25	175
2021000G3	28.00	1 1/2-2	40	2042593G4	132.00	30	175
2021000G7	28.00	3	40	2091686G2	297.00	40	400
2021000G11	35.00	5	50	2091687G2	384.00	50	550
2042440G2	57.00	7 1/2	80	2091687G4	395.00	60	550
2042441G2	71.00	10	90	2091687G5	395.00	75	550
2042441G3	77.00	15	90	.....	.....	.....	.....

230 Volts

2021100G5	\$19.60	1/8-1/2	20	2042441G6	\$81.00	25	105
2021100G9	19.60	3/4-1	20	2042593G5	101.00	30	175
2021000G5	28.00	1 1/2-2	40	2042593G8	132.00	40	175
2021000G9	28.00	3	50	2042593G9	139.00	50	175
2021000G13	35.00	5	50	2091686G4	308.00	60	400
2021000G15	36.00	7 1/2	50	2091686G5	308.00	75	400
2042440G3	64.00	10	105	2091687G6	395.00	100	550
2042441G4	74.00	15	105	2091687G7	410.00	125	550
2042441G5	74.00	20	105	2091687G8	410.00	150	550

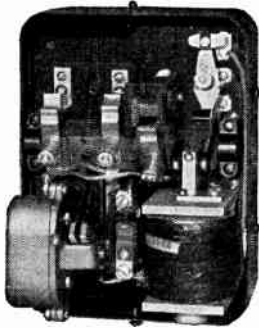
550 Volts

2046402G3	\$35.00	1/8-1/2	45	2091688G6	\$244.00	25	350
2046402G5	35.00	3/4-1	45	2091688G7	244.00	30	350
2046402G7	35.00	1 1/2-2	45	2091688G9	244.00	40	350
2046402G9	35.00	3	50	2091689G4	253.00	50	350
2046402G11	36.00	5	50	2091690G4	308.00	60	400
2046402G13	43.00	7 1/2	50	2091690G5	308.00	75	400
5726619G3	112.00	10	80	5726675G7	308.00	100	400
5726619G5	116.00	15	80	5726676G6	330.00	125	400
5726619G7	123.00	20	80	5726676G7	330.00	150	400

G-E CR4052 D.C. Definite Mechanical Time Starters

Constant Speed—Non-Reversing—Non-Jogging—Without Dynamic Braking

Maximum Rating, 5 Hp., 115 Volts; 10 Hp., 230 Volts



Typical CR4052-A1L Starter with Cover Removed

CR4052-A1L and -A2L starters are non-reversing, non-jogging, general purpose starters designed for use with constant-speed direct current motors up to 5 hp. 115 volts and 10 hp. 230 volts. They consist of a solenoid-operated multifinger contactor and a temperature overload relay (either hand or automatic reset), all mounted on a molded Textolite base on the back of which is mounted the Class 115 starting resistor. The multifinger contactor has a blowout and arc chute on the line contact to interrupt the arc quickly.

The starters can be applied, within their rating, to constant-speed motors up to and including 1800 rpm. that do not require more than 150% full-load torque to start nor longer than 10 seconds to attain full speed. Before using these starters on 3600-rpm. motors, or on motors that require longer than 10 seconds to attain full speed, the application should be checked with the nearest district office. These starters provide isothermic overload protection, hand or automatic

reset, and undervoltage protection or release depending on the accessory used.

Supplied in N.E.M.A. Type 1 enclosing case. Order by number and form, and specify motor with which starter is to be used. Order relay heater from table below.

Non-reversing, non-jogging pushbutton stations; CR-2943A200A, \$2.50; CR2940-2A1, \$7.50.

Heaters for Thermal Overload Devices

Listed values are for motors rated 40°C. continuous. For motors rated 50°C. continuous, use heaters one size smaller than listed.

No.	Full-Load Current of Motor, Amperes	No.	Full-Load Current of Motor, Amperes	No.	Full Load Current of Motor, Amperes
81D228	.315-.353	81D241	1.72-1.91	81D253	9.5-11.0
81D229	.354-.418	81D242	1.92-2.24	81D254	11.1-11.8
81D230	.419-.465	81D243	2.25-2.5	81D255	11.9-13.2
81D231	.466-.53	81D244	2.51-3.0	81D256	13.3-15.8
81D232	.54-.64	81D245	3.1-3.4	81D257	15.9-19.0
81D233	.65-.73	81D246	3.5-3.9	81D258	19.1-22.1
81D234	.74-.83	81D247	4.0-4.8	81D259	22.2-26.0
81D235	.84-.93	81D248	4.9-5.3	81D260	26.1-28.5
81D236	.94-1.02	81D249	5.4-5.7	81D261	28.6-33.1
81D237	1.03-1.15	81D250	5.8-6.8	81D262	33.2-38.7
81D238	1.16-1.3	81D251	6.9-7.8	81D266	38.8-43.5
81D239	1.31-1.45	81D252	7.9-8.9		
81D240	1.46-1.71				

115 Volts				No. of Accelerating Points	Approx. Ship. Wt. Lb.
No.	*Each	Form	Hp.		
6932902G10	\$58.00	A1L	1/2-3/4	3	20
6932902G11	58.00	A1L	1-1 1/2	3	20
6932902G12	58.00	A1L	2	3	20
6932902G13	58.00	A1L	3	3	20
6932903G5	105.00	A2L	5	3	31
.....

230 Volts				No. of Accelerating Points	Approx. Ship. Wt. Lb.
No.	*Each	Form	Hp.		
6932902G6	\$58.00	A1L	1/2-3/4	3	20
6932902G7	58.00	A1L	1-1 1/2	3	20
6932902G8	58.00	A1L	2	3	20
6932902G9	58.00	A1L	3	3	20
6932902G14	65.00	A1L	5	3	20
6932903G6	76.00	A2L	7 1/2	3	31
6932903G7	105.00	A2L	10	3	31

G-E Type CR4061 D.C. Definite Magnetic-Time, Heavy Duty Starters

Constant Speed—Non-Reversing—Jogging—Without Dynamic Braking

Maximum Rating, 10 Hp., 115 Volts; 20 Hp., 230 Volts



Typical CR4061-A1C Starter with Cover Removed

Order a starter by number and form. Order one relay heater from table above.

Pushbutton Station

Non-reversing, jogging. This pushbutton station has pigtail and latch on jog, and is for use with starters listed below. CR2940-3DPI.....each \$11.75

Modifications

Field-protective relay, \$40.00; field decelerating relay, \$53.00; fused, control-circuit knife switch, \$32.20; control-circuit fuses, \$16.80; auxiliary control relay, \$40.00; jogging relay, for use with pushbutton station that has no jog attachment, non-reversing, \$40.00.



Typical CR4061-A1A, 1 to 3 Hp. Definite Magnetic Time-Heavy Starter

115 Volts				No. of Accelerating Points	Approx. Ship. Wt. Lb.
No.	*Each	Form	Hp.		
4389745G9	\$106.00	A1A	1/2-3/4	2	25
4389745G10	106.00	A1A	1-1 1/2	2	25
4389745G29	106.00	A1A	2	2	25
4389745G30	109.00	A1A	3	2	25
5367125G6	141.00	A1C	5	3	60
5367125G7	213.00	A1C	7 1/2	3	60
5367125G3	219.00	A1C	10	3	60
.....

230 Volts				No. of Accelerating Points	Approx. Ship. Wt. Lb.
No.	*Each	Form	Hp.		
4389745G3	\$106.00	A1A	1/2-3/4	2	25
4389745G4	106.00	A1A	1-1 1/2	2	25
4389745G31	106.00	A1A	2	2	25
4389745G32	106.00	A1A	3	2	25
4389745G33	109.00	A1A	5	2	25
5367125G10	137.00	A1C	7 1/2	3	60
5367125G4	141.00	A1C	10	3	60
5367125G8	206.00	A1C	15	3	60
5367125G9	213.00	A1C	20	3	60

*Price includes relay heater, but no pushbutton station. Relay heaters may be omitted or additional ones supplied at 75 cents each.

G-E CR2940 Pushbutton Stations



CR2940 pushbutton stations are primarily intended for use in the control circuits of various magnetic controllers. The large contacts and substantial construction of these heavy-duty stations make them well able to withstand the frequent operation and ordinary rough usage of machine tool and similar applications.

The stations listed are divided into three general classes: momentary contact, maintaining contact and a combination of momentary and maintaining contacts. With a momentary contact the circuit is completed or interrupted only as long as the operator's finger depresses the button. This feature is required when the station is used with a controller that must provide under-voltage protection. A maintaining contact holds the circuit open or closed as does an ordinary knife switch.

Typical 3 Button Station for Front-of-Panel or Wall Mounting

Available in two sizes: standard-duty, suitable for use with contactors up to and including 150 amperes, and heavy duty, for use with any size contactor.

General-Purpose, Momentary-Contact—Single Button

Nomenclature	Nameplate Markings	Duty	Each
CR2943-A100A	Stop.....	Standard	\$2.50
CR2943-A100D	Start.....	Standard	2.50
CR2940-1H1	Start.....	Heavy	5.00
CR2940-1A1	Stop.....	Heavy	5.00
CR2940-1E1	Reset.....	Heavy	5.00

2 Buttons



Nomenclature	Nameplate Markings	Duty	Each
CR2943-A200A	Start—Stop.....	Heavy	\$7.50
CR2940-2E1	Raise—Lower.....	Heavy	7.50
CR2940-2F1	Up—Down.....	Heavy	7.50
CR2943-A200F	Raise—Lower.....	Standard	3.10
CR2943-A200A	Start—Stop.....	Standard	2.50
CR2943-A200J	Up—Down.....	Standard	3.10

3 Buttons

CR2940-3A1	Forward—Reverse—Stop..	Heavy	\$10.00
CR2943-A300A	Forward—Reverse—Stop..	Standard	7.50
CR2943-A300C	Open—Close—Stop.....	Standard	7.50

4 Buttons

CR2940-4A1	Forward—Jog Forward—Reverse—Stop.....		\$16.25
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5 Buttons

CR2940-5A1	Forward—Jog Forward—Reverse—Jog—Reverse—Stop.....		\$20.00
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Maintaining Contact One Selector Switch

CR2940-A2	Safe Stop—Run.....		\$6.25
CR2940-B2	Stop—Run.....		6.25
CR2940-C2	Slow—Fast.....		6.25
CR2940-D2	Creep—Normal.....		6.25
CR2940-E2	Open—Close.....		6.25
CR2940-F2	On—Off.....		6.25
CR2940-G2	Stop—Start.....		6.25
CR2940-H2	Raise—Lower.....		6.25

Stations for Special Applications



CR2943-E200B

CR2943-E200B	Start—Stop (Watertight)		\$8.75
CR2940-2A7	Start—Stop (Watertight)		15.00

G-E CR2931 Enclosed Float Switches

For A.C. or D.C. Motors



Form D



Form P

Suitable for use in the control circuit of a.c. or d.c. automatic starters, and, except for the Form P, can directly handle the circuits of small motors.

These switches, as furnished, are arranged for tank operation, that is, the switch closes as the lower liquid level is reached, and opens as the top level is reached. This action may be easily changed for sump operation by interchanging the float and counterweight. Standard floats should not be subjected to pressure. Quotation on special floats will be furnished on request.

All switches are drip and splash-proof and suitable for outdoor installation where they are not subjected to snow or sleet. Where the liquid whose level is to be controlled is subject to freezing, a float switch should not be used.

All switches are quick acting when closing and opening, and this insures a minimum of arcing and burning of the contacts.

Form	No. of Poles	Description	Each
A	Dbl.	For Clamping to Inside Top Edge of Tank; Operated by Rod and Float; Range, 10 Inches to 5 Feet.....	\$46.
A	4	Same as Form A Double-Pole.....	51.
B	Dbl.	For Bolting to Tank Cover; Requires Guide in Cover for Operating Rod; Range, 10 Inches to 3½ Feet.....	49.
B	4	Same as Form B Double-Pole.....	54.
C	Dbl.	For Bolting to Tank Cover; Range, 10 Inches to 3½ Feet.....	51.
C	4	Same as Form C Double-Pole.....	56.
D	Dbl.	†For Bolting to Tank Cover; Operated by Chain and Float; Suitable for Any Depth of Tank or Any Variation in Water Level Not Less Than 10 Inches.....	*51.
D	4	†Same as Form D Double-Pole.....	*56.
L	Dbl.	†Operated by Chain and Float; For Any Variation in Water Level Not Less Than 5 Inches.....	*36.
M	Dbl.	Rod-Operated; Range, 2½ In. to 4½ Ft.	36.
P	Sgl.	§Operated by Chain and Float; For Any Variation in Water Level Not Less Than 2 Inches.....	†20.
AW	Sgl.	Same as Form P, Except with Mercury-Tube, Heavy Duty Connectors.....	†23.

Order by CR and Form numbers. Specify number poles of switch.

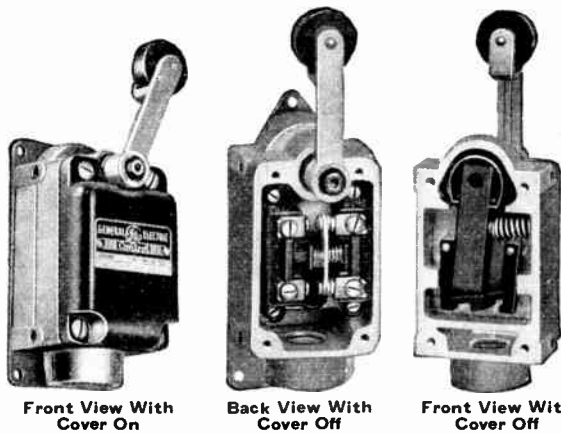
*Price includes 15 feet of bronze chain. If more is required add 15 cents for each additional foot.

†Price includes 15 feet of brass chain. If more is required add 5 cents for each additional foot.

To obtain maximum operating range: †Deduct 3½ feet from length of chain; §deduct 1½ feet from length of chain.

G-E CR9440 Lever-Type Limit Switches

CR9440-J1D

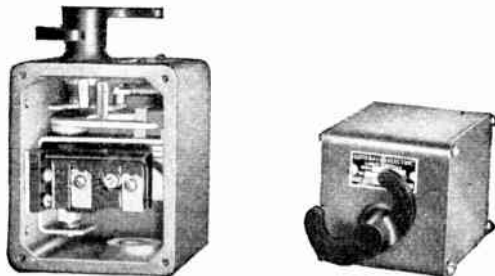
Front View With
Cover OnBack View With
Cover OffFront View With
Cover Off

The No. CR9440-J1D is a sturdy, lever-operated limit switch enclosed in a strong, die-cast case and a moulded phenolic cover. Its oilproof construction and single-pole, double-throw, double-break silver contacts of snap-action design make it very suitable for machine tool and miscellaneous service.

Complete operation of the switch is obtained by a 12 degree travel of the lever with an overtravel of 24 degrees in either the clockwise or counterclockwise directions of rotation.

As supplied by the factory, this switch is arranged for clockwise operation, looking at its cover side. The direction of operation can be reversed by removing the base plate and transferring the return spring to the opposite side of the swing bar.

CR9440-B1B

With Side Plate
Removed

Closed

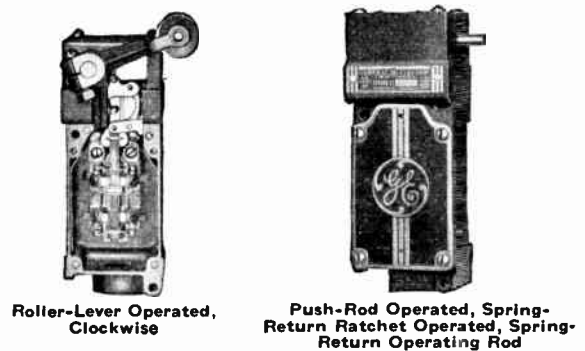
A heavy-duty, snap-action, single-pole, double throw switch with two independent circuits. This limit switch should be used whenever a small, compact, heavy-duty reversing limit switch is required to open or close a control circuit and where maintained accuracy of operation is of primary importance. Its field of application includes tapping machines, threading machines, grinder tables, welding machines, and other reciprocating machines where a reversing limit switch is applicable.

The contacts are double-break, and both stationary and movable tips are of fine silver to insure long life and dependable operation.

The movable contacts are held in either position by a small Alnico magnet acting on an iron yoke. When the yoke is broken away from the magnet face, by direct mechanical action of the operating lever, a sturdy spring snaps the contact assembly to the opposite position, where it is held in by the same Alnico magnet until the yoke is broken away in the opposite direction. For this reason, the operating point is determined entirely by the position of the operating lever and is independent of tension in the spring. This construction insures maintained accuracy of operation in spite of changes in spring tension caused by aging under repeated operation.

Switch is enclosed in an oiltight steel enclosing case with two gasketed side plates and an opening in the rear for 1/2-inch conduit connection. With the side plates removed, the terminals are easily accessible and large working clearances make the switch easy to wire and install.

CR9440-D2

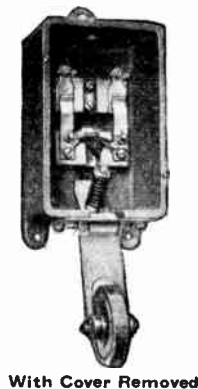
Roller-Lever Operated,
ClockwisePush-Rod Operated, Spring-
Return Ratchet Operated, Spring-
Return Operating Rod

A lever-operated, push-rod-operated or plunger-operated limit switch. All except the plunger-operated form have snap-action contacts. A variety of contact arrangements is available, which can be changed in the field from normally open to normally closed operation, or vice versa. The operating heads can be interchanged, or turned 180°. Holes are provided for mounting the switch on either its back or its side. These features allow maximum flexibility in application.

The switches are available in both open and enclosed forms. The open switches are particularly adapted to built-in applications where space is limited. Frames and plungers are constructed of molded Textolite. The contacts are solid silver and are designed to close with a rolling action. All switches are equipped with flag terminals to accommodate two wires on each terminal. The construction is extremely compact and flexible. The enclosed form has a die-cast case, and is provided with velumoid gaskets and grease seals at shaft journals to make the switch oilproof for machine-tool use.

Application extends to virtually any automatic equipment where a traverse motion must be converted into control of an electric circuit, particularly where the motion is slow and snap-action contacts are necessary to prevent burning of the contact tips.

CR9440-LS416

With Cover
Removed

This hatchway-type limit switch is of lever construction, and is particularly for mounting in the hatch of an elevator. Although the switch is light and compact to facilitate mounting where space is limited, it is substantially built and is suitable for severe service. Only a small amount of pressure is needed to operate the roller lever. The Forms A, B and C have a rubber-tired roller to eliminate noise.

The switch is obtainable with either one open, one closed, one open and one closed (with overlapping or non-overlapping contacts), or two closed circuits. The various forms cannot be conveniently interchanged in the field.

G-E CR9440 Lever-Type Limit Switches
For Miscellaneous and Machine Tool Service—Track Type

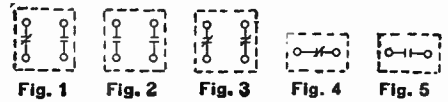
Description	Form and Type of Switch	*Each	Roller Lever, Spring Return Operation			CONTACT RATINGS, INDUCTIVE LOAD CARRYING AND BREAKING, MAXIMUM AMPERES								Approx. Ship. Wt. Lb.	
			No. of Circuits Norm. Open	Devel. Norm. opment Fig.	D.C. CIRCUITS				A.C. CIRCUITS						
					115 Volts	230 Volts	550 Volts	110 Volts	220 Volts	440 Volts	550 Volts				
Oilproof, Snap-Action, C. W. or C. C. W. Rotation, 1/2-In. Conduit	CR9440-JIC	\$7.50	†1	1	1	2	.5	.8	.25	30	15	7	5	4	
	CR9440-JID	7.50	†1	1	1	2	.5	.8	.25	30	15	7	5	4	
Snap-Action Silver Contacts; Oilproof Case.....	CR9440-D2AA	10.00	2	2	2	1	.5	.15	.15	30	15	7	5	3	
	CR9440-D2BA	10.00	2	3	1	5	.5	.15	.15	30	15	7	5	3	
	CR9440-D2CA	10.00	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3
	CR9440-D2DA	10.00	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3
	CR9440-D2AB	10.00	2	2	2	1	5	.5	.15	.15	30	15	7	5	3
	CR9440-D2BB	10.00	2	3	1	5	.5	.15	.15	30	15	7	5	3	
	CR9440-D2CB	10.00	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3
	CR9440-D2DB	10.00	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3
	Alnico Snap-Action; Oilproof Case; Forked Lever (Offset).....	CR9440-B1B	\$13.75	†1	1	1	4	1.2	.4	30	15	7	5	5	
	Silver Contacts; Oilproof Spring Return.....	CR9440-D2AF	\$6.25	2	2	2	1	.5	.15	.15	30	15	7	5	3
CR9440-D2BF		6.25	2	3	1	5	.5	.15	.15	30	15	7	5	3	
CR9440-D2CF		6.25	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3
CR9440-D2DF		6.25	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3
CR9440-D2AC		\$10.00	2	2	2	1	.5	.15	.15	30	15	7	5	3	
Snap-Action Silver Contacts; Oilproof Case.....	CR9440-D2BC	10.00	2	3	1	5	.5	.15	.15	30	15	7	5	3	
	CR9440-D2CC	10.00	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3
	CR9440-D2DC	10.00	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3
	CR9440-D2AD	10.00	2	2	2	1	5	.5	.15	.15	30	15	7	5	3
	CR9440-D2BD	10.00	2	3	1	5	.5	.15	.15	30	15	7	5	3	
	CR9440-D2CD	10.00	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3
	CR9440-D2DD	10.00	†1	1	1	1	5	.5	.15	.15	30	15	7	5	3

Hatchway, Elevator Service

Description	Form and Type of Switch	*Each	Roller Lever, Spring Return			CONTACT RATINGS, INDUCTIVE LOAD CARRYING AND BREAKING, MAXIMUM AMPERES								Approx. Ship. Wt. Lb.
			115 Volts	230 Volts	550 Volts	110 Volts	220 Volts	440 Volts	550 Volts					
3-Inch Rubber-Tired Roller (End) ..	CR9440-LS416A	\$13.75	1	4	5	1.5	.5	50	20	8	6	14		
	CR9440-LS416B	15.00	2	3	5	1.5	.5	50	20	8	6	14		
	CR9440-LS416C	13.75	1	5	5	1.5	.5	50	20	8	6	14		
3-Inch Textolite Roller (End)	CR9440-LS416E	15.00	2	3	5	1.5	.5	50	20	8	6	14		
	CR9440-LS416AA	20.00	†1	1	1	5	1.5	.5	50	20	8	6	14	
	CR9440-LS416AB	20.00	†1	1	1	5	1.5	.5	50	20	8	6	14	

*Price of switch includes one of the following operating levers:
 No. 2879404G5 roller lever with 3-inch Textolite roller.
 No. 2804448G5 roller lever with 1-inch steel roller.
 No. 894946G1 straight lever.

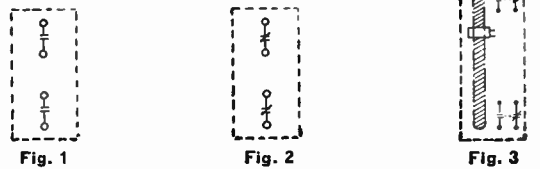
†Non-overlapping contacts; one circuit is broken before the other is closed.
 ‡Overlapping contacts; one circuit is broken after the other is closed.



G-E CR9441 Direct-Connected, Rotating-Type Limit Switches

CR9441-LS424. This geared-type, general-purpose limit switch has two cam-operated switch elements which make it suitable for limiting travel in two directions.

CR9441-D2B is a durable, reversing, rotating limit switch, traveling-nut type, built in a heavy, cast-iron, watertight enclosure. Primarily developed for use with valves, the switch can be used successfully for any application where this type of limit switch is required to limit the range of equipment operation.



For Miscellaneous and Machine Tool Service—Cam-Operated, Reversing

Description	Form and Type of Switch	Each	TURNS OF DRIVING SHAFT			No. of Contact Units	Devel. opment Fig.	CONTACT RATINGS, INDUCTIVE LOAD CARRYING AND BREAKING, MAX. AMP.								Approx. Ship. Wt. Lb.
			Min.	Max.	Over-travel			D.C. CIRCUITS				A.C. CIRCUITS				
								115 Volts	230 Volts	110 Volts	220 Volts	440 Volts	550 Volts			
General Purpose ..	CR9441-C2G	\$17.50	1/2	120	3 1/2	2 N.C.	2	1.5	.5	30	15	7	5	10		
	CR9441-C2H	17.50	1/2	120	3 1/2	2 N.O.	1	1.5	.5	30	15	7	5	10		
	CR9441-LS424S	17.50	5	30	1	2 N.C.	2	*.2	*.1	20	10	4	3	10		

Traveling-Nut Type—Reversing

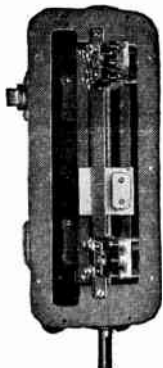
Watertight in Cast Iron Case..	CR9441-D1	†\$213.00	1	120	3	†3-14	§	2.5	.8	30	15	7	5	70
	CR9441-D2B	68.00	1	113	5	2	3	2.5	.8	30	15	7	5	50

*When using on d.c., a .5-microfarad capacitor is required across the coil of the controlled device.

†Additional contact units up to a maximum total of 14 may be added at \$12.50 each. Specify number of circuits required.

‡Each contact unit has 1 N.O. and 1 N.C. circuit.

§Traveling nut with a total of 8 dripping dogs. Can have a maximum of 14 N.O. and 14 N.C. circuits.



CR9441-D2B

G-E CR2927 Pressure and Vacuum Switches

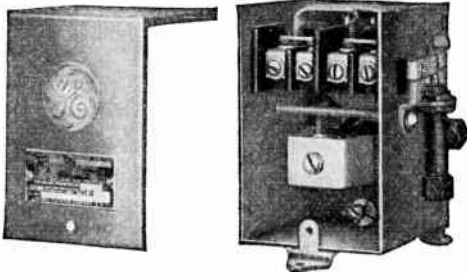
Diaphragm Type—For Starting Small Motors or for Pilot-Circuit Control

Maximum Hp. Ratings:

2 Hp. 110 Volts, 5 Hp. 220 Volts, 5 Hp. 440 and 550 Volts A.C. Polyphase

1½ Hp. 110 Volts and 3 Hp. 210 Volts A.C. Single-Phase

½ Hp. 110 to 550 Volts D.C.



Pressure Switch (Cover Removed) with Unloader Valve and Differential-Adjusting Attachment Mounted in Place

These switches are designed to open or close contacts upon changes of pressure or vacuum of any gas or liquid which will not affect synthetic rubber or brass or steel parts.

Used for starting motors not larger than 2 hp. 110 volts, 5 hp. 220, 440, and 550 volts polyphase; 1½ hp. 110 volts and 3 hp. 220 volts single-phase or ½ hp. 110 to 550 volts d.c. When larger motors are used, these switches can be used in connection with automatic starters which will also provide overload protection.

Order by CR number and specify adjustment if other than factory adjustment is required.

Pressure Switches

No.	Each	Operation	Max. Pres- sures, Lb. per Sq. In.	FACTORY ADJUSTMENT, Lb. PER Sq. IN.		MIN. ADJUSTMENT, Lb. PER Sq. IN.		MAX. ADJUSTMENT, Lb. PER Sq. IN.	
				Close	Open	Close	Open	Close	Open
2248268G7	\$21.00	Std.	5000	3200	4500	250	1300	3650	5000
2248268G2	9.80	Std.	300	200	250	15	35	245	300
2248268G3	8.40	Std.	160	130	150	8	23	140	160
2248268G4	19.60	Std.	80	70	80	4	12	70	80
2248268G20	7.00	Std.	80	52	70	8	23	62	80
2248268G5	19.60	Std.	40	36	40	2	5	36	40
2248268G6	22.40	Std.	13	9	10	1½	1¼	12	13
2248268G8	9.80	Rev.	300	250	200	35	15	300	245
2248268G9	8.40	Rev.	160	150	130	23	8	160	140
2248268G10	19.60	Rev.	80	80	70	12	4	80	70
2248268G11	19.60	Rev.	40	40	36	5	2	40	36
2248268G12	22.40	Rev.	13	10	9	1¼	½	13	12

Vacuum Switches

2248269G2	\$18.20	Std.	26½	5½	8	1	3	23½	26½
2248269G3	18.20	Rev.	26½	8	5½	3	1	26½	23½

Attachments

†No. 2244498G2, Unloader, 2-Way	each	\$2.80
No. 2246093G1, Differential-Adjusting Attachment for Standard Operation Switch	each	1.40
No. 2246900G1, Differential-Adjusting Attachment For Reverse Operation Switch	each	1.40
†No. 2246094G1, Hand-Oper. Lock-Out Lever	each	2.10

*Std., standard operation: open at high pressure, close at low pressure. Rev., reverse operation: open at low pressure, close at high pressure.

†These attachments are used only for Nos. 2248268G2, 3, 4, 5, and 6; and No. 2248269G2.

G-E CR7505 Photoelectric Relays



CR7505-K108

For certain control problems, G-E photoelectric relays offer many definite advantages over more conventional control devices.

All units have an adjustable sensitivity to meet various conditions of phototube illumination, and may be adjusted either to close or to open a circuit upon suitable light change.

A separate phototube holder can be mounted in any position by means of a mounting bracket, which is included.

CR7505-A100. This general purpose relay is for indoor application. It has an extended phototube holder, and is often applied where mounting space for the phototube is limited, or where the phototube will be subject to considerable vibration. The use of tubes, which are designed for long life, makes this unit especially desirable for installations which have infrequent inspection. The unit also includes a 15-ampere a-c. contactor for operation of the controlled electric circuit.

CR7505-N110. This relay is designed for indoor applications where high speed of response is necessary. The phototube is mounted in a separate holder, complete with 6 feet of shielded cable. The load is handled by a 5-ampere relay.

CR7505-K2, -K112, -K108. These general purpose self-contained relays are applied where a complete photoelectric relay can be mounted to receive the beam of light and where the per cent change in light is adequate. The CR7505-K2 is for a-c. indoor application, CR7505-K112 is for a-c. or d-c. indoor application, and CR7505-K108 is for a-c. outdoor application.

These relays may either open or close the controlled circuit when the light beam is interrupted. The relay tips are rated 1 ampere at 110 volts a.c., and will operate small magnetic devices directly. It is recommended that a small capacitor be connected across such inductive loads to insure maximum life of the relay tips.

For certain applications, an extended phototube holder can be added to CR7505-K2 and -K112 relays. A combination plug, cable, and phototube holder is available.

A special cover, CR7500-F1 can be added to CR7505-K2 or -K112 to increase the sensitivity and to make the units directional.

Order by CR number and specify voltage and frequency.

Nomenclature	With Tubes Each	Volts	Cycles	DIMEN. OF PANEL ENCLOSED CASE, IN.			Approx. Ship. Wt., Lb.
				Height	Width	Depth	
CR7505-A100	\$98.00	115	60/50	9½	7¼	4¾	35
	101.00	230	60/50				
		115	25				
CR7505-N110	126.00	115	60	10¾	7¼	8¾	35
		230	60				
CR7505-K2	49.00	115	60/50	7¼	5	4½	5
CR7505-K112	53.00	115	60/25	7¼	5	4½	5
CR7505-K108	56.00	115	60/25	10¼	5¼	7¾	9

Numerous special photoelectric devices are also available.

G-E CR7500 Photoelectric Accessories For Type CR7505 Photoelectric Relays

Light Sources



In some cases, the operating light source for use with a photoelectric relay may be an ordinary incandescent lamp. For many applications, and for those in which the light source must be at some considerable distance from the phototube, a light source of greater intensity is required.

G-E CR7500 light sources employ a low voltage, concentrated-filament lamp of the type commonly used in automobile headlights. A double contact lamp socket permits the use of a single or double-filament lamp, to which voltage is supplied by a separately mounted transformer.

CR7500-A4. This general-purpose light source is designed for indoor service to be used with the CR7505 photoelectric relays. The unit consists of a metal conduit box. A lens with an arrangement for focusing is mounted on the cover of the box.

CR7500-G1A. For general-purpose, indoor application. Of cast-aluminum construction with a snap-on steel cover. The unit is provided with an adjustable optical system, adjustment being made by removing the back cover and loosening one screw. By means of an adjustable bracket, the unit may be mounted in any position, but it is preferable that the mounting be such that the lamp is upright.

A CR7500-K2 infra-red filter cap may be fitted to the end of the lens barrel so that an invisible beam can be produced where a visible beam would be objectionable.

CR7500-G3A. This light source for indoor service is similar to CR7500-G1A except that an additional lens is added to provide a short-focus concentrated beam of light. This unit will concentrate an intense spot of light approximately 1/4-inch in diameter at a distance of 2 inches from the lens. The appearance and dimensions are the same as CR7500-G1A.

CR7500-B2. Light source consists of a cast iron enclosing case with rubber gaskets, in which is mounted a No. 9TM321-A1 transformer. For outdoor service—weatherproof. The cover mounts a lens and arrangement for focusing and a double-contact lamp socket.

Order light sources by CR number. Specify voltage and frequency for transformer to be used with indoor light source; specify voltage and frequency for CR7500-B2.

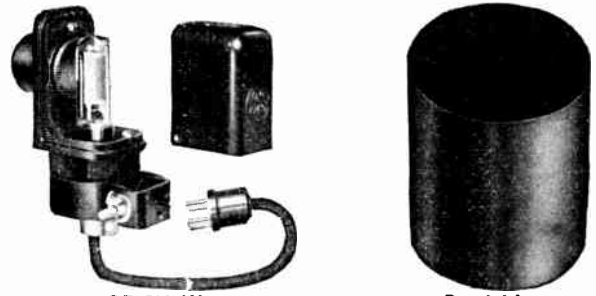
Nomenclature	Without Lamp or Transformer, Each	DIMENSIONS, INCHES			Approx. Ship. Wt. Lb.
		Height	Width	Depth	
CR7500-A4	\$8.40	4 1/4	2 1/2	3 5/16	6
CR7500-G1A	21.00	5 5/16	2 1/4	4 1/2	6
CR7500-G3A	23.80	5 5/16	2 1/4	4 1/2	6
*CR7500-B2	38.00	8 7/8	6 5/8	4 7/8	12

*Price and number include a 60-cycle transformer. A 25-cycle transformer cannot be mounted in the outdoor type of light source because the physical dimensions of the transformer are too great. Separate outdoor 25-cycle transformer can be furnished at \$28.00 and the 60-cycle transformer can be omitted at \$7.00.

Indoor Light-Source Transformers

This transformer may be used to supply low voltage a.c. to one 21 or 32-candlepower lamp in any one of the indoor light sources. It is rated 110/220 volts primary with a secondary voltage to provide approximately 1000 hours' life from either a 21 or 32-candlepower, 6-8-volt automobile lamp. A tap is also provided on the secondary to give approximately 3000 hours' life from either a 21 or 32-candlepower, 6-8-volt lamp (with reduced illumination).

Accessories



CR7500-H1 Phototube Holder

Special Lens and Mask



CR7500-K2 Infra-Red Filter Cap

CR7500-F1 Special Cover. This cover is provided with a light-collecting lens 3 inches in diameter, and a small aperture between the lens and the phototube. The light tunnel projects 3 inches from the front of the cover. The addition of this cover makes either CR7505-K2 or CR7505-K112 sensitive to an illumination of 1 foot-candle at the lens, and minimizes the effect of extraneous light.

CR7500-H1 Phototube Holder, Cable and Plug. If it is necessary to locate the phototube at some distance from CR7505-K2 or -K112 relays, this holder may be used. The dimensions of this unit are the same as those of the CR7500-G1A light source.

CR7500-K2 Infra-Red Filter Cap. This unit is a small cap which fits over the end of the lens barrel of the CR7500-G1A or -B2 light source to provide a practically invisible beam. The cap contains a filter glass which absorbs practically all of the visible energy radiated by the lamp, but permits the infra-red energy to pass. The photoelectric relays are sensitive to this infra-red energy.

Special Lens and Mask. This lens and mask is an accessory for use with the CR7500-H1 phototube holder (the type of phototube holder used with the CR7505-A100 and -N100) to minimize the effect of extraneous light and to make the unit directional. It consists of a lens barrel, a lens, and a mask or diaphragm located at the focal point of the lens. A small hole in the center of the mask permits light which enters approximately perpendicular to the plane of the lens to reach the phototube. For some special applications, the shape of the hole in the mask may be changed to permit the phototube to "see" only a definite area. The lens barrel fits into the phototube holder in place of the light tunnel normally employed.

No.	Description	For Use with	Each
CR7500-F1	Special Cover	CR7505-K2, -K112	\$16.80
CR7500-H1	Phototube Holder, Cable and Plug	CR7505-K2, -K112	16.80
CR7500-K2	Infra-Red Filter Cap	CR7500-G1A, -G3A, -B2	5.60
	Special Lens and Mask 1 1/2-In. Diam.	CR7505-A100, -N110, CR7500-H1	5.60
	3-In. Diam.	CR7505-A100, -N110, CR7500-H1	11.20
	Capacitor, 0.25 muf.	CR7505-K2, -K112, -K108	2.30
	0.50 muf.	CR7505-K2, -K112, -K108	3.20

‡The 3-inch lens and mask use the same optical system as CR7500-F1.

Volts	115/230	†115/230	115/230	†115/230
Cycles	50/60	50/60	25	25
Each	\$7.00	8.40	11.20	28.00
Ship. Wt., pounds	2	2	5	

‡Enclosed. †Weatherproof.

G-E Enameled Resistors

- CR9006, Individual Unmounted Units
- CR9150, Units Mounted on a Base and with Perforated Cover
- CR9158, Units in Perforated Cage-Type Enclosure



Form QD

FORM QL. Has stranded copper leads for making external connections.
 FORM QD. Has stranded copper leads and porcelain bushings to facilitate mounting.
 FORM QC. Designed for fuse clip mounting. Leads are connected to metal ferrules.
 FORM QS. Provided with screw base for mounting in lamp sockets.
 FORM QF. Provided with metal feet to which leads are connected and through which external connections are made.

*22-Watt Units

Form	Size	Ohms	Each	Form	Size	Ohms	Each
QL	K2673259	1-2000	\$.55	QC	K2673261	1-2000	\$1.15
QD	K2673260	1-2000	.95	QF	K2673263	1-2000	.95

*57-Watt Units

QL	K2673264	1-1000	\$.70	QF	K2673268	1-1000	\$1.20
QD	K2673265	1-1000	1.50	QS	K2673280	1-1000	1.20
QC	K2673266	1-1000	1.30				

*85-Watt Units

QL	K2673244	1-1500	\$.95	QF	K2673269	1-1500	\$1.45
QD	K2673245	1-1500	1.40	QS	K2673281	1-1500	1.45
QC	K2673246	1-1500	1.60				

*122-Watt Units

QL	K2673248	1 2-2000	\$1.10	QF	K2673252	1 2-2000	\$1.60
QD	K2673249	1 2-2000	1.55	QS	K2673282	1 2-2000	1.60
QC	K2673250	1 2-2000	1.75				

*180-Watt Units

QL	K2673270	1 5-1500	\$1.50	QF	K2673274	1 5-1500	\$2.05
QD	K2673271	1 5-1500	1.95	QS	K2673283	1 5-1500	2.05
QC	K2673272	1 5-1500	2.15				

*This rating is based on a single unit mounted with free ventilation. The rating is reduced if ventilation is hindered by adjacent units or by enclosure.

No. 2X930 Fuse Clip for 57-Watt Form QC Unit... each \$.15

No. 2X931 Fuse Clip for 85, 122 and 180-Watt Form

QC Units... each .30

Two fuse clips are required for each unit.

Ratings

†Std. Resistance Values in Ohms	MAXIMUM AMPERES					†Std. Resistance Values in Ohms	MAXIMUM AMPERES				
	22-Watt Unit	57-Watt Unit	85-Watt Unit	122-Watt Unit	180-Watt Unit		22-Watt Unit	57-Watt Unit	85-Watt Unit	122-Watt Unit	180-Watt Unit
1	4.5	...	...	...	...	400	.22	.37	.45	.55	.67
3	2.6	4.3	5.1	...	...	500	.20	.33	.40	.49	.60
5	2.0	3.3	4.0	4.9	6.0	600	.18	.30	.36	.45	.55
10	1.4	2.3	2.7	3.5	4.3	700	.17	.28	.34	.41	.50
15	1.1	1.9	2.3	2.8	3.4	800	.16	.26	.32	.39	.47
20	1.0	1.6	2.0	2.4	3.0	900	...	.25	.30	.37	.45
25	0.9	1.5	1.8	2.2	2.7	1000	...	.23	.28	.35	.43
30	0.8	1.3	1.6	2.0	2.4	1200	...	.21	.26	.32	.39
40	0.71	1.1	1.4	1.8	2.0	1400	...	.20	.24	.29	.35
50	0.63	1.05	1.2	1.5	1.9	1600	...	.185	.22	.27	.33
60	0.58	0.96	1.1	1.4	1.7	1800	...	.175	.21	.26	.32
75	0.52	0.86	1.0	1.3	1.6	2000	...	.16	.20	.24	.30
100	0.45	0.74	0.90	1.1	1.3	2500	...	.15	.18	.22	.25
125	0.40	0.66	0.80	1.0	1.2	3000	...	.13	.16	.20	.24
150	0.36	0.60	0.73	0.90	1.1	4000	...	...	.14	.17	.20
175	0.34	0.56	0.67	0.83	1.0	5000	...	...	.15	.19	
200	0.31	0.52	0.63	0.77	0.95	6000	...	...	...	.17	
250	0.28	0.47	0.56	0.69	0.84	8000	...	...	...	.14	
300	0.26	0.43	0.51	0.63	0.72	10000	...	...	...	.13	

†Resistance of standard units varies from 90 to 110 per cent of these values. Prices for units of less resistance variation will be quoted on request.

Basic Net Prices Each

	22	57	85	122	180
†Continuous Watt Rating (Open)	.17	.5	.85	1.2	1.5
Minimum Special Ohms	1.	1.	1.	1.2	1.5
Minimum Standard Ohms	12000	40000	70000	100000	1000000
Maximum Standard Ohms	\$.75	\$.85	\$1.30	...	...
Between Minimum Special Ohms and Minimum Standard Ohms	.55	.71	1.00	...	...
1.0 to 1000 Inclusive	...	...	...	...	...
1.2 to 1000 Inclusive	...	...	...	\$1.10	...
1.5 to 1000 Inclusive	...	...	...	...	\$1.50
\$1500	.55	.75	1.00	1.10	1.50
\$2000	.55	.75	1.00	1.10	1.55
\$2500	.55	.75	1.00	1.15	1.55
\$3000	.55	.80	1.00	1.15	1.55
\$3500	.55	.80	1.00	1.15	1.60
\$4000	.55	.80	1.05	1.20	1.60
\$4500	.55	.85	1.05	1.20	1.60
\$5000	.60	.85	1.05	1.20	1.65
\$6000	.60	.85	1.10	1.25	1.70
\$7000	.65	.85	1.10	1.25	1.75
\$8000	.65	.90	1.10	1.35	1.75
\$10000	.65	.95	1.15	1.40	1.75
\$12000	.70	1.00	1.20	1.40	1.80
\$15000	...	1.00	1.20	1.40	1.80
\$17000	...	1.05	1.25	1.40	1.80
\$20000	...	1.10	1.30	1.40	1.80
\$22500	...	1.10	1.30	1.50	1.80
\$25000	...	1.10	1.35	1.50	1.80
\$30000	...	1.15	1.35	1.50	1.80
\$40000	...	1.20	1.40	1.60	1.85
\$50000	...	...	1.45	1.60	1.85
\$60000	...	...	1.45	1.65	1.95
\$70000	...	...	1.50	1.75	2.00
\$80000	...	...	...	1.85	2.15
\$90000	...	...	...	1.95	2.15
\$100000	...	...	...	2.05	2.25

†For intermediate watt ratings, use next larger listed rating.

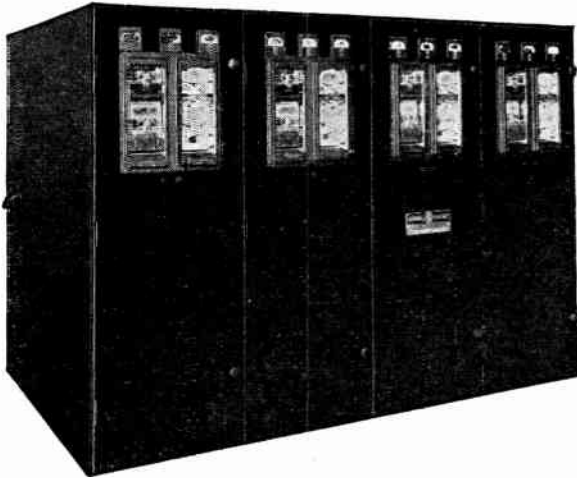
§If intermediate ohm ratings are desired, use price of next higher listed rating.

G-E Metal-Clad Switchgear Equipment

For General Power Service

With Magne-Blast Power Circuit Breakers

15000 Volts Maximum—500 Mva. Maximum—3-Phase, 3-Wire, 60 Cycles



Typical Light-Duty Metal-Clad Switchgear

Designed to provide the advantages obtainable in complete factory-assembled, metal-enclosed, safety-type switching equipments. Now available in standardized unit construction, for practically all varieties of general power applications and service, where the interrupting rating requirements for the power circuit breakers do not exceed 50000 kilovolt-amperes and the service voltage class is not in excess of 13200(Y) volts.

Application

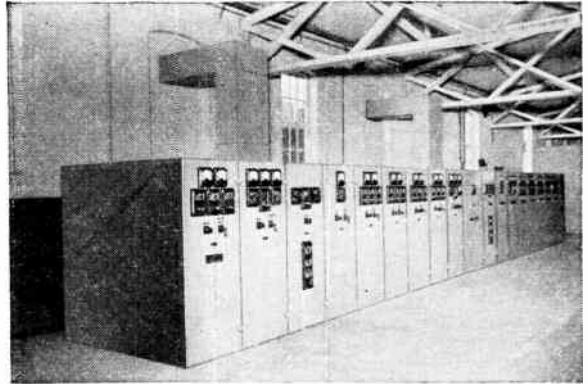
Applicable for general power service in central-station main and auxiliary circuits, steel mills, and other industrial plants, distribution substations, office buildings, hotels, theatres, department stores, hospitals, educational and public buildings, and other similar installations, to provide reliable control for generators, transformers, incoming power and tie lines, feeder circuits, bus-tie and bus-sectionalizing circuits, and synchronous and induction motors.

In the general design of this standardized switchgear, the anticipated requirements for the comprehensive field of its application have been carefully and fully studied, and all the advantages and outstanding constructive features, to provide properly for such application, have been adequately embodied in the factory-built unit construction.

It should be recognized that in the preparation of a listing of such standard equipment, as is contained in this catalog, it is necessary to generalize much of the information included. The purpose of such listings is to provide a quick simple method for estimating over-all costs, and space requirements, of entire projects, where rough total prices are required for appropriation purposes, etc. With such perspective in view, it will be realized that, for some specific jobs, actual final net quoted selling prices will frequently total materially less than the total estimating prices computed from the approximate price schedules and the actual over-all dimensions may differ from those listed.

Service-Voltage Classes: Standard equipment ratings are listed in accordance with system voltage classes as established by A.S.A. Standards, viz., 2400, 4160, 4800, 7200, 12000(Y), and 13200(Y) volts. The listed equipments are applicable within the nominal voltage ranges of each of these voltage classifications.

Caution: Systems having nominal service voltages of 4600 or 4800 volts, usually involve regulation conditions where actual voltages exceed these values for protracted intervals. Accordingly, for systems with these nominal service voltages, equipments listed for the 7200-service-voltage class should be selected and priced in every case.



Typical Installation with Magne-Blast Power Circuit Breakers, for General Power Service in a Large Industrial Plant

System Neutral Grounding: For installations where any of the listed equipments are applied on systems where the service-voltage class exceeds 4160 volts, it is desirable that the system neutral be grounded through a low value of impedance.

This provision is an important item in protection against overvoltage. The equipments which are listed for the 12000(Y) and 13200(Y) service-voltage classes are applicable only where the system neutral is grounded through a low value of impedance and adequate surge of overvoltage protective equipment also is installed.

Frequency: Although listed for 60 cycles, equipments can be furnished for operation at any other established commercial frequency. For applications at frequencies of 25 to 50 cycles, the listed estimating prices will apply.

Construction

Sturdy construction will give service for many years, with minimum maintenance attention and expense.

Because the equipments herein listed are standard factory-built metal-clad units, any deviation from the standard listings of either the basic gear, or optional items, either by substitution, or otherwise, may necessitate an increase in price.

Designed for the adequate protection of machines and circuits, for safe and convenient operation, and for accessibility to component parts. Each complete switchgear equipment has a streamline appearance, which results from the use of the G-E standard line of semi-flush instruments, meters, relays, and other devices which are regularly and symmetrically mounted on the front and rear, smooth-steel enclosing panels.

Planned with reference to other similar units with which they may be required to line up, and the unit-type factory-assembled construction makes it easy to add extensions to an existing installation of an equipment composed of such units, without disturbing the harmonious appearance of the initial and complete installation, thus insuring maximum flexibility and adaptability.

Completely assembled at the factory, and shipped assembled, where feasible, or in the largest permissible number of units as a group, as determined by existing transportation and handling facilities.

Each standard metal-clad unit combines circuit breaker, disconnecting devices, interlocks, buses, connections, instruments, meters, control devices, instrument transformers, supporting frame, and enclosing structure in a single, factory-assembled unit per circuit controlled. All component parts are of G-E design and manufacture, of the type best suited to their function, and properly co-ordinated. Liberal factors of safety, both electrical and mechanical, to withstand severe service, are included.

G-E Metal-Clad Switchgear Equipment

Construction

Each group of associated primary devices, such as the current transformers, the potential transformers, the buses and connections, is enclosed, where practical, in a separate grounded metal compartment. All circuits are exceptionally well-insulated.

Potential-transformer compartments are built in the well-known drawout construction, wherein the potential transformers and their primary fuses are mounted on a movable carriage. Access to the primary fuses is obtained only after the withdrawal of the carriage from the compartment, thus automatically disconnecting and isolating both the fuses and the potential transformers, and grounding them, to permit fuse replacement under safe conditions.

Power circuit breaker is effectively isolated from all other primary equipment, and so arranged that it may be completely disconnected from the bus and line, by lowering it from the connected position, (for operation-test purpose), and it may be entirely removed from the unit structure, for inspection, etc. Proper interlocks insure the proper sequence of operation, so that the breaker is always removed under safe conditions. Inspection of the breaker can usually be performed with perfect safety, because such routine service is ordinarily accomplished external to the unit stationary structure. Continuity of service of any circuit is obtained, during the inspection period, by the substitution of a spare breaker in place of the removed one. All units of equal rating and with like features are interchangeable.

All equipments are designed to withstand the insulation tests, and will operate within the temperature-rise limits, as prescribed by the N.E.M.A. and A.I.E.E. standards for enclosed switchgear.

The details of construction of the listed standard metal-clad switchgear units, and equipments, are fully and adequately illustrated and described in available G-E descriptive bulletins.

Installation

Prior to the physical installation of a standard metal-clad switchgear equipment, the floor can be prepared, conduits installed, and cables drawn, from previously prepared construction drawings, before the equipment is shipped from the factory. Then, only the power and control cable connections need to be made, and the removable elements (which are shipped separately) inserted in the stationary structures, in order to place the equipment into service. The incoming or outgoing cables can be brought in from above or below, according to the convenience of the installation. The cables are easily secured in the unit potheads, when ready to connect into service.

There is no chance for incorrect reassembly after shipment, nor is there involved any hunting for loose parts. This is an inherent asset and convenience when purchasing completely assembled equipment entirely built by a single manufacturer. Thus, is eliminated any divided responsibility of different manufacturers who contribute individual items for the erection of an assembled equipment.

High salvage value is obtained, because of the standard-unit type of construction and the sturdiness of the equipment. This makes it easy to move the equipment, either as a group or as an individual unit, simply by disconnecting cables, unbolting from foundations, etc., and lifting.

General Information

Selection of Units

All base units are listed according to the rating of the included oil circuit breaker. It is possible to choose a group of units, for an installation, having different breaker interrupting ratings. This is not objectionable, provided that the lower-rated breakers are adequate for the required interrupting duty.

It is general practice, however, and usually recommended, to include units of identical interrupting and current ratings, for purposes of economy, consistency in operation, and complete interchangeability of all removable elements.

Protection of Machines and Circuits

Provision is included throughout for automatically interrupting transformer, incoming-line, feeder, and motor circuits when the current exceeds a predetermined value over a predetermined period of time. This effectively protects generators against abnormal overcurrents from sources most likely to cause trouble and, beyond this, no automatic protection is provided in the basic equipment for generators. Differential relays for protection against internal generator trouble, however, are available as optional items. No automatic protection is furnished for exciters or generator field circuits.

Installations where the base units are to control both sides of power-transformer banks, optional items on differential protection equipment are offered.

Where parallel lines are involved and selective relaying arrangements are required, the problem should be submitted to your Distributor. For synchronous-motor units, automatic field-application and field-accelerating equipment are included.

Heating

At rated amperes, the temperature rise of the listed metal-clad units will not exceed the temperature requirements of the N.E.M.A. standards for metal-clad switchgear.

Information Required With Order

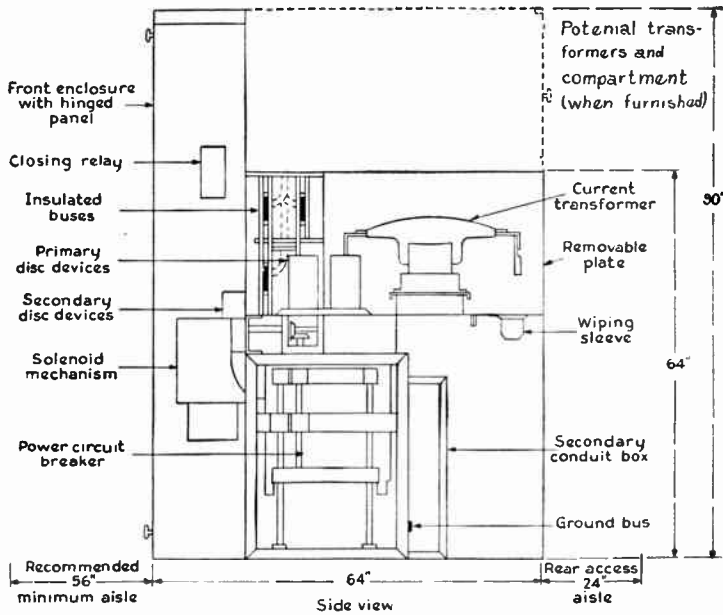
Give the complete ratings of all generators, transformers, feeder circuits, and motors to be controlled by the metal-clad switchgear.

To assure promptness and efficiency in the execution of an order for this class of equipment, it is suggested that G-E Switchgear Information Form 13212 be filled in and accompany the order. If this form is not available, it is requested that the following information be furnished at the time the order is placed:

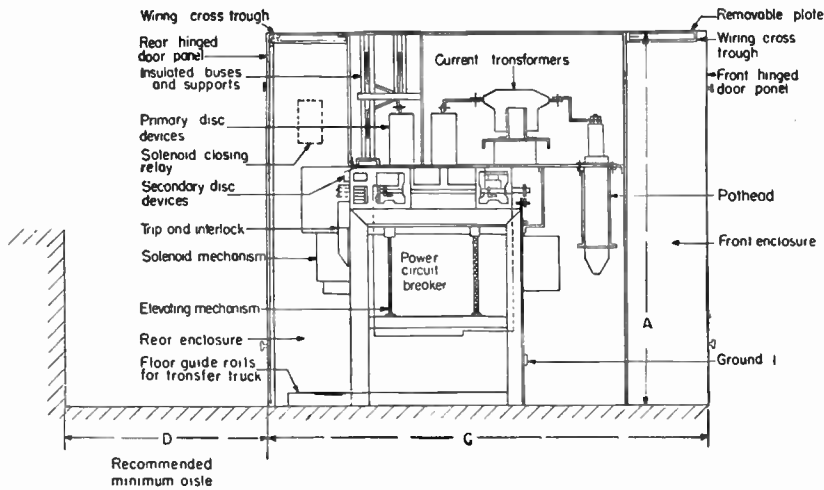
1. State, giving dimensions in feet, the maximum size of package that can be conveniently handled.
2. Give size, type, and direction of main leads, and direction of secondary leads.
3. Where the equipment is to line up with purchaser's present equipment, give complete information on the installed equipment.
4. Give name of person, or persons, to whom drawings and instruction books should be sent.
5. When equipment is to control machines already installed, the following information concerning the installed apparatus should be given:
 - (a) Name of manufacturer and complete ratings.
 - (b) Type of governor motor and rating (if used).
 - (c) Type of field rheostat (how operated, etc.).
 - (d) Field data.
6. Give location of the equipment, with reference to walls and available headroom.
7. Give the desired order of units from left to right, with accompanying sketch.
8. Give polarity of transformer banks (additive or subtractive) and connection sketch.
9. Furnish a one-line diagram of connections of all apparatus and feeder circuits.
10. Is system grounded? Where? If through a resistor, how much resistance?
11. If temperature meter is to be included, give length and size of meter leads.
12. Nameplates—give complete wording for any special marking or engraving.

G-E Metal-Clad Switchgear Equipment

For General Power Service



Construction and Dimensions of Light-Duty Metal-Clad Switchgear Unit—Width, All Units, 20 Inches (Except Bus-Section Unit, 30 Inches).



Construction and Dimensions of Master Metal-Clad Switchgear Unit.

Interrupting Rating of Power Circuit Breaker, Kva.	DIMENSIONS, INCHES				Interrupting Rating of Power Circuit Breaker, Kva.	DIMENSIONS, INCHES			
	Height A	Width of Each Unit *B	Depth †C	Recommended Aisle D		Height A	Width of Each Unit *B	Depth †C	Recommended Aisle D
50000	68	26	96	63	250000	68	26	96	63
100000	68	26	96	63	‡250000	82	36	96	75
150000	68	26	96	63	500000	82	36	96	75

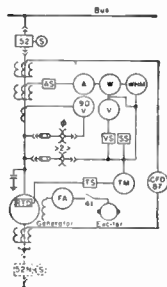
*Dimension B given here is that per single unit—where two units are included, this should be doubled.

†Depth of the enclosures is 15 inches for each.

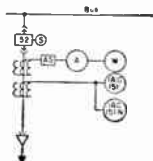
‡This is for 15 kilovolt breakers.

G-E Metal-Clad Switchgear Equipment

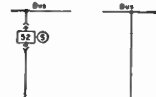
For General Power Service



Schematic Connections Combined A.C. Generator and D.C. Exciter Equipments



Schematic Connections Single-Circuit Feeder, Incoming-line, Transformer Equipments



Schematic Connections Bus-Section Equipments

Includes (all equipments):

- 1 Metal-clad unit, complete with stationary and removable elements, including mechanical interlocks, primary and secondary disconnecting devices, automatic shutters, and front and rear enclosures (rear enclosures for master equipments) with hinged instrument panels.
- 1 Power circuit breaker, 3p-st, complete with d-c solenoid operating mechanism, trip coil, auxiliary switches, closing relay, control switch and indicating lamps, and breaker elevating mechanism.
- 1 Complement of instruments and meters as indicated, in full lines, in "schematic connections."
- 1 Complement of current and potential transformers as indicated, in full lines, in "schematic connections."
- 1 Set of insulated 3-phase buses, with supports, insulated copper interconnections, necessary cable-terminal connectors, terminal blocks, small wiring, and ground bus.

In addition, Generator and Exciter Equipments:

- 1 Generator voltage regulator, complete with accessories.
- 1 Relay, 3-element generator differential protective.
- 1 Field switch (discharge resistor not included) and provision for operation of field rheostats (rheostats not included).
- 1 Auxiliary compartment for secondary control.
- 1 Auxiliary compartment, separately mounted (for master equipment only).
- 1 Set of surge capacitors, to be mounted at the generator terminals by the purchaser.

Potential transformers are not included in feeder, incoming-line, or transformer equipments. For installations where bus-connected potential transformers are included, and wattmeters, watthourmeters, or voltmeter with transfer switch is added, two transformers and a compartment should be ordered.

Ratings and Prices of Basic Gear

Light-Duty Equipments for Small Plants and Industrial Installations

RATINGS			Combined Generator and Exciter		Feeder, Line or Transformer		Bus Section		Spare, Removable Element for Any Equipment Listed Herein	
Power-Circuit-Breaker Interrupting Rating, Kva.	Service-Voltage Class	Continuous Amperes	*Complete Equipment	Approx. Ship. Wt., Lb.	*Complete Equipment	Approx. Ship. Wt., Lb.	*Complete Equipment	Approx. Ship. Wt., Lb.	*Complete Equipment	Approx. Ship. Wt., Lb.
50000	2400	600	\$5500.00	4625	\$1865.00	2225	\$1140.00	1825	\$730.00	600
		1200	5890.00	5025	2255.00	2625	1525.00	2225	1120.00	700
		1200	6110.00	5225	2255.00	2625	1525.00	2225	1120.00	700
50000	4160	600	5720.00	4825	1865.00	2225	1140.00	1825	730.00	600
		1200	6110.00	5225	2255.00	2625	1525.00	2225	1120.00	700

Master Equipments for General Power Service

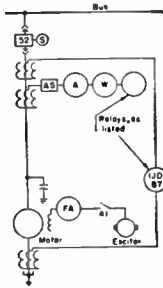
100000	2400 and 4160	600	\$8075.00	7625	\$3595.00	3700	\$2205.00	2965	\$1535.00	1150
		1200	8560.00	8000	4080.00	4050	2650.00	3275	1980.00	1250
		600	8315.00	7650	3835.00	3700	2440.00	2975	1770.00	1350
150000	2400 and 4160	1200	8795.00	7950	4320.00	4050	2890.00	3275	2215.00	1450
		2000	11720.00	9550	7250.00	5650	5745.00	4765	4240.00	2900
		1200	9475.00	7950	5005.00	4450	3570.00	3700	2890.00	1500
250000	2400 and 4160	2000	12400.00	9850	7930.00	5950	6430.00	5125	4920.00	3100
		1200	13215.00	9500	6215.00	4650	4435.00	3800	3320.00	1500
		2000	15990.00	11,000	9140.00	6175	7280.00	5225	5485.00	3100
†500000	4800 to †13200(Y)	1200	14085.00	10,700	7085.00	5900	5300.00	5050	4195.00	3200
		2000	16835.00	12,350	9830.00	6600	7970.00	5625	6175.00	3400

*Prices are approximate only; freight allowed to the nearest railroad freight station within the United States.

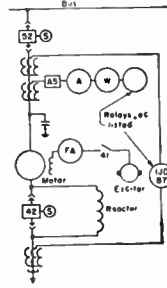
†Applicable only where the system neutral is grounded through a low value of impedance.

G-E Metal-Clad Switchgear Equipment

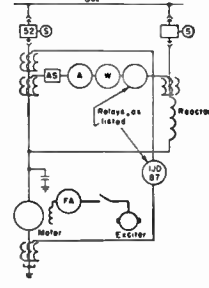
Synchronous-Motor or Condenser Equipments



Schematic Connections Full-Voltage Start



Schematic Connections Neutral-Reactor Start



Schematic Connections Line-Reactor (Parallel) Start

Included (all equipments):

1 Metal-clad unit, complete with stationary and removable elements, including mechanical interlocks, primary and secondary disconnecting devices, automatic shutters, and front and rear enclosures (rear enclosures for master equipments) with hinged instrument panels.

1 Power circuit breaker (main or running), 3p-st. Complete with d.c. solenoid operating mechanism, trip coil, auxiliary switches, closing relay, control switch and indicating lamps, and breaker elevating mechanism.

1 Complement of instruments as indicated, in full lines, in the schematic connections.

1 Complement of current transformers as indicated in the schematic connections.

1 Set of protective relays (thermal, 2-element, No. 49; 3 short-circuit selective, No. 50; under voltage, No. 27; for motors less than 1500 hp, or for motors rated 1500 hp. and above relay equipment includes one 3-phase current-balance relay, No. 46; one 3-phase undervoltage and phase sequence relay, No. 47; thermal relay, No. 49; 1 over-current relay, No. 51; and one 3-phase differential protective relay, No. 87).

1 Field-application equipment (to be mounted separately in vicinity of motor) including metal-enclosed auxiliary compartment with enclosed panel and a hinged instrument panel (Note: for light-duty equipments the field application equipment is mounted in the main compartment)—includes field contactor and discharge resistor, synchronous speed relay, No. 13; field relay, No. 40; incomplete sequence relay, No. 48 (where required); and exciter relay, No. 53 (where required).

For other than full-voltage start, necessary starting breakers, breaker compartment, metal-clad units, etc., are included.

Insulated buses, interconnections, bar supports, ground bus, small wiring, etc. included.

All equipments are complete automatic-start.

Not included: Potential transformers and compartment. If meters or equipments are added requiring potential source and if no bus-connected potential transformers are included for the installation, two potential transformers and compartment should be added.

Starting reactors or autotransformers not included.

Ratings and Prices of Basic Gear

Light-Duty Equipments for Small Plants and Industrial Installations

RATINGS		Contin- uous Am- peres	Full-Voltage Unloaded Start		Neutral-Reactor Unloaded Start			Line-Reactor (Parallel) Unloaded Start			
Power- Circuit-Breaker Interrupting Rating, Kva.	Service- Voltage Class		Motor Less Than 1500 HP. Approx. Ship. Wt., Lb.	Motor Rated 1500 HP. and Above	Motor Less Than 1500 HP. Approx. Ship. Wt., Lb.	Motor Rated 1500 HP. and Above	Approx. Ship. Wt., Lb.	Motor Less Than 1500 HP. Approx. Ship. Wt., Lb.	Motor Rated 1500 HP. and Above	Approx. Ship. Wt., Lb.	
50000	4160	600	\$3380.00	3000	\$5375.00	6000

Master Equipments for General Power Service

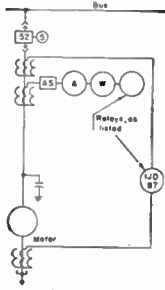
100000	2400 and 4160	{ 600 1200	\$4745.00 5370.00	4800 5125	\$5605.00 6660.00	5100 5425	\$8450.00 8930.00	9000 9325	\$9735.00 10215.00	9300 9650	\$8400.00 9375.00	9150 9800	\$9685.00 10660.00	9500 10100
150000	2400 and 4160	{ 600 1200	5120.00 5610.00	4800 5125	6410.00 6890.00	5100 5425	8690.00 9165.00	9000 9325	9975.00 10465.00	9300 9650	8865.00 9840.00	9150 9800	10155.00 11130.00	9500 10100
250000	2400 and 4160	1200	6285.00	5550	7570.00	5850	9850.00	9750	11135.00	10100	11200.00	10650	12495.00	11000
†250000	{ 4800 to † 13200(Y) }	1200	7930.00	6000	9315.00	6400	14560.00	11350	15955.00	11725	14945.00	12150	16335.00	12500
†500000	{ 4800 to † 13200(Y) }	1200	8795.00	7200	10185.00	7650	15435.00	12550	16835.00	13000	16685.00	14500	18070.00	15000

*Prices are approximate only; freight allowed to the nearest railroad freight station within the United States.

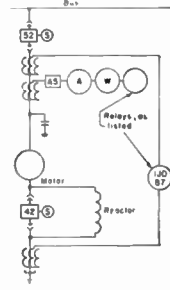
†Applicable only where the system neutral is grounded through a low value of impedance, and where adequate surge or overvoltage protective equipment also is installed.

G-E Metal-Clad Switchgear Equipment

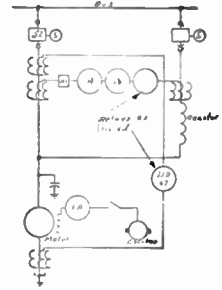
Induction-Motor Equipment



Schematic Connections Full-Voltage Start



Schematic Connections Neutral-Reactor Start



Schematic Connections Line-Reactor (Parallel) Start

Included (all equipments):

- 1 Metal-clad unit, complete with stationary and removable elements, including mechanical interlocks, primary and secondary disconnecting devices, automatic shutters, and front and rear enclosures (rear enclosures for master equipments) with hinged instrument panels.
- 1 Power circuit breaker (main or running), 3p-st., complete with d.c. solenoid operating mechanism, trip coils, auxiliary switches, closing relay, control switch and indicating lamps, and breaker elevating mechanism.
- 1 Ammeter and necessary current transformers, as indicated in schematic connections.
- 1 Complement of protective relays, as follows: For motors less than 1500 hp.—undervoltage, No. 27; incomplete sequence, No. 48, thermal, No. 49; and 3 instantaneous short-circuit selective No. 50. For 1500 hp. and above—

3-phase current-balance, No. 46; 3-phase undervoltage and phase sequence, No. 47; thermal, No. 49, overcurrent, No. 51; and 3-phase differential, No. 87.

Insulated buses, copper interconnections, bus supports, ground bus, small wiring, etc.

For other than full-voltage start, necessary starting breakers, breaker compartments, metal-clad subsidiary units, etc., are included.

All equipments are complete automatic-start.

Not included: Potential transformers. For installations where no bus-connected potential transformers are provided add for the complete installation, one set of two transformers and one potential transformer compartment.

Starting reactors or autotransformers not included.

Ratings and Prices of Basic Gear

Light-duty Equipment for Small Plant and Industrial Installations

Power-Circuit Breaker Interrupting Rating, Kva.	RATINGS Service Voltage Class	Continu-ous Am-peres	Full-Voltage Automatic Start				Neutral-Reactor Automatic Start				Line-Reactor Start, (Parallel)				
			Motor Less Than 1500 H.P.		Motor Rated 1500 HP. and Above		Motor Less Than 1500 H.P.		Motor Rated 1500 HP. and Above		Motor Less Than 1500 H.P.		Motor Rated 1500 HP. and Above		
			*Each	Approx. Ship. Wt., Lb.	*Each	Approx. Ship. Wt., Lb.	*Each	Approx. Ship. Wt., Lb.	*Each	Approx. Ship. Wt., Lb.	*Each	Approx. Ship. Wt., Lb.	*Each	Approx. Ship. Wt., Lb.	
50000	4160	600	\$2320.00	2400								\$4160.00	4900		

Master Equipment for General Power Service

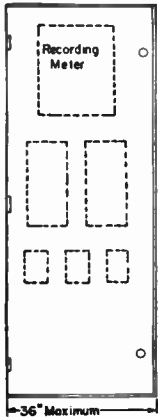
100000	2400 and 4160	600	\$3835.00	4100	\$5120.00	4400	\$6955.00	7950	\$8255.00	8250	\$7475.00	8400	\$8755.00	8700
		1200	4320.00	4400	5610.00	4700	7440.00	8275	8735.00	8575	8450.00	9050	9730.00	9350
150000	2400 and 4160	600	4060.00	4100	5360.00	4400	7195.00	7950	8480.00	8250	7945.00	8400	9230.00	8700
		1200	4550.00	4400	5835.00	4700	7685.00	8275	8970.00	8575	8920.00	9050	10200.00	9350
250000	2400 and 4160	1200	5230.00	4800	6520.00	5100	8365.00	8675	9650.00	9000	10270.00	9875	11570.00	10,200
		1200	6870.00	5300	8255.00	5700	12965.00	10,250	14365.00	10,700	13750.00	11,400	15125.00	11,800
†250000	{4600 to † 13,200(Y)}	1200	6870.00	5300	8255.00	5700	12965.00	10,250	14365.00	10,700	13750.00	11,400	15125.00	11,800
		1200	7735.00	6500	9130.00	6900	13845.00	11,500	15240.00	12,000	15470.00	13,800	16870.00	14,225

*Prices are approximate only; freight allowed to the nearest railroad freight station within the United States.

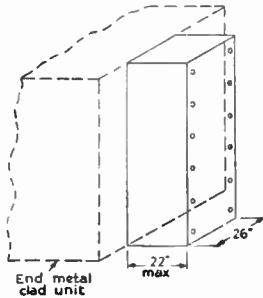
†Applicable only where the system neutral is grounded through a low value of impedance.

G-E Metal-Clad Switchgear Equipment

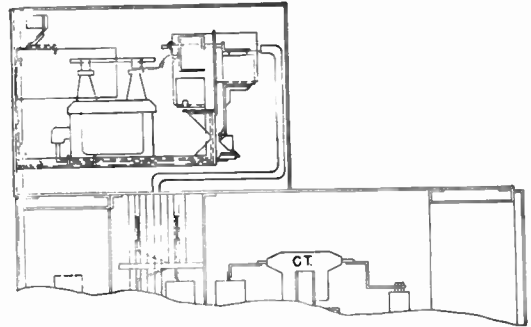
For General Power Service



Auxiliary Compartment
(Height and Depth Same as Base Unit Adjacent)



Bus-Entrance Compartment



Superstructure-Type Potential-Transformer Compartment. (Width is Same as That of Unit Located Beneath Compartment.)

Compartments

Either an auxiliary, or a superstructure-type, potential-transformer compartment, should always be included and priced for the mounting of any potential transformers which are selected for addition to the listed basic metal-clad equipments.

Auxiliary Compartment

Auxiliary compartments, structure high, for location at any position in the main, or subsidiary, metal-clad gear line-up, or for mounting independently, are available for many practical applications, such as (1) An incoming-line, or feeder-tie compartment for housing group-operated disconnecting switches, buses, connections, and pothead; (2) As a potential-transformer compartment for housing up to a maximum of two sets of 2, or 3, potential transformers with their primary cutouts, and connections (drawout construction); and (3) As an instrument-and-metering compartment for housing one set each of current and potential transformers, and accommodating integrating and recording meters. These compartments also can be readily applied for the housing of power-station operating accessories, such as tripping batteries, control power transformers, etc.

The compartment is always furnished either with hinged front and rear enclosures, or with a hinged front enclosure only (identical to the enclosure furnished for the basic metal-clad units selected for the line-up), and required insulated buses and connections.

Bus-Entrance Compartment

A bus-entrance compartment is required for all installed metal-clad units, where no provision has been included for an incoming line (such as a metal-clad unit or an auxiliary compartment), in order to provide a suitable means of joining the incoming power cables to the bus.

The compartment is always located at the end of the metal-clad line-up, and includes bus extension, potheads, and connections. The incoming power cables may be connected to enter the compartment either from above or below.

Potential-Transformer Compartment

(Superstructure Type)

All potential transformers require a separate enclosing compartment. The structure-high auxiliary compartment is the

preferred recommendation for enclosing the potential transformers. However, because crossovers primary of connections for such transformers are strictly forbidden in a metal-clad switchgear line-up, and all potential transformers must be located immediately adjacent to the circuit with which they are associated, installation requirements may dictate the use of the superstructure type of potential-transformer compartment. For such cases, the compartment is located immediately above the basic primary-gear unit of the circuit with which the transformers are associated. Drawout construction for the transformers and their primary fuses, with automatic grounding facility, is included. The compartment is sufficiently large to accommodate one set of 2 or 3 transformers, with their primary fuses, plus primary and secondary insulated connections.

Description	Master Equipment		Light-Duty Equipment	
	Each	Ship. Wt., Lb.	Each	Ship. Wt., Lb.
Auxiliary Compartment, with Front and Rear Enclosures, with Hinged Panels.....	\$715.00	1150	*\$300.00	500
Potential-Transformer Compartment, Superstructure Type.....	240.00	150	85.00	125
Bus-Entrance Compartment, Including Pothead Provision for Terminating Main Power Cables.....	520.00	400	215.00	150

*Front enclosure only.

Group-Operated Disconnecting Switches (For Mounting in Auxiliary Compartment) (For Master or Light-Duty Equipment)

Item	Continuous Rating, Amperes	†3—Sp-St.		†3—Sp-Dt.	
		Each	Ship. Wt., Lb.	Each	Ship. Wt., Lb.
122	600	\$360.00	250	\$715.00	500
123	1200	520.00	300	1040.00	600
124	2000	1040.00	400	2080.00	800
125	3900	1530.00	800	3055.00	1600

†Consists of 3—sp-st. switches, group-operated by a manually operated mechanism, and one mechanical interlock.

†Consists of 3—sp-dt. switches, group-operated by a manually operated mechanism, and two mechanical interlocks.

G-E Metal-Clad Switchgear Equipment

Necessary Additional Accessories

Potential Transformers

While the price of each metal-clad unit listed includes the potential transformers essential to the proper operation of the standard listed equipment, the selection of certain of the Optional items may make additional potential transformers necessary. Those thus needed should be determined from the following rules, referring to Fig. 1.

Generator Units. Two potential transformers (A) are included. Those provide potential for voltmeter readings, synchronizing, and excitation for the indicating wattmeter, and also for a watt-hour meter, should one be added. Accordingly, additional transformers are usually not required for generator units.

However, should a voltage regulator be used (this is not listed), an additional potential transformer (B) would be required.

Incoming-Line Units. If synchronizing is to be done, one potential transformer (C) will be required. If 3-phase voltmeter readings are desired, or if wattmeters or watt-hour meters are added, or all three, plus synchronizing, a total of two potential transformers will be required at (C). Exception: Where the installation includes two bus potential transformers (D), the wattmeter or watt-hour meter may be excited from them, in which case only the one synchronizing transformer would be needed at (C).

Power-Transformer Units. If watt-hour meter is added to a base unit, two potential transformers are required at (E), unless station transformers (D) are provided.

Bus Potential Transformers. To minimize the number of potential transformers which would otherwise be required, it is practical to include in an installation one set of transformers (D) connected to the station bus and from which all the potential coils of meters, etc., are excited through a potential bus.

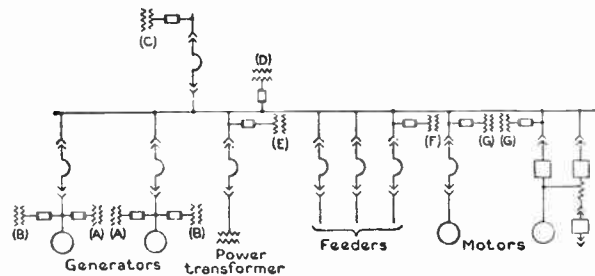


Figure 1

Feeder Units. Where meter is added to a feeder base unit, two potential transformers (F) are required, except where bus potential transformers (D) are provided.

Motor Units. The base units all include one potential transformer (G) for manually operated breakers, or one control power transformer at (G) for electrically operated breakers. If a watt-hour meter is to be added, an additional potential transformer is required at (G) for manually operated breaker units, or two potential transformers at (G) for electrically operated breaker units. The use of the control power transformer for meter excitation is *not recommended*. Where bus potential transformers (D) are provided, the potential transformers (G), with their compartments, may be omitted, an optional item is listed to cover this.

*Potential Transformers for 60-Cycle Service (Including Current-limiting Primary Fuses)

Maximum Circuit Volts	Each	Ship. Wt., Lb.
2400	\$130.00	70
4800	195.00	125
13800	260.00	180

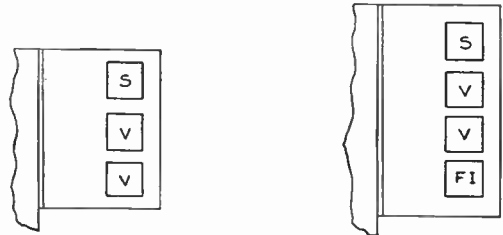
*Not included: Enclosing compartment. Add, if required, per schedules listed.

Instrument Brackets

These instrument brackets are of the swinging type, with perforated rear enclosure. As a rule, they are located at the right end of the metal-clad line-up.

No Potential Transformers Included. In all cases where proper potential transformers have not been provided in either the listed base unit or by added "option," it is necessary to add the proper number of potential transformers, plus a compartment, for operating in conjunction with the instruments included on the brackets.

For Installations Having Two or More Generators, or Incoming Lines, with Which Generators Must be Synchronized



One synchroscope, 2 voltmeters.
Weight, 120 pounds.
Each..... \$360.00

One synchroscope, 2 voltmeters, 1 frequency meter. Weight, 170 pounds.
Each..... \$585.00

For Use Where Synchronizing is Not Required and Where No Voltmeter is Present On Panel



One voltmeter.
Weight, 60 pounds.
Each..... \$170.00

One voltmeter, 1 frequency meter.
Weight, 110 pounds.
Each..... \$290.00

Ground-and-Test Devices

A portable ground-and-test device can be furnished, to provide facilities for readily grounding either the bus side, or the outgoing-cable side, of a master metal-clad unit, or for the phasing out of operating circuits.

This device includes three through studs which are shaped similar to the bushings of the removable power circuit breakers furnished in the metal-clad switchgear units, so that they can be readily fitted into the stationary disconnecting devices of such a unit. The three studs are adjustable, as a unit, on the device, so that their position may be varied for insertion in either the bus side, or the cable side of the stationary devices of the metal-clad stationary structure.

G-E Metal-Clad Switchgear Equipment

Necessary Additional Accessories

Ground-and-Test Devices

The lower ends of the studs are formed as terminals, to permit the ready attachment of grounding or testing-equipment cables (which are furnished by the purchaser).

The framework of the device is mounted on wheels, so that it is readily portable to a proper position in the stationary structure of the metal-clad unit, whence it can be raised, lowered, or withdrawn in the same manner as the removable element of that unit.

The use of this ground-and-test device is recommended for installations where operating requirements stipulate that circuits shall be entirely disconnected from all sources of potential, and the circuit dead-grounded when work of any kind is to be performed on the circuit. Also, it is recommended as an adjunct to cable-testing equipments, as a means of ready contact with the circuit cables and conductors, either for the regular standard high-voltage testing procedure, or for the proper phasing out of the circuit connections.

Maximum Service-Voltage Class	Each	Ship. Wt., Lb.
4160	\$520.00	250
13200(Y)	620.00	300

Necessary Station Accessories

One set of necessary station accessories is recommended for each complete metal-clad installation, to provide proper facilities for (a) removing a removable element from the stationary structure, (b) inserting the spare removable element in the stationary structure while the original is being transported to another locality, and (c) for convenience in breaker test and inspection.

These accessories consist of two transfer trucks and a testing cabinet.

One of the trucks is used to transport the spare removable element to a unit while, at the same time, the other truck is used for removing the element from that unit. This facilitates and reduces the time required to perform the removal-replacement operation, thus reducing outage to a minimum.

Description	MASTER EQUIPMENT		LIGHT DUTY EQUIPMENT	
	Each	Ship. Wt., Lb.	Each	Ship. Wt., Lb.
1—Set of Metal-Clad Gear Accessories.....	\$430.00	700	\$215.00	575

Optional Additions or Modifications

Description	Each	Ship Wt., Lb.
For Any Generator Equipment		
*Add 1—Complete Ground-Detector Equipment:		
For 2400-Volt Service-Voltage Class.....	\$1010.00	1050
For 4160 and 4800 Service-Voltage Classes.....	1170.00	1200
For Service-Voltage Classes 7200 to 13200(Y).....	1530.00	1475
For Power-Transformer Service:		
‡Add 1—Differential-Relay Protective Equipment.....	620.00	100
§Current-Transformer Surcharge, Where Required.....	290.00	300
For Any Incoming-Line Equipment:		
‡Add 1—Indicating Voltmeter with Suitable Scale, and a Voltmeter Transfer Switch.....	130.00	15
‡Add 1—Indicating Wattmeter, or Varmeter, with Suitable Scale.....	165.00	25
‡Add 1—Synchronizing Switch.....	50.00	5
For Motor Equipments:		
‡Add 1—Integrating Watthour Meter.....	195.00	50
For Any Installation or Equipment:		
‡Add 1—Set of Bus Differential Relays.....	545.00	100
||Current-Transformer Surcharge for Each Circuit Affected.....	295.00	300
‡Add 1—Graphic Watthour Demand Meter, 3-Phase, Single-Circuit.....	455.00	100
||Surcharge for Each Circuit Affected.....	295.00	300
‡Add 1—Graphic Voltmeter.....	310.00	50
Add 1—Graphic Ammeter.....	310.00	50
‡Add 1—Reactive Kilovolt-Ampere-Hour Meter, and Separate Demand-Meter Combination.....	650.00	300
||Surcharge for Each Circuit Affected.....	295.00	300
For Any Light-Duty Equipment:		
Add 1—Portable Electric Drill, with Adapter, to Operate Elevating Mechanism.....	215.00	30

*Includes triplex voltmeter, three potential transformers, and compartment. Only one ground-detector equipment is required for a complete installation.

‡Not included: Any current-transformer provision.

‡Not included: Potential transformers. Where not otherwise provided in the installation, proper potential transformers and compartment must be added, and priced in accordance with the schedules listed elsewhere.

||Includes provision for necessary current transformers.

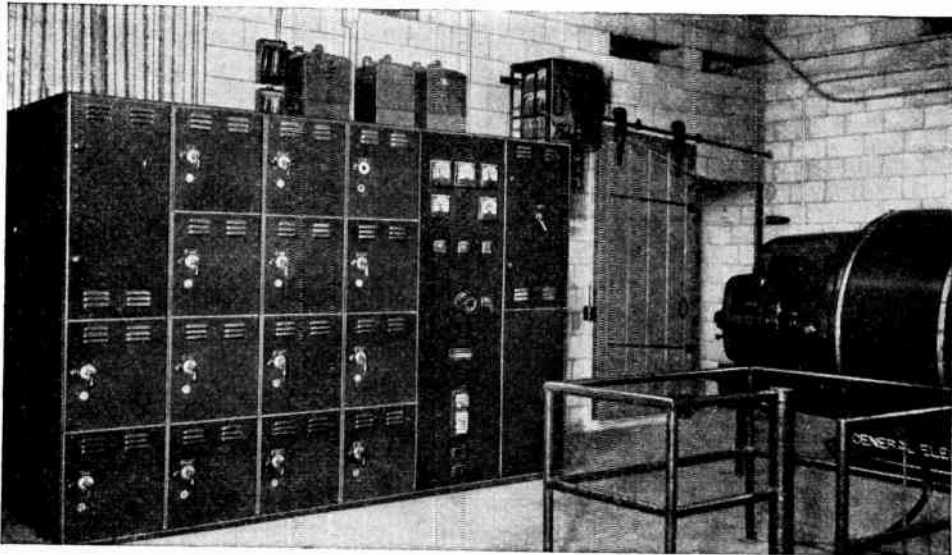
§Includes current transformers for location on one side of the transformer bank, in case they are not already provided in a switching unit for that side of the bank. The transformers will be mounted, either in the switching unit selected for that side of the transformer bank, or by the purchaser, in the proper location.

G-E Standard Metal-Enclosed Low-Voltage A. C. Switchboards

With Drawout Air Circuit Breakers

600 Volts Maximum—3-Phase, 3-Wire, 60 Cycles

Interrupting Ratings—15000 to 100000 Amperes



Installation View of a Metal-Enclosed, Low-Voltage, Drawout Air-Circuit-Breaker Switchboard, Including a Generator Unit and a Number of Feeder-Section Units (Electrically Operated Generator-Field Rheostat Mounted External to the Switchboard)

General Electric has available a complete line of metal-enclosed drawout air-circuit-breaker switchboards rated 250 volts [d.c.] 600 volts [a.c.] in current ratings up to 4000 amperes.

Each breaker is mounted on a carriage that is as easily drawn out as a file-cabinet drawer, and the breaker is easily removable from the carriage, for adjustment or repair. The breaker is equipped with self-coupling disconnecting devices, so that when the carriage is drawn forward the breaker is completely disconnected from all main connections. Mechanical interlocks prevent the withdrawal, or the inserting, of a breaker carriage, unless the breaker is open.

The dead-front drawout air-circuit-breaker switchboard provides the same type of high-quality safe service for the low-voltage plant as metal-clad switchgear provides for 2500 to 15000-volt plants. The following list includes some of the advantageous features of the dead-front drawout switchboard:

Completely Metal-Enclosed Equipment; assures safety to personnel by preventing accidental contact with live parts.

Removable Breaker Units; facilitate inspection and maintenance.

Interchangeable Breaker Units; provide maximum availability of power.

Mechanical Interlocks; prevent improper sequence of operation.

Factory-Built, and Shipped Assembled; assures the receipt of equipment that is ready to operate, with low and predictable installation costs.

These equipments incorporate the latest improved features to provide inexpensively for the simple, safe, and reliable control of 600-volt (or less) a.c. generators, power transformers, incoming and outgoing feeder lines, and synchronous and induction motors (full-voltage-started), which may be used for general power and lighting service in power plants, municipal and industrial installations, and such commercial structures as

office buildings, banks, hotels, theaters, department stores, hospitals, and educational and public buildings, where the total generating capacity connected to the station bus will not exceed the maximum limits listed in Table 1.

Table 1

Maximum Permissible System Generator Capacity Connected to Station Bus as Determined by Feeder-Breaker Interrupting Ratings

Type of Breaker	Interrupting Rating of Feeder Breaker, Amperes	MAXIMUM CONNECTED GENERATING CAPACITY, KVA.		
		240 Volts	480 Volts	600 Volts
AE-1-15	15000	325	600	750
AE-1-25	25000	550	1000	1250
AL-2-50	50000	1125	2000	2500
AL-2-75	75000	1700	3000	3750
AL-2-100	100000	2275	4000	5025

In the general design of this class of gear, the anticipated requirements, for the comprehensive field of their application, have been carefully and fully studied, and all the advantages and outstanding constructive features to provide properly for such application have been fully incorporated in these standard equipments.

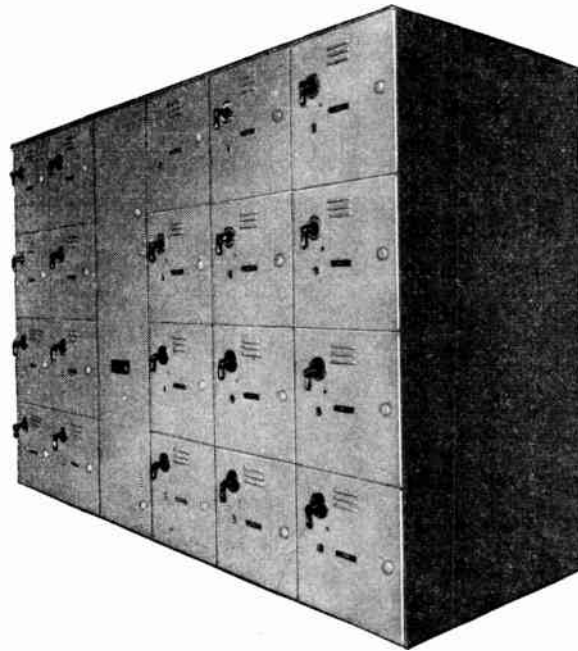
The equipments throughout are of the highest quality manufactured, and may be relied upon to give efficient and satisfactory service for many years, with minimum maintenance attention and expense.

Because these units constitute standard switching equipments, any deviations from the standard listings of either the units, or the optional items, either by substitution or otherwise, may necessitate an increase in price.

Frequency. Although listed for 60 cycles, the panels and equipment can be furnished for operation at any other established commercial frequency.

G-E Standard Metal-Enclosed Low-Voltage A.C. Switchboards

With Drawout Air Circuit Breakers



Metal-Enclosed Drawout Air-Circuit-Breaker, Feeder Switchboard; Bus Transition Unit Located at Approximate Center

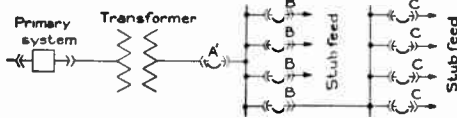


Figure 1



Figure 2

Other Applications

Similar standard metal-enclosed switchboard equipments for the control of direct-current apparatus and circuits can be furnished. Prices and data will be submitted upon request.

Cascading of Breakers

1. In general, air-circuit-breaker interrupting ratings should equal or exceed the fault currents obtainable at the locations where the breakers are to be installed. For relatively large installations, however, where a number of feeder circuits are fed from one or more power sources, it may be economically justifiable to install air circuit breakers in cascade, which means that only the breakers nearest to the source of power need to have interrupting ratings equal to, or in excess of, the obtainable fault current; while breakers farther from the source may have successively lower ratings.

2. When a single air circuit breaker is located between the power source and the load, its interrupting rating must be equal to, or greater than, the average total calculated rms current (including the d.c. component) at 0.5 cycle from the inception of the circuit.

3. Where there are two or three breakers located between the power source and the load, with no appreciable reactance between breakers and buses, cascaded or backed-up breakers may be applied beyond their published interrupting ratings, as follows:

(a) The breaker which is connected directly to the power source must have the same interrupting rating as for a single-breaker installation, per paragraph 2, above.

(b) The second breaker in the cascade may be applied, up to 200 per cent of its published interrupting rating, if based on the currents calculated for the first breaker, per (a).

(c) The third breaker in the cascade may be applied up to 300 per cent of its interrupting rating, if based on currents calculated for the first breaker, per (a). Further cascading cannot be done.

4. The principle of cascading is based upon the fact that breakers of lower interrupting ratings are backed up by breakers of higher interrupting ratings. In order to obtain this backing up properly in cases of severe fault, it is essential that the main breaker trip instantaneously, and at approximately the same time as the smaller breaker.

5. In Table II, are listed fault currents for various power-transformer installations, together with the motor short-circuit-current contributions, and also the combinations of breakers which may be used in cascade for such installations.

The values of short-circuit current listed are based on certain assumed conditions, as stated in the notes under the tables, and, on the interrupting-rating requirements for the transformer-primary power circuit breaker. Also, values are listed for the case where the maximum short-circuit kilovolt-ampere available from the primary system is unlimited.

G-E Standard Metal-Enclosed Low-Voltage A.C. Switchboards

*Table II—Application Tables at 240 and 480 Volts

Transformer Rating, 3-Ph. Kva. and Impedance Per Cent	Max. Short-circuit Kva. Available from Primary System	220-240 Volts								440-480 Volts							
		Normal Load Continuous Current Amp.	SHORT-CIRCUIT CURRENT, TOTAL RMS, AMPERES		INTERRUPTING RATING OF G-E AIR CIRCUIT BREAKER RECOMMENDED				Normal Load Continuous Current, Amp.	SHORT-CIRCUIT CURRENT, TOTAL RMS., AMPERES (AVERAGE 3-PHASE)			INTERRUPTING RATING OF G-E AIR CIRCUIT BREAKER RECOMMENDED				
			100% Motor Load	Combined	Fig. 1 A'	Fig. 2 A	B	C		Transformer Alone	100% Motor Load	Combined	Fig. 1 A'	Fig. 2 A	B	C	
																	100% Motor Load	Combined	Fig. 1 A'	Fig. 2 A	B	C
300 5%	25000	722	14600	18200	50000	25000	15000	15000	361	1800	7300	9100	25000	15000	15000	15000	
	50000		16100	19700	50000	25000	15000	15000			8100	9900	25000	15000	15000	15000	15000
	100000		17000	20600	50000	25000	15000	15000			8500	10300	25000	15000	15000	15000	15000
	150000		17400	21000	50000	25000	15000	15000			8700	10500	25000	15000	15000	15000	15000
	250000		17600	21200	50000	25000	15000	15000			8800	10600	25000	15000	15000	15000	15000
	500000		17900	21500	50000	25000	15000	15000			8900	10700	25000	15000	15000	15000	15000
Unlimited	18100	21700	50000	25000	15000	15000	9000	10800	25000	15000	15000	15000	15000	15000			
450 5%	25000	1083	19900	25300	50000	50000	15000	15000	542	2700	9900	12600	25000	15000	15000	15000	
	50000		22900	28300	50000	50000	15000	15000			11500	14200	25000	15000	15000	15000	
	100000		24800	30200	50000	50000	25000	15000			12400	15100	25000	25000	15000	15000	
	150000		25400	30800	50000	50000	25000	15000			12700	15400	25000	25000	15000	15000	
	250000		26000	31400	50000	50000	25000	15000			13000	15700	25000	25000	15000	15000	
	500000		26500	31900	50000	50000	25000	15000			13300	16000	25000	25000	15000	15000	
Unlimited	27000	32400	50000	50000	25000	15000	13500	16200	25000	25000	15000	15000					
500 5%	25000	1203	21500	27500	50000	50000	15000	15000	601	3000	10800	13800	50000	15000	15000	15000	
	50000		25100	31100	50000	50000	25000	15000			12500	15500	50000	25000	15000	15000	
	100000		27300	33300	50000	50000	25000	15000			13700	16700	50000	25000	15000	15000	
	150000		28200	34200	50000	50000	25000	15000			14100	17100	50000	25000	15000	15000	
	250000		28900	34900	50000	50000	25000	15000			14500	17500	50000	25000	15000	15000	
	500000		29500	35500	50000	50000	25000	15000			14800	17800	50000	25000	15000	15000	
Unlimited	30100	36100	50000	50000	25000	15000	15100	18100	50000	25000	15000	15000					
600 5%	25000	1443	24500	31600	50000	50000	25000	15000	722	3600	12200	15800	50000	25000	15000	15000	
	50000		29000	36200	50000	50000	25000	15000			14600	18200	50000	25000	15000	15000	
	100000		32100	39300	50000	50000	25000	15000			16100	19700	50000	25000	15000	15000	
	150000		33300	40500	50000	50000	25000	15000			16700	20300	50000	25000	15000	15000	
	250000		34400	41600	50000	50000	25000	15000			17200	20800	50000	25000	15000	15000	
	500000		35100	42300	50000	50000	25000	15000			17600	21200	50000	25000	15000	15000	
Unlimited	36000	43200	50000	50000	25000	15000	18100	21700	50000	25000	15000	15000					
750 5½%	25000	1804	26600	35600	75000	50000	25000	15000	902	4500	13300	17800	50000	25000	15000	15000	
	50000		32300	41300	75000	50000	25000	15000			16100	20600	50000	25000	15000	15000	
	100000		36100	45100	75000	50000	25000	25000			18000	22500	50000	25000	15000	15000	
	150000		37600	46600	75000	50000	25000	25000			18800	23300	50000	25000	15000	15000	
	250000		39000	48000	75000	50000	25000	25000			19500	24000	50000	25000	15000	15000	
	500000		40000	49000	75000	50000	25000	25000			20000	24500	50000	25000	15000	15000	
Unlimited	41100	50100	75000	75000	50000	25000	20500	25000	50000	25000	15000	15000					
1000 5½%	25000	2406	31700	43700	75000	50000	25000	15000	1203	6000	15800	21800	50000	25000	15000	15000	
	50000		40200	52200	75000	75000	50000	25000			20100	26100	50000	50000	15000	15000	
	100000		46300	58300	75000	75000	50000	25000			23200	29200	50000	50000	15000	15000	
	150000		48000	60800	75000	75000	50000	25000			24400	30100	50000	50000	25000	15000	
	250000		51000	63000	75000	75000	50000	25000			25500	31500	50000	50000	25000	15000	
	500000		52800	64800	75000	75000	50000	25000			26400	32400	50000	50000	25000	15000	
Unlimited	54700	66700	75000	75000	50000	25000	27400	33400	50000	50000	25000	15000					
1500 5½%	25000	3609	39300	57300	100000	75000	50000	25000	1804	9000	19600	28600	75000	50000	15000	15000	
	50000		53200	71200	100000	75000	50000	25000			26600	35600	75000	50000	25000	15000	
	100000		64500	82500	100000	100000	50000	50000			32300	41300	75000	50000	25000	15000	
	150000		69500	87500	100000	100000	50000	50000			34800	43800	75000	50000	25000	15000	
	250000		74000	92000	100000	100000	50000	50000			37000	46000	75000	50000	25000	15000	
	500000		77900	95900	100000	100000	50000	50000			38900	47900	75000	50000	25000	15000	
Unlimited	82000	100000	100000	100000	50000	50000	41100	50100	75000	75000	50000	25000					

*All selections are based on voltages, transformer impedances, and motor loads, as indicated. For conditions differing from those given the selections therein do not apply. Under different conditions, the short-circuit currents should be calculated, and selections made accordingly.

†The motor short-circuit contributions are computed on the following bases:

(a) That not more than 25 per cent of the motor load is synchronous. If more than 25 per cent is synchronous, for the selection of breakers B and C, in cascade, engineering recommendations should be obtained.

(b) That the combined impedance of motor and motor leads be such as to give five times motor normal current.

‡Breaker A' selections are in all cases governed by the necessary continuous-current ratings of the transformer,

and this is the reason that in some cases the interrupting ratings are higher than the ratings given for the corresponding A breaker. Interrupting ratings of A breakers are all based on the interrupting requirements only, as determined by the combined short-circuit total amperes.

§The current values in this column are those for the given kva. ratings of the transformers. Transformers frequently have permissible loadings above their ratings.

¶Where the interrupting ratings given for B and C breakers are lower than the combined short-circuit total rms amperes, the selections are based on cascading. Where cascading is done, the back-up breakers should be equipped with tripping devices which will provide instantaneous tripping before the current through the backed-up breakers exceeds 80 per cent of their interrupting rating.

‡Use next-larger rating for voltages less than 240 or 480.

G-E Standard Metal-Enclosed Low-Voltage A.C. Switchboards

With Drawout Air Circuit Breakers

Arrangements

The sizes of the basic feeder-section units are determined by the types, ratings, and method of operation of the air circuit breakers which they house; and the height of a section fixes the maximum number of sections permissible for each vertical assembly. Thus is obtained maximum flexibility in the layout of a proposed switchboard, which permits any preferred location of individual feeder sections in the complete switchboard, and the location, at will, of the entrance of incoming power lines to the switchboard (such as at either

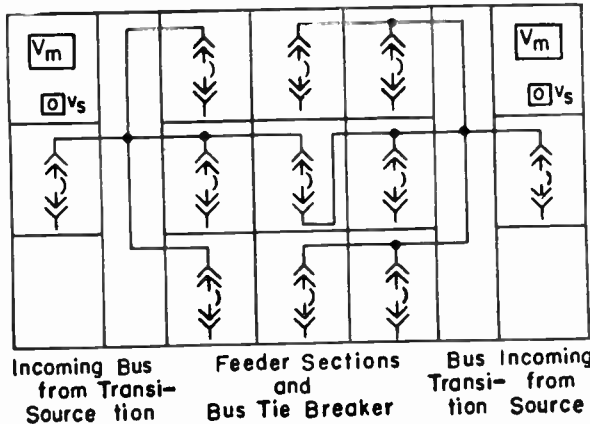


Figure 1
Schematic Connections of a Typical Switchboard Assembly, Including a Bus Transition Compartment

end, or at both ends for two incoming lines, or at the center).

The approximate dimensions, number of sections permissible for a vertical assembly, specifications, and estimating prices, of each of the standard feeder-breaker sections, are listed.

To obtain the estimating price of a switchboard to be constructed entirely of the standard feeder-section units, it is necessary only to compute the total of the listed prices of each of the sections selected, plus the listed prices of any of the listed subsidiary items which may be required, or selected.

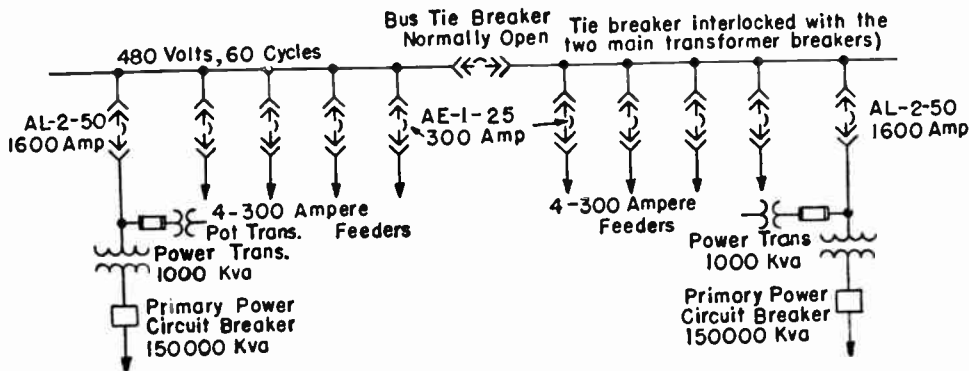


Figure 2
Schematic One-Line Connection Diagram

Bus Transition Units

Bus transition units, each of which consists of a metal-enclosed unit, with a front hinged panel, which encloses vertical bus (risers) and connections, are listed for application in switchboards comprised, in part, or in whole, of a number of standard feeder-section units, and where is involved a necessary transition of buses or connections from vertical to horizontal runs, or vice versa.

There are several applications where a bus transition unit is definitely recommended, such as when connection must be made between one large incoming power-line feeder-section unit in the switchboard to several rows of small feeder-section units, as illustrated schematically in Fig. 1.

The addition of one or more bus transition units for such a proposed switchboard may not always be physically necessary, but when computing estimating prices, they must be included in the price.

Instructions for Ordering

Specify the voltage and frequency of the system. Specify the circuits to be controlled, giving the complete rating of each (including the continuous ampere and the circuit-

breaker interrupting rating required). Describe each subsidiary and optional item selected.

Give the desired order of the base units and auxiliary compartments from left to right, facing the switchboard.

When the air circuit breakers are to control circuits fed from power transformers, give the interrupting kilovolt-ampere rating of the primary power circuit breakers.

Give any additional pertinent information.

Example for Ordering and Pricing

For the purpose of demonstrating the method to be followed to determine the total estimating price of a metal-enclosed drawout switchboard selected from this catalog, the following assumed case has been chosen, and the circuits clearly shown by means of the schematic one-line connection diagram, Fig. 2. It is recommended that this same procedure be followed when preparing such estimates, i.e., the preparation of a similar connection diagram, and pricing accordingly. In the following example, bus transition units are included where they may be considered as a probable requirement.

Description	Each	No. Required
Bus Transition Units, 1600 Amperes.....	\$310.00	2
Main Transformer Breaker Units.....	1495.00	2
Bus-Tie Breaker Unit, 1600 Amperes.....	1495.00	1
Feeder Breaker Units, 300 Amperes.....	650.00	8
Sections Less Breaker (\$650 less \$390).....	260.00	4
Voltmeters and Transfer Switches.....	115.00	2
Potential Transformers.....	60.00	4
Key Interlocks for Man and Bus-Tie Breakers.....	*40.00	3
Total Estimating Price.....	†1935.00	..

*Per set.

†Total estimating price is computed by multiplying the No. Required by price each.

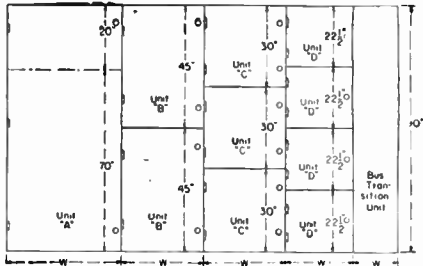
G-E Standard Metal-Enclosed Low-Voltage A. C. Switchboards

With Drawout Air Circuit Breakers

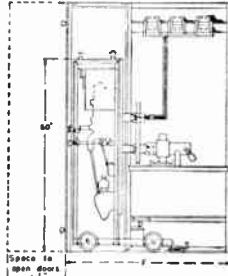
Feeder-Section Units

600 Volts Maximum 3-Phase, 3-Wire, 60 Cycles

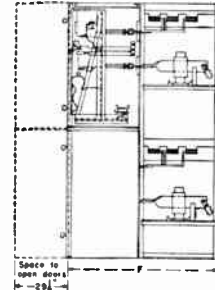
*For Incoming-Line, Power-Transformer, Feeder, and Motor-Branch Circuit Application



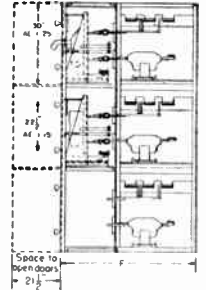
Outline of Front View of Standard Section Units



Outline of Side View of Unit "A"



Outline of Side View of Unit "B"



Outline of Side View of Unit "C" (Unit D Same as Above, Except Four Sections High)

AIR CIRCUIT BREAKERS				SWITCHGEAR STRUCTURE				BUS TRANSITION UNIT					
RATINGS		Type of Breaker	Method of Operation	Type of Unit, Fig.	Number of Units, per Section	DIMENSIONS INCHES	Complete Unit with Breaker Element		Spare Removable Breaker Element		Rating of Main Bus, Amperes		
Continuous Amperes	Interrupting Amperes						†Each	Wt., Lb.	†Each	Wt., Lb.	Each	Ship. Wt., Lb.	
4000	100000	AL-2-100	Electric	A	1	42 66	\$4925.00	6350	\$2940.00	1250	5001-6000	\$1725.00	3300
3000	75000	AL-2-75	Electric	A	1	42 66	4030.00	5775	2290.00	1175	4001-5000	1430.00	2850
2000	75000	AL-2-75		A	1	42 66	3250.00	4950	1950.00	1165	3001-4000	1120.00	1750
1600	50000	AL-2-50	Manual Electric	C	3	30 54	1495.00	1075	975.00	325	2001-3000	815.00	1750
1000-1200	50000	AL-2-50		B	2	30 54	1855.00	1325	1235.00	575			
			800	50000	AL-2-50	C	3	30 54	1185.00	1075	715.00	325	1201-2000	620.00	1200
B	2	30 54				1560.00	1325	975.00	575				
200-600	50000	AL-2-50	Manual Electric	C	3	30 54	1075.00	1075	620.00	325	601-1200	520.00	925
				B	2	30 54	1450.00	1325	910.00	575			
50-600	25000	AE-1-25	Manual Electric	C	3	22 48	650.00	865	390.00	210	600	360.00	800
				C	3	22 48	845.00	865	520.00	210			
15-225	15000	AE-1-15	Manual Electric	D	4	22 47	360.00	670	170.00	120	225	215.00	600
				D	4	22 47	520.00	680	260.00	125			

*Motor-feeder, and motor-branch circuit applications are limited to 600 amperes maximum continuous rating.

†Prices are approximate only.

‡Where the complete switchboard is comprised of a number of different unit types, the overall depth of the units is made identical, in order to obtain uniformity in construction and bus runs.

§Width of bus transition unit is as required for the installation minimum, 12 inches. Depth corresponds to that of adjacent feeder-section units.

General Specifications of Feeder-section Units— (Equipment Included in Price)

For Optional Additions, See Table IV

- 1—Metal-enclosed unit, complete with stationary and removable elements, including primary disconnecting devices, mechanical interlocks, and
- 1—Louvered, hinged-front door.
- 1—Air circuit breaker, complete with overcurrent trips, interpole barriers, operating handles (or control switches for electrically operated breakers), and all necessary parts, on removable drawout carriage.
- 1—Bare 3-phase bus with supports.
- Necessary bare-copper interconnections.
- Cable terminal connectors.
- 1—Ground bus.

General Specifications of Bus-Transition Units (Equipment Included in Price)

- 1—Metal-enclosed unit, complete with hinged-front instrument panel, with latches, and
- 1—Bare 3-phase bus with supports.
- Necessary bare transition copper connections.
- Mounting and small wiring, including terminal boards, for secondary control equipment, where added. Mounting for current and potential transformers.

G-E Standard Metal-Enclosed Low-Voltage A.C. Switchboards With Drawout Air Circuit Breakers 600 Volts Maximum, 3-Phase, 3-Wire, 60 Cycles A. C. Generator and D. C. Exciter, Synchronous-Motor, And Induction-Motor Equipments

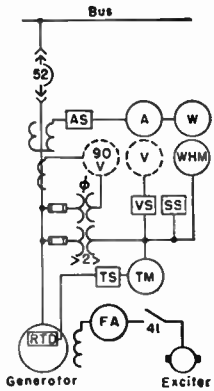


Figure 1
Schematic Connection Diagram, Generator and Exciter Equipment

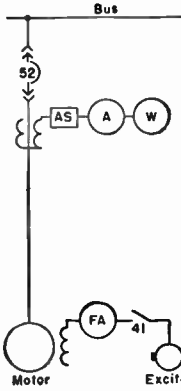


Figure 2
Schematic Connection Diagram, Synchronous-Motor Equipment, Full-Voltage Start

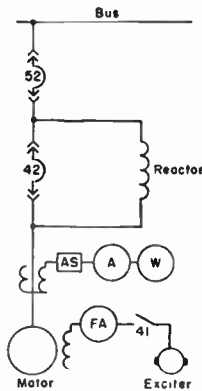


Figure 3
Schematic Connection Diagram, Synchronous-Motor Equipment, Line-Reactor Start

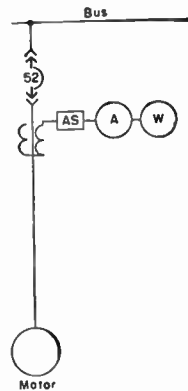


Figure 4
Schematic Connection Diagram, Induction-Motor Equipment, Full-Voltage Start

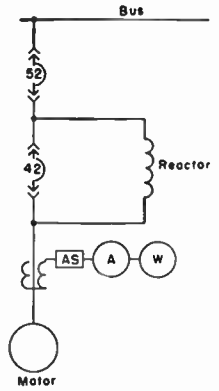


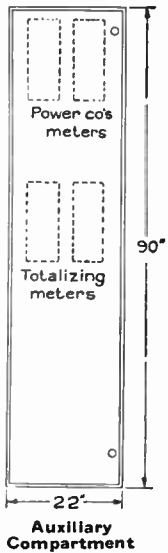
Figure 5
Schematic Connection Diagram, Induction-Motor Equipment, Line-Reactor Start

Prices include the following:
For all equipments:
Metal-enclosed unit, complete with stationary and removable elements, including primary and secondary disconnecting devices, mechanical interlocks, louvered hinged door for each breaker compartment.
Hinged-front instrument panel for enclosed secondary control compartments.
Auxiliary compartment, with hinged-front instrument panel.
Air circuit breaker (or breakers), complete with overcurrent trips, interpole barriers, operating handles (or control switches for electrically operated breakers), and all necessary parts, on removable drawout carriage.
Instruments, instrument transformers, instrument switches.
Copper buses, bus supports, copper interconnections, necessary cable-terminal connectors, terminal blocks, ground bus, small wiring. In addition, For generator-exciter equipments:
Mounting and operating mechanism for field rheostats (rheostats not included).
Field breaker (discharge resistor not included).
Provision for voltage regulator (regulator not included).
Differential-relay equipment, for generators rated 2000 amperes and above.
For synchronous-motor equipments:
Field contactor and discharge resistor:
Operating mechanism for field rheostat (rheostat not included).
Synchronous-speed relay, field relay, undervoltage device, thermal relay (for equipments in excess of 600 amperes).
Incomplete-sequence relay (for motors rated 500 hp. and above).
Not Included: Automatic field-removal and resynchronizing, for pull-out protection. (Loaded start.) Where desired, increase price \$195.
For induction motor equipments:
Undervoltage device.
Transfer relay (where required, Fig. 5).
Thermal relays (for circuits above 600 amperes).

AIR-CIRCUIT BREAKERS				Generator and Exciter Fig. 1		Synchronous Motor				Induction Motor				
RATINGS		Type of Breaker	Method of Operation	Approx. Ship. Wt., Lb.		Full-voltage Unloaded Start Fig. 2		Line-reactor Unloaded Start Fig. 3		Full-voltage Start Fig. 4		Line-reactor Start Fig. 5		Approx. Ship. Wt., Lb.
Continuous Amperes	Interrupting Amperes			*Width In.	Each	*Width In.	Each	*Width In.	Each	*Width In.	Each	*Width In.	Each	
3000	75000	AL-2-75	Electric	66	\$8105.	8680	..	..	..	..	..	..	..	..
				..	7165.	7335	..	..	..	..	..	..	..	..
1600	50000	AL-2-50	Manual	52	3855.	2800	52	\$3330.	2125	..	..	..	..	..
				..	4210.	3050	52	3680.	2375	66	\$6570.	4950	30	\$1625.	1300
1200	50000	AL-2-50	Manual	52	3430.	2525	52	3005.	2100	..	..	..	..	..
				..	3785.	2775	52	3360.	2350	66	5825.	4725	30	1625.	1525	66	4940.	4850
800	50000	AL-2-50	Manual	52	3235.	2500	52	2840.	2075	..	..	..	..	..
				..	3595.	2750	52	3200.	2325	66	5295.	4500	30	1495.	1500	66	4525.	4625
200-600	50000	AL-2-50	Manual	52	2995.	2375	52	2640.	2050	..	..	..	..	..
				..	3355.	2625	52	3005.	2300	66	5065.	4450	30	1605.	1450	66	3950.	4650
250-600	25000	AE-1-25	Manual	44	2405.	2150	44	2300.	2130	..	..	..	..	..
				..	2595.	2150	44	2485.	2430	52	4030.	3500	22	1090.	990	52	2910.	3500
50-225	25000	AE-1-25	Manual	44	2180.	1950	44	2210.	1825	..	..	..	..	..
				..	2360.	1950	44	2390.	1825	52	3620.	3300	22	1000.	990	52	2365.	2900
15-225	15000	AE-1-15	Manual	44	1990.	1765	44	2010.	1650	..	..	..	..	..
				..	2140.	1765	44	2170.	1650	52	3175.	2750	22	780.	815	52	1915.	2550

*Depth of unit is same as for feeder unit of corresponding-size breaker. Where the complete switchboard is comprised of a number of different unit types, the overall depth is made identical, in order to obtain uniformity in construction and bus runs. †Prices are approximate.

**G-E Standard Metal-Enclosed Low-Voltage A. C. Switchboards
With Drawout Air Circuit Breakers**



Auxiliary Compartments

For some installations, the application of some of the equipments listed in this section requires the addition of an auxiliary compartment for the purpose of providing proper facilities for the accommodation of additional devices, among which may be totalizing meters, power company's meters and instrument transformers, tripping battery and charger (when added), extra potential transformers, or any other pertinent additional devices.

The auxiliary compartments (listed in Table III) have the same depth dimensions as the equipment structures with which they are aligned in the switchboard structure. It is provided with a full-height hinged-front instrument panel with latches, and is usually located immediately adjacent to the equipment with which it is associated, although, for certain applications, it may be located at any desired position in the structure line-up.

Table III

***Auxiliary Compartments**

To Line Up with Unit Having Breaker of Interrupting Rating	Estimating Price	Ship. Wt., Lb.
50000 Amperes or Less	\$615.00	900
75000 Amperes	810.00	1000
100000 Amperes	1120.00	1150

Application of Potential Transformers

The devices (listed in this section) which regularly require excitation from potential transformers, are as follows:

- Voltmeter
- Synchroscope
- Wattmeter
- Watt-hour Meter
- Frequency Indicator

It is not necessary to include a potential transformer for operation in conjunction with an undervoltage device for an air circuit breaker.

Instrument Brackets

Instrument brackets of the swinging type, with perforated rear enclosure, for location at either end of the switchboard, are available. For selection, description, and prices, refer to your Distributor.

Table IV—Optional Additions and Modifications**

Description	Estimating Price, †Each	Ship. Wt., Lb.
1—Potential Transformer, With Primary Fuses	\$60.00	50
1—Current Transformer, for Unit Rated:		
800 Amperes or Less	60.00	40
801 to 1500 Amperes	60.00	50
1501 to 4000 Amperes	110.00	60
|| 1—Demand Meter, Indicating	80.00	50
|| 1—Demand Meter, Graphic (Strip-Chart)	390.00	60
§ 1—Contact Device for Watthour Meter	15.00	—
1—Demand-Meter Register for Watthour Meter	50.00	—
†† 1—Watthour Meter, 2-Element, With Test Plug	145.00	40
†† 1—Indicating Voltmeter, With Suitable Scale	65.00	10
†† 1—Indicating Voltmeter, and Voltmeter Transfer Switch	115.00	15
†† 1—Indicating Ammeter, and Ammeter Transfer Switch	115.00	15
†† 1—Indicating Wattmeter, 2-Element, With Suitable Scale	160.00	20
†† 1—Synchronizing Switch	50.00	5
1—Current-Balance Relay (No. 46) and One Current Transformer	290.00	20
1—Differential-Relay Protective Equipment, Including All Necessary Modifications In the Basic Equipment		
For Equipment With Manually Operated Breaker	1365.00	450
For Equipment With Electrically Operated Breaker	1330.00	425
¶ 1—Set of Three Ground-Detector Lamps, With Push-Button Switch	80.00	10
1—Key Interlock (To Prevent Closure of Breaker Unless Interlock Is Set)	50.00	2
1—Undervoltage Device, Time, for Air Circuit Breaker Rated:		
50,000 Amperes or Less Interrupting Capacity	45.00	10
75000 or 100000 Amperes Interrupting Capacity	80.00	15
1—Shunt-Trip Device, for Manually Operated Breaker Rated:		
50000 Amperes or Less Interrupting Capacity	30.00	10
75000 or 100000 Amperes Interrupting Capacity	65.00	15
1—Clock (10-Inch Dial), With Bracket, for Mounting On Top of Unit	260.00	40
1—Alarm Bell, Up to 12-Inch Diameter	65.00	20

*Included: Necessary bus copper where the station bus extends across the compartment, and provision only for mounting instrument transformers.

†For hinged rear panel, add \$1 4. per compartment.

‡For firm net prices, refer to your Distributor.

§This item should be priced only when either of the demand meters listed herein are added for a circuit.

||These items operate in conjunction with the circuit watthour meter.

¶Only 1 set required for a complete switchboard, regardless of the number of generator equipment installed.

**All instruments, meters, and switches are to be mounted on the hinged instrument panel of either a bus transition unit, or an auxiliary compartment, which must be added, if not already included. It is also feasible to mount instruments, meter, instrument switches, etc., on the front doors of blank feeder-section units, to obtain an arrangement of circuit metering devices in vertical-panel assemblies. For estimating prices for such an arrangement, it is satisfactory to price a proper listed feeder-section unit, less its removable element, for mounting each such instrument-group location in the switchboard.

††Not Included: Any instrument transformers, which should be added, as required for the circuit and the switchboard, per the prices listed in this table.

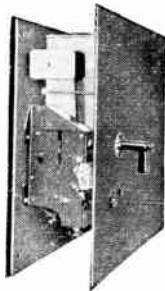
G-E Types AE-1-15 and AE-1-25 Enclosed Air Circuit Breakers

For Dead-front Switchboard Mounting

Manually or Electrically Operated



Type AE-1-15 Air Circuit Breaker, Manually Operated, Enclosed Type



Type AE-1-15 Air Circuit Breaker, Manually Operated, For Dead-front Switchboard Mounting



Type AE-1-25 Air Circuit Breaker, Electrically Operated, Enclosed Type (With Cover Removed to Show Breaker)

Types AE-1-15 and AE-1-25 air circuit breakers are particularly adapted to general industrial and switchgear service where numerous opening and closing operations are required. They provide economical and reliable protection for power and lighting feeder circuits.

These breakers are capable of operating thousands of times without requiring maintenance and their simple, compact, and sturdy construction makes them especially suitable for mounting in steel enclosures.

The Type AE-1-15 with 15000-ampere interrupting rating and the Type AE-1-25 with 25000-ampere interrupting rating are similar, except that the Type AE-1-25 is generally heavier and sturdier than the Type AE-15.

Calibration range: 100-200 per cent of rating.

Voltage ratings: 600 volts a.c., 250 volts d.c.

The multipole breakers consist of single-pole elements grouped compactly together and operated simultaneously by a sturdy insulated steel shaft. Manually operated breakers have a pistol-grip handle—turn to close, pull to trip. Electrical operation is by means of a solenoid mounted at the side of the breaker within the same space occupied by the manual mechanism.

The arc quencher, one on each pole, is a most important factor in the dependable operation of these breakers. It minimizes disturbances and quickly extinguishes the arc. Metal pins above the contacts split up and cool the arc. The arc energy is rapidly absorbed by parts having high thermal capacity and large radiating surfaces.

These breakers are equipped with dual magnetic over-current tripping devices which differentiate between overloads and short circuits by providing a time delay inversely proportional to the over-current for values up to approximately ten times normal current, and instantaneous tripping for higher or short-circuit currents.

Prices include: time-delay, dual-magnetic, over-current tripping device per pole; arc quenchers; and ebony-asbestos base. Breakers in steel enclosures include, in addition, position indicator to show open or closed position of breaker. Manually operated breakers have pistol-grip handle on the enclosing case cover. Electrically operated breakers in enclosures include push-button closing switch and push-button mechanical trip.

When ordering, specify type, number of poles, number of current trips, voltage rating, a.c. or d.c. circuit, current rating, and whether for dead-front mounting or enclosed for individual mounting.

*Type AE-1-15—15,000 Amperes Interrupting Rating

Continuous Ampere Rating of Breaker	†In Steel Enclosure for Individual Mounting				‡For Dead-front Switchboard Mounting							
	Manually Operated		Electrically Operated		Manually Operated		Electrically Operated					
	Two-pole Each	Three-pole Each	Four-pole Each	Two-pole Each	Three-pole Each	Four-pole Each	Two-pole Each	Three-pole Each	Four-pole Each			
*25-225	\$105.00	\$130.00	\$185.00	\$190.00	\$215.00	\$270.00	\$100.00	\$125.00	\$180.00	\$185.00	\$210.00	\$265.00
Shipping Wt. lb.	126	153	185	126	153	185	84	108	132	84	108	132

§Type AE-1-25—25,000 Amperes Interrupting Rating

\$50-600	\$270.00	\$355.00	\$445.00	\$380.00	\$465.00	\$555.00	\$255.00	\$340.00	\$430.00	\$365.00	\$450.00	\$540.00
Shipping Wt. lb.	240	265	310	240	265	310	160	185	225	160	185	225

†Breaker may be lifted out of case to permit connections of cables to fixed terminal connectors in case. Two bolts are removed and breaker is swung down on pivots and lifted out to permit pulling and connection of cables.

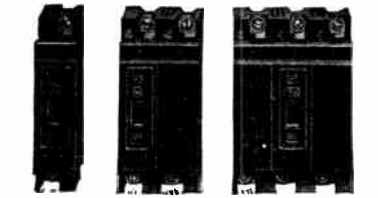
‡Also can be mounted front of panel, for which arrangement the manually operated breaker is furnished with a fixed handle.

*Ratings: 25, 35, 50, 70, 90, 100, 125, 150, 175, 200, 225 amperes.

§Ratings: 50, 70, 90, 100, 125, 150, 175, 200, 225, 250, 275, 300, 325, 350, 400, 500, 600 amperes.

Description	Accessories for Types AE-1-15 and AE-1-25	Each
Auxiliary Switch, 2-Contact		\$10.00
Additional Contacts (To a Total of Six)		5.00
Hand-Reset Bell-Alarm Device, Overcurrent (When Added, Size of Enclosure May Be Increased)		35.00
Undervoltage Device, Instantaneous		30.00
Time		40.00
Shunt-Trip Device (Includes 2-Contact Auxiliary Switch)		30.00
Reverse-Current Device (Direct Current Only)		65.00
Cutoff Device (For Remote Maintained-Contact Control of Electrically Operated Breaker)		45.00

G-E Type AH-1 and Trumbull Type AT Air Circuit Breakers



Single, 2, and 3-Pole Air Circuit Breakers, Type AT, 50-Ampere Frame Size



Type AH-1 Air Circuit Breaker, 3-Pole 225-Ampere Frame Size



Type AH-1 Air Circuit Breaker, 3-Pole 600-Ampere Frame Size

Type AT air circuit breakers are recommended for use in panelboards and other load centers as a modern substitute for fuses and fused switches, in service entrances instead of fused switches, in dead-front switchboards, and also for individual circuits and appliances. The operation is automatic on either overload or short circuit. Power is restored by a slight movement of the handle.

Available in single, 2, and 3-pole in the 50-ampere frame size; 2 and 3-pole in all other sizes.

Breakers of the 50-ampere frame size are equipped with thermal overcurrent trip, while the larger sizes also have the thermal trip for moderate overcurrents, plus an in-

stantaneous magnetic trip for short circuits.

In the Trumbull Type AT breakers, the arc interruption takes place in an improved arcing chamber which removes the destructive action of the arc from the contacts and entirely isolates it from the mechanism. Contacts are of the low-resistance type manufactured from special nonwelding material.

In the G-E Type AH-1 breakers, the contacts are of the multiple-finger type, designed for long life, low maintenance, and easy accessibility for inspection. The contact tips are of silver-tungsten alloy, with high arc-resisting and nonwelding characteristics.

*50-Ampere Frame Size, 5000 Amperes Interrupting Rating

Con- tinuous Ampere Rating of Breaker	Manufacturer and Type	250 Volts, A.C. 125-250 Volts, D.C.						600 Volts, A.C. 250 Volts, D.C.						Inter- change- able Trip Units All Volt- ages	†Studs for Back Connection	
		Single-Pole		2-Pole		3-Pole		2-Pole		3-Pole		Length of Stud Back of Breaker, Inches	Each			
		Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.					
15-20-25 35-50	Trumbull AT	\$4.75	2	\$10.00	3	\$15.00	4	3 1/16	\$1.00	
		\$5.75	2	12.00	3	18.00	4	.....	.....	.....	.....	.....	.....

*100-Ampere Frame Size, 15,000 Amperes A. C., 10,000 Amperes D. C., Interrupting Rating

15-20-25 35-50	Trumbull ATB	.....	.....	\$14.00	8	\$19.00	8	\$24.00	9	\$30.00	13	.....	15-50 4	\$1.00§
		16.00	8	22.00	8	26.00	9	33.00	13		
70-90-100	Trumbull ATA	25.00	8	33.00	8	35.00	9	43.00	13	70-100 5 3/4	1.00
		33.00	9	43.00	13	41.00	9	54.00	13	\$11.00			15.00

*225-Ampere Frame Size, 15,000 Amperes A.C., 10,000 Amperes D.C. Interrupting Rating

¶70-225	G-E AH-1	\$91.00	\$110.00	\$108.00	\$135.00	{ \$31.00 39.00 }	3 1/4	\$1.25
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*600-Ampere Frame Size, 25,000 Amperes A.C., 20,000 Amperes D.C., Interrupting Rating

¶225-400 ¶500-600	G-E AH-1	\$233.00	50	\$296.00	60	\$250.00	50	\$320.00	60	{ \$63.00 98.00 99.00 136.00 }	{ 3 1/4 5 5 }	{ \$4.15 4.75 }
		269.00	50	243.00	60	286.00	50	367.00	60	

*Interrupting ratings given are N.E.M.A. ratings. The Underwriters' test ratings are as follows, a.c. or d.c.: 50-ampere frame size AT, 5000 amperes; 100-ampere frame size ATA and ATB, 250-volt a.c., 125/250-volt d.c., 5000 amperes; 100-ampere frame, size ATA and ATB, 600-volt a.c., 250-volt d.c., and all AH-1, 10,000 amperes.

†Circuit breakers as listed are front-connected. For back connection, two studs are required per pole; that is; two for one-pole breaker, 4 for two-pole, and 6 for three-pole. Studs are furnished with necessary nuts and washers.

‡Trip units of the 50-ampere frame size AT and of the 100-ampere frame size ATB breakers are not interchangeable. Each of the interchangeable trip units of the 100-ampere frame size ATA and of the 225 and 600-ampere frame size AH-1 includes a thermal unit and an instantaneous magnetic-trip element for each pole, combined into a single sealed breaker unit. The magnetic trip is adjustable to trip at high or low currents, independent of the thermal element. Prices given are for two-pole and three-pole breakers respectively.

§Long and short stud for each pole. Specify ampere rating for ATB studs.

¶When assembling studs to a 600-volt a.c., or 250-volt d.c., breaker, a short and a long stud should be assembled on adjacent poles, in order to maintain suitable clearance between poles. Equal quantities of both lengths should be ordered.

¶Ampere ratings: 70, 90, 100, 125, 150, 175, 200, 225, 250, 275, 300, 350, 400, 500, 600.

G-E Types FK-142 and FK-143 Indoor Oil-Blast Power Circuit Breakers

Manually and Electrically Operated

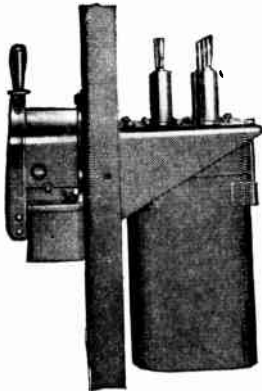
8-Cycle Interrupting Time

Type FK-143

50000 KVA— (7.5 KV— 600 Amperes
5 KV—1200 Amperes

Type FK-142

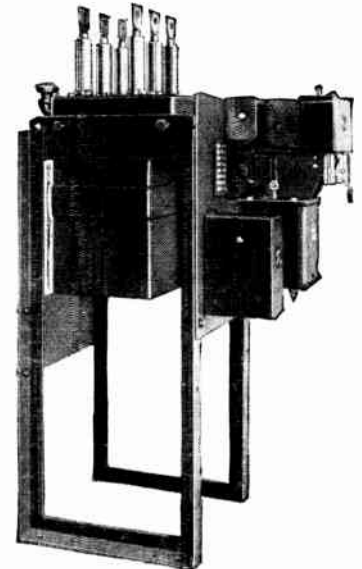
25000 KVA—5 KV—
600 Amperes



Triple-Pole, 600-Ampere,
Manually Operated,
Panel-mounted

Types FK-142 and FK-143 oil-blast breakers are recommended for use on a.c. circuits where sturdy, compact breakers with interrupting ratings up to 25000 and 50000 kilovolt-amperes are required. They are suitable for industrial service and in other installations where space is limited. They are of similar construction, the FK-143 being somewhat sturdier for heavier duty.

These breakers are available in double- and triple-pole, single-throw units with all poles in a single, rectangular, welded steel tank. They have oil-blast contacts, including silver-to-silver main contacts and heavy butt-type arcing contacts; Herkolite bushings; and internal mechanisms. These features assure these breakers' ability to give thoroughly reliable and dependable service with long life and very low maintenance.



Triple-Pole, 600-Ampere,
Electrically Operated, Frame-Mounted

Manually Operated Units Include

(Single-Throw)

Breaker.

Type HC-5 trip-free manual mechanism, including necessary instantaneous or time-delay current trips and/or instantaneous potential trip with auxiliary switch (maximum of three trips of any type).

Current transformers and relays not included.

Standard clamp-type terminal connectors No deduction for omission. Necessary oil.

For remote-mounted breakers, mounting plate, one horizontal and two vertical hangers, with bell cranks and clevises are included.

(Double-Throw)

Two single-throw breakers with mechanical interlock, and two operating levers with mechanical cross trip.

Electrically Operated Units Include

(A.C. or D.C.)
(Single-Throw)

Breaker and Type MS-5B trip-free solenoid mechanism mounted back-to-back on a steel plate, direct-coupled.

Closing relay. One potential trip coil.

Current-trip coils, relays, and current transformers not included.

Four-stage auxiliary switch. Terminal board.

Standard clamp-type terminal connectors. No deduction for omission. Necessary oil.

Copper-oxide rectifier (if a.c. operated).

Maintenance closing device (as required).

(Double-Throw)

Two single-throw breakers, and two solenoid mechanisms electrically interlocked.

Interrupting Kva. and Type	RATED		Poles	*Single-Throw Breaker			Electrically Operated— For Pipe-Framework or Cell Mounting.		† INTERRUPTING RATING.		APPROX. WT. LB. INCLUDING OIL— Manual, Solenoid Panel-Operated, D.C.			
	Volts	\$ Amp. at 60 Cycles		Direct Operation for Panel Mounting Each	Direct Operation or Remote Operation for Steel-Frame Mounting Each	Remote Operation for Framework Mounting Each	Solenoid D.C. Each	Solenoid (Rectifier) 220V A.C. Each	Rms Total Amp. At Rated Voltage	Maximum Rating				
	†	‡		§	¶		¶	¶	¶	¶				
FK-142	5000	600	2	\$240.00	.....	\$280.00	\$380.00	\$460.00	3000	10000	210	375		
	5000	600	3	240.00	.....	280.00	380.00	460.00					225	390
	5000	600	4	350.00	.....	390.00	500.00	580.00					285	460
	7500	600	2	515.00	\$530.00	555.00	660.00	755.00					305	450
FK-143	5000	1200	3	860.00	875.00	900.00	1000.00	1095.00	6000	12500	400	545		
	7500	600		515.00	530.00	555.00	660.00	755.00					325	470
	5000	1200		860.00	875.00	900.00	1000.00	1095.00					440	585

*For double-throw breaker, price is twice that of the corresponding single-throw breaker.

†Interrupting rating of FK-142 breakers, based on CO-2 min-CO duty cycle, and of FK-143, based on CO-15 sec.-CO duty cycle.

‡Although the listed standard nameplate ratings are 5000 and 7500 volts, it is recommended that these breakers should not be applied on service voltages in excess of the 4160-volt class.

§25-cycle ratings, as compared with 60-cycle ratings, are 600-700 and 1200-1400 amperes.

¶Breaker and manual mechanism mounted back-to-back on a steel plate.

¶Framework may be angle, pipe, or self-supporting steel for FK-143; angle or pipe for FK-142.

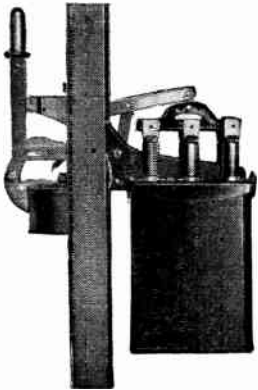
Accessories

Auxiliary Switch, First Stage (Manually Operated Breaker).....	each	\$13.00
Each Additional Stage (Either Manually Operated or Electrically Operated).....	each	5.00
(Current Trip Coils (3).....	per set of three	75.00
Undervoltage Device, Instantaneous.....	each	40.00
Undervoltage Device, Time.....	each	80.00
Self-Supporting Steel Framework (Type FK-143 Only).....	each	30.00
Windlass-Type Tank Lifter (Type FK-143 Only).....	each	9.00

If electrically operated and no current coils ordered, add \$35.

G-E Type FK-33 Oil Circuit Breakers Manually or Electrically Operated

400 Amperes, 2500 Volts—15000 Kilovoltamperes



Type FK-33 oil circuit breaker is recommended for use on a. c. circuits in small and isolated plants, and for other duties when a breaker of moderate rating is desired.

It is of the single-tank type all poles are in one tank.

Material included: Type FK-33 breaker, Type HA-2 operating lever, necessary instantaneous or time-current trips, mounting details for breaker element, bell cranks with remote control, terminals and nuts, necessary oil.

For solenoid-operated breaker, price also includes solenoid closing relay, a potential trip coil (no current trip coils included), a terminal board, and a four-stage rotary auxiliary switch.

*Single-Throw

Poles	Manually Operated For Panel Mounting		Solenoid Operated, for Mounting on Framework or With Breaker in Cell		D.C. Solenoid Each	A.C. Rect. Solenoid Each	Approx. Ship. Wt. Lb. With Oil
	Each	Approx. Ship. Wt. Lb. With Oil	Each	Approx. Ship. Wt. Lb. With Oil			
2	\$150.00	100	\$190.00	180	\$270.00	\$350.00	352
3	150.00	110	190.00	190	270.00	350.00	368
4	215.00	130	255.00	260	335.00	415.00	418

*For a double-throw breaker, the price is exactly twice that of a single-throw breaker.

G-E Type TB-2 Temperature Relays



The Type TB-2 relay is recommended for protecting machine bearings against overheating. The contacts are silver-to-silver, and are operated on the quick-make and quick-break principle. Contacts will carry 5 amperes continuously or 20 amperes for 1 minute. They will interrupt 1 ampere at 125 volts, d.c. or 7 amperes at 220 volts, a.c.

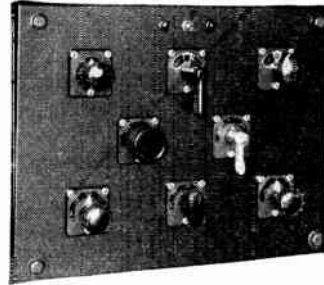
Each relay has a sylvon bulb containing a volatile liquid which vaporizes when heated to a predetermined temperature. This causes a bellows to expand and operate the contacts. Relay is adjusted to operate at approximately 105°C. After the sylvon cools, the contacts will remain in the operated position and must be reset by hand.

Relay, exclusive of bulb, is 3 3/4 inches wide and 6 inches high.

No.	Each	Length of Sylvon Tube Inches	Ship. Wt. Lb.
2132592G6	\$42.00	32	12
2132592G3		6	15
2132592G12		10	20

G-E Miscellaneous Switchgear Devices

Type SB-1 Control and Instrument Transfer Switches



Panel Mounting Typical Type SB-1 Control Switches

These multicontact switches are for the control of circuit breakers, electrically operated governors, rheostats, and other devices, for the transfer of current and potential coils of instruments, and for many other similar applications.

They are rotary type with cam-operated silver-to-silver contacts. The contacts will carry 20 amperes continuously and are insulated for 600 volts. They will interrupt 10 amperes at 125 volts d.c., non-inductive circuits.

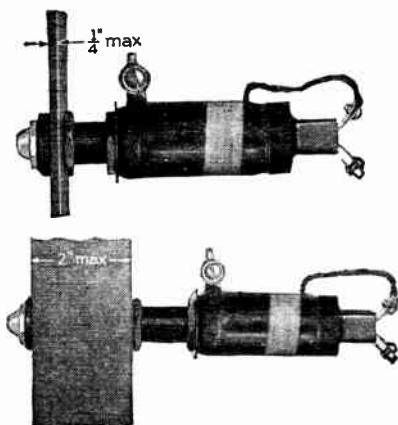
Switches are compact, totally enclosed, dead-front, and require small panel space. Circuit-breaker control switches have a red-green mechanical target that shows last previous operation. Instrument transfer switches have fixed or removable handles according to application. The design is extremely flexible and can be applied to meet special requirements.

Service	Each	Poles and Throws	No. of Stages	Type of Handle	Escutcheon Marking	Approx. Ship. Wt. Lb.
Circuit-Breaker Control	\$15.00	Single-Pole Double-Throw	2	Fixed, Pistol Grip	Red and Green Indicator	3
Circuit-Breaker Control	18.00	Single-Pole Double-Throw with Auxiliary Contact	4	Fixed, Pistol Grip	Red and Green Indicator	4
Governor-Motor Control	19.00	Double-Pole Double-Throw	4	Fixed, Radial	Raise-Lower	4
Rheostat Control	19.00	Double-Pole Double-Throw	4	Fixed, Round, Smooth	Raise-Lower	4
Voltmeter Transfer	15.00	Single-Pole Four-Throw	3	Fixed, Round, Knurled	Off, 1-2, 2-3, 3-1	4
Voltmeter Transfer	*13.50	Single-Pole Four-Throw	3	Removable	Off, 1-2, 2-3, 3-1	4
Ammeter Transfer	20.00	Three-Phase Transfer	6	Fixed, Round, Knurled	1, 2, 3	5
Wattmeter Rva. Meter Transfer	18.50	Four-Pole Double-Throw	4	Fixed, Round, Knurled	Watt, Off, Rva.	5
Synchroscope	*14.50	3-Position, 1-Pole Run, 2-Pole Start	2	Removable	R, I	3

*Handle not included; order as required at \$2.00 each.

G-E Miscellaneous Switchgear Devices

Type ET-5 Indicating Lamps



The ET-5 indicating-lamp combination is simple and sturdy in construction.

They are used separately wherever a clearly visible indication is desired, or in combination with control switches. They have a high visibility with low wattage consumption and long life. They occupy little space, and may be mounted on 1 1/2-inch centers.

The device includes a G-E incandescent telephone lamp, T2 bulb, No. 902 slide base with raised prick punches, No. 59X243, 24 volts, 0.032-0.038 ampere. Screw-type compound color caps easily removed and replaced are used in the escutcheon over the lamp and give positive indication. Six colors, clear, red, green, white, blue, and yellow, are listed. Color of cap desired should be specified when ordering complete device. Spare caps for renewals should be ordered separately by designated No.

The resistor element slides over the receptacle body from the rear, and the complete device has provision for soldered connections.

Binding screws are included for use where soldered connections are not desired.

Includes lamp, resistor, and color cap.

Furnished with lamp No. 59X243, color cap, and resistor (when required). When ordering, specify color of color caps. Standard package, 25.

Operated at One Brilliance

Maximum 1/4-In. Panel	Maximum 2-In. Panel	Per Carton of 4	Per Std. Pkg. of 24	Rated Circuit Voltage
6105700G1	6105700G19	\$11.20	\$60.00	24 D.C.
6105700G2	6105700G20	11.20	60.00	48 D.C.
6105700G9	6105700G27	11.20	60.00	115 A.C.
6105700G3	6105700G21	11.20	60.00	125 D.C.
6105700G10	6105700G28	11.20	60.00	220 A.C.
6105700G4	6105700G22	11.20	60.00	250 D.C.
6105700G11	6105700G29	\$3.80	74.40	440 A.C.
6105700G12	6105700G30	13.80	74.40	550 A.C.
6105700G5	6105700G23	13.80	74.40	660 D.C.

Resistor with Tap for Dim-Bright Operation

No.	Per Carton of 12	No. of Studs	Length	Width	Approx. Ship. Wt. Lb.
6105700G6	6105700G24	\$12.40	.....	48	
6105700G7	6105700G25	12.40	.....	125	
6105700G8	6105700G26	12.40	.....	250	

**Compound Terminal Boards
With Cup Terminals**

Used where a large amount of small wiring is necessary. Nominal rating, 30 amperes. Terminals take wire up to No. 12 or 19/22.

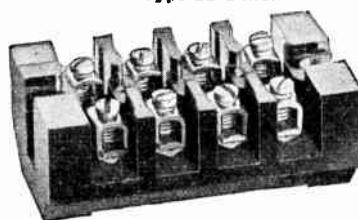
Compound terminal boards are particularly adapted to use with devices on switchboards that have flexible leads instead of studs, such as certain types of relays, trip coils, etc.

No.	Per Carton of 12	No. of Studs	DIMENSIONS, INCHES		Approx. Ship. Wt. Lb.
			Length	Width	
2860351G1	\$12.00	2	1 1/4	1 3/4	1/4
2860351G2	13.00	4	2 1/2	1 3/4	1/2
2860351G3	16.00	6	3 3/4	1 3/4	3/4

G-E Miscellaneous Switchgear Devices

Terminals

Type EB-2 Molded Terminal Boards

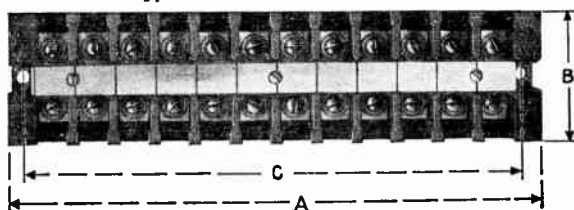


No. 16EB2AB1, 4-Pole

Type EB-1, except that pressure connectors (instead of binding screws) are furnished for circuit-wire connections. These accommodate wires size No. 14 to 8 inclusive.

No.	Per Carton of 12	No. of Poles	Approx. Ship. Wt. Lb.
16EB2AB1	\$12.00	4	1
16EB2AB2	13.20	6	1 1/2
16EB2AB3	22.20	8	1 3/4
16EB2AB4	30.00	12	2

Type EB-1 Molded Terminal Boards



12-Pole Size

Type EB-1 molded terminal boards are available in 4, 6, 8, and 12-pole sizes; combinations of these are used to suit conditions. A white marking strip is included, so that each circuit can be marked for identification. Each pole is provided with washerhead binding screws for wire connection.

No.	Per Carton of 12	No. of Poles	DIMENSIONS INCHES			Approx. Ship. Wt. Lb.
			A	B	C	
16EB1A1	\$10.20	4	3 1/4	2	2 7/8	3/4
16EB1A4	12.00	6	4 1/2	2	4 1/8	1
16EB1A2	18.00	8	5 3/4	2	5 3/8	1
16EB1A3	24.00	12	8 1/4	2	7 7/8	1 1/2

Type PK-2 Test Blocks and Plugs



Type PK-2 Test Block, 4-Pole, with Cover in Place

For testing instruments, meters, and relays. Essentially 4-pole and 6-pole jacks, provided with molded Textolite covers having internal plug contacts. Furnished with various combinations of auxiliary contacts which automatically short-circuit the current transformer when the cover is removed. A block and its cover are the equivalent of a double-throw test switch.

The 4-pole and 6-pole test plugs are provided with studs and links, and may be permanently connected to the testing equipment for any of the various test methods in use. Testing setup is obtained simply by removing the cover and substituting the properly connected test plug. Normal connections are restored by replacing the cover. Rated 250 volts, 10 amperes.

With Covers, Current or Potential

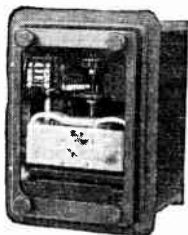
	4-Pole		6-Pole	
	Each	Approx. Ship. Wt. Lb.	Each	Approx. Ship. Wt. Lb.
For 1, 1 1/2 or 2-In. Panels.....	\$5.00	2	\$7.00	3
For 1/2 to 1/2-In. Steel Panels.....	5.00	2	7.00	3
Test Plug.....	*2.50	2	*3.50	3

*If ordered with test blocks.

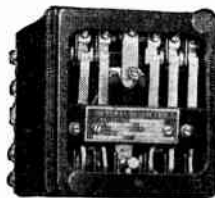
G-E Relays and Auxiliary Relays



Type IBC Time Induction Power-Directional Overcurrent Relay With Directional Control, Semiflush Drawout Construction, 6 1/2 Inches Wide and 15 1/2 Inches High



Type IAC Time Induction Overcurrent Relay, Semiflush Drawout Construction, 6 1/2 Inches Wide and 9 1/2 Inches High Over all



Type HFA Instantaneous Auxiliary Relay, 6-Circuit



Type HGA Instantaneous Auxiliary Relay

To maintain service over the greatest possible portion of the system, under all conditions. To disconnect only the circuit in which a fault has developed. To disconnect the faulty portion as quickly as possible. To prevent injurious heating caused by short circuits or heavy overcurrents.

Relay protection is applied to an electric system for minimizing interruptions of service and damage to apparatus which result from abnormal conditions in the system. The primary considerations are:

Types IAC and IAV

Induction Time-Overcurrent and Voltage Relays

Type IAC induction time relays are for the over-current protection of single-phase and polyphase circuits where permanence of operating characteristics and high accuracy in timing are essential. The time of operation is inverse at low current values, and approaches a definite time at higher current values. These relays are for use in connection with current transformers, for mounting on switchboard panels.

The Type IAV overvoltage and undervoltage relays are

made in single-pole units only and are used for the undervoltage protection of circuits. They are similar in appearance to the Type IAC, and have the same construction features.

Type IAC overcurrent relays can be had also with an internal instantaneous attachment, as well as with an internal tripping relay to provide the equivalent of circuit-opening contacts for use in connection with an a.c., oil-circuit-breaker, current-transformer trip coil.

The standard undervoltage adjustment of the Type IAV relays is 70 per cent of rated voltage to close the contacts. This may be adjusted to any value between 50 per cent and 95 per cent of rated voltage.

Both relays have target coils to operate the indicating targets. These are connected in series with the trip coil of the apparatus operated by the relay.

All IAC and IAV relays are of drawout construction for semiflush or surface mounting.

Auxiliary Relays

Auxiliary relays are ordinarily controlled by the contacts of other relays or other devices. They are generally used, in combination with other relays, for obtaining performances not available in the main controlling or relay combination, and for circuit-controlling devices, such as auxiliary or control switches.

Order by type reference, giving voltage and frequency of relay circuit, or stating the use for which relay is desired.

*Type IAV Overvoltage and Undervoltage Relays—60 Cycles

RATINGS		Undervoltage		Combined Undervoltage and Overvoltage		Approx. Ship. Wt. Lb.
Operating Range Volts	Volts	Contacts	Each	Contacts	Each	
115	55-140	One-Circuit Close, When Voltage Drops to Tap Rating	\$55.00	‡Double-Throw	\$65.00	18
230	110-280					
460	220-560					

*Type IAS Overcurrent Relays—60 Cycles

With One-circuit Normally Open Contacts

RATINGS		Time Overcurrent Each	Inverse Time OC with Instantaneous Element Each	Time OC with Internal Tripping Relay Each	Time Overcurrent Each	Very Inverse Time OC with Instantaneous Element Each	Time OC with Internal Tripping Relay Each	Approx. Ship. Wt. Lb.
Minimum Pickup, Amperes	Current Operating Range, Amp.							
4	4-16	\$45.00	\$61.00	\$61.00	\$45.00	\$61.00	\$61.00	18
1.5	1.5-6							
0.5	0.5-2.0							

*25 and 50-cycle relays, at same price.

†The maximum continuous voltage rating of the IAV relay, at any tap, is 110 per cent of the relay voltage rating.

‡Double-throw contacts for electrically separate single-circuit connections. Left-hand contacts close when voltage

is equal to, or greater than, tap rating. This value is adjustable from 50 to 95 per cent of tap rating.

§Instantaneous element has operating range 10-40 amperes.

||Limited to circuits where short-circuit current (secondary) will not exceed 100 amperes.

Type	Each	Principal Features	Current Application	DIMENSIONS, INCHES			Min-ute	Con-tin-uous	CONTACT RATINGS Break at 125 V D.C.	Ship. Wt. Lb.
				Height	Width	Depth				
HEA11A	\$55.00	Multicontact Hand-reset, Mounted on Back of Panel with Reset Handle on Front, 6 Circuit Contacts	D.C.	4 5/16	2 13/16	1 11/16	20	20	1.5	6
HEA11B	65.00	Same as Type HEA11A, Except 10-Circuit	D.C.	4 5/16	2 13/16	1 29/16	20	20	1.5	8
HEA11G	80.00	Same as Type HEA11A, Except 16-Circuit	D.C.	4 5/16	2 13/16	1 45/16	20	20	1.5	11
HFA11A	22.00	Same as Type HFA12A, Except 6-Circuit	*A.C. or D.C.	6 1/32	5 17/32	5 5/8	30	12	3	7
HGA11	9.00	Hinged-Armature Type, Single-Unit, 4 Circuit Contacts, Self-reset (2 Circuits, Double-Throw)	*A.C. or D.C.	4 1/2	2 1/2	4 1/16	30	12	3	3
ICR	95.00	Undervoltage and Phase-Rotation Relay for Protecting Motors Against Undervoltage, Open-Phase, and Reverse-Phase Rotation. Single-Pole Instantaneous Units								

*Specify whether for a.c. or d.c. service, and in all cases give voltage of circuits in which relays are to be used.

A.C. 6 5 1/2 7 1/2 † † † 19

†Contacts are provided with 4 or 18-ampere holding coils in series with contacts.

G-E Type LP-101 Knife Switches

The solid stationary tongue-type contacts and double blades of Type LP-101 G-E knife switches offer the advantages of low temperature rise, ease of operation, and reduced periodic maintenance year after year. Switches are back-connected for mounting on 1 to 2-inch panels. All are provided with silver-to-silver line-pressure contacts that materially lengthen the useful life of the switch.

Switches 400 to 1200 amperes have round threaded studs, with two nuts per stud. Single-throw switches are furnished with one cable-terminal connector per pole; double-throw, with two.

Switches 1600 amperes and above have laminated studs. When ordering, give direction desired, whether horizontal or vertical; otherwise vertical slots will be furnished.

Type LP-101 knife switches are approved by, and meet all requirements of, the National Board of Fire Underwriters. They are made in single, double, triple, and 4-pole combinations for either single or double-throw operation without provision for fuses. Switches with provision for NEC Standard fuses are available in similar combinations for single-throw operation only in capacities up to and including 600 amperes.

Order by No., or give full description stating: poles, throw, ampere and voltage rating, with or without fuse connections, and any special requirements.

Write for information on special requirements, accessories, etc.

400 to 1200 Amperes Inclusive
Without Fuse Clip—Round Studs

RATING		Single-Pole			Double-Pole			Triple-Pole			4-Pole					
Volts	Amperes	No.	Each	Wt. Lb.	No.	Each	Wt. Lb.	No.	Each	Wt. Lb.	No.	Each	Wt. Lb.			
D.C.	A.C.	A.C.	D.C.	Throw												
250	500	400	500	Single	6129955G17	\$11.50	7	6129955G18	\$21.00	14	6129955G19	\$31.00	20	6129955G20	\$43.00	27
					6129955G33	17.00	12	6129955G34	31.00	23	6129955G35	46.00	32	6129955G36	63.00	45
					6129955G49	26.00	16	6129955G50	47.00	32	6129955G51	70.00	46	6129955G52	96.00	60
					6129955G65	37.00	23	6129955G66	67.00	45	6129955G67	101.00	67	6129955G68	137.00	89
					6129955G21	17.00	9	6129955G22	31.00	18	6129955G23	46.00	27	6129955G24	62.00	36
					6129955G37	25.00	15	6129955G38	45.00	30	6129955G39	67.00	43	6129955G40	92.00	57
250	500	400	500	Double	6129955G53	37.00	22	6129955G54	68.00	43	6129955G55	102.00	69	6129955G56	139.00	90
					6129955G69	53.00	37	6129955G70	96.00	73	6129955G71	146.00	109	6129955G72	199.00	144
					6129955G25	13.00	9	6129955G26	24.00	15	6129955G27	36.00	22	6129955G28	50.00	30
					6129955G41	20.00	10	6129955G42	36.00	25	6129955G43	54.00	35	6129955G44	73.00	48
					6129955G57	30.00	13	6129955G58	54.00	35	6129955G59	81.00	48	6129955G60	110.00	64
					6129955G73	42.00	18	6129955G74	77.00	48	6129955G75	115.00	70	6129955G76	159.00	92
*600	*600	400	*600	Single	6129955G29	19.00	7	6129955G30	35.00	20	6129955G31	53.00	30	6129955G32	72.00	39
					6129955G45	29.00	12	6129955G46	48.00	34	6129955G47	78.00	46	6129955G48	96.00	60
					6129955G61	42.00	17	6129955G62	76.00	46	6129955G63	113.00	72	6129955G64	155.00	94
					6129955G77	62.00	26	6129955G78	110.00	78	6129955G79	165.00	112	6129955G80	225.00	148
					6129955G81	19.00	7	6129955G82	35.00	20	6129955G83	53.00	30	6129955G84	72.00	39
					6129955G49	26.00	16	6129955G50	47.00	32	6129955G51	70.00	46	6129955G52	96.00	60

With Clips for NEC Fuses on Hinge End (Fuses Not Included)

The blades of the switches have silver line contacts but the fuse clips have silver area contacts.

250	250	400	Single	6129956G10	\$18.00	7	6129956G11	\$34.00	18	6129956G12	\$50.00	29	6129956G13	\$69.00	40
				6129956G19	27.00	12	6129956G20	50.00	32	6129956G21	75.00	43	6129956G22	101.00	56
250	500	400	Single	6129956G15	22.00	8	6129956G16	40.00	18	6129956G17	60.00	29	6129956G18	82.00	40
				6129956G24	33.00	14	6129956G25	60.00	32	6129956G26	89.00	43	6129956G27	121.00	56

1600 to 6000 Amperes, 250 Volts, D.C. (500 Volts, A.C.)—600 Volts, A.C. or D.C.
Laminated Studs

250	500	1600	1600	Single	6052371G1	\$75.00	31	6052371G2	\$136.00	63	6052371G3	\$205.00	95	6052371G4	\$279.00	127				
					2500	2000	6052373G1	94.00	43	6052373G2	171.00	88	6052373G3	255.00	133	6052373G4	350.00	177		
					4000	3000	6052375G1	130.00	62	6052375G2	237.00	124	6052375G3	354.00	187	6052375G4	484.00	249		
					6000	4000	6052377G1	180.00	117	.....	.....	.....	.....	.....	.....	.....	.....
					8000	5000	6159257G1	242.00	130	.....	.....	.....	.....	.....	.....	.....	.....
					10000	6000	6052379G1	301.00	168	.....	.....	.....	.....	.....	.....	.....	.....
		250	500	1600	1600	Double	6052371G5	108.00	42	6052371G6	198.00	85	6052371G7	297.00	129	6052371G8	405.00	173		
							2500	2000	6052373G5	135.00	58	6052373G6	248.00	117	6052373G7	371.00	178	6052373G8	507.00	237
							4000	3000	6052375G5	189.00	83	6052375G6	343.00	167	6052375G7	514.00	251	6052375G8	702.00	331
							6000	4000	6052377G2	264.00	160	.....	.....	.....	.....	.....	.....	.....
							8000	5000	6159257G2	352.00	180	.....	.....	.....	.....	.....	.....	.....
							10000	6000	6052379G2	439.00	235	.....	.....	.....	.....	.....	.....	.....
*600	*600	1600	1600	Single	6052372G1	86.00	32	6052372G2	157.00	66	6052372G3	235.00	99	6052372G4	321.00	133				
					2500	2000	6052374G1	108.00	45	6052374G2	196.00	91	6052374G3	294.00	138	6052374G4	402.00	184		
					4000	3000	6052376G1	149.00	65	6052376G2	272.00	130	6052376G3	407.00	196	6052376G4	557.00	262		
					6000	4000	6052378G1	208.00	122	.....	.....	.....	.....	.....	.....	.....
					8000	5000	6159258G1	279.00	150	.....	.....	.....	.....	.....	.....	.....
					10000	6000	6052380G1	347.00	170	.....	.....	.....	.....	.....	.....	.....
*600	*600	1600	1600	Double	6052372G5	124.00	43	6052372G6	228.00	88	6052372G7	341.00	133	6052372G8	468.00	170				
					2500	2000	6052374G5	155.00	60	6052374G6	286.00	121	6052374G7	427.00	183	6052374G8	583.00	245		
					4000	3000	6052376G5	218.00	86	6052376G6	394.00	173	6052376G7	589.00	260	6052376G8	807.00	347		
					6000	4000	6052378G2	304.00	165	.....	.....	.....	.....	.....	.....	.....
					8000	5000	6159258G2	407.00	200	.....	.....	.....	.....	.....	.....	.....
					10000	6000	6052380G2	506.00	237	.....	.....	.....	.....	.....	.....	.....

*To be used for disconnecting purposes only.

G-E Type LG-218 Indoor Disconnecting Switches

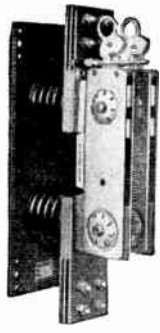
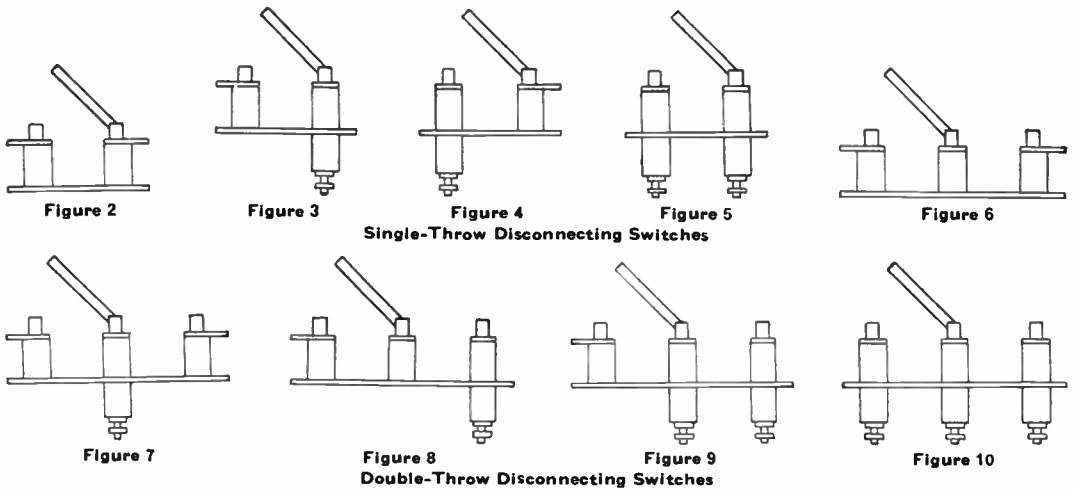


Fig. 1. Single-Pole, Single-Throw 7500-Volt, 3000 Amperes Disconnecting Switch Front-Connected on Class A-4 Porcelain Insulator Units



The Type LG-218 switches are of laminated blade construction, with each blade composed of two pieces of hard-drawn, high-quality copper, contacting over stationary copper tongues. Switches have silver-to-silver line-pressure contacts at both the hinge tongue and the contact tongue. Contacts are self-adjusting, and pressure is maintained by phosphor-bronze spring washers.

Each switch is mounted on porcelain insulators with metal bases. Insulators are in accordance with N. E. M. A. Standards.

All switches include blade latches. Up to and including

1200 amperes, all switches have round studs; up to and including 600 amperes, pressed-tube cable-terminal connectors with contact nuts are included. For 1200-ampere switches, terminal connectors must be ordered as extras, if desired. Switches above 1200 amperes are provided with laminated bar connections; no cable-terminal connectors are included. The switches can be had with the laminations of any back-connected stud either vertical or horizontal, but unless otherwise specified, the switches will be furnished with contact-stud laminations horizontal; hinge-stud, vertical.

When ordering, specify the type, figure number, and the voltage and current rating.

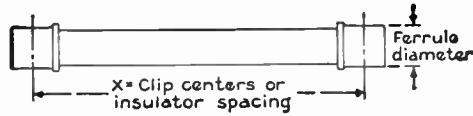
Type LG-218—On Insulators and Steel Bases

Volts	Amperes	Fig. 2		Fig. 3 and 4		Fig. 5		Fig. 6		Fig. 7 and 8		Fig. 9		Fig. 10		Switches with Manual Control Mechanisms for Single-Throw Group Operation	
		Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.	Class 1-F, Direct 3-Pole Each	Class 2-F, Indirect 3-Pole Each
5000	200	\$19.00	25	\$26.00	30	\$32.00	34	\$28.00	42	\$35.00	50	\$42.00	53	\$49.00	56		
	400	20.00	28	27.00	36	34.00	40	30.00	45	37.00	53	44.00	57	51.00	60	\$125.00	\$150.00
	600	26.00	33	35.00	42	44.00	50	39.00	52	48.00	62	57.00	66	66.00	72	143.00	168.00
	1200	45.00	45	61.00	56	77.00	66	68.00	69	83.00	83	99.00	87	115.00	95	200.00	225.00
7500	400	22.00	35	30.00	43	37.00	50	33.00	55	41.00	62	48.00	66	56.00	68	131.00	156.00
	600	28.00	40	38.00	51	48.00	60	42.00	63	52.00	74	62.00	81	71.00	88	149.00	174.00
	1200	47.00	52	64.00	66	80.00	75	71.00	80	87.00	95	103.00	104	120.00	114	206.00	231.00
	2000	112.00	96	151.00	110	190.00	125	168.00	125	207.00	150	246.00	165	286.00	180		
	3000	145.00	135	196.00	160	247.00	185	218.00	185	268.00	215	319.00	240	370.00	250		
4000	207.00	220	279.00	235	352.00	250	311.00	300	383.00	325	455.00	340	528.00	350			
15000	400	25.00	48	34.00	60	43.00	66	38.00	72	46.00	87	53.00	92	64.00	99	165.00	190.00
	600	32.00	54	43.00	66	54.00	75	48.00	78	57.00	98	70.00	106	82.00	112	186.00	211.00
	1200	52.00	67	70.00	82	88.00	93	78.00	96	96.00	120	114.00	131	133.00	144	246.00	271.00
	2000	120.00	100	162.00	115	204.00	135	180.00	145	222.00	160	264.00	175	306.00	190		
	3000	155.00	140	209.00	175	264.00	205	233.00	210	287.00	250	341.00	275	395.00	290		
23000	400	30.00	63	41.00	88	51.00	100	45.00	93	56.00	123	66.00	135	77.00	150	180.00	205.00
	600	37.00	69	50.00	96	63.00	110	56.00	100	68.00	135	81.00	150	94.00	166	201.00	226.00
	1200	59.00	82	80.00	112	100.00	127	89.00	120	109.00	156	130.00	177	150.00	200	267.00	292.00
	2000	130.00	120	176.00	155	221.00	185	195.00	170	241.00	225	286.00	240	332.00	270		
	3000	169.00	165	228.00	215	287.00	260	254.00	240	313.00	300	372.00	340	431.00	370		
4000	240.00	250	324.00	300	408.00	350	360.00	365	444.00	420	528.00	450	612.00	475			

For ratings above 23000 volts, or 4000 amperes, and for grouping of three switches on one base, write for information.

Double-blade, double-throw transfer, or single-throw, tandem transfer switches in ratings listed for Type LG-218 switches are also available upon application.

G-E Current-Limiting Power Fuse Units
Type EJ-1, For Indoor Service—Type EJO-1, For Outdoor Service



Limits the short-circuit current to a value considerably below that usually encountered in short-circuit interruptions. The link melts on the rising current-wave, limiting further rise by the rapid increase of resistance, and causes complete interruption at the first current zero. The fuse unit acts as a current-limiting device in this manner on all currents of sufficient magnitude to melt the fuse link before the current reaches the peak of its initial normal short-circuit value.

The fuse unit consists of one or more fuse wires, wound on a heat-resisting core and surrounded by quartz granules enclosed in a glass tube with a metal ferrule at each end.

There is no discharge during interruption, no noise, and negligible gas pressure. The fuse units may be completely enclosed and mounted with the same electrical clearances used for noninterrupting devices of the same voltage rating, such as disconnecting switches, etc. This makes them particularly suitable for mounting in metal-enclosed switchgear, in any location where space economy is needed, or where expulsion fuses are not acceptable. Their high interrupting ratings are also strong recommendations for their use.

Two types available: Type EJ-1 for indoor service only, and Type EJO-1 for outdoor service at all voltages and for indoor use at voltages above 5000.

Type EJ-1 indoor unit is made in three tube sizes:

Size A: 1 1/8-inch diameter ferrules, for use interchangeably with No. 197563 G-E 2300-volt potential-transformer cartridge fuses.

Size B: 1 1/16-inch diameter ferrules, for use interchangeably with Type ES-1 G-E spring-operated potential-transformer fuse units.

Size C: 2-inch diameter ferrules, the standard line of current-limiting fuse units.

The Type EJO-1 outdoor units are available only in the Size C, 2-inch diameter ferrule units.

Size A, Type EJ-1 Only—1 1/8-Inch Diameter Ferrule
For Potential-Transformer and Cutout Mounting

Continuous Ampere Rating, 100 Per Cent	DIMENSION X, INCHES						
	4 1/4 600-Volt	4 1/4 2500-Volt	8 1/4 2500-Volt	8 1/4 5000-Volt	8 1/4 7500-Volt	11 1/2 15000-Volt	23000-Volt
	Inter- rupt- ing Rating, Amps.	Inter- rupt- ing Rating, Amps.	Inter- rupt- ing Rating, Amps.	Inter- rupt- ing Rating, Amps.	Inter- rupt- ing Rating, Amps.	Inter- rupt- ing Rating, Amps.	Inter- rupt- ing Rating, Amps.
1E, 2E	.....	\$2.50	60000	.....	.....	.....	.....
3E to 10E	\$2.00	100000	2.50	60000	.....	.....	.....

Size B, Type EJ-1 Only—1 1/16-Inch Diameter Ferrule
For Potential-Transformer and EK-1B or EK-3B Mountings

0.5E	.....	.....	.....	\$5.00	60000	\$5.00	60000	\$6.00	80000	\$7.50	130000	.....	.....
1E, 2E, 3E	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

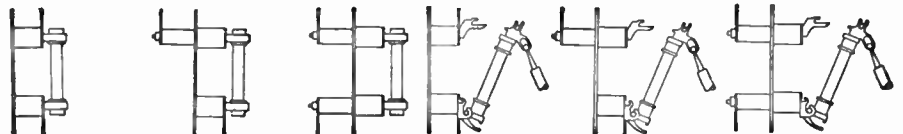
Size C, 2-Inch Diameter Ferrule

Type EJ-1 Indoor to 5000 Volts Inclusive for Types EK-1C and EK-3B Mountings
 Type EJO-1 Indoor Above 5000 Volt and All Outdoor for Types EKO-1C and EKO-3C Mountings

0.5E	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$15.00	70000
1E, 2E, 3E	15.00	70000
5E, 7E	.....	.....	.....	\$10.00	60000	\$10.00	60000	\$11.00	80000	\$13.00	80000	15.00	70000
10E	.....	.....	.....	10.00	60000	10.00	60000	11.00	80000	13.00	80000	15.00	30000
15E, 20, 25E	.....	.....	.....	16.00	60000	16.00	60000	.....	80000	.....	80000	.....	.....

G-E Fuse Supports and Fuse Disconnecting Switches

For Types EJ-1 and EJO-1 G-E Fuse Units
 Types EK-1 and EK-2, for Indoor Service (Type EK-1B for Size Band Type EK-1C for Size C Fuse Units)

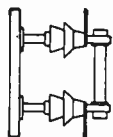


Volts	Type of Fuse Unit Used	Type of Insulator Used	Types EK-1B or EK-1C Fuse Supports		Types EK-3B or EK-3C Fuse Disconnecting Switches									
			Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.								
2,500	EJ -1	5-Kv.	\$14.00	20	\$18.50	24	\$23.00	35	\$22.00	33	\$28.00	38	\$35.00	39
2,500	EJ -1	7.5-Kv.	15.00	25	20.00	32	25.00	35	23.00	39	30.00	45	37.00	47
5,000	EJ -1	5-Kv.	14.00	25	18.50	27	23.00	29	22.00	39	28.00	41	35.00	42
5,000	EJ -1	7.5-Kv.	15.00	32	20.00	38	25.00	41	23.00	45	30.00	53	37.00	53
7,500	EJO-1	7.5-Kv.	15.00	36	20.00	44	25.00	44	23.00	50	30.00	57	37.00	56
15,000	EJO-1	15-Kv.-A-3	16.50	45	22.50	51	29.00	54	26.50	59	33.00	63	41.00	66
23,000	EJO-1	23-Kv.-A-2	21.00	57	27.50	74	35.50	81	31.00	70	40.00	85	48.00	95

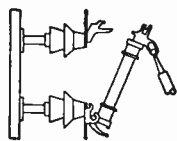
G-E Current-Limiting Power Fuse Units

Types EKO-1C and EKO-3C

For Outdoor Service



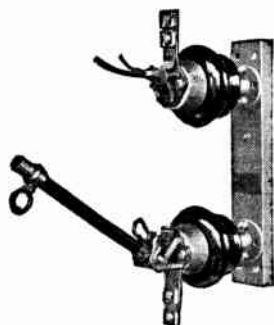
Type EKO-1C Fuse Support



Type EKO-3C Fuse Disconnecting Switch

Volts	Type of Fuse Unit Used	Type EKO-1C		Type EKO-3C	
		Each	Ship. Wt. Lb.	Each	Ship. Wt. Lb.
2500	EJO-1	\$16.00	50	\$27.00	60
5000	EJO-1	16.00	50	27.00	60
7500	EJO-1	16.00	50	27.00	60
15000	EJO-1	20.00	70	30.00	78
23000	EJO-1	26.00	85	36.00	93

Types EF-1 and EF-2 Switches



Type EF-2 Fuse-Disconnecting Dropout Switch, 15000 Volts

Type EF-1. This is a combined fuse cutout and disconnecting switch to protect circuits against short-circuit currents. It consists of a galvanized steel-channel base, insulators, and a hinge-and-contact assembly for mounting a Type EG-1 fuse unit.

Type EF-2. This switch is similar to the Type EF-1 plus the dropout feature, i.e., when the fuse blows, the fuse opens to a dropout position as illustrated.

For fuse-disconnecting switch operation, use non-metallic switch hooks indoors, and superinsulated hooks outdoors.

In ordering, give phase-to-phase voltage and frequency.

Combination of Types FR-2 Resistor and Fuse Disconnecting Switch, Without Fuse Units

Volts	Disconnecting Switch, Without Fuse			Combination of Types FR-2 Resistor and Fuse Disconnecting Switch, Without Fuse Units		
	Type EF-1, Each	Type EF-2, Each	Approx. Ship. Wt. Lb.	Type EF-1, Each	Type EF-2, Each	Approx. Ship. Wt. Lb.
7500	\$27.00	\$33.00	57	.....	.....	.....
15000	30.00	36.00	90	.....	.....	.....
23000	36.00	42.00	102	.....	.....	.....
34500	44.00	50.00	141	.....	.....	.....
46000	62.00	71.00	222	\$138.00	\$147.00	490
69000	92.00	100.00	330	200.00	210.00	708

Type EG-1 Expulsion Fuse Units

The Type EG-1 fuse is of the spring-expulsion type, providing rapid operation high interrupting ability, and positive operating performance. Available in current ratings as included in the price list below; higher voltage ratings furnished on request.

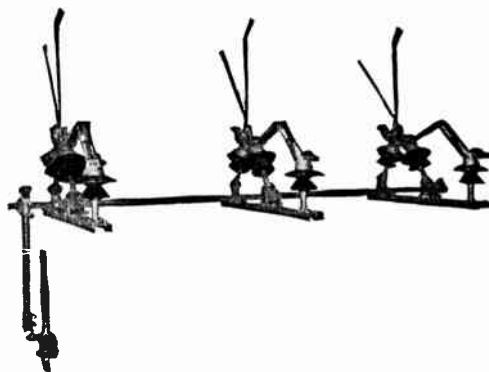
Each fuse unit is stamped with its rating, followed by the letter E. This indicates that the fuse will carry its rated current continuously, and that it will meet all N.E.M.A. requirements for such fuses.

Volts	All Ratings, Each	Length, Inches	Approx. Ship. Wt. Lb.
7500	\$4.00	15 1/2	3
15000	5.00	18 3/8	4
23000	6.00	24 3/8	4
34500	7.00	30 3/8	4
46000	8.50	36 3/8	5
69000	13.00	45 3/8	5

Ampere Ratings: 0.5E, 1E, 2E, 3E, 5E, 7E, 10E, 15E, 20E, 25E, 30E, 40E, 50E, 65E, 80E, 100E, 125E.

G-E Outdoor Air Switches

Type TA Horn-Gap Switches



Type TA Horn-Gap Switch, Triple-Pole, Single-Throw, 34500 Volts, 400 Amperes, With Direct Manual Operating Mechanism

The Type TA switches are group-operated and of tilting-insulator construction. The application of these switches is most advantageous where maintenance of service and reliable switching equipment are of great importance. Features are:

- Spring-pressure silver line contacts.
- All-copper current-carrying parts.
- Coiled buffer springs assist switch operations.
- Corrosion-resisting pins prevent rusting and binding.
- All steel and malleable-iron parts hot-dip-galvanized.
- Standard cement cap-and-pin insulators.
- Insulators interchangeable with those on other outdoor devices of same rating.
- Manual or motor mechanism can be padlocked in either open or closed position.
- Arc horns prevent burning of contacts during switch operation.

The TA switches are available in triple-pole groups, the poles being interconnected by a common shaft to provide simultaneous operation of all the poles from a single mechanism.

The switch parts consist of the blade, a short copper bar of ample cross section; the stationary contact, made up of two large semicylindrical copper blocks floating against heavy springs that force them against the blade for line-pressure contacts; and the tilting insulator which carries the blade. Flexible, woven wire copper braids provide full copper current carrying from all fixed to movable parts.

All prices are for 3-pole switches, including manual operating mechanism with a maximum of one offset bearing, and including interconnecting pipe or equivalent square shafting and bolted terminal connectors.

RATING		Each	Approx. Ship. Wt. Lb.	RATING		Each	Approx. Ship. Wt. Lb.
Volts	Amps.			Volts	Amps.		
7500	400	\$330.00	300	15000	400	\$375.00	700
15000	400	340.00	400	23000	600	420.00	800
23000	400	380.00	775	34500	600	495.00	1050
34500	400	450.00	1025	46000	600	650.00	1500
7500	400	365.00	570	.....	.....	.....	.....

Type TB Switches

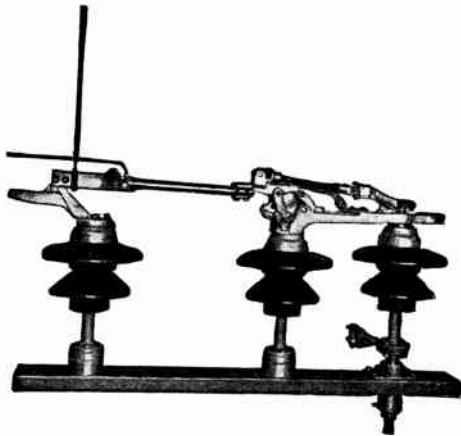
This is a group-operated tilting-insulator switch for low-revenue-producing installations. It is especially suitable for pole-top mounting on rural lines, distribution circuits with light loads, and small industrial applications. The insulators are of the 2-inch, bolt-circle, rural type. The switch parts are of high-quality, line-pressure contact, with non-corrodible hardware parts, and horn gaps.

Volts.....	7500-SS	15000-SS
Amperes.....	200	200
Each.....	\$135.00	160.00

Prices include triple-pole switches with direct mechanism (with single outboard bearing and guide plates when required and vertical operating pipe).

G-E Outdoor Air Switches

Type RD Switches



Type RD Single-Pole Element, 34500-Volt, 600 Amperes

A group-operated switch of the rotating-insulator construction. Available in two arrangements:

1. Horn-gap switch for horizontal, upright mounting on outdoor steel structures or pole tops, and used for opening transformer-bank primaries, or for line sectionalizing.
2. Disconnecting switch (less arc horns) for vertical mounting, and used for isolating power circuit breakers or lightning arresters.

Contacts of the full-floating, spring-pressure, silver-line-contact type. They consist of two large, semicylindrical, silver-surfaced, copper drop forgings, enclosed in a housing, and backed by double, helical, nonferrous springs. The ends of the housing are flared to guide the blade. Flexible copper braids of ample size join the contact blocks to the switch terminal. The blade makes line contact, and the pressure on it increases as the contacts spread.

The blades are made of one piece, hard-drawn copper tubing. The contact end is pressed flat and is silver-surfaced. It is clamped at the hinge to the upper link of a parallelogram linkage. Extra-flexible copper braids carry the current from the blade clamp to the hinge support.

The switch is opened and closed by a dual motion of the blade. In closing, the blade first completes a full vertical arc of travel to the horizontal position, and then moves forward into the stationary contacts. In opening, this operation is reversed.

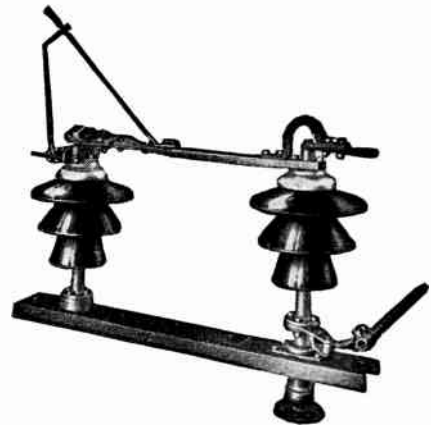
Can be operated either manually or by a motor-operated mechanism.

Prices are for 3-pole switches, including manual mechanism, with one outboard bearing, vertical operating pipe, couplings, guide plate, ground braid as required, and bolted terminal connectors.

Volts	RATING Amperes	Each	Approx. Ship. Wt. Lb.
7500	400	\$330.00	280
	600	365.00	280
	1200	525.00	400
15000	400	340.00	410
	600	375.00	410
23000	1200	535.00	460
	400	380.00	430
34500	600	420.00	430
	400	450.00	540
46000	600	495.00	540
	600	650.00	730
69000	600	990.00	1150

G-E Outdoor Air Switches

Type RK Switches



Single-Pole Element of Type RK Switch, 46 KV, Switch Closed

Group-operated of the rotating-insulator, horizontal-break, two-insulator stacks-per-pole type, for mounting on steel frame structures or pole tops.

They are equipped with horn gaps, and are applicable for the opening of transformer-bank primaries, and for line sectionalizing.

Also they are applicable for isolating purposes, for such devices as power circuit breakers, and lightning arresters, when furnished without arc horns.

These switches incorporate the following principal construction features: Self-aligning spring-pressure silver line contacts; nonferrous construction above the insulator caps; hot-dipped galvanized steel and malleable-iron parts; corrosion-resisting pins and roller bearings (Timken).

Blades of switches rated 23 kilovolts and above are of the broken-back construction, to provide icebreaking action at the contacts.

Contact consists of two semicylindrical, silver-surfaced copper drop forgings, enclosed in a housing with double helical nonferrous springs. The flared ends of the housing guide the blade, which makes line contact, the pressure on the blade increasing as it spreads the contacts.

Prices include triple-pole switch, with bolted terminal connectors, and manual operating mechanism with vertical operating pipe couplings, guide plates, grounding braid, and outboard bearing, as required.

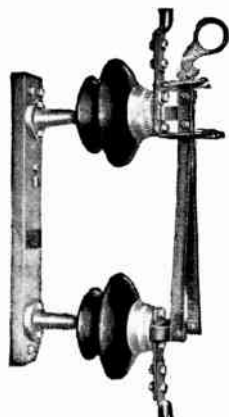
Rating, Volts	Rating, Amperes	Each	Approx. Ship. Wt. Lb.
7500	400	\$293.00	280
	600	313.00	280
	1200	433.00	400
15000	400	300.00	410
	600	320.00	410
23000	1200	440.00	460
	400	325.00	430
34500	600	345.00	430
	400	365.00	540
46000	600	400.00	540
	600	520.00	730
69000	600	795.00	1150

Motor Operating Mechanisms

Prices of group-operated air switches include manual mechanism with a maximum of one offset bearing, vertical operating pipe and, when included in the order, pipe couplings and guide plates. Prices of motor operating mechanism include the additional equipment to add to the manual mechanism for electrical operation. Prices of the motor operating mechanism also include one 4-stage, 4-pole auxiliary switch and necessary control relays, but no control switch; control switch must be ordered separately.

Prices on application.

G-E Outdoor Air Switches



Type FA-101

Type FA Hook-Operated Switches

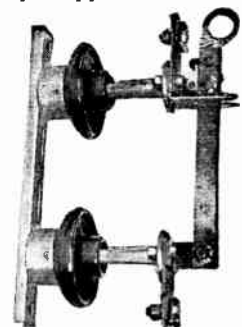
Made in single-pole units, single, and double-throw.

Suitable for disconnecting purposes and should not be used to open load currents. Switch parts are mounted on G-E standard-type insulators.

Blades consist of two hard-drawn copper sections mounted back-to-back to form a blade of great mechanical strength. On switches rated above 23000 volts, the blades are of truss-like formation. The blades slide over a tongue-like contact and silver-to-silver liner pressure is maintained by phosphor-bronze spring washers, for maximum conductivity.

Volts	RATING Amperes	SINGLE-POLE SINGLE-THROW		SINGLE-POLE, DOUBLE-THROW	
		Each	Approx. Ship. Wt. Lb.	Each	Approx. Ship. Wt. Lb.
7500	400	\$35.00	55	\$52.50	80
15000		39.00	78	58.50	115
23000		45.00	88	67.50	132
34500		61.00	134	91.50	190
7500	600	40.00	60	60.00	90
15000		44.00	83	66.00	123
23000		51.00	94	76.50	141
34500		66.00	115	99.00	200
46000	1200	83.00	198	.....	.....
69000		133.00	265	.....	.....
7500		70.00	83	105.00	117
15000		75.00	105	112.00	150
23000		84.00	117	126.00	168

Note: 2000, 3000, and 4000-ampere switches are available upon application.



Type FD-103

Type FD Hook-Operated Switches

These switches are made in single-pole, single-throw units. Made in ratings of 7500S and 15,000S volts and 200 amperes. Suitable for disconnecting purposes only, and not used to open load currents.

The switch parts are mounted on 2-inch bolt-circle porcelain insulators.

Switches are of the laminated blade, tongue-type silver-to-silver contact construction.

7500-SS	200	\$12.70	30	\$18.85	50
15,000-SS	200	14.40	35	22.35	60

All switches are provided with blade latches, blade guides, and operating eye.

G-E Switch Hooks

Available with or without rain shield and grounding device. For use with outdoor air switches.

The lower portion of the rod is turned from carefully selected wood. The upper portion is a tubular section made of an insulating compound. Hook is an aluminum-alloy casting.

Length, Feet	WITHOUT RAIN HOOD AND CABLE		WITH RAIN HOOD AND CABLE	
	Each	Approx. Ship Wt. Lb.	Each	Approx. Ship. Wt. Lb.
4	\$7.00	10	.....	.....
6	8.00	14	.....	.....
8	9.00	18	\$14.00	18
10	10.00	25	15.00	25
12	12.00	30	17.00	30
14	15.00	35	20.00	35
16	18.00	40	23.00	40
18	23.00	45	28.00	45
20	27.00	50	32.00	50
22	32.00	55	37.00	55

G-E CR9504 Thrustors

Provides Smooth Straight-Line Thrust From Electric Motor Drive



This is a self-contained hydraulic device which exerts a smooth, straight-line thrust (50 to 3200 pounds maximum thrust) in one direction throughout a definite distance (2 and 16-inch maximum stroke). The return stroke is effected by gravity or a spring.

The device can repeat this cycle of operation indefinitely at a rate of 10 to 30 times per minute depending on the size of unit. It is driven by a built-in fractional h.p. motor and therefore the power consumption is small.

CR9504 Thrustor performs services similar to those accomplished by air cylinders and large a.c. and d.c. magnets and solenoids.

Order by CR number and form giving voltage, frequency and phase.

†CR9504-L—50 Pounds Maximum—2-Inch Stroke

Volts	Phase	Cycle	*Running Current Amperes	Each
110	3	60 & 50	1.2	\$111.00
220/440	3	60 & 50	.43/.23	111.00
550	3	60 & 50	.43	.....
110	1	50 & 60	1.8	\$91.00
220	1	50 & 60	.9	91.00

†CR9504-V—100 Pounds Maximum—2-Inch Stroke

110	3	60 & 50	.74	\$189.00
220/440	3	60 & 50	.37/.18	189.00
550	3	60 & 50	.15	189.00
110	1	60	5.0	189.00
220	1	60	2.5	189.00

†CR9504-N—200 Pounds Maximum—4-Inch Stroke

110	3	60 & 50	1.76	\$210.00
220/440	3	60 & 50	.88/.44	210.00
550	3	60 & 50	.35	210.00
110	1	60	3.0	210.00
220	1	60	1.5	210.00

†CR9504-T—400 Pounds Maximum—4-Inch Stroke

110	3	60 & 50	1.88	\$238.00
220/440	3	60 & 50	.94/.47	238.00
550	3	60 & 50	.39	238.00
110	1	60	3.8	238.00
120	1	60	1.9	238.00

†CR9504-M—600 Pounds Maximum—6-Inch Stroke

120	3	60 & 50	2.9	\$280.00
220/440	3	60 & 50	1.4/.7	280.00
550	3	60 & 50	.56	280.00
110	1	60	5.0	280.00
220	1	60	2.5	280.00

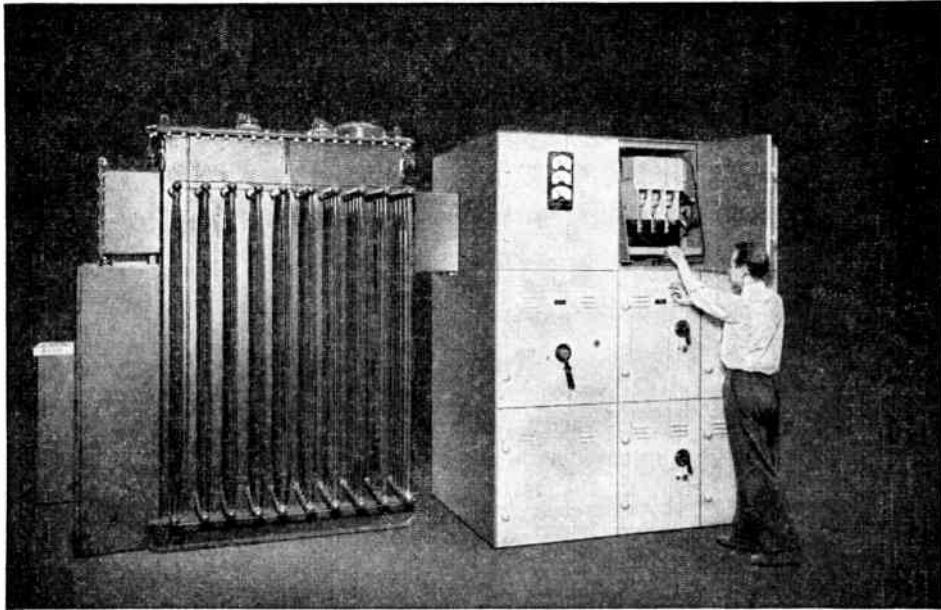
*Inrush current for a.c. motors is approximately 5 times running current.

†Information on d.c. and 25-cycle forms on application.

‡Same as 220/440-volt, 3-phase thrustors, plus additional price of transformer.

G-E Load-Center Unit Substations

For Distributing Low-voltage Power in Industrial Plants, Commercial Buildings—For Power-station Auxiliaries



G-E Load-Center Unit Substation, With Pyranol Transformers and Metal-Enclosed Drawout Air Circuit Breakers, Installed Indoors at Load Centers

Load-center distribution has many big advantages. Elimination of long secondary cable runs, which cause voltage drop, results in better voltage conditions. Proper voltage at point of use means improved motor performance, bright and steady lights. G-E metal-enclosed load-center unit substations are completely factory-engineered and factory-assembled, and are shipped ready to install. They can be installed either indoors or outdoors. They can be put underground in vaults, on the roof, on balconies, or in production areas, usually in space that is otherwise unused.

Delivery and Installation

G-E load-center unit substations can be selected and ordered quickly and easily from a line of standard units and standard arrangements that fill all requirements of a broad range of applications. Only one purchase transaction is necessary. These units are shipped in two or three complete sections—ready to be bolted together and connected to the power cables. Standardized units, completely assembled and wired at the factory, require no special knowledge by your men to install or to disconnect for removal to new locations.

All live parts are metal-enclosed. Circuit breakers of adequate interrupting capacity insure adequate circuit protection. Pyranol, which is noninflammable, is normally used for the cooling and insulating liquid of the transformer, providing safety for indoor installations.

Flexibility in Selection of Equipment

General Electric load-center unit substations are adaptable to your particular need. A wide variety of high- and low-voltage switching equipment is available, including oil,

Pyranol, or dry-type transformers, and circuit breakers for either manual or electrical operation.

Exterior Design

The old style of substation construction, with skeleton steel framework and exposed equipment, is a thing of the past. G-E unit substations are modern in appearance and are compact. They take much less space than the old type. Fences are no longer needed to protect personnel.

Industrial Lighting

When your industrial load is not heavy, the same load-center unit substation which supplies motor power can be used. Dry-type lighting transformers (capacities 5-25 kilovolt amperes,) which step 480 volts down to 120 volts, can be mounted or hung almost any place in the plant to supply the lighting load.

Ratings

These standard load-center unit substations serve loads 600 volts and below (208Y/120, 480 volts, etc.) from incoming lines up to 15 kilovolts.

One complete unit substation may consist of metal-clad incoming-line section with oil-blast or magneblast power circuit breakers, a Pyranol (or dry-type, or oil-filled) transformer section, and a low-voltage feeder section with drawout air circuit breakers.

Here is the modern way to help insure an adequate power supply at all times, more important than ever in the light of present conditions.

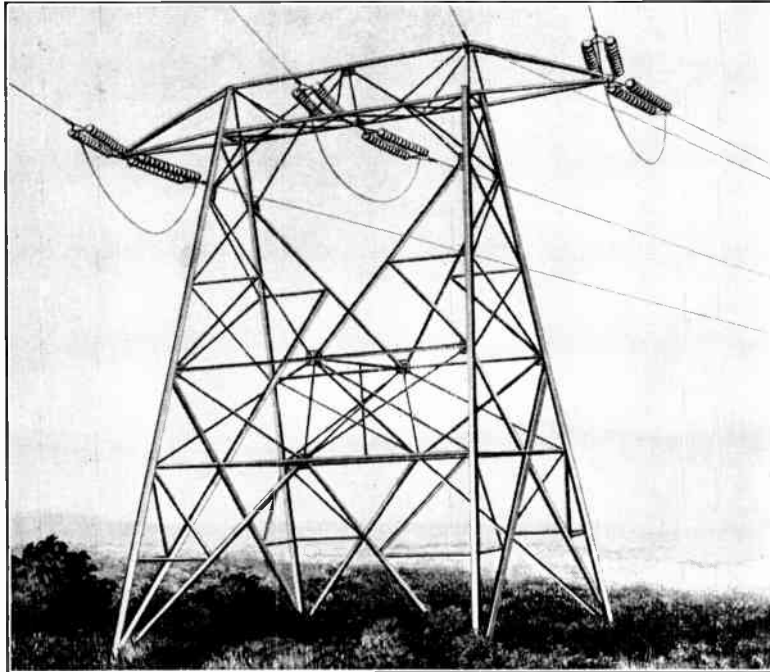
G-E engineers can help you select a low-cost load-center unit substation, compact, complete, to meet all your requirements. Other apparatus can be combined in one of these units if, for instance, you need the addition of a power rectifier. For further information, ask for latest bulletins.

STEEL TRANSMISSION TOWERS AND SUBSTATIONS

Complete substations to meet your specification needs are available from Graybar.

Transformers • Lightning Arresters • Safety Lighting
Steel Structures • Protective Fence • Switchgear
Dead Ending Material • Line Switches • Insulators

The nearest Graybar house will be glad to consult with you and furnish complete data on substation equipment.



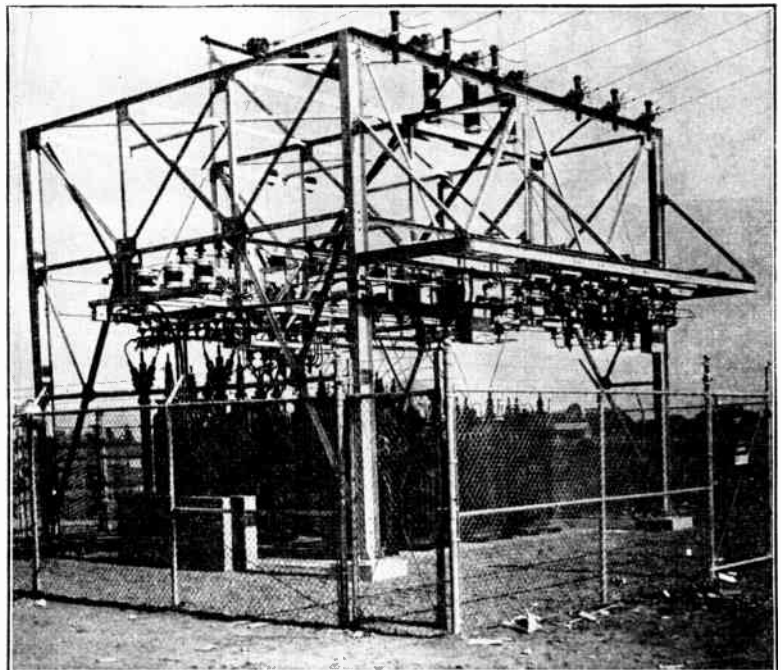
Steel Transmission Towers

For river crossings, wide ravines, and other long span requirements.

Complete data available upon request.

•
STEEL TRANSMISSION TOWER
•

•
RURAL SUBSTATION
•



G-E Watthour Meters

All General Electric a.c. watthour meters have substantially the same operating characteristics. The mechanical details differ with the application, type of mounting, and circuit.

These meters have been called "wide-limit" meters because of their straight-line characteristics. When correctly adjusted, the 15-ampere meter, for instance, has a load-registration curve that practically falls on the 100 per cent line over the range from 0.5 to 60 amperes.

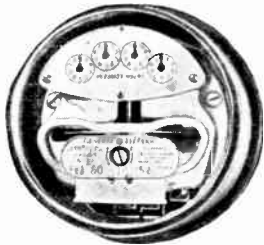
Long-life accuracy is assured by the use of alnico magnets, a low-friction bearing system, and a one-piece supporting frame for accurate and permanent positioning of all parts.

*For Alternating Current

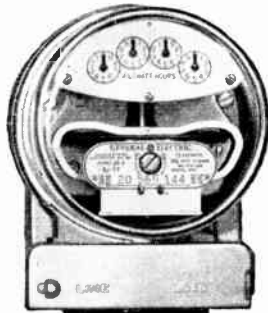
Mounting	Type	Max. Amps.	Max. Volts	Circuits
Wall	I-30	50	240	1-Element, 2 or 3-Wire, 1-Phase
Switchboard	IS-8	..	240	1-Element, 2-Wire, 1-Phase
Wall	V-2	50	600	2-Element, 3-Wire
Wall	V-3	50	600	2-Element, 3-Wire, 3-Phase
Wall	V-4	50	120	3-Element, 4-Wire Y, 3-Phase
Wall	V-5	50	120	2-Element, 4-Wire Y, 3-Phase
Wall	V-6	50	240	2-Element, 4-Wire Δ, 3-Phase

Mounting	Type	Max. Amps.	Max. Volts	Circuits
Wall	V-7	50	240	3-Element, 4-Wire Δ, 3-Phase
Wall	V-9	50	240	{Tot. 3-Wire, 2 or 3-Phase and
Wall	V-10	50	240	{ 2 or 3-Wire, 1-Phase
Switchboard	DS-19	..	600	2-Element—3-Wire, 1, 2, or 3-Phase—4-Wire, 2-Phase
Switchboard	DS-20	..	120	3-Element, 4-Wire Y, 3-Phase

Types I-30-S and I-30-A—Single-Phase Single Element 60 Cycles



Type I-30-S



Type I-30-A

Type I-30-S is the standard meter for socket connection. Connections are made in the socket to receptacles for switchblade terminals. Approximate dimensions, 7x7½ inches.

Type I-30-A is the standard bottom-connected unit. It is suitable for all conventional applications either with the all-service or enclosed mounting. Approximate dimensions, 5½x8½x7 inches.

Both the A and the S types can be used on circuits where the voltage may be 10 per cent above or below the rated voltage of the meter. When ordering meters for voltage outside these limits, the normal operating voltage should be specified.

120 Volts, 2-Wire				240 Volts, 2-Wire			
Amp.	Type I-30-S No.	Type I-30-A No.	Each	Amp.	Type I-30-S No.	Type I-30-A No.	Each
5	85X515	85X499	\$17.15	5	85X518	85X502	\$18.50
15	85X516	85X500	17.15	15	85X519	85X503	18.50
50	85X517	85X501	24.50	50	85X520	85X504	27.25

240 Volts 3-Wire, 4-Terminal				240 Volts 3-Wire, 6-Terminal			
Amp.	Type I-30-S No.	Type I-30-A No.	Each	Amp.	Type I-30-S No.	Type I-30-A No.	Each
5	85X521	85X505	\$18.50	5	.....	85X508	\$18.50
15	85X522	85X506	18.50	15	.....	85X509	18.50
50	85X523	85X507	27.25	50	.....	85X510	27.25

For Use with Instrument Transformers

Approximate shipping weight, 10 pounds.

Amp.	Circuit Rating	Type I-30-S No.	Type I-30-A No.	Each
2.5	2-Wire	97X107	85X511	\$21.00
2.5	2-Wire (3-Wire)	97X108	85X513	23.00
2.5	3-Wire	.....	85X514	23.00

Catalog numbers are for ball-type bearings. Jewel-pivot bearings can be supplied at no increase in price.

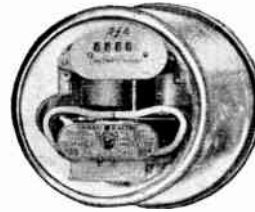
Sockets for Type I-30-S Meters

All sockets listed have 1-inch conduit outlets. Approximate shipping weight, 2½ pounds.

Sockets with ¾-inch or 1¼-inch outlets are also available. Prices and information on request.

Mounting	No. of Outlets	Without Circuit-Closing Device		With Circuit-Closing Device	
		No.	Each	No.	Each
Vertical	2	65X907	\$1.95	65X913	\$2.37
Horizontal	2	65X910	2.08	65X916	2.44
Vertical	2	67X971	1.95	67X977	2.37
Horizontal	2	67X974	2.08	67X980	2.60
Vertical	3	65X919	2.50	65X925	2.92
Horizontal	3	65X922	2.63	65X928	3.15

Types V-2-S and V-2-A—2-Element—3-Wire 60 Cycles



Type V-2-S

Types V-2-S and V-2-A are primarily for use on network systems of two lines and the neutral of a 4-wire Y, 3-phase circuit. The phase displacement of this circuit requires a 2-element watthour meter.

The meter is also available for other 3-wire polyphase circuits, and for 3-wire, single-phase circuits where the voltages are so

unbalanced that a 3-wire, single-element meter will not give the required accuracy.

The Type V-2-S is for socket connection and the Type V-2-A for bottom connection. Approximate dimensions for the S type, 7x8½ inches; for the A type, 7½x6¾x8¾ inches.

Amp.	†120 Volts			†240 Volts		
	Type V-2-S No.	Type V-2-A No.	Each	Type V-2-S No.	Type V-2-A No.	Each
5	85X743	85X723	\$41.00	85X748	85X728	\$44.00
15	85X745	85X725	41.00	85X750	85X730	44.00
20	85X727	85X727	56.00	85X732	85X732	59.00

Catalog numbers are for ball-type bearings. Jewel-pivot bearings are available at no increase in cost.

Sockets for Type V-2-S Meters

All sockets listed have 1-inch conduit outlets. Approximate shipping weight, 4 pounds.

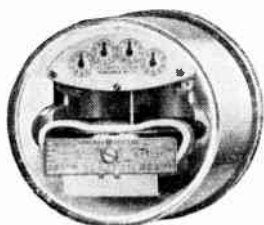
Sockets with ¾-inch and 1¼-inch outlets are also available. Prices and information on request.

Mounting	No. of Outlets	Without Circuit-Closing Device		With Circuit-Closing Device	
		No.	Each	No.	Each
Vertical	2	76X36	\$2.10	76X42	\$2.51
Horizontal	2	76X37	2.23	76X43	2.72
Vertical	3	76X40	2.63	76X46	3.03
Horizontal	3	76X41	2.75	76X47	3.25

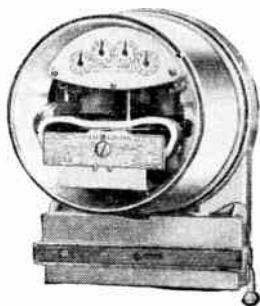
*Information and prices for d.c. meters on request. †The potential coils are wound and rated for the line-to-neutral voltage, and these are the values listed. For example, order meters rated 120 volts for use on 120-240-volt, 3-wire circuits.

G-E Watthour Meters

Types V-3-S and V-3-A—Polyphase—2 Element—3-Wire 60 Cycles



Type V-3-S



Type V-3-A

Type V-3-A is for wall mounting, bottom-connected, and can be used by itself or in conjunction with the usual poly-phase meter trims. The terminal arrangements and block dimensions are standard for polyphase meters. A maximum of 15 terminals can be provided, eight terminals for current connections and seven terminals for potential connections, contact-device connections, and test links. Approximate dimensions, $9\frac{1}{16} \times 6\frac{3}{4} \times 6\frac{7}{8}$ inches. Approximate shipping weight, 12 pounds.

Type V-3-S is for socket mounting. Terminal blades up to a maximum of eight provide for connections to almost any standard circuit. This meter requires a socket entirely different from that of the single-element meter on the 2-element Type V-2-S meter. Sockets have up to eight terminals. Approximate dimensions, including socket, $13\frac{3}{4} \times 7\frac{1}{2} \times 11$ inches. Approximate shipping weight, 10 pounds.

120 Volts				240 Volts				
Type V-3-S		Type V-3-A		Type V-3-S		Type V-3-A		
Amp.	No.	No.	Each	No.	Each	No.	Each	
5	97X121	\$44.00	85X883	\$48.00	97X124	\$47.00	85X888	\$51.00
15	97X122	44.00	85X885	48.00	97X125	47.00	85X890	51.00
50	97X123	57.00	85X887	61.00	97X126	60.00	85X892	64.00

For Use With Instrument Transformers
2.5 85X998 \$46.00 85X903 \$50.00 85X999 \$49.00 85X904 \$53.00

480 Volts		600 Volts		
Amp.	No.	No.	Each	
5	97X127	\$56.00	85X893	\$60.00
15	97X128	56.00	85X895	60.00
50	97X129	69.00	85X897	73.00

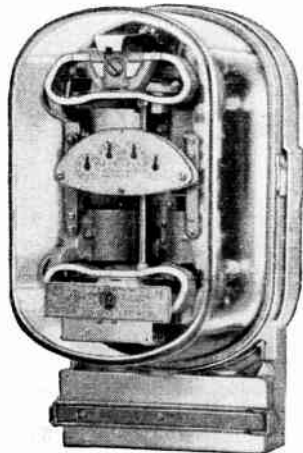
For Use With Instrument Transformers
2.5 86X1 \$58.00 85X905 \$62.00 86X2 \$58.00 85X906 \$62.00

Catalog numbers are for ball-type bearings. Jewel-pivot bearings are available at no increase in cost.

Sockets for Type V-3-S Meters

Approximate shipping weight, 15 pounds.

Type Meter	Circuit-Closing Device	Conduit Outlet Inches	No.	Each
Self-Contained	No	1 1/4	94X994	\$9.18
	No	2	94X995	9.55
Transformer-Rated and Self-Contained	Yes	1 1/4	83X788	9.76
	Yes	2	83X789	10.14



Types V-4-A, V-7-A, V-9-A, and V-10-A—Polyphase—3-Element 60 Cycles

Type V-4-A meter is intended for 4-wire Y, 3-phase circuits. It has three potential and three current circuits. Approximate shipping weight, 22 pounds.

Type V-7-A meter is for 4-wire Δ, 3-phase circuits. It has one 240-volt (200-volt) element and two 120-volt elements. Approximate shipping weight, 22 pounds.

Types V-9-A and V-10-A meters are used for totalizing one 3-wire, 2 or 3-phase power circuit and one single-phase lighting circuit, either 2 or 3 wire. Information and prices upon request.

Type V-4-A				Type V-7-A			
Volts	Amp.	No.	Each	Volts	Amp.	No.	Each
120Y	5	86X421	\$80.00	240	5	86X426	\$90.00
120Y	15	86X422	80.00	240	15	86X427	90.00
120Y	50	86X423	96.00	240	50	86X428	107.00

For Use with Instrument Transformers
120Y 2.5 86X425 \$85.00 240 2.5 86X429 \$95.00

Catalog numbers are for ball-type bearings. Jewel-pivot bearings are available at no increase in cost.

Type V-5-S and V-5-A—Polyphase 2-Element—4-Wire Y 60 Cycles

This meter has two potential circuits and three current circuits and is intended for use on 4-wire Y, 3-phase circuits provided the voltage unbalance is less than 1 per cent and the power factor reasonably high.

In external appearance they are like the Types V-3-A and V-3-S meters.

Approximate shipping weight: Type V-5-A, 12 pounds; Type V-5-S, 10 pounds.

Volts	Amp.	Type V-5-S		Type V-5-A	
		No.	Each	No.	Each
120Y	5	86X4	\$58.00	85X928	\$62.00
120Y	15	86X6	58.00	85X930	62.00
120Y	50	86X8	66.00	85X932	70.00

For Use with Instrument Transformers
120Y 2.5 86X24 \$60.00 85X948 \$64.00

Catalog numbers are for ball-type bearings. Jewel-pivot bearings are available at no increase in cost.

Sockets for Type V-5-S Meters

Approximate shipping weight, 15 pounds.

Type Meter	Circuit-Closing Device	Conduit Outlet Inches	No.	Each
Self-Contained	No	1 1/4	83X784	\$9.18
	No	2	83X785	9.55
	Yes	1 1/4	94X996	9.76
Transformer-Rated and Self-Contained	Yes	2	94X997	10.14
	Yes	1 1/4	83X786	9.76
	Yes	2	83X787	10.14

Types V-6-S and V-6-A—Polyphase 2-Element—4-Wire Δ 60 Cycles

This meter has two 240-volt potential circuits and three current circuits and is intended for use on 4-wire Δ, 3-phase circuits provided the two 120-volt voltages of the lighting circuit are reasonably balanced. The external appearance of the meters is the same as Types V-3-A and V-3-S meters.

Approximate shipping weight: Type V-6-A, 12 pounds; Type V-6-S, 10 pounds.

Volts	Amp.	Type V-6-S		Type V-6-A	
		No.	Each	No.	Each
240	5	86X29	\$54.00	85X958	\$58.00
240	15	86X31	54.00	85X960	58.00
240	50	86X33	64.00	85X962	68.00

For Use with Instrument Transformers
240 2.5 97X134 \$60.00

Catalog numbers are for ball-type bearings. Jewel-pivot bearings are available at no increase in cost.

Sockets for Type V-6-S Meters

Type Meter	Circuit-Closing Device	Conduit Outlet Inches	No.	Each	Net f.o.b. West Lynn, Each
Self-Contained	No	1 1/4	83X784	\$9.18	
	No	2	83X785	9.55	
	Yes	1 1/4	94X996	9.76	
	Yes	2	94X997	10.14	

G-E Switchboard Watthour Meters

For Use with Instrument Transformers



Type DS-20

This line of back-connected single-phase and polyphase meters combines the improved elements of the new front-connected meters with the narrow 5½-inch universal-type switchboard case.

These meters are listed only for use with instrument transformers, i.e., in 2.5-ampere ratings. However, they are also available in 5 or 10-ampere self-contained ratings. Self-contained sizes have liberal overload rating. These meters may, therefore, be used with good accuracy on loads up to 300% of normal load and with ample margin of safety on loads considerably in excess of this.

Test links are not provided for these meters. Separate test blocks are available for this purpose.

Type IS-8

Single-Element—2-Wire—Single Phase

For 3-wire service, the Type DS-19 meter is recommended; 3-wire, single-phase circuits can, however, be metered with the 2-wire meter, No. 21x925, when connected with double-primary, single-secondary, 3-wire type of current transformers.

Approximate dimensions, 6x5½x7 inches.

Approximate shipping weight, 20 pounds.

Volts.....	120	*120	*240
Amperes.....	2.5	2.5	2.5
No.....	97X333	97X334	97X335
Each.....	\$40.00	40.00	42.00

Type DS-19

2-Element—3-Wire, 1, 2, or 3-Phase and 4-Wire, 2-Phase

Approximate dimensions, 12x5½x7 inches.

Approximate shipping weight, 25 pounds.

Volts.....	115	*120	*240	*480	*600
Amperes.....	2.5	2.5	2.5	2.5	2.5
No.....	97X339	97X340	97X341	97X342	97X343
Each.....	\$72.00	72.00	79.00	89.00	89.00

Type DS-20

3-Element—4-Wire Y—3-Phase

Approximate dimensions, 16x5½x7 inches.

Approximate shipping weight, 35 pounds.

Volts.....	120	*120
Amperes.....	2.5	2.5
No.....	97X346	97X347
Each.....	\$108.00	108.00

*No potential transformers.

Catalog numbers are for ball-type bearings. Jewel-pivot bearings are available at no increase in cost.

Catalog numbers and prices do not include instrument transformers. Specify ratios of transformers with which meter is to be used. It is standard practice (for meters of modern construction) to use 2.5-ampere meters with current transformers having 5-ampere secondary rating, since this results in the best overall accuracy and performance.

G-E Type IB-10 Portable Standards

This new G-E standard combines, for the first time, the capacity essential for the testing of both high-and low-current-rated meters with the light weight and small size of the best low-capacity standards.

Wide operating range and excellent testing flexibility have been obtained by the use of four current coils—1, 5, 12.5, and 50-ampere. All coils will carry 200-per cent current continuously. Thus, service meters of all ratings up to 100 amperes can be tested.

The Type IB-10 standard represents advancement in all details. It has a completely new electromagnet with low inherent errors and excellent load, voltage, and temperature characteristics. Excellent balance (accuracy) between current circuits is inherent in the design.

The IB-10 is the first standard to use the G-E anti-parallax arrangement of dial and pointers. This promotes speed and accuracy because the reading is always the same regardless of the angle from which the scale is viewed. The large sweep hand, coupled to the disc shaft, makes one revolution for each one of the disc. The antiparallax scale is divided into 100 clearly marked divisions in order that readings even closer than one one-hundredth of a revolution can easily be taken. Small dials within the large one make it possible to take readings up to 100 revolutions of the disc.

No.....	99X943
Each.....	\$240.00
Volts.....	120-240
Amperes.....	1, 5, 12.5, 50
Height.....	8⅜ inches
Width.....	6⅜ inches
Depth.....	6½ inches
Approximate Net Weight.....	11¼ pounds
Approximate Shipping Weight.....	23 pounds

Multiplier Boxes

Multiplier boxes are used to increase the voltage range. They are calibrated and furnished with the standard.

For single rating, 480 volts, add \$60.

For double rating, 480 and 600 volts, add \$80.

G-E Type MC Autotransformers

These autotransformers can be used on circuits where the voltage may be 10 per cent above or below the rated voltage of the autotransformer. They are intended for use with poly-phase meters in var metering.

When ordering autotransformers for voltages outside these limits, the normal operating voltage should be specified.

Type MC-1

3-Wire, 3-Phase

No.	Each	VOLTAGE		Frequency Cycles
		Primary	Secondary	
12X258	\$21.00	120	120	50-60
12X261	22.00	240	240	50-60

4-Wire, 3-Phase

99X219	\$22.00	240	240	50-60
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Type MC-2

4-Wire Y, 3-Phase

12X264	\$25.00	120	120	50-60
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Other ratings and types are available. Information and prices upon request.

G-E Jewels for Watthour Meters

Jewel-Pivot Bearings—Mounted in Screws
No. 39924—Sapphire



For d.c. meters, Types C, C-5, C-6, C-7, C-9 and C-15 single-phase, house and switchboard meters, Types I, I-8, IS-2 and IS-3 and polyphase meters Types D-3, D-4, D-9, DS-2, DS-3, DS-4, DS-5 and DS-9.
No. 39924, In Lots of 10.....per box \$6.00

No. 68X1—Sapphire



Oil-tight jewel screw with removable jewel plug. For single-phase meters, Types I-14, I-15, I-16, I-18, I-20, I-30, IS-4, IS-5, IS-6, IS-7, IS-8, IS-9, IS-10 and IS-11; for polyphase meters, Types D-6, D-7, D-8, D-14, D-15, DS-6, DS-7, DS-11, DS-12, DS-19, DS-20, DS-21, DS-23, DS-34, DS-35, DS-38, DS-39, DS-40, DS-41, and V-2 to V-10 inclusive; and for test meters, Types IB-5, IB-6, IB-7, IB-8 and IB-9.
No. 68X1, In Lots of 10.....per box \$4.00
No. 68X2, Jewel Plug with Jewel for No. 68X1 Jewel Screw, in Lots of 10.....per box 3.00

No. 295309 G-E Pivots

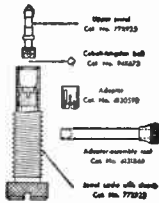


For all types of meters.
Packed in boxes of 25.
No. 295309.....per box \$3.80

G-E Meter Jewel Oil

No. 4126220, 1-Dram Bottle Cemented in Brass Container.....each \$.60
No. 66X727, 1-Ounce Bottle.....each 1.80

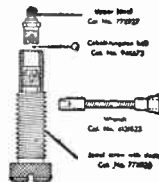
G-E Ball Bearings Enclosed Type



Enclosed type ball bearings are recommended for meters: Types I-16, I-20, I-30, IS-8, IS-9, and V-2 to V-10 inclusive; also these meters with the letter M or W added to the type designation.

No.	Description	
94X672	Jewel-Screw Assembly with Ball.....lots of 10	\$8.60
77X922	Lower Jewel Screw with Sleeve.....lots of 10	4.00
77X925	Upper Jewel.....lots of 10	4.00
94X673	Lot of 25 Balls in Vial.....lots of 10 vials	15.00
4130598	Adapter for Use with Meters Originally Furnished with Pivot Type Bearing.....per 100	6.00
4131844	Adapter Assembly Tool.....each	.10

Open Type



Open type ball bearings are recommended for meters: Types I-14, I-15, IS-4, IS-5, I-18, D-6, D-7, D-14, D-15, DS-6, DS-7, DS-19, DS-20, DS-21, DS-23, DS-34, and DS-35; also these meters with the letter M or W added to the type designation.

No.	Description	
77X926	Lower Jewel Screw with Sleeve.....lots of 10	\$4.00
77X927	Upper Jewel.....lots of 10	4.00
94X673	Lot of 25 Balls in Vial.....lots of 10 vials	15.00
413823	Wrench for Use on Upper Jewel.....each	.30

G-E Watthour Demand Meters

60 Cycles

Types IM-30-S and IM-30-A

With Type M-20 Register

These meters can be used on circuits where the voltage may be 10 per cent above or below the rated voltage of the meter.

When ordering meters for voltages outside these limits, the normal operating voltage should be specified.

Approximate shipping weight, 15 pounds.

Type IM-30-S

120 Volts, 2-Wire

Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
5	1.8	85X591	85X606	\$50.95
5	2.9	85X592	85X607	50.95
15	4.5	85X593	85X608	50.95
15	7.2	85X594	85X609	50.95
50	18.0	85X595	85X610	58.30

240 Volts, 3-Wire, 4-Terminal

Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
5	3.6	85X601	85X616	\$52.30
5	5.7	85X602	85X617	52.30
15	9.0	85X603	85X618	52.30
15	14.0	85X604	85X619	52.30
50	3.6X10	85X605	85X620	61.05
50	36.0	97X401	97X403	61.05

For Use with Instrument Transformers

Circuit	Volts	Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
2-Wire	120	2.5	0.9	97X153	97X156	\$54.80
2-Wire	*120	2.5	0.9	97X154	97X157	54.80
2-Wire	*240	2.5	1.8	97X155	97X158	56.80

Type IM-30-A

120 Volts, 2-Wire

Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
5	1.8	85X527	85X547	\$50.95
5	2.9	85X528	85X548	50.95
15	4.5	85X529	85X549	50.95
15	7.2	85X530	85X550	50.95
50	18.0	85X531	85X551	58.30

240 Volts, 3-Wire, 4-Terminal

Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
5	3.6	85X537	85X557	\$52.30
5	5.7	85X538	85X558	52.30
15	9.0	85X539	85X559	52.30
15	14.0	85X540	85X560	52.30
50	3.6X10	85X541	85X561	61.05
50	36.0	97X395	97X398	61.05

For Use with Instrument Transformers

Circuit	Volts	Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
2-Wire	120	2.5	0.9	85X579	85X583	\$54.80
2-Wire	*120	2.5	0.9	85X580	85X584	54.80
2-Wire	*240	2.5	1.8	85X581	85X585	56.80
3-Wire	*240	2.5	1.8	85X582	85X586	56.80

*No potential transformers.

The 50-cycle rating is available at no increase in cost.

Catalog numbers are for ball-type bearings. Jewel-pivot bearings are available at no increase in cost.

Continued

G-E Watthour Demand Meters

60 Cycles

Continued

Types VM-2-S and VM-2-A

With Type M-20 Register

These meters are for use on standard 3-wire circuits. They are particularly intended for use on circuits consisting of two "line" wires and the "neutral" obtained from a 4-wire Y, 3-phase circuit. They are also suitable for use on a 3-wire, single-phase circuit where the voltage unbalance makes a 2-element meter desirable. The meters can also be used as 3-wire, 2 or 3-phase circuits.

The Type VM-2 meters are not furnished for use with instrument transformers. If such meters are desired, use Type VM-3.

These meters can be used on circuits where the voltage may be 10 per cent above or below the rated voltage of the meter. When ordering meters for voltages outside these limits, the normal operating voltage should be specified.

Approximate shipping weight, 16 pounds.

Type VM-2-S

Volts	Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
120	5	3.6	85X793	85X803	\$74.80
120	15	10.5	85X795	85X805	74.80
120	50	3.6X10	85X797	85X807	89.80
120	50	36.0	97X446	97X449	90.80
240	5	7.2	85X798	85X808	77.80
240	15	2.1X10	85X800	85X810	77.80
240	15	21.0	97X447	97X450	77.80
240	50	7.2X10	85X802	85X812	92.80
240	50	72.0	97X448	97X451	93.80

Type VM-2-A

120	5	3.6	85X763	85X773	\$74.80
120	15	10.5	85X765	85X775	74.80
120	50	3.6X10	85X767	85X777	89.80
120	50	36.0	97X440	97X443	90.80
240	5	7.2	85X768	85X778	77.80
240	15	2.1X10	85X770	85X780	77.80
240	15	21.0	97X441	97X444	77.80
240	50	7.2X10	85X772	85X782	92.80
240	50	72.0	97X442	97X445	93.80

Types VM-3-S and VM-3-A

With Type M-20 Register

The Type VM-3 is for 3-wire, 2 or 3-phase, or 4-wire, 2-phase circuits. It can be used on circuits where the voltage may be 10 per cent above or below the rated voltage of the meter. When ordering meters for voltages outside these limits, the normal operating voltage should be specified.

Approximate shipping weight, 16 pounds.

Type VM-3-S

Volts	Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
240	5	5.1	97X204	97X210	\$80.80
240	15	1.5X10	97X205	97X211	80.80
240	15	15.0	97X561	97X564	81.80
240	50	5.1X10	97X206	97X212	93.80
240	50	51.0	97X562	97X565	94.80

For Use with Instrument Transformers

*240	2.5	2.50	86X189	86X192	\$82.80
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Type VM-3-A

240	5	5.1	86X54	86X64	\$84.80
240	15	1.5X10	86X56	86X66	84.80
240	15	15.0	86X543	97X546	85.80
240	50	5.1X10	86X58	86X68	97.80
240	50	51.0	97X544	97X547	98.80

For Use with Instrument Transformers

*240	2.5	2.50	86X111	86X114	\$86.80
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*No potential transformers.

The 50-cycle rating is available at no increase in cost. Catalog numbers are for ball-type bearings. Jewel-pivot bearings are available at no increase in cost.

Continued

G-E Watthour Demand Meters

60 Cycles

Concluded

Type VM-4-A

With Type M-20 Register

These meters are intended for the circuit obtained from a bank of three power transformers connected in Y and with the neutral brought out.

These meters can be used on circuits where the voltage may be 10 per cent above or below the rated voltage of the meter. When ordering meters for voltages outside these limits, the normal operating voltage should be specified.

Approximate shipping weight, 30 pounds.

Volts	Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
120Y	5	4.5	86X449	86X452	\$113.80
120Y	15	13.5	86X450	86X453	113.80
120Y	50	4.5X10	86X451	86X454	129.80
120Y	50	45.0	97X602	97X603	130.80

For Use with Instrument Transformers

120Y	2.5	2.2	86X458	86X459	\$118.80
*120Y	2.5	2.2	86X461	86X462	118.80

Types VM-6-S and VM-6-A

With Type M-20 Register

These meters are intended for the circuit obtained from a bank of two or three power transformers connected in Δ, with the center tap of one transformer brought out, provided the 120-volt voltages of the lighting circuit (between the center tap and the outer wires) are balanced within limits that would permit the use of a 3-wire, single-phase watthour meter on the lighting circuit.

The meters have two 240-volt potential coils and three current circuits, with the 3-wire current coil located on the left-hand element.

The meters can be used on circuits where the voltage may be 10 per cent above or below the rated voltage of the meter. When ordering meters for voltages outside these limits, the normal operating voltage should be specified.

Approximate shipping weight, 18 pounds.

Type VM-6-S

Volts	Amperes	Full-Scale Kw.	15-Min. Interval No.	30-Min. Interval No.	Each
240	5	5.1	86X196	86X201	\$87.80
240	15	1.5X10	86X198	86X203	87.80
240	15	15.0	97X568	97X570	88.80
240	50	5.1X10	86X200	86X205	97.80
240	50	51.0	97X569	97X571	98.80

Type VM-6-A

240	5	5.1	86X118	86X124	\$91.80
240	15	1.5X10	86X120	86X126	91.80
240	15	15.0	97X556	97X558	92.80
240	50	5.1X10	86X122	86X128	101.80
240	50	51.0	97X557	97X559	102.80

For Use with Instrument Transformers

240	2.5	2.5	97X213	97X214	\$93.80
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*No potential transformers.

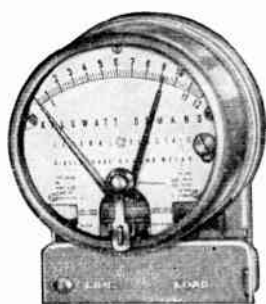
The 50-cycle rating is available at no increase in cost.

Catalog numbers are for ball-type bearings. Jewel-pivot bearings are available at no increase in cost.

G-E Type HI-1 Thermal Watt-Demand Meters



Type HI-1-S



Type HI-1-A

The Type HI-1 is a separate meter for the indicated measurement of maximum demand. It is admirably suited to use on small loads because of the low maintenance and cost. Unless it is necessary to have recorded measurements, as in the graphic or printing types, it can be used for loads of any value.

Approximate shipping weight, 13 pounds.

Types HI-1-S and HI-1-A

Amperes	Full-Scale Kw.	120 Volts, 2-Wire		Each
		Type HI-1-S No.	Type HI-1-A No.	
15	6.0	411X59	411X43	\$38.00
50	12.0	411X60	411X44	41.15

Amperes	Full-Scale Kw.	240 Volts, 2-Wire		Each
		Type HI-1-S No.	Type HI-1-A No.	
15	12.0	411X62	411X46	\$38.00
50	24.0	411X63	411X47	41.15

Amperes	Full-Scale Kw.	240 Volts, 3-Wire, 4-Terminal		Each
		Type HI-1-S No.	Type HI-1-A No.	
15	12.0	411X65	411X49	\$38.00
50	24.0	411X66	411X50	41.15

Amperes	Full-Scale Kw.	240 Volts, 3-Wire, 6-Terminal		Each
		Type HI-1-S No.	Type HI-1-A No.	
15	12.0	.....	411X52	\$38.00
50	24.0	.....	411X53	41.15

For Use with Instrument Transformers

Circuit	METER RATING		Full-Scale Kw.	Type HI-1-S	Type KI-1-A	Each
	Volts	Amps.		No.	No.	
2-Wire	120	2.5	1	416X92	416X87	\$38.00
2-Wire	120	5	1	416X93	416X88	38.00
2-Wire	240	2.5	2	411X69	411X56	38.00
2-Wire	240	5	2	416X94	416X89	38.00
3-Wire	240	2.5	2	.....	411X58	38.00
3-Wire	240	5	2	.....	416X90	38.00

G-E Portable Transformers

For use with meters, instruments, and similar devices. Used in laboratory and general testing work.

Current Transformers

2500 Volts—25-125 Cycles



Type JP-1

Current transformers include a wide range of primary currents. For example, the Type P-3 is a multi-range transformer having either three or six primary ratings. Changes in ratio are made by changing the link connections on the top of the case. The JP-2 is of the through type and has much higher ratings. Type JP-1 is especially suited for industrial work. The accuracy of these transformers is sufficiently

high to obviate the need for correction during most commercial tests. However, certificates of phase-angle and ratio characteristics can be furnished.

Type P-3

No.	Each	Primary Cap., Amp.	Ratio
248742	\$118.00	5/10/20	1/2/4 :1
248743	118.00	15/30/60	3/6/12 :1
248744	118.00	25/50/100	5/10/20 :1
248745	118.00	50/100/200	10/20/40 :1
248746	140.00	7.5/10/15/20/30/40	1.5/2/3/4/6/8 :1
295534	140.00	10/15/20/30/40/60	2/3/4/6/8/12 :1
248747	140.00	15/20/30/40/60/80	3/4/6/8/12/16 :1
248748	140.00	20/25/40/50/80/100	4/5/8/10/16/20 :1
259628	140.00	30/37.5/60/75/120/150	6/7.5/12/15/24/30 :1
248749	140.00	30/40/60/80/120/160	6/8/12/16/24/32 :1
295535	140.00	37.5/50/75/100/150/200	7.5/10/15/20/30/40 :1
248750	140.00	40/50/80/100/160/200	8/10/16/20/32/40 :1

Type JP-1

88X593	\$67.00	10/20/50/100/600/800	2/4/10/20/120/160	:1
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Type JP-2

89X867	\$130.00	1200	240	:1
89X868	175.00	1200/1500/2000/2500	240/300/400/500	:1

Potential Transformers

Under ordinary conditions of load and power-factor, the accuracy of these types will not vary more than 1 per cent from rated ratio.

When used with a test certificate, the ratio can be corrected to within one tenth of 1 per cent, and the phase angle can be corrected to within three minutes.

Type E-6 is rated 25 volt-amperes, and is compensated for 12.5 volt-amperes.

Type JE-9 is rated 200 volt-amperes, and is compensated for 50 volt-amperes.



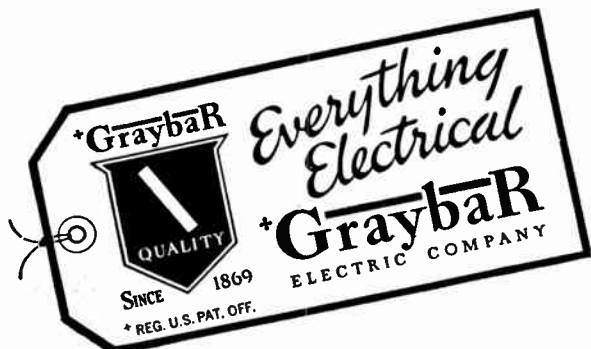
Type E-6

Type E-6

No.	Each	Volt-Amp.	Cycles	VOLTAGE		Ratio
				Primary	Secondary	
48X482	\$90.00	25	25	240/480	120	2/4:1
48X483	85.00	25	25	480	120	4:1
48X484	90.00	25	25	600	120	5:1
48X485	95.00	25	25	2400	120	20:1
48X486	65.00	25	50/60	240/480	120	2/4:1
48X487	60.00	25	50/60	480	120	4:1
48X488	65.00	25	50/60	600	120	5:1
48X489	70.00	25	50/60	2400	120	20:1

Type JE-9

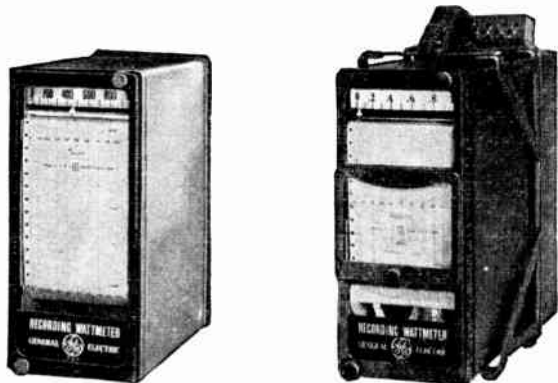
71X225	\$50.00	200	60	240	120	2:1
71X227	50.00	200	60	480	120	4:1
71X228	50.00	200	60	600	120	5:1
71X229	50.00	200	60	2400	120	20:1



G-E Strip-Chart Recording Instruments

Type CD—Switchboard and Portable Types

60 Cycles—For A.C. and D.C.



Switchboard Back-Connected

Portable

Type CD recording instruments are available for switchboards, surface or semiflush mounting, or in portable form. There is a complete line for a.c. or d.c. circuits, including ammeters, voltmeters, wattmeters, frequency meters, and power-factor meters. Standard chart speeds are 3 inches per hour for switchboard instruments. Portable instruments have a gear shift that permits chart speeds of either 3 inches per hour or 3 inches per minute. The driving mechanism may be either an eight-day, spring-operated clock, or a telechron motor, as specified.

Type CD recording instruments are available with provision for inkless recording at a slight increase in price.

This listing covers only the portable instruments with telechron motor drive. Switchboard instruments have somewhat lower prices; dimensions: instrument, 12x5½x10 inches and chart, 4¾ inches wide by 60 feet long. Instruments with spring-driven, hand or motor-wound timing mechanisms have somewhat higher prices.

Type CD-13—For A.C.

Potential resistances self-contained.

Instrument is calibrated for 25 to 60 cycles, a.c.

Voltmeters will read correctly on d.c. circuits but ammeters will read approximately 3 per cent high if used on d.c. circuits.

Approximate shipping weight, 60 pounds.

Voltmeters

Double-Voltage Rated.	volts	0-150 or 0-300	0-300 or 0-750
Each		\$273.00	283.00

Ammeters

Amperes	Each	Amperes	Each	Amperes	Each
1	\$233.00	10	\$238.00	2.5/5	\$248.00
2	233.00	15	238.00	5/10	248.00
5	233.00	20	238.00	10/20	248.00

Type CD-11—For D.C.

Potential resistances self-contained.

Millivoltmeters are used as ammeters with any standard switchboard or portable shunt of 50-millivolt drop. Form 18 shunts are recommended. One set of shunt leads, 5 feet long, is furnished with each millivoltmeter.

Approximate shipping weight, 65 pounds.

Voltmeters

Double-Voltage Rated.	volts	0-150 or 0-300	0-300 or 0-750
Each		\$310.00	315.00

Millivoltmeter Used as Ammeter

Millivolts	50
Each	\$290.00

Extra length shunt leads: 10-foot, \$12. extra per set; 15-foot, \$18. per set; and 20-foot, \$22. per set.

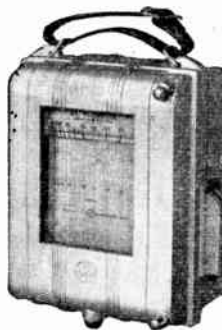
Form 18 Shunts

Amperes	Each	Amperes	Each	Amperes	Each
60	\$7.00	150	\$7.00	400	\$10.00
75	7.00	200	7.00	500	11.75
80	7.00	250	7.00	600	11.75
100	7.00	300	8.25	800	15.00

G-E Strip-Chart Recording Instruments

Type CF—Inkless Portable

For A.C. and D.C.



Type CF inkless recording instruments are designed to provide recording voltmeters, ammeters, milliammeters, microammeters, wattmeters, and tachometers for applications where reliability and maximum convenience to the user are important.

Recommended for either indoor or outdoor service, the instrument is portable but may be wall or pole mounted.

The inkless recording feature (with no ink to dry up, freeze, or spill) and a chart speed of 1 inch per hour make these instruments

capable of continuous operation for 30 days without attention. Hence, they are ideal for installations where frequent servicing is impractical.

Size, 9¼x8½x6 inches. Chart speed, 4 inches wide by 65 feet long. Chart size, 3 inches per hour standard; 1-inch and 2-inch per hour available; 1-inch per day can be supplied at \$7.00 additional.

Type CF-1, A.C. Voltmeters

60 Cycles—Accuracy—1½ Per Cent within Normal Range

Volts	0-140/280
Each	\$110.00

Telechron motor circuits internally connected to element terminals. Instruments can be supplied with separate motor terminals, \$5.00 extra.

A.C. Ammeters

25-125 Cycles—Accuracy—2 Per Cent of Full Scale

Amperes	0-5/10
Each	\$110.00

Ammeter has 115-230 or 230-460-volt telechron motor circuit. Connections to separate terminals on terminal block. Motor ratings changed by link arrangement on terminal block.

Type CF-2 for D.C.

Previously offered only for a.c. applications, the G-E Type CF line has been extended to include d.c. instruments in the usual ratings of voltmeters, ammeters, milliammeters, and microammeters. This means that it is now economical to apply recording instruments to many applications where previously the expense of suitable equipment could not be justified.

All d.c. instruments listed are accurate to within 2 per cent of full-scale value.

Type CF-2, D.C. Voltmeters

Resistance—Approximately 233 Ohms per Volt

Volts	Each	Volts	Each	Volts	Each
0-3	\$160.00	0-150	\$165.00	0-750	\$180.00
0-15	160.00	0-300	170.00	0-150/300	175.00
0-50	160.00	0-600	175.00		

Type CF-2, D.C. Ammeters

Amperes	Each	Approximate Resistance Ohms	Amperes	Each	Approximate Resistance Ohms
0-1	\$160.00	0.05	0-7.5	\$160.00	0.007
0-1.5	160.00	.03	0-15	160.00	.003
0-3	160.00	.017	0-30	160.00	.0017

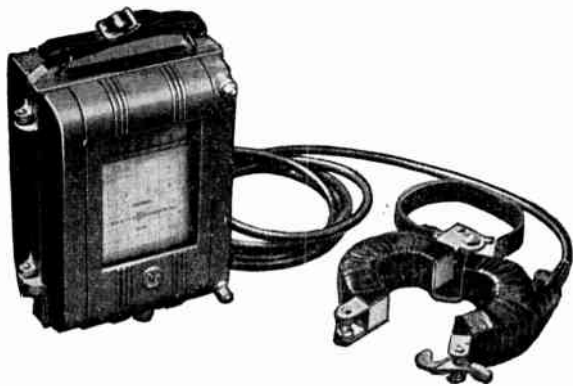
Type CF-2 instruments are insulated for and designed for use in circuits not exceeding 750 volts to ground.

Listed instruments have 60-cycle, 115-230-volt motor circuit brought out to separate terminals. The 25 or 50-cycle motors or 230-460-volt motor circuit may be specified at no addition to price.

Accessories for Type CF Instruments

Ribbon on Spool	each	\$1.00
Empty Spool	each	.30
Rate-Gear Unit, 1, 2, or 3 Inches per Hour	each	3.00
Rate-Gear Unit, 1 Inch per Day	each	10.00
Record Rolls	each	1.10
Lamps	each	.15

G-E Current-Measuring Sets For Measuring Amperes Only with Recording Ammeter—For A.C.



This current-measuring set is very convenient for measuring the current in the leads to motors and transformers and in feeder circuits, because it permits the measurement to be made without interrupting service.

Set includes a Type CF-1 recording ammeter, test leads, and a Type G-4 split-core current transformer.

When in use, the transformer is clamped around the cable or lead in which the current is to be measured.

Length of leads, 10 feet.

Approximate weight, 22 pounds.

Full-Scale Amperes	Each	Frequency Cycles	Full-Scale Amperes	Each	Frequency Cycles
50/200	\$186.00	60	250/1000	\$200.00	60
100/200	186.00	60	500/1000	200.00	60
125/500	193.00	60	100/200	186.00	50
250/500	193.00	60	250/500	191.00	50
150/600	193.00	60	300/600	191.00	50
300/600	193.00	60	500/1000	200.00	50

Add \$4.00 for 50-foot leads.

G-E Type AK-1 Hook-On Volt-Ammeters For A.C.



This hook-on volt-ammeter is a versatile portable instrument for measuring a.c. and voltage quickly and accurately. It is safe, simple, and easy to use for making measurements on the job. A.c. can be read instantaneously on both insulated and non-insulated conductors by simply hooking the instrument around the line; no necessity for separate transformers or additional equipment of any kind.

The instrument also measures a.c. voltages. Two voltage ranges (0-150/600 volts) are available without the use of auxiliary equipment. It is only necessary to connect leads to the two convenient terminals on the instrument, then click the selector switch to the desired voltage position on the scale. Voltage leads, 6 feet long, are included with each instrument. Approximate dimensions, 13¼x3¾x2½ inches. Approximate weight: net, 3½ pounds; shipping, 7½ pounds.

No.	Each	Amperes	Volts
99X33	\$69.75	0-15/60/150/600	0-150/600
No. 99X38 Leather Case	.....	.....	each \$10.00
No. 99X67 Hot-Line Extension Pole, 4 Ft. Long	each	.....	8.50
No. 99X68 Hot-Line Extension Pole, 6 Ft. Long	each	.....	10.00

Weston Portable Instruments

Model 430 D.C. Instruments

For General Plant Testing



Accurate within ½ of 1 per cent. Permanent magnet moving coil type. Unshielded from external magnetic fields.

Voltmeters are made with single and triple ranges at a standard sensitivity of 1000 ohms per volt, with 5000 ohms per volt also available at an increase in price.

Ammeters and milliammeters regularly made with single and triple ranges, self-contained up to 50 ampere inclusive. Double ranges available on special order. Microammeters are made only in single range form.

Voltmeters with triple ranges only; sensitivity, 1000 ohms per volt. Available with self-contained ranges of 300 volts and 50 amperes. Prices on application.

Dimensions, 5¼x6½x3½ inches; scale length, 4 inches.

Approximate weight, 3½ pounds.

Voltmeters

Triple Range

Ranges	Each	Scale Div.	Ranges	Each	Scale Div.
75/30/7.5	\$50.00	150	300/150/3	\$52.00	150
150/15/3	50.50	150	750/300/150	56.50	150

Above ranges also available with a sensitivity of 5000 ohms per volt at an increase in price. Suitable for electronic work.

Ammeters

Single Range

	Each	Scale Div.		Each	Scale Div.
1	\$42.00	100	15	\$42.00	150
5	42.00	100	30	42.00	150

Triple Range

Ranges	Each	Scale Div.	Ranges	Each	Scale Div.
5/0.5/0.05	\$52.00	100	30/15/3	\$52.00	150
10/1/0.1	52.00	100	50/5/0.5	52.00	100
15/3/1.5	52.00	150	50/25/10	52.00	100
25/10/2.5	52.00	100	.....	.....	.....

Milliammeters

Single Range

Ranges	Each	Approx. Resist. Ohms	Scale Div.	Ranges	Each	Approx. Resist. Ohms	Scale Div.
1	\$39.00	92	100	150	\$39.00	.....	150
15	39.00	1.4	150	.....	.....	.....	.....

Triple Range

Ranges	Each	Approx. Resist. Ohms	Scale Div.	Ranges	Each	Approx. Resist. Ohms	Scale Div.
3/0.3/0.03	\$65.00	.....	150	1500/150/15	\$52.00	.....	150
150/15/1.5	49.00	.....	150	3000/300/30	52.00	.....	150

Milliammeters with ranges above 30 milliamperes are shunted and have a drop of 50 millivolts ± 5 per cent.

Microammeters

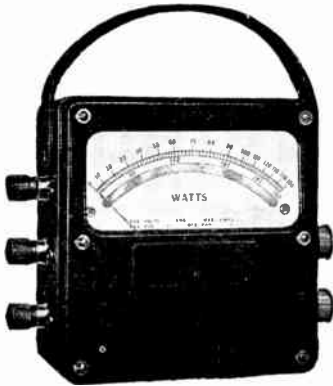
Single Range

	Each	Approx. Resist. Ohms	Scale Div.		Each	Approx. Resist. Ohms	Scale Div.
30	\$55.00	3300	150	200	\$45.00	560	100
100	50.00	1650	100	.....	.....	.....	.....

Leather case for single range voltmeter, single or triple range ammeter, milliammeter or microammeter, \$9.00; case for triple range voltmeter, \$9.00.

Weston Portable Instruments

Model 432 D.C. and Single Phase A.C. Wattmeters
For General Plant Testing



This wattmeter is of the electro-dynamometer type, accurate within 1/2 of 1 per cent. Shielded from external magnetic fields.

Made with double voltage and single and double current ranges, self-contained up to 300 volts and 50 amperes. Potential ranges up to 750 volts are available by using external multipliers, higher ranges require the use of potential transformers. Current ranges can be extended beyond 50 amperes by using a 5-ampere instrument in conjunction with the Model 461 current transformer.

These instruments are accurate on all commercial frequencies up to 133 cycles per second. The phase angle is negligible on such frequencies. They may be used on d.c. and checked in comparison with d.c. standards. The temperature error is less than 1 per cent for 25°C. change in temperature.

As the working error is negligible, they may be left in circuit continuously without appreciable effect on the accuracy.

Power consumption: Potential side, at 115 volts, 1.2 watts; at 115 volts, 25 or 60 cycles, 1.2 volt-amperes. Current side, at 5 amperes, .67 watt; at 5 amperes, 25 cycles, .73 volt-ampere and at 5 amperes, 60 cycles, .98 volt-ampere.

Dimensions: 6 1/8 x 5 1/4 x 3 1/2 inches; scale length, 4 1/8 inches. Weight, 3 1/4 pounds.

VOLTS		Each	AMPERES		WATTS		APPROX. RES. OHMS		Low Range	High Range	Scale Div.
Normal	Max.		Normal	Max.	Low Range	High Range	Low Range	High Range			
75/150	100/200	\$67.50	1	1.5	75	150	5500	11000	75		
150/300	200/400	69.00	1	1.5	150	300	11000	22000	75		
75/150	100/200	67.50	2	3	150	300	5500	11000	75		
150/300	200/400	69.00	2	3	300	600	11000	22000	60		
75/150	100/200	67.50	5	7.5	375	750	5500	11000	75		
150/300	200/400	69.00	5	7.5	* 75	* 150	11000	22000	75		
75/150	100/200	72.50	10	15	* 75	* 150	5500	11000	75		
150/300	200/400	74.00	10	15	* 150	* 300	11000	22000	75		
75/150	100/200	72.50	20	30	* 150	* 300	5500	11000	75		
150/300	200/400	74.00	20	30	* 300	* 600	11000	22000	60		
75/150	100/200	72.50	50	75	* 375	* 750	5500	11000	75		
150/300	200/400	74.00	50	75	* 750	* 1500	11000	22000	75		

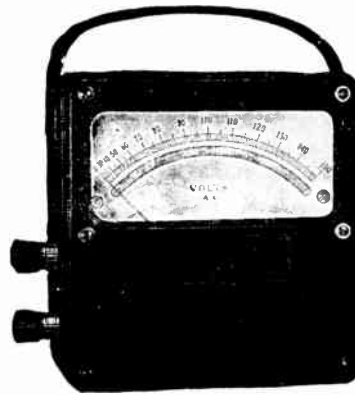
*Kilowatts.
Double current ranges with range changing switch available at an extra charge. Prices upon application.
Leather Case.....each \$9.00

Y-Boxes for Model 432 Wattmeters
For Use on Balanced 3-Phase 3-Wire Circuits

Normal Voltage of Instrument	Each	Y-Box Multiplying Constant	Normal Line Voltage With Y-Box	Maximum Voltage With Y-Box	Box	
					Type	No.
75	\$20.00	3	150	170	5	1
150	20.00	3	300	340	5	2
150	20.00	4	400	450	5	2
150	20.00	5	500	550	5	3
150	20.00	6	600	650	5	3

Weston Portable Instruments

Model 433 A.C. Instruments
For General Plant Testing



Electromagnetic or moving iron type instruments contained in bakelite cases with leather carrying handles. Shielded from external magnetic fields. Accurate within 3/4 of 1 per cent.

Instruments can be left in circuit continuously without overheating, therefore, no contact key is used.

Size 5 1/8 x 6 1/2 x 3 1/2 inches; scale length, 4 1/8 inches.

Weight, 2 1/2 pounds.

Voltmeters

Self-contained for ranges shown. Higher ranges obtained by using multipliers or Model 311 or 457 potential transformer in conjunction with a 150-volt instrument; for use on frequencies up to 133 cycles per second.

Range Volts		Each	Resist. Ohms	Scale Div.	Range Volts		Each	Resist. Ohms	Scale Div.
Single Range	Double Range				Single Range	Double Range			
10	\$36.00	80	100	125	\$36.25	4400	125		
15	36.00	168	150	150	36.50	5300	150		
30	36.00	425	150	250	37.50	18200	125		
50	36.00	1140	100	300	38.00	22000	150		
75	36.00	2680	150						
10/5	\$41.00	40/20	100	*150/15	\$41.50	5300/530	150		
20/10	41.00	160/80	100	150/75	41.50	5300/2680	150		
30/15	41.00	336/168	150	300/150	43.00	22000/11000	150		
60/30	41.00	850/425	150						

*Low range of this combination has an accuracy of 3 per cent.

Triple Range

Has metal extension on case to accommodate additional resistance necessary for high ranges.

Range Volts	Each	Resistance Ohms	Scale Div.
450/300/150	\$54.50	33000/22000/11000	150
600/300/150	56.00	44000/22000/11000	150
750/300/150	57.50	55000/22000/11000	150

Ammeters

For use on frequencies up to 500 cycles per second, except triple range ammeters which have self-contained transformer limiting use to a.c. with frequencies up to 133 cycles.

Range Amp.		Each	Resist. Ohms	Inductance Henrys	Scale Div.	Range Amp.		Each	Resist. Ohms	Inductance Henrys	Scale Div.
Single Range	Double Range					Single Range	Double Range				
1	\$35.00	.48	.00035	100	10	\$35.00	.007	.000029	100		
1.5	35.00	.20	.000155	150	15	39.00	.0038	.000014	150		
2	35.00	.119	.000085	100	25	39.00	.00155	.0000062	125		
3	35.00	.053	.000030	150	30	39.00	.00063	.0000039	150		
5	35.00	.0197	.0000135	100	50	39.00	.00038	.0000013	100		

Double Range

Range Amp.	Each	Resist. Ohms	Scale Div.	Range Amp.	Each	Resist. Ohms	Scale Div.
10/5	\$45.00	.0083/.028	100	20/10	\$49.00	.004/.0108	100

Triple Range

Operate through self-contained multi-range transformers, therefore they cannot be used on d.c.

3/1.5/.75	\$75.00	....	150	20/5/2	\$79.00	....	100
5/2.5/1	75.00	....	100	30/7.5/3	79.00	....	150
10/5/1	75.00	....	100	50/20/5	79.00	....	100
10/5/2.5	75.00	....	100	50/20/10	79.00	....	100
15/7.5/1.5	79.00	....	150				

Milliammeters

Range Milli-amp.		Each	Resist. Ohms	Scale Div.	Range Milli-amp.		Each	Resist. Ohms	Scale Div.
Single Range	Double Range				Single Range	Double Range			
30	\$35.00	460	150	300	\$35.00	3.85	150		
75	35.00	78	150	500	35.00	2	100		
100	35.00	49	100	750	35.00	75	150		
150	35.00	13	150						
200	35.00	8.75	100						
250	35.00	6	125						

Leather Cases, each \$9.00
†Also available in double range combinations.

Weston Portable Instruments

Model 155 A.C. Instruments For General Plant Testing



Movable iron type. Scale length, 5 1/4 inches. Accuracy within 1/2 of 1 per cent. Black walnut case without cover, leather carrying handle.

Power consumption: Voltmeters at 115 volts, 6.5 watts; at 115 volts, 25 or 60 cycles, 6.5 volt-amperes. Ammeters at 5 amperes, 1.1 watts; at 5 amperes, 25 cycles, 1.1 volt-amperes; at 5 amperes, 60 cycles, 1.4 volt-amperes.

*Voltmeters

Self-contained up to and including 750 volts. Higher ranges may be obtained by using Models 311 or 457 portable potential transformers in conjunction with 150-volt instrument. Dimen.: to 300 v. 7x7 1/8x3 1/4 in., above 300 v. 7 3/4x8 3/4x4 in. Wt.: to 300 v., 4 lb.; above 300 v., 5 lb.

Single Range			
Range	Each	Resist. Ohms	Scale Div.
30	\$51.00	150	150
50	51.00	415	100
125	51.25	2075	125
150	51.50	2500	150

Double Range			
Ranges	Each	Approx. Resist. Ohms	Scale Div.
150/75	\$56.50	1250/625	150
300/150	58.00	5000/2500	150
600/150	61.00	10000/2500	150
600/300	61.00	10000/5000	150
750/150	62.50	12500/2500	150

Triple Range			
Range	Each	Approx. Resist. Ohms	Scale Div.
600/300/150	\$71.00	10000/5000/2500	150
750/300/150	72.50	12500/5000/2500	150

*Meters to be used on 500 cycles, add \$10. to prices.

Ammeters

Self-contained up to and including 500 amperes. Higher ranges available by using Models 327 or 461 current transformers in conjunction with 5-ampere instrument. Dimen.: to 300 amp., 7x7 1/8x3 1/4 in., above 300 amp., 7 3/4x8 3/4x4 in. Wt.: to 300 amp., 4 lb.; above 300 amp., 5 lb.

Single Range			
Range	Each	Approx. Resist. Ohms	Inductance Henries
1	\$50.00	1.15	.00244
2	50.00	.287	.00057
3	50.00	.128	.00027
5	50.00	.0435	.000091
10	50.00	.0127	.000023
15	50.00	.0066	.000011
25	50.00	.0032	.0000033
50	55.00	.00117	.....
75	55.00	.00085	.....
100	55.00	.00047	.....
150	57.50	.00034	.....
200	60.00	.00034	.....
300	65.00	.000172	.....
500	75.00	.000054	.....

Double Range			
Range	Each	Approx. Resist. Ohms	Inductance Henries
1/.5	\$65.00	1.15/4.6	.....
2/1	65.00	.34/1.36	.....
5/2.5	65.00	.052/0.218	.....
10/5	65.00	.012/0.045	.....

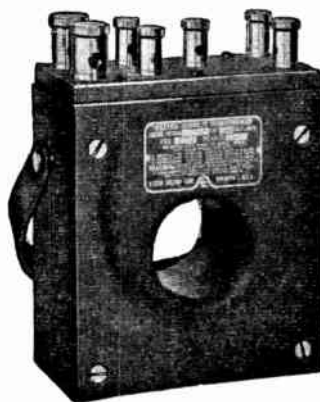
Milliammeters

Range	Each	Approx. Resist. Ohms	In-ductance Henries	Scale Div.
50	\$50.00	433	.61	100
75	50.00	123	.28	150
150	50.00	33	.067	150
250	\$50.00	12	.022	125
500	50.00	2.25	.006	100
750	50.00	1.10	.002	150

Double range milliammeters, \$65.

Leather cases: For voltmeters up to and including 300 volts, ammeters up to and including 300 amperes, and single range milliammeters, \$16.00; for voltmeters above 300 volts, \$18.00; for ammeters above 300 amperes, and double range milliammeters, \$18.50.

Weston Portable Instruments Model 461 Multi-Range Current Transformers For General Plant Testing



This transformer is for primary current ranges from 10 to 800 amperes inclusive. Four self-contained primary ranges of 10, 20, 50 and 100 amperes are brought out to binding posts. With one turn of the primary through the core opening a primary range of 800 amperes results; with two turns, 400 amperes; and with four turns, 200 amperes, etc. The secondary current rating at normal primary current is 5 amperes.

The normal secondary capacity for Type 1 is 5 volt-amperes, and its ratio accuracy is sufficiently high for use with Models 155 and 433 Ammeters, or Model 329 and 432 Wattmeters, without correction curves. Type 2 has a normal secondary capacity of 15 volt-amperes, and in addition to its greater secondary capacity, offers superior accuracy. Line potentials up to 2500 volts are permissible for both types. Type 1 is supplied in a black bakelite case and Type 2 in a tan or natural color canvas filler bakelite case.

Size, 6 5/8x7 7/8x2 3/4 inches.

When ordering transformer correction curves, always state the model, type and serial number of the instruments to be used. Also give the frequency at which the curves are to be made. If more than one curve is required with different combinations of instruments, list those combinations. Also state the length and size of leads to be used.

Type.....	1	2
Model 461.....	each \$65.00	87.50
Weight.....	pounds 7 1/4	8 1/2

Weston Portable Instruments

Model 539 Miniature Current Transformers For General Plant Testing



This transformer is intended for use with Models 433 and 528 Ammeters. Accurate within 1 per cent from 25 to 150 cycles. For work requiring medium accuracy, it may be used with Model 155. It is not suitable for use with wattmeters for accurate work.

Four self-contained primary ranges of 2, 5, 10 and 20 amperes are selected through a switch; maximum of 200 amperes inserted primary. Secondary current rating at normal primary current is 1 ampere.

Ranges of 200, 100 and 50 amperes are available when the conductor is passed through the transformer one, two or four times respectively.

Capacity, 2 volt-amperes. Frequency, 25 to 150 cycles. Insulation test, 4000 volts for one minute.

Contained in a sturdy red and black bakelite case. A switch is provided for changing the self-contained primary ranges. In addition, a short-circuiting switch is provided for the secondary winding to prevent damage to the transformer if the secondary circuit should be opened while current is on the primary.

Size, 5 1/4x4 1/4x1 7/8 inches.

Approximate weight, 2 5/8 pounds.

Model 539 each \$41.00

Weston Portable Instruments

**Model 489 D.C. Instruments
For General Plant Testing**



For all-around checking purposes.

Accurate within 2 per cent. Permanent magnet moving coil type. Double range meters have binding posts; triple range meters have pin jacks.

Instruments are enclosed in black bakelite cases. Silver etched dials are 2 3/8 inches long with black markings.

Size, 3 3/8 x 3 3/8 x 1 29/32 inches.

Approximate weight, 11 ounces.

Voltmeters

Double Range

Range Volts	Each	Scale Div.	Ohms per Volt
150/7.5	\$15.00	75	125
200/8	15.50	40	125
200/8	16.50	40	1000
250/50	17.00	50	1000

Triple Range

Range	Each	Scale Div.	Ohms per Volt	Range Amp.	Each	Scale Div.
150/7.5/3	\$17.50	75	1000	10/1	\$14.50	50
300/7.5/3	19.00	75/50	1000	15/3	14.50	75/60
750/2.50/10	23.50	75/50	1000	30/3	14.50	60

Ammeters

Single Range

Range Amp.	Each	Scale Div.
1	\$13.00	50
10	13.00	50
30	13.00	60

Double Range

Range Amp.	Each	Scale Div.
10/1	\$14.50	50
15/3	14.50	75/60
30/3	14.50	60

Milliammeters

Double Range

Range Milli-amp.	Each	Resist. Ohms	Scale Div.	Range Milli-amp.	Each	Resist. Ohms	Scale Div.
150/15	\$13.50	0.7/4.1	75	150/30	\$13.50	0.7/2.6	60

Weston Portable Instruments

**Model 528 A.C. Instruments
For General Plant Testing**

For all-around checking purposes.

Accurate within 2 per cent. Movable iron type. Unshielded from external magnetic fields. Single and double range meters have binding posts; triple range meters have pin jacks.

Instruments are enclosed in black bakelite cases. Size, 3 27/32 x 3 5/8 x 2 1/8 inches; scale length, 2 1/2 inches.

Can be made for use on frequencies up to 1000 or 2500 cycles service.

Approximate weight, 11 ounces.

Voltmeters

Double Range

Range Volts	Each	Approximate Resist. Ohms	Scale Div.
150/15	\$14.50	7350/735	39
300/150	16.00	31600/15800	30
600/150	19.00	100000/25000	30
600/300	19.00	100000/50000	30

Triple Range

Range	Each	Approximate Resist. Ohms	Scale Div.
150/15/3	\$16.50	8700/150/30	30/30
150/8/4	16.50	10000/80/40	30/40
300/8/4	21.00	43000/80/40	30/40

Ammeters

Single Range

Range Amp.	Each	Resist. Ohms	Scale Div.
1	\$12.00	.204	50
3	12.00	.0249	30
5	12.00	.0108	50
10	12.00	.0067	50
15	12.00	.003	30
30	12.00	.0016	30
50	12.00	.0014	50

Double Range

Range Amp.	Each	Resist. Ohms	Scale Div.
15/3	\$16.00	.....	30
15/5	19.00	.....	30/50
30/3	16.00	.....	30
30/5	19.00	.....	30/50

Milliammeters

Range Milli-amp.	Each	Resist. Ohms	Scale Div.	Range Milli-amp.	Each	Resist. Ohms	Scale Div.
15	\$12.00	2000	30	100	\$12.00	28	50
50	12.00	175	50	500	12.00	1.1	50

Leather Case for Model 489 or 528. \$2.50

Weston Portable Instruments

**Model 540 Fused 6-Range Volt-Ammeters
For General Plant Testing—For D.C. Only**



Accurate within one per cent. Permanent magnet moving coil type. Contained in bakelite case with hinged cover and leather carrying strap.

All ranges fused for protection from overloads. Voltage ranges protected by single fuse located in a cap. Each of current ranges protected by individual fuse mounted in special compartment covered by hinged back. Ranges are brought out through selector switch to three binding posts, a common +, a current and a potential post. By this arrangement instrument can be so connected to circuit that both current and voltage readings can be taken by turning switch without changing connections. Line is closed at all times when connected to ammeter binding post.

Dimensions, 3 5/16 x 4 7/8 x 2 1/2 inches; scale length, 2 1/16 inches. Approximate weight, 2 pounds.

Volts	RANGES		Scale Div.
	Each	Amperes	
30/3	\$56.00	15/1 5/0.15/0.03	60
30/3/1.5	56.00	30/3/0.03	60
60/30/6	56.00	6/0.6/0.03	60
150/15/1.5	56.00	15/1 5/0.15	75
150/15/3	56.00	15/1 5/0.15	60
150/15/3	56.00	15/1 5/0.3	60
150/15/3	56.00	30/3/0.3	60
150/15/3	56.00	30/15/3	60
150/30/3	56.00	30/3/0.3	60
150/30/3	56.00	30/0.6/0.06	60

Weston Portable Instruments

**Model 330 A.C. Voltmeters
For General Plant Testing**



In this type of voltmeter, low ranges combined with an unusually high sensitivity are possible. For use wherever current drain caused by instrument must be limited to a low value. Although the high sensitivities of the copper oxide type of voltmeter are not possible with this meter, nevertheless its accuracy is unaffected by wave form and variations in frequencies over relatively wide limits.

Accurate within one percent at 60 cycles, two percent at 25 to 100 cycles. Iron core dynamometer type. Contained in a mottled red and black bakelite case with hinged cover and leather carrying handle.

A range-changing switch is incorporated for selection of ranges. To eliminate parallax errors and facilitate accurate readings, a knife-edged pointer and mirror scale are used.

Dimensions, 3 15/16 x 4 7/8 x 1 13/16 inches; scale length, 2 1/16 inches. Approximate weight, 1 3/4 pounds.

Range	Each	Sensitivity Ohms per Volt	Scale Div.
125/25/12.5	\$50.25	20	50
*125/25/ 5/1	55.25	20	50
150/30/15/1.5	55.50	20	75
150/50/10/1	55.50	20	50

*Conforms with A.R.A. specifications.

Weston Portable Instruments

Model 45 D.C. Instruments For General Plant Testing



For general testing work for rugged service. Accurate within 1/2 of 1 per cent. Permanent magnet moving coil type. Shielded from external magnetic fields. Instruments are enclosed in polished hardwood cases provided with hinged covers and carrying handles. Size, 8x8x3/4 inches; scale length, 5 5/16 inches. Approximate weight, 9.9 pounds.

Voltmeters

Resistance, 100 ohms per volt, self-contained to 750 volts inclusive; ranges from 750 to 25000 volts may be had by using external multipliers. Voltmeters having a higher sensitivity than 100 ohms per volt available on order.

Single Range

Range Volts	Each	Scale Div.	Range Volts	Each	Scale Div.
*.2-0-2.8	\$58.00	150	150	\$58.50	150
3	58.00	150	300	60.00	150
15	58.00	150	750	64.50	150

Double Range

Range Volts	Each	Scale Div.	Range Volts	Each	Scale Div.
15/3	\$63.00	150	300/150	\$65.00	150
150/3	63.50	150	600/300	68.00	150
150/15	63.50	150	750/150	69.50	150
150/75	63.50	150	.....	.....	.....

Triple Range

Range Volts	Each	Scale Div.	Range Volts	Each	Scale Div.
150/ 15/3	\$68.50	150	750/300/150	\$74.50	150
300/150/3	70.00	150	.....	.....	.....

Ammeters

Self-contained up to and including 25 amperes; above 25 amperes, with external shunts. Ranges 1.5 to 25 amperes may be had with external shunts, at base price plus price of shunt selected. Specify when desired for use with Weston Rotary Shunt, as an instrument with a special movement having a resistance of 10 ohms and a sensitivity of 5 milliamperes must be supplied for this purpose. This special instrument is supplied without extra charge.

Range Amp.	Each	Scale Div.	Range Amp.	Each	Scale Div.
†Base	\$60.00	.....	25	\$65.00	125
1.5	65.00	150	50	67.00	100
3	65.00	150	100	67.00	100
5	65.00	100	150	67.50	150
10	65.00	100	300	67.50	150
15	65.00	150	500	74.50	100

Milliammeters

Range Milli-amp.	Each	Scale Div.	Resist. Ohms	Range Milli-amp.	Each	Scale Div.	Resist. Ohms
1.5	\$57.00	150	.360	150	\$57.00	150	.35
15	57.00	150	3.3	300	57.00	150	.17
100	57.00	100	.50	750	57.00	150	.07

*Scale adapted for use in connection with cadmium test on storage batteries.

†To determine the price of any other range ammeter not listed, add base price to price of shunt desired.

Weston Portable Instruments

Model 280 D.C. Instruments For General Plant Testing



Accurate within one per cent. Permanent magnet moving coil type.

Voltmeters and volt-ammeters have resistances of approximately 100 ohms per volt.

Dimensions, 4.4x4.6x1.5 inches; scale length, 2 1/16 inches. Approximate weight, 1.1 pounds.

Voltmeters

Range	Each	Scale Div.	Range	Each	Scale Div.
1.5	\$23.00	75	25/10/2.5	\$28.00	50
3	23.00	60	30/3/1.5	28.00	60
5	23.00	50	30/15/3	28.00	60
7.5	23.00	75	50/5/2.5	28.00	50
10	23.00	50	50/25/5	28.00	50
15	23.00	75	100/25/2.5	28.00	50
30	23.00	60	100/50/5	28.00	50
50	23.00	50	150/15/1.5	28.50	75
60	23.00	60	150/15/3	28.50	60
75	23.00	75	150/30/3	28.50	60
100	23.00	50	150/60/3	28.50	60
150	23.00	75	150/75/3	28.50	75
400/40	43.50	40	.....	.....	.....

Millivoltmeters

Range	Each	Scale Div.	Range	Each	Scale Div.
*50	\$24.00	50	250	\$23.00	50
*100	24.00	50	500	23.00	50
150	23.00	75	750	23.00	75

*Furnished with 5-foot leads.

Ammeters

Range	Each	Scale Div.	Range	Each	Scale Div.
1	\$22.00	50	10/1/0.5	\$27.00	50
1.5	22.00	75	10/5/0.5	27.00	50
3	22.00	60	10/2.5/1	27.00	50
5	22.00	50	15/3/0.15	27.00	60
10	22.00	50	15/3/1.5	27.00	60
15	22.00	75	25/2.5/0.5	27.00	50
30	22.00	60	25/5/2.5	27.00	50
†50	31.00	50	25/10/2.5	27.00	50
†100	31.00	50	25/10/5	27.00	50
†150	31.00	75	30/3/1.5	27.00	60
5/2.5/0.25	27.00	50	30/15/3	27.00	60
10/1/0.1	27.00	50	.....	.....	.....

†Provided with external shunt having a drop of 50 millivolts.

Milliammeters

Milliammeters with ranges above 30 milliamperes are shunted and have a drop of approximately 100 millivolts.

Range	Each	Approx. Resist.	Scale Div.	Range	Each	Approx. Resist.	Scale Div.
1.5	\$22.00	27	75	300	\$22.00	.33	60
5	22.00	10.6	50	500	22.00	.2	50
10	22.00	5.4	50	750	22.00	.13	75
25	22.00	1.2	50	30/15/3	27.00	.....	60
50	22.00	2.0	50	50/10/1	27.00	.....	50
75	22.00	1.33	75	125/25/5	27.00	.....	50
100	22.00	1.00	50	150/15/1.5	27.00	.....	75
150	22.00	0.66	75	600/120/30	27.00	.....	60
250	22.00	0.4	50	.....	.....	.....	.....

Volt-Ammeters

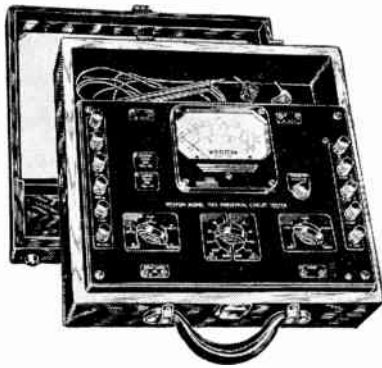
Volts	RANGES	Amperes	Scale Div.	Volts	RANGES	Amperes	Scale Div.
30/3/1.5	\$36.00	30/3/1.5	60	150/15/1.5	\$36.50	30/15/1.5	60
30/15/3	36.00	15/3/0.15	60	150/15/1.5	36.50	30/15/1.5	60
30/3/1.5	36.00	30/3/0.3	60	†150/15/3	36.50	15/1.5/0.15	60
50/5/2.5	36.00	10/1/0.1	50	150/15/3	36.50	30/3/1.5	60
50/25/2.5	36.00	25/2.5/0.5	50	150/15/3	36.50	30/15/3	60
†60/30/6	36.00	6/0.6/0.03	60	150/30/3	36.50	30/15/1.5	60
150/15/1.5	36.50	15/1.5/0.15	75	150/30/3	36.50	30/0.6/0.06	60
150/15/1.5	36.50	30/3/1.5	60	150/60/3	36.50	30/6/0.06	60

†For railway and automatic train control testing. Leather Case for Standard Model 280 Instruments. ea. \$3.00

Weston Portable Multi-Purpose Instruments

Model 785 Industrial Circuit Testers

For Circuit Analysis and Maintenance Testing



Has 27 practical, sensitive ranges applicable to all types of testing.

Especially suited to testing on signal, telegraph, telephone and communication circuits, and power distribution networks, as well as all types of industrial testing.

The meter is a standard 4½-inch Weston instrument with a d.c. sensitivity of 50 microamperes. Has sensitivities of 20,000 ohms per volt on d.c., and 1000 ohms per volt on a.c. ranges. This high sensitivity permits the use of this model on sensitive relay and vacuum tube circuits without disturbing the circuit conditions. Rapid selection of ranges accomplished by marked selector switches.

Can be used for a.c. measurements up to 500 volts and 10 amperes without external transformers. Current transformers can be used with the 1 or 5-ampere range for higher a.c. measurements. The d.c. ranges can be extended through the use of external shunts. Ohmmeter ranges operate from a self-contained battery, and incorporate an adjustment feature for compensating for variations in battery voltage.

Accuracy on all d.c. ranges guaranteed to be within 2 per cent up to 500 volts. Accuracy on 1000 volt range, 3 per cent. Accuracy on all a.c. ranges, guaranteed to be within 3 per cent on 60 cycles. Slightly less accuracy on 25 and 133 cycles. Accuracy on ohmmeter ranges guaranteed to be within 2 per cent of linear arc length.

Dimensions, 13x12½x5½ inches.

Weight with batteries and oak case, 13½ pounds.

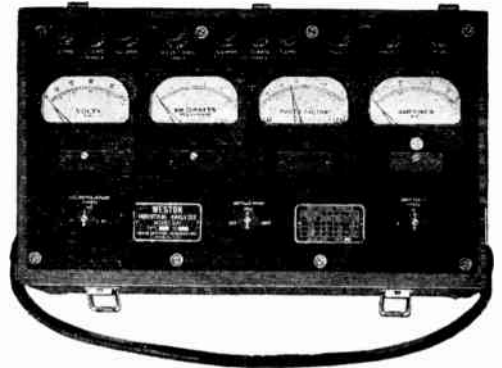
Model 785, With Oak Carrying Case.....each **\$105.00**
 Model 785, In Steel Case for Bench Use.....each **85.00**

Weston Portable Multi-Purpose Instruments

Model 639 A.C. Industrial Analyzers

For Circuit Analysis and Maintenance Testing

Type 2



The model 639 Industrial Analyzer is widely used by plant maintenance men, utility service engineers, electrical contractors and those engaged in general industrial testing or installation work. It is designed to analyze industrial loads by measuring current, voltage and power in single and polyphase circuits as well as power factor in 3-phase circuits.

An analysis of plant load conditions with Model 639 quickly detects over or underloaded motors, indicating that relocating transformers or interchanging motors will effect considerable savings. Four Model 610 instruments (a voltmeter, wattmeter, power factor meter, and an ammeter) are included in its strong oak carrying case. The ammeter is equipped with an adjustable pointer stop which allows the maximum value of starting currents to be quickly determined. Accuracy: voltmeter and ammeter, 1 per cent; power factor meter, 1 per cent; wattmeter, 2 per cent. Scale lengths, 3.5 inches.

Only a few simple connections are necessary to place this instrument in circuit; the maze of interconnecting wires necessary when individual meters are used is eliminated. Basic connection diagrams and operating instructions are contained in one card in the cover of the instrument. A pocket manual, containing additional connection diagrams and detailed information relative to the use of this analyzer, is also furnished.

Model 639 has self-contained potential ranges of 150/300/600 volts, current ranges of 5/25/125 amperes and corresponding wattmeter ranges. External current and potential transformers may be used for extending these ranges. Power factor indications are for 3-phase 3-wire only; .30 lag through unity to .30 lead.

On 220 volt 3-phase circuits the 5-ampere range will take care of loads to 1 hp. on the 2 kw. scale; on the 25-ampere range up to 7½ hp. on the 10 kw. scale; on the 125-ampere range up to 40 hp. on the 50 kw. scale. At 440 or 550 volts, the hp. and kw. ranges are doubled. A full technical description including connection diagrams is available upon request.

Size, 18⅞x10⅞x6⅞.

Approximate weight, 32 pounds.

Model 639..... each **\$420.00**

Ranges

VOLTS		AMPERES		Ohms
D.C.	A.C.	D.C.	A.C.	
1	5	50 Micro-Amp.		
10	15	1 Ma.		3,000
50	30	10 Ma.	.5 Amp.	30,000
200	150	100 Ma.	1. Amp.	300,000
500	300	1 Amp.	5. Amp.	3 Megohms
1000	750	10 Amp.	10. Amp.	30 Megohms

Weston Portable Multi-Purpose Instruments Model 633 A.C. Clamp-Ammeters For Circuit Analysis and Maintenance Testing



Permits the measurement of alternating current without breaking the circuit for the insertion of the conventional ammeter or current transformer. Rapid a.c. measurements can be easily made on insulated or non-insulated conductors.

The design of the Model 633 permits its use as a completely self-contained instrument for direct measurement at the point of application. In addition, through the use of the extension cable feature, readings can be obtained at a point remote from the current carrying conductor.

The clamping jaws of this instrument will accommodate any electrical conductor with a maximum cross-section of 2 inches. Their heavy insulation makes it possible to use the instrument on insulated or non-insulated conductors.

Accurate within 3 per cent when used on frequencies between 50 and 70 cycles. Voltage breakdown test, 3700 volts a.c. Scale length, 2.36 inches.

- Size, 13 $\frac{1}{8}$ x4 $\frac{3}{8}$ x3 $\frac{1}{2}$ inches. Weight, 3 $\frac{3}{4}$ pounds.
- Model 633, Type A-1, for 0-10/25/50/100/250/500 Amperes..... each **\$75.00**
 - Model 633, Type A-2, for 0-10/25/100/250/500/1000 Amperes..... each **80.00**
 - Model 633, Type A-3, for 0-50/100/250/500/1000/2000 Amperes..... each **85.00**
 - 50-Foot Extension Cable, Plug and Receptacle each **48.00**
 - Leather Carrying Case for Clamp-Ammeter..... each **11.00**
 - Leather Carrying Case for Cable, Plug and Receptacle..... each **15.00**

Weston Portable Multi-Purpose Instruments Model 564 Volt-Ohmmeters For Circuit Analysis and Maintenance Testing Type 3C



The equipment consists of a Model 301 with four 1000 ohms per volt voltage ranges of 600/300/30/3 and resistance ranges of either 0-100000 and 0-1000 ohms or 0-1000000, 0-100000 and 0-1000 ohms. A self-contained 4 $\frac{1}{2}$ -volt C battery is provided for potential. A pair of 50-inch test leads is shipped with each volt-ohmmeter.

Any change in potential of the self-contained battery can be readily compensated for by short circuiting the pin-jacks X-X and adjusting the pointer to the zero ohm position by turning the voltage adjuster located at the top of the nameplate.

All voltage ranges are brought out to pin-jacks. A toggle switch connects the meter in circuit as a voltmeter or ohmmeter.

- Pocket size; shipping weight, 6 pounds.
- Model 564, Type 3C..... each **\$36.00**
 - Carrying Case..... each **6.00**

Weston Portable Multi-Purpose Instruments Model 703 Direct-Reading Sight Meters For Maintenance Testing



Lighting engineers choose this sight meter as the accepted means of measuring illumination in terms of seeing. Serves as an invaluable aid in the promotion of better sight through the use of better light. It is an ideal tool in the selling of lighting equipment, such as lamps and reflectors, in that it can be used for actual demonstration to show the amount of light available at the location.

The use of a multiplier disc over the cell will extend the range to ten times its normal full scale value.

- Model 703, Type 3, for 0-75 Foot-Candles...each **\$18.00**
- Model 703, Type 6, for 0-75 Foot-Candles; with Visor Filter..... each **26.00**
- Multiplier Disc..... each **.75**
- Leather Carrying Case..... each **1.75**

Weston Portable Multi-Purpose Instruments Model 614 Foot-Candle Meters



A direct reading foot-candle meter calibrated directly in terms of tungsten filament standard lamps. Responds quickly to even slight variations of light.

With this meter any user of light can analyze lighting conditions and determine the correct illumination for each particular and individual purpose.

Does not require the use of batteries, voltage or lamps; has indefinite life with permanent calibration.

The operating equipment consists of an indicating instrument, a three-way toggle switch and a Photronic photo-electric cell all mounted on a bakelite panel. The instrument reads directly in foot-candles and has three ranges, 0-60, 0-120 and 0-600 which are controlled by the three-way toggle switch. The Photronic photo-electric cell or light target is hinged so that it can be lifted from the horizontal to the vertical position.

This meter is always ready for instant use. To measure illumination on a horizontal plane it is only necessary to open cover, hold instrument in a horizontal position with the cell or light target lying in its socket and then take the readings. The toggle switch simplifies switching to any of the three meter ranges so as to give a good scale deflection for any value of light intensity within maximum range of instrument. Available with Visor Filter (range 0-100/250/500).

Assembled in a moulded black bakelite carrying case equipped with hinged cover and strap handle. Length of case, 7 $\frac{3}{8}$ inches; height, 3 $\frac{3}{8}$ inches; width, 2 $\frac{1}{4}$ inches.

- Weight, 1.8 pounds.
- Model 614, with Visor Filter..... each **\$50.00**

Weston Portable Precision Instruments

For Standardization and High Accuracy Measurements

Model 341 A.C. and D.C. Voltmeters



Electrodynamometer type. Shielded from external magnetic fields. All ranges listed are self-contained.

Regularly supplied as single, double, and triple range voltmeters for use on direct current, or alternating current at frequencies from 15 to 133 cycles.

Power consumption :150-volt range at 115 volts, 3.9 watts; at 25 or 60 cycles, 3.9 volt-amperes.

Accurate within 1/4 of 1 per cent. Scale length, 5.25 in.

Size, 8x10 1/4 x 5 3/4 inches.

Approximate weight, 11 pound.

Double Range

Range Volts	Each	Scale Div.	Approx. Resist. Ohms	Range Volts	Each	Scale Div.	Approx. Resist. Ohms
5/1	\$140.00	100	10/2	120/60	\$140.00	120	2700/1350
6/3	140.00	150	21/10.5	150/75	141.00	150	3300/1650
15/1.5	140.00	150	30/3	300/150	144.00	150	6700/3350
15/7.5	140.00	150	100/50	600/150	150.00	150	20000/5000
30/15	140.00	150	300/150	600/360	150.00	150	20000/10000

Triple Range

Range Volts	Each	Scale Div.	Approx. Resist. Ohms
75/150/300	\$154.00	150	1675/3350/6700
150/300/600	160.00	150	5000/10000/20000
150/300/750	163.00	150	5000/10000/25000

Leather Case for Model 341.....each \$22.00

For higher ranges, Models 311 or 457 Potential Transformers or external resistors can be used. Instruments for use on frequencies up to 500 cycles are available on special order at \$15.00 extra. In this case, the current drain will be somewhat greater than in standard instruments.

Model 370 A.C. and D.C. Instruments



Electrodynamometer type. Shielded from external magnetic fields.

Model 370 instruments will maintain their guaranteed accuracy when used on direct current, or alternating current within the following frequencies: ammeters, 15 to 133 cycles; single range milliammeters, 15 to 1000 cycles; double range milliammeters, 15 to 133 cycles.

Power consumption: 5-ampere range at 5 amperes; at 60 cycles, 4.5 watts, 4.5 volt-amperes; at 25 cycles, 4.5 watts, 4.5 volt-amperes.

Accurate within 1/4 of 1 per cent. Scale length, 5.25 inches.

Size, 8x10 1/4 x 5 3/4 inches.

Approximate weight, 10 pounds.

Ammeters

Range Amp.	Each	Scale Div.	Range Amp.	Each	Scale Div.
1/.5	\$150.00	100	10/5	\$145.00	100
2/1	150.00	100	20/10	155.00	100
5/2.5	145.00	100	.....	.....	.....

Ammeters for 1000-cycle service are available on special order at \$16.50 extra.

Milliammeters

Range Milli-amp.	Each	Scale Div.	Approx. Resist. Ohms	Range Milli-amp.	Each	Scale Div.	Approx. Resist. Ohms
15	\$145.00	150	1130	150/75	\$150.00	150	45/110
30	145.00	150	325	300/150	150.00	150	14/14
.....	.....	.....	.....	500/250	150.00	100	4.5/4.5

Leather Case for Model 370.....each \$22.00

For certified tests and precise laboratory measurements exceeding the self-contained ranges listed, Models 327, 328, or 461 Type 2 Current Transformers are recommended in conjunction with a 5/2.5 or 10/5 ampere instrument. For less exacting requirements, the Model 461 Type 1 Current Transformer will prove satisfactory.

Model 329 Polyphase Wattmeters



Electrodynamometer type. Shielded from external magnetic fields. All ranges listed are self-contained.

Model 329 Polyphase Wattmeter actually consists of two electrically independent single-phase wattmeters having their movable coils mounted on a common shaft, with each coil surrounded by its own system of field coils. They may be used independently

with scale errors of less than 1/2 per cent, which is of great

importance for measurements on unbalanced polyphase circuits, or on balanced three-phase circuits at low power factors. They are for use on frequencies from 15 to 133 cycles.

Model 329 is made with double current and triple voltage ranges. Current ranges are changed by means of links, and voltage ranges have independent binding posts. Power measurements on direct current, single-phase a.c. two or three-wire circuits, two-phase three or four-wire circuits, and on three-phase circuits may be made directly.

Power consumption per element: potential circuit at 115 volts, 3 watts; at 25 or 60 cycles, 3 volt-amperes. Current circuit at 5 amperes, 0.81 watt. At 25 cycles, 0.83 volt-ampere and at 60 cycles, 0.95 volt-ampere.

Accurate within 1/2 of 1 per cent. Scale length, 5.25 in.

Size, 9 1/2 x 10 1/2 x 8 1/8 inches.

Approximate weight, 18 pounds.

Volts	AMPERES				WATT RANGES		Watt Range Calibrated	Scale Div.	Each
	NORMAL Series	MULTIPLE Series	MAXIMUM Series	MULTIPLE Series	Filed Coils in Series	Field Coils in Multiple			
Normal 50/100/200.....	2.5	5	5	10	250/500/1000	500/1000/2000	500	100	\$310.00
Maximum 75/150/300.....	5	10	10	20	.5/1/2 kw.	1/2/4 kw.	1 kw.	100	310.00
	10	20	20	40	1/2/4 kw.	2/4/8 kw.	1 kw.	100	350.00
Normal 100/200/500.....	2.5	5	5	10	.5/1/2.5 kw.	1/2/5 kw.	500	100	335.00
Maximum 150/300/600.....	5	10	10	20	1/2/5 kw.	2/4/10 kw.	1 kw.	100	335.00
	10	20	20	40	2/4/10 kw.	4/8/20 kw.	2 kw.	100	375.00

Leather case for Model 329, \$33.00 each.

For higher ranges, current and potential transformers or multipliers are recommended.

Weston Portable Precision Instruments Model 310 D.C. and Single Phase A.C. Wattmeters For Standardization and High Accuracy Measurements



Electrodynamometer type. Shielded from external magnetic fields.

Power consumption, Forms 1 and 3: potential circuit at 115 volts, 2.9 watts; at 25 or 60 cycles, 2.9 volt-amperes. Current circuit at 5 amperes, 0.81 watt; at 25 cycles, 0.83 volt-ampere and at 60 cycles, 0.95 volt-ampere.

Power consumption, Form 2: potential circuit at 115 volts, 4.4 watts. At 25 or 60 cycles, 4.4 volt-amperes. Current circuit at 5 amperes, 3.6 watts; at 25 cycles, 3.7 volt-amperes, and at 60 cycles, 4 volt-amperes.

FORM 1. For use on direct current, and alternating current at frequencies from 15 to 133 cycles. Exactly compensated for temperature changes. Full scale deflection obtained with normal potential and current values.

FORM 2. For low power factor use on frequencies from 15 to 133 cycles. Full scale deflection obtained with 20 per cent power factor.

FORM 3. This instrument will maintain its guaranteed accuracy when used on direct current or alternating current within the following frequencies: ranges between 50 and 100 volts—15 to 600 cycles; above 100 volts, 15 to 1200 cycles. Full scale deflection obtained with normal potential and current values at unity power factor.

Forms 1 and 3 Wattmeters have field coils designed to stand approximately double normal current continuously, and the potential circuits about 1½ times their normal voltage. They have double current ranges equipped with range-changing links and triple voltage ranges having independent binding posts. Form 2 Wattmeters have two potential ranges. All wattmeters have a locking contact key and a reversing switch for measuring three-phase power by the two wattmeter method.

Accurate within ¼ of 1 per cent. Scale length, 5.25 in.

Approximate weight, 12 pounds.

Forms 1 or 3

Volts	AMPERES				WATT RANGES		Watt Range Calibrated	Scale Div.	Each
	Series	Normal Multiple	Series	Maximum Multiple	Field Coils in Series	Field Coils in Multiple			
Maximum 75/150/300	.5	1	1	2	25/50/100	50/100/200	50	100	\$170.00
	1	2	2	4	50/100/200	100/200/400	100	100	170.00
	1.25	2.5	2.5	5	62.5/125/250	125/250/500	125	125	170.00
	2.5	5	5	10	125/250/500	250/500/1000	125	125	165.00
	5	10	10	20	250/500/1000	500/1000/2000	500	100	165.00
	10	20	20	40	.5/1/2 Kw.	1/2/4 Kw.	1 Kw.	100	205.00
	20	40	40	80	1/2/4 Kw.	2/4/8 Kw.	2 Kw.	100	205.00
Maximum 150/300/600	.5	1	1	2	50/100/250	100/200/500	50	100	195.00
	1	2	2	4	100/200/500	200/400/1000	100	100	195.00
	1.25	2.5	2.5	5	125/250/625	250/500/1250	125	125	195.00
	2.5	5	5	10	250/500/1250	500/1000/2500	250	125	190.00
	5	10	10	20	.5/1/2.5 Kw.	1/2/5 Kw.	500	100	190.00
	10	20	20	40	1/2/5 Kw.	2/4/10 Kw.	1 Kw.	100	230.00
	20	40	40	80	2/4/10 Kw.	4/8/20 Kw.	2 Kw.	100	230.00
	30	60	60	120	3/6/15 Kw.	6/12/30 Kw.	3 Kw.	150	230.00
	50	100	75	150	5/10/25 Kw.	10/20/50 Kw.	5 Kw.	100	230.00

Form 2—For Low Power Factor Use

Max. Volts	MAXIMUM AMPERES		WATT RANGES		Watt Range Calibrated	Scale Div.	Each
	Fields in Series	Fields in Multiple	Fields in Series	Fields in Multiple			
75/150	*.5	1	7.5/15	15/30	15	150	\$182.00
	1	2	15/30	30/60	15	150	182.00
	2.5	5	37.5/75	75/150	75	150	182.00
	5	10	75/150	150/300	150	150	182.00

*This range is not compensated and is useful for special conditions only. The power required to operate this instrument will often be as much, and in some cases more, than the power to be measured. Therefore, all possible information should be given in correspondence previous to placing order.

Leather Case for Model 310.....each \$22.00

Model 779 Weston Super-Sensitive Analyzer

Type 1

1000 or 20,000 Ohms Per Volt



Used for measurement of tube circuits, potentials and current, power level in decibels, plate voltage and current on amateur transmitters, diode currents in AVC circuits and AFC current, leakage of condensers, and resistance of all types of circuits.

Has heavy molded Bakelite panel, rugged solid oak case, removable cover, convenient carrying handle, and 26 ranges, and precision resistors throughout.

Voltage range; 5, d.c. at a sensitivity of either 1000 or 20,000 ohms per volt. Alternating current temperature compensated.

Alternating current accuracy within 3 per cent.

Direct current accuracy within 2 per cent up to 1000 volts; 3 per cent on 1000 volt range.

Dimensions: width 6³/₄ inches; height, 9¹/₈ inches; depth 1⁷/₈ inches.

Approximate weight, 6 pounds.

Ranges

VOLTS		Direct Current Only	Decibels	Ohms
A.C.	D.C.			
2.5	2.5	1 Milliamperes	-11 to +2	0-3000
10	10	1 Milliamperes	-2 to +14	0-30,000
50	50	10 Milliamperes	+12 to +28	0-30,000
250	250	50 Milliamperes	+26 to +42	00-3 Meg.
1000	1000	250 Milliamperes 1 Ampere, 10 Amperes	+38 to +54	

Model 779.....each \$85.00

No. 41-011 Ideal Portable Insulation Resistance Testers



For checking a.c. or d.c. electrical equipment. Provides a quick, reliable method of checking insulation resistance in all types of electrical circuits and equipment.

Range, 0 to 100 Megohms.

Entirely self-contained.

Power is provided by a small, internal hand generator, which is operated by slowly turning a crank.

Correct testing voltage is indicated by two small buttons

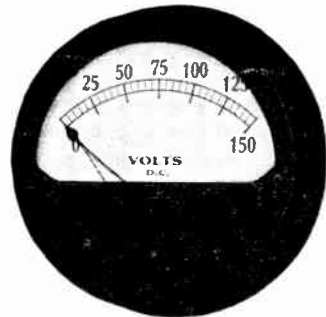
lights that glow at 500 d.c. range, 0 to 100 Megohms.

Furnished with 1 pair of 10 foot leads and carrying case.

No. 41-011.....each \$164.71

Weston Switchboard Instruments

For Power Distribution Panels
7-Inch Round Pattern



Regularly supplied surface type; back connected; pressed steel cases; dull black finish.

Accurate within 1 per cent. Scale, 5.1 inches (130 mm.).

Diameter at base, 7³/₄ inches.

Flush type available at \$3.50 extra.

Model 252, D.C. Voltmeters

Permanent magnet moving coil type. Sensitivity, approximately 100 ohms per volt. Self-contained up to 300 volts. Voltmeters can be provided with a second but lower range at \$7.50 extra.

Resistance thermometers for use with external exploring coils can be supplied in Model 252.

Range	Each	Scale Div.	Range	Each	Scale Div.
150	\$40.00	30	300	\$44.00	30

Model 252, D.C. Ammeters

Permanent magnet moving coil type. All ranges are provided with external 50 millivolt shunts and 8-foot leads.

Range	Each	Scale Div.	Range	Each	Scale Div.	Range	Each	Scale Div.
10	\$45.50	50	75	\$45.50	30	300	\$46.00	30
15	45.50	30	100	45.50	50	400	47.50	40
25	45.50	50	150	45.50	30	500	49.00	50
50	45.50	50	200	45.50	40	1000	60.00	50

Model 260, A.C. Voltmeters

Movable iron type. Power consumption, 150-volt range at 115 volts, 6.8 watts. At 25 or 60 cycles, 6.8 volt-amperes.

For use on frequencies from 25 to 133 cycles. For 500 cycle service, add \$8.00 to prices below. Self-contained up to 300 volts.

Range	Each	Scale Div.	Range	Each	Scale Div.	Range	Each	Scale Div.
150	\$37.50	30	300	\$39.00	30	600	\$49.00	60

Model 260, A.C. Ammeters

Movable iron type. Power consumption, 5-ampere range at 5 amperes, 1.1 watts. At 25 cycles, 1.1 volt-amperes and at 60 cycles, 1.4 volt-amperes.

For use on frequencies from 25 to 500 cycles. Furnished with ranges from 1 to 10 amperes and sealed to correspond at \$35.00. May also be furnished in any of these ranges, but sealed for use with current transformers, at the same price. When so ordered, specify scale desired and transformer ratio.

Thermo ammeters are available in Model 400; prices on application.

Range	Each	Scale Div.	Range	Each	Scale Div.	Range	Each	Scale Div.
5	\$35.00	50	5	\$35.00	200	5	\$35.00	600
5	35.00	75	5	35.00	300	5	35.00	800
5	35.00	100	5	35.00	400			
5	35.00	150	5	35.00	500			

Wattmeters, Power Factor Meters, Frequency Meters, and Synchrosopes

These instruments, representing a complete line for the conventional switchboard, are available in designs matching the voltmeters and ammeters listed above.

Prices and complete bulletins furnished on application.



Weston Switchboard Instruments

For Power Distribution Panels
6-Inch Rectangular Pattern



Regularly supplied surface type; back connected; pressed steel case; dull black finish.
Accurate within 1 per cent. Scale 5.12 inches (130 mm.).
Size at base, 5 3/4 x 6 inches.
Flush or semi-flush type available at \$3.50 extra.

Model 502, D.C. Voltmeters

Permanent magnet moving coil type. Sensitivity, approximately 100 ohms per volt. All ranges listed are self-contained. Can be provided with a second but lower range at \$5.50 extra.

Resistance thermometers for use with external exploring coils can be supplied in Model 502.

Range	Each	Scale Div.	Range	Each	Scale Div.	Range	Each	Scale Div.
15		15	150		300			
Each	\$40.00		41.00		44.00			
Scale Division	30		30		30			

Model 502, D.C. Ammeters

Permanent magnet moving coil type. All ranges are provided with external 50 mv. shunts and 8-foot leads.

Range	Each	Scale Div.	Range	Each	Scale Div.	Range	Each	Scale Div.
10	\$45.50	50	200	\$45.50	40	1200	\$63.50	60
15	45.50	30	300	46.00	30	1500	69.50	30
25	45.50	50	400	47.50	40	2000	73.50	40
50	45.50	50	500	49.00	50	2500	82.50	50
75	45.50	30	600	50.75	30	3000	90.00	30
100	45.50	50	750	53.00	30	.....	.....	..
150	45.50	30	1000	60.00	50	.....	.....	..

Model 496, A.C. Voltmeters

Movable iron type. Power consumption, 150-volt range at 115 volts, 6.8 watts. At 25 or 60 cycles, 6.8 volt-amperes.

For use on frequencies from 25 to 125 cycles. Available for use on higher frequencies. External resistors are required for ranges. Between 301 and 750 volts, a Type 3 No. 2 box is used. Above 750 volts, a potential transformer is recommended.

Range	Each	Scale Div.	Range	Each	Scale Div.	Range	Each	Scale Div.
150	\$37.50	30	300	\$39.00	30	600	\$49.00	60
250	38.50	25	500	46.00	50	.....	.....	..

Model 496, A.C. Ammeters

Movable iron type. Power consumption, 5-ampere range at 5 amperes, 1.1 watts. At 25 cycles, 1.1 volt-amperes, and at 60 cycles, 1.4 volt-amperes.

For use on frequencies from 25 to 500 cycles. Furnished with ranges from 1 to 10 amperes, and scaled to correspond at \$35.00. May also be furnished in any of these ranges, but scaled for use with current transformers, at the same price. When so ordered, specify scale desired and transformer ratio.

Range	Each	Scale Div.	Range	Each	Scale Div.	Range	Each	Scale Div.		
5	\$35.00	5	5	\$35.00	200	40	5	\$35.00	750	75
5	35.00	50	5	35.00	300	30	5	35.00	1000	50
5	35.00	75	5	35.00	400	40	5	35.00	1500	30
5	35.00	100	5	35.00	500	50	.....	.....	.....	.....
5	35.00	150	5	35.00	600	60	.....	.....	.....	.....

Wattmeters, Power Factor Meters, Frequency Meters, and Synchroscopes

These instruments, representing a complete line for the conventional switchboard, are available in designs matching the voltmeters and ammeters listed above.

Prices and complete bulletins furnished on application.

Weston Switchboard Instruments

Models 267, 269, 271, and 273 Ammeters, Milliammeters and Voltmeters

Fan-Shaped—For Power Distribution Panels—D.C.



Permanent magnet moving coil type; magnetically shielded.

In surface type pressed steel cases with back connections, dull black finish, at prices shown. Model 269, with bakelite case at a surcharge of \$5.25 above regular price. When a bakelite case is used, instrument is not shielded.

Dimensions and Weights

Model	267	269	271	273
Width	4 3/32	5 5/8	7 7/8	9 5/16
Height	3 3/8	4 1/16	6 1/4	7 1/32
Projection from Panel	1 3/32	1 13/32	1 3/4	2 1/16
Length of Scale	2 1/2	4	6	7 1/32
Approximate Weight	1	1 1/2	4	5

Ammeters

Amperes	Model 267	Model 269	Model 271	Model 273
1	\$36.75	\$44.25	\$58.50	\$66.75
1.5	75	44.25	58.50	66.75
2	40	44.25	58.50	66.75
3	60	44.25	58.50	66.75
5	50	44.25	58.50	66.75
10	50	44.25	58.50	66.75
15	75	44.25	58.50	66.75
20	40	.....	58.50	66.75
25	50	44.25	58.50	66.75
30	60	44.25	58.50	66.75
50	50	44.25	58.50	66.75
75	75	44.25	58.50	66.75
100	50	44.25	58.50	66.75
150	75	36.75	58.50	66.75
200	40	36.75	58.50	66.75
300	60	37.50	45.00	59.25
400	40	39.75	47.25	61.50
500	50	42.00	49.50	63.75
750	75	48.00	55.50	69.75
1000	50	57.50	66.00	80.25
1500	75	72.75	80.25	94.50
2000	40	100	78.75	86.25
3000	60	105.00	112.50	126.75

Models 267 and 269 have self-contained shunts up to and including 30 and 50 amperes respectively—above these ranges with external 100 millivolt shunts. Models 271 and 273 with external 50 millivolt shunts. Prices include shunts.

Milliammeters

Milli-amperes	Model 267	Model 269	Model 271	Model 273
1	\$28.00	\$36.00	\$50.25	\$58.50
5	50	36.00	50.25	58.50
10	50	36.00	50.25	58.50
25	50	36.00	50.25	58.50
50	50	36.00	50.25	58.50
100	50	36.00	50.25	58.50
150	75	28.00	36.00	.....
200	40	28.00	36.00	50.25
300	60	28.00	36.00	50.25

Model 267 ranges above 50 milliamperes are shunted and have a drop of approximately 100 millivolts; Model 269 above 25 milliamperes 100 millivolts; Model 271 above 25 milliamperes 50 millivolts; Model 273 above 20 milliamperes 50 millivolts.

Voltmeters

Volts	Model 267	Model 269	Model 271	Model 273
10	\$28.50	\$36.00	\$50.25	\$58.50
15	75	36.00	50.25	58.50
20	40	36.00	50.25	58.50
25	50	.....	.....	.....
30	60	28.50	36.00	50.25
50	50	28.50	36.00	50.25
75	75	28.50	36.00	50.25
150	75	28.50	37.75	51.00
250	50	50	41.00	38.25
300	60	60	42.00	39.00

Approximate resistance in ohms per volt: Model 267 100; Model 269 100; Model 271 100; Model 273 100.

*Furnished with external resistor.

Millivoltmeters are also available in the fan-shaped instruments. Prices upon application.

Weston Panel Instruments
Model 640 Group (Models 643, 642, 641 and 640)
For General Small Panel Requirements



Models 643, 642 and 640 are supplied in flush or surface cases of metal or bakelite. Model 641 Wattmeter is supplied in flush metal or semi-flush metal cases only. When ordering, specify style and whether metal or bakelite case is desired.

D.c. instruments for use on circuits above 750 volts should be specified with bakelite cases when not possible to connect in grounded side of line.

Dimensions: Metal case, 4³/₈ inches diameter; bakelite case, 4¹/₁₆ inches diameter.

Approximate weights: Models 640, 642 and 643, 1¹/₄ pounds; Model 641, 1¹/₂ pounds.

Model 643 D.C. Voltmeters

Permanent magnet moving coil type. Sensitivity approximately 100 ohms per volt. All ranges listed are self-contained.

Accurate within 1 per cent. Scale length, 3.34 inches.

Range Volts	Each	Scale Div.	Range Volts	Each	Scale Div.
10	\$19.00	50	80	\$19.00	40
15	19.00	75	100	19.50	50
25	19.00	50	150	20.00	75
50	19.00	50	300	21.50	60

Model 643 D.C. Millivoltmeters

Permanent magnet moving coil type. Accurate within 1 per cent. Scale length, 3.34 inches.

Range Milli-volts	Each	Scale Div.	Approx. Resistance Ohms
50	\$19.00	50	2
100	19.00	50	4

Model 643 D.C. Ammeters

Permanent magnet moving coil type. Regularly supplied with self-contained shunts up to and including 50 amperes, but can be supplied on special order with external 50 mv. shunts and 8-foot leads. When external shunt instruments are desired, add price of shunt to the instrument price of \$20.

Range Amp.	Each	Scale Div.	Range Amp.	Each	Scale Div.
1	\$19.00	50	25	\$19.00	50
2	19.00	40	30	19.00	60
3	19.00	60	50	19.00	50
5	19.00	50	75	24.50	75
10	19.00	50	100	24.50	50
15	19.00	75	150	24.50	75

Model 643 D.C. Milliammeters

Permanent magnet moving coil type. Ranges above 30 milliamperes are shunted and have a drop of approximately 100 millivolts.

Accurate within 1 per cent. Scale length, 3.34 inches.

Model 643 D.C. Milliammeters

Range Milli-amp.	Each	Scale Div.	Approx. Resist. Ohms
1	\$19.00	50	48
3	19.00	60	9.9
5	19.00	50	4.6
10	19.00	50	2.8
50	19.00	50	2
100	19.00	50	1
150	19.00	75	0.67
200	19.00	40	0.5
250	19.00	50	0.4

Model 643 D.C. Microammeters

Permanent magnet moving coil type. Low resistance microammeters in ranges of 200, 300 and 500 microamperes are listed for special applications. The high resistance instruments are recommended for general use.

Accurate within 1 per cent. Scale length, 3.34 inches.

Range Micro-amp.	Each	Scale Div.	Approx. Resist. Ohms
30	\$29.00	60	2000
50	28.25	50	1200
100	27.50	50	385
200	21.50	40	600
*200	23.00	40	270
500	21.50	50	218
*500	23.00	50	60

*These instruments are used for applications where low resistance is the first consideration, even at the expense of other performance characteristics.

Model 642 A.C. Voltmeters

Movable iron type for use on frequencies from 25 to 133 cycles. For 500 cycle service, add \$6.50 to the prices shown.

Model 642 Instruments for use on circuits above 300 volts should be specified with bakelite cases when not possible to connect in grounded side of line.

Power consumption: 150-volt range at 115 volts, 1.42 watts. At 25 or 60 cycles, 1.42 volt-amperes.

Accurate within 1 per cent. Scale length, 2.8 inches.

Range Volts	Each	Scale Div.	Resist. Ohms
20	\$19.00	40	192
30	19.00	30	360
50	19.00	50	1,000
130	19.75	65	8,100
150	20.00	30	9,400
†250	25.00	25	16,000
†300	25.50	30	19,000
†500	28.50	50	30,600
†600	29.50	60	37,000

†With Type 5 No. 1 External Resistor.
 †With Type 5 No. 2 External Resistor.

Model 642 A.C. Ammeters

Movable iron type for use on frequencies from 25 to 500 cycles. Normally supplied self-contained up to and including 50 amperes. No extra charge when scaled for use with current transformers. When so ordered, specify scale desired and transformer ratio.

Power consumption: 5-ampere range at 5 amperes, 1.1 watts. At 60 cycles, 1.1 volt amperes.

Accurate within 1 per cent. Scale length, 2.8 inches.

Model 642 A.C. Ammeters

Range Amp.	Each	Scale Div.	Range Amp.	Each	Scale Div.
1	\$19.00	50	10	\$19.00	50
2	19.00	40	15	19.00	30
3	19.00	30	25	19.00	25
5	19.00	50	30	19.00	30
7.5	19.00	75	50	19.00	50

Model 641 D.C. and Single Phase A.C. Wattmeters

Electrodynamometer type for use on direct current or alternating current at frequencies from 25 to 125 cycles. Instruments are available for 500-cycle service on special order. Model 641 Wattmeters are furnished in flush or semi-flush type, black metal cases only.

Wattmeters may be used with a Y-box on balanced 3-phase, 3-wire circuits. Reactive component on balanced polyphase circuits can also be measured. When ordering, give complete circuit information.

Instruments listed have self-contained current and potential ranges. Higher current ranges require the use of a current transformer. A Type 5 No. 2 resistance box is required for ranges between 251 and 600 volts. Between 601 and 750 volts, a Type 5 No. 3 box is used. Instruments for use on potentials above 750 volts require both current and potential transformers.

Power consumption: potential circuit at 115 volts, 1.96 watts; at 60 cycles, 1.96 volt-amperes. Current circuit at 5 amperes, 0.65 watt; at 60 cycles, 0.68 volt-ampere.

Accurate within 1 per cent. Scale length, 2.8 inches.

Volts	Each	AMPERES Norm. Max.	Scale Watts	Scale Div.
100-150	\$65.00	1 1.5	100	50
100-150	65.00	2 3	200	40
100-150	65.00	2 3	300	30
100-150	60.00	5 7.5	500	50
200-250	68.00	2 3	400	40
100-150	65.00	5 7.5	750	30
100-150	65.00	10 15	1 Kw.	50
100-150	65.00	10 15	1.5 Kw.	30
100-150	65.00	20 30	2 Kw.	40
200-250	63.00	5 7.5	1.5 Kw.	30
200-250	68.00	10 15	3 Kw.	30
200-250	68.00	20 30	4 Kw.	40

Model 640 Thermo-Ammeters

Thermocouple type. Ranges listed are self-contained. Similar or higher ranges can be obtained with external heating elements; prices on request. When external elements are ordered specify length of leads desired.

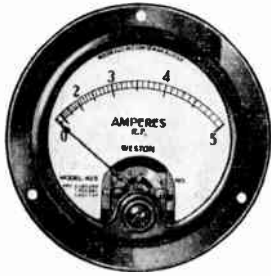
Power consumption: 1 to 4 amperes inclusive varies from 0.2 to 0.4 watt per ampere approximately; 5 amperes and above 0.2 per ampere.

Accurate within 1 per cent. Scale 3.34 inches. Write for information on the use of these instruments at frequencies in excess of those indicated. When circuit conditions do not permit connecting the instrument in the grounded side of the line, bakelite cases should be specified.

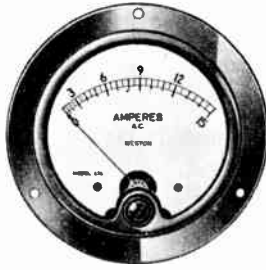
Range Amp.	Each	Scale Div.	Frequency at Which the Frequency Error Exceeds 2% Kilocycles
1	\$25.00	50	30,000
2	25.00	40	10,000
3	25.00	60	7,000
5	25.00	50	4,000
10	25.00	50	2,000
15	25.00	75	2,000
20	25.00	40	2,000
25	25.00	50	1,500

Weston Panel Instruments

For General Small Panel Requirements
3 1/4-Inch



Model 425



Model 476

Model 425

Thermocouple type for a.c. including radio frequencies. Accurate within 2 per cent.

Bakelite cases should be specified for ammeters and milliammeters when used on circuits above 300 volts when it is not possible to connect instrument in grounded side of line. Bakelite case supplied at no additional cost.

Thermocouple Type Ammeters

Power consumption, 1 to 4 amperes inclusive, varies from .2 to .4 watt per amperes approximately; 5 amperes and above, .15 watt per ampere.

Amperes	1	1.5	2	3	5	10	15	20
Each	\$14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00

Thermocouple Milliammeters

Range Milliampere.	*10	*20	*50	120	300	500
Each	\$35.00	35.00	35.00	16.00	16.00	16.00
Approx. Resist						
Ohms	100	26.5	5	5.2	1.7	1.3

*Vacuum couple type.

Galvanometer

Accurate within two scale divisions. For horizontal or 45° mounting. Milliampere, 115; approximate resistance per volt, 5.2 ohms. each \$16.00

Model 476

Movable iron type for a.c. only. Accurate within 2 per cent.

A.C. Voltmeters

Range Volts	Each	Approx. Ohms per Volt	Range Volts	Each	Approx. Ohms per Volt
1.5	\$9.50	3	50	\$9.50	52
3	9.50	6	100	10.00	110
5	9.50	10.5	130	10.25	110
8	9.50	10.5	150	10.50	110
10	9.50	14	250	11.50	167
15	9.50	14	300	12.00	167
30	9.50	26	500	14.00	167

A.C. Ammeters

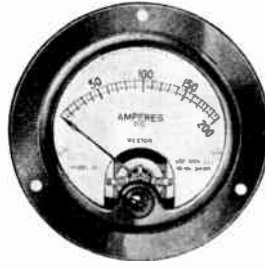
Range Amp.	Each	Approx. Total Resist.	Range Amp.	Each	Approx. Total Resist.
1	\$9.50	203	10	\$9.50	.0058
1.5	9.50	082	15	9.50	.00219
2	9.50	052	20	9.50	.00162
3	9.50	024	30	9.50	.00070
5	9.50	010	30	9.50	.00057

A.C. Milliammeters

Range Milli-amp.	Each	Approx. Total Resist.	Range Milli-amp.	Each	Approx. Total Resist.
15	\$9.50	2300	100	\$9.50	28
25	9.50	650	250	9.50	4.7
50	9.50	175	500	9.50	1.1

Weston Panel Instruments

Model 301 3 1/2-Inch Instruments
For General Small Panel Requirements
D.C. Model



Permanent moving coil type. Accurate within 2 per cent.

A. C. Model—Rectifier Type
High sensitivity a.c. instruments obtained by using a full-wave copper oxide rectifier with a d.c. movement. Accurate within 5 per cent.

D.C. Voltmeters

Approximate Resistance in Ohms per Volt:
1 to 30 Volts, 62; 50 to 150 Volts, 200; 200 Volts, 250
All ranges listed are self-contained.

Range Volts	Each	Scale Div.	Range Volts	Each	Scale Div.	Range Volts	Each	Scale Div.
1	\$9.50	50	10	\$9.50	50	100	\$10.00	50
1.5	9.50	75	15	9.50	75	130	10.50	65
3	9.50	60	30	9.50	60	150	10.50	75
5	9.50	50	50	9.50	50	200	11.00	40
8	9.50	40	80	9.50	50	...	...	...
Resistance, 1000 Ohms per Volt								
5	\$10.00	50	50	\$10.00	50	200	\$11.50	40
8	10.00	40	80	10.00	75	300	12.50	60
10	10.00	50	100	10.50	50	*500	15.50	50
15	10.00	75	150	11.00	75	*800	18.50	75

*Type W. F. instruments. Self-contained wire wound resistors are hermetically sealed for protection against excessive humidity. Supplied in flush bakelite cases.

D.C. Ammeters

Self-contained up to 50 amperes inclusive—drop 50 millivolts ±5 per cent.

Range	Each	Div.	Range	Each	Div.	Range	Each	Div.
1	\$9.50	50	10	\$9.50	50	10-0-10	\$9.50	40
1.5	9.50	75	15	9.50	75	20-0-20	9.50	40
1	9.50	40	30	9.50	60	30-0-30	9.50	60
3	9.50	60	50	9.50	50	50-0-50	9.50	50
5	9.50	50	5-0-5	9.50	50	.....	.....	.....

D.C. Milliammeters

Milliammeters above 30 milliamperes are shunted—drop approximately 100 millivolts.

Range	Each	Div.	Range	Each	Div.	Range	Each	Div.
1	\$9.50	50	10	\$9.50	50	100	\$9.50	50
1.5	9.50	75	15	9.50	75	150	9.50	75
2	9.50	40	20	9.50	40	200	9.50	40
3	9.50	60	30	9.50	60	300	9.50	60
5	9.50	50	50	9.50	50	500	9.50	50

D.C. Microammeters

100 \$18.00 50 200 \$12.00 40 500 \$12.00 50
Adjusted for use in horizontal or 45° position.

Ohmmeters

These ohmmeters are independent of battery voltage.

Ohm Scale	Each	Battery Voltage	Rheostat Ohms	Ohm Scale	Each	Battery Voltage	Rheostat Ohms
0-1000	\$12.50	1.5	100	0-500000	\$13.50	15	2000
0-10000	12.50	4.5	250	0-2000000	13.50	90	2000
0-100000	13.00	4.5	2000	.....	.....	.....	.....

Rectifier Type Voltmeters

Range Volts	1000 Ohms per Volt Each	2000 Ohms per Volt Each	Scale Div.	Range Volts	1000 Ohms per Volt Each	2000 Ohms per Volt Each	Scale Div.
1	.....	\$17.00	50	50	\$15.00	\$17.00	50
1.5	.....	17.00	75	100	15.50	17.50	50
3	\$15.00	17.00	60	150	16.00	18.00	75
5	15.00	17.00	50	300	17.50	.....	60
15	15.00	17.00	75	.....	.....	.....	.....

Rectifier Type Milliammeters

Milliampere.	0.5	1	2	5
Each	\$17.00	14.50	14.50	14.50
Scale Divisions	50	50	40	50

Rectifier Type Microammeters

Use in horizontal or 45° positions.
500 Microamperes, 50 Scale Divisions. each \$17.00

Bakelite cases should be specified for ammeters and milliammeters when used on circuits above 300 volts when it is not possible to connect instrument in grounded side of line. Bakelite case supplied at no additional cost.

Weston Panel Rectangulars

Models 801 and 861



Model 801

Normally calibrated for use on non-magnetic panels.
 Model 801 is supplied in semi-flush, black bakelite case. Features exceptional scale length, readability, and pleasing design. Mounted the same as round panel instruments; it being necessary to drill one round opening for body of instrument, plus four small holes for mounting bolts. Dimensions: height, 4 1/4 inches; width, 4 1/4 inches; depth, 2 5/8 inches; diameter of panel hole, 3 1/4 inches. Weight, 1 pound.

Model 861 is similar in size to Model 801, except that it projects 1/4-inch more from the panel. It is equipped with a pair of self-contained, miniature base, 6-volt lamps for scale illumination. Lamps are replaceable by removing the instrument front. Dimensions: height, 4 1/4 inches; width, 4 1/4 inches; depth, 2 1/2 inches; diameter of panel hole, 3 1/4 inches. Weight, 1 pound.

To be used on steel panels, panel thickness must be specified when ordering.

Models 801 and 861

Permanent magnetic moving coil type.
 Accuracy, 2 per cent. Scale, 3.17 inches (80.3 mm.).

Direct Current Voltmeters

Sensitivity approximately 200 ohms per volt up to and including 200 volts. Higher ranges, 1000 ohms per volt.

Range Amp.	Scale Div.	Model 801 Each	Model 861 Each	Range Amp.	Scale Div.	Model 801 Each	Model 861 Each
1	50	\$14.50	\$19.50	80	40	\$14.50	\$19.50
2	40	14.50	19.50	100	50	15.00	20.00
3	60	14.50	19.50	130	65	15.25	20.25
5	50	14.50	19.50	150	75	15.50	20.50
7.5	75	14.50	19.50	200	40	16.00	21.00
10	50	14.50	19.50	250	50	16.65	21.50
15	75	14.50	19.50	300	60	17.00	22.00
25	50	14.50	19.50	500	50	19.00	24.00
50	50	14.50	19.50	...	...	.....	.....

All ranges listed are self-contained.

Direct Current Ammeters

Regularly supplied with self-contained shunts up to and including 50 amperes, but can be supplied with external 50 millivolt shunt and 8-foot leads. When external shunt instruments are desired, add price of shunt to the instrument price.

Range Amp.	Scale Div.	Model 801 Each	Model 861 Each	Range Amp.	Scale Div.	Model 801 Each	Model 861 Each
1	50	\$14.50	\$19.50	5	50	\$14.50	\$19.50
1.5	75	14.50	19.50	10	50	14.50	19.50
2	40	14.50	19.50	25	50	14.50	19.50
3	60	14.50	19.50	50	50	14.50	19.50

Direct Current Milliammeters

Range Amp.	Scale Div.	Approx. Resistance	Model 801 Each	Model 861 Each	Range Amp.	Scale Div.	Approx. Resistance	Model 801 Each	Model 861 Each
1	50	80	\$14.50	\$19.50	50	50	....	\$14.50	\$19.50
3	60	7.3	14.50	19.50	100	50	....	14.50	19.50
5	50	2.4	14.50	19.50	200	40	....	14.50	19.50
10	50	1.25	14.50	19.50	300	60	....	14.50	19.50
25	50	1.0	14.50	19.50	500	50	....	14.50	19.50

Ranges above 25 milliamperes are shunted and have a drop of approximately 100 millivolts.

Direct Current Microammeters

Range Amp.	Scale Div.	Approx. Resistance	Model 801 Each	Model 861 Each	Range Amp.	Scale Div.	Approx. Resistance	Model 801 Each	Model 861 Each
30	60	1950	\$24.50	\$29.50	200	40	400	\$17.00	\$22.00
50	50	900	23.75	28.75	300	60	175	17.00	22.00
75	75	450	23.75	28.75	500	50	80	17.00	22.00
100	50	1110	23.00	28.00	.....	.....	.....	.....	.....

Low resistance instruments, in ranges above 75 microamperes, are available for special requirements.

Weston Panel Rectangulars

Models 802, 803, 862, and 863



Models 862 and 863 Illuminated

Normally calibrated for use on non-magnetic panels.
 Models 802 and 803 are supplied in semi-flush, black Bakelite cases. Mounted by drilling one round opening for body of instrument, plus four small holes for mounting bolts. Dimensions: 4 1/4 x 4 1/4 x 2 5/8 inches; diameter of panel hole, 3 1/4 inches. Weight 1 pound.

Models 862 and 863 are similar in size to Models 802 and 803 except that they are equipped with a pair of self-contained, miniature base 6-volt lamps for scale illumination. Dimensions: 4 1/4 x 4 1/4 x 2 1/2 inches; diameter of panel hole, 3 1/4 inches. Weight, 1 pound.

Models 802 and 862

Permanent magnetic moving coil type.
 Accuracy, 2 per cent, scale, 3.17 inches (80.3 mm.).

Rectifier type, alternating current instruments provide a practical means of measuring minute alternating currents.

May be relied upon to within about 5 per cent of full scale value on wave forms closely approximating the sine wave at ordinary room temperatures.

Alternating Current Rectifier Type Voltmeters

Range Amp.	Scale Div.	Model 802		Model 862	
		1000 Ohms per Volt	2000 Ohms per Volt	1000 Ohms per Volt	2000 Ohms per Volt
1	50	.....	\$22.00	.....	\$27.00
1.5	75	\$20.00	22.00	\$25.00	27.00
3	60	20.00	22.00	25.00	27.00
5	50	20.00	22.00	25.00	27.00
10	50	20.00	22.00	25.00	27.00
15	75	20.00	22.00	25.00	27.00
50	50	20.00	22.00	25.00	27.00
100	50	20.50	22.50	25.50	27.50
150	75	21.00	23.00	26.00	28.00
300	60	22.50	.....	27.50	.....

Alternating Current Rectifier Type Milliammeters

Range Amp.	Scale Div.	Approximate Resistance	Model 802 Each	Model 862 Each
1	50	500	\$19.50	\$24.50
2	40	360	19.50	24.50
5	50	240	19.50	24.50

Alternating Current Rectifier Type Microammeters

100	50	4000	\$28.00	\$33.00
200	40	2100	22.00	27.00
500	50	900	22.00	27.00

Type 30 VU Meters

Model 802 and 862 VU meters are available with two different scales. Type A scale stresses the level in VU and is largely used in monitoring wire lines. Type B scale stresses per cent use of the transmitter output and is mostly used for broadcast service.

Model 802, Scale A or B.....each \$32.00
 Model 862, Scale A or B.....each 37.00

Models 803 and 863

Alternating Current Thermo Ammeters

Thermocouple type. Accurate within 2 per cent. Scale, 3.17 inches (80.3 mm.).

Frequency errors less than 2 per cent up to 65 megacycles.
 Power Consumption: 1 to 4 amperes varies from 0.2 to 0.4-watts per ampere; 5 amperes and above, 0.15-watt per ampere.

Range Amp.	Scale Div.	Model 803 Each	Model 863 Each	Range Amp.	Scale Div.	Model 803 Each	Model 863 Each
1	50	\$19.00	\$24.00	5	50	\$19.00	\$24.00
1.5	75	19.00	24.00	6	60	19.00	24.00
2	40	19.00	24.00	8	40	19.00	24.00
2.5	50	19.00	24.00	10	50	19.00	24.00
3	60	19.00	24.00	15	75	19.00	24.00
4	40	19.00	24.00	20	40	19.00	24.00

Minerallac Staticopes

A Safety Device for the Protection of the Electrical Worker

A glow-tube form of electroscope, encased in hard rubber, that will indicate the presence of potential when held in the changing static field such as is found surrounding: alternating current circuits, pulsating direct current, X-Ray equipment, static from belting, high frequency, condenser discharges, automobile ignition, etc.

Pocket Type



The pocket type is intended for all around testing where a sensitive instrument is desired and is specially adapted for use on underground cable work. It is designed to give positive indication on 2000 volts and up in contact with the outside of conductor insulation and at a point several times the flashover distance on non-insulated conductors.

It is understood that materials which destroy or absorb the static field such as the lead on underground cables, metal switch cabinets, grounded framework, etc. should not be between any of the instruments and the conductor being tested.

With this instrument, it is not necessary to touch the conductor carrying high potential.

Each..... \$4.50

Overhead Type



Overhead Type, Extended

The overhead type is a less sensitive instrument, which makes it specially adaptable for overhead lines. It is furnished with a telescopic cover which makes it suitable for direct contact up to and including 2300 volts, when held in the operator's hands.

The red fiber ring is placed on the cover to indicate the handle portion of the instrument.

When closed, this staticope is 7 1/8 inches long and 3/4 inch in diameter; when extended, it is 12 inches long.

Each..... \$8.00

Brach Safe-T-Glow

High Tension Detectors



Safe-T-Glow consists of a sensitive Neon tube mounted on cushion supports, the light of this tube being amplified by a mirror reflector. It is sensitive to the presence of high tension current and will start to glow at 2000 volts when exposed terminal is held in contact with high tension wire. With increased voltage the tube will glow at varying distances away from the wire, depending on the voltage.

Model A, with 3-Foot Handle, for Circuits 2000 to 35000 Volts..... each.....

Model B, Same as Model A except with 9-Foot Handle, for Circuits from 45000 to 220000 Volts..... each.....

Test-O-Lites



The Test-O-Lite contains two electrodes in a neon gas filled bulb, each of which is connected in series with a suitable protecting resistor.

It will indicate voltage—a dim glow is shown when testing 110 volts, and on higher voltages up to 550 volts the glow is brighter in proportion.

Indicates whether a.c. or d.c. If a.c. both electrodes will glow, and if d.c. only one will glow and at the same time indicate the negative pole of the circuit.

Detects the live and ground wires. One can test whether a conductor has tension against ground or not by touching one of the leads with the hand.

Tests resistance leaks. Can be used as a pilot light if connected permanently to any circuit.

Furnished in a bakelite casing. Is no bigger than a fountain pen.

Each..... \$.95

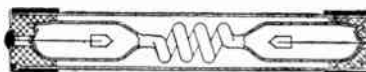
Brach Fixed Neon High Voltage Indicators



TYPE "R"



TYPE "RC"



TYPE "RS"

Consists of a sensitive Neon tube enclosed in a glass protecting case with metal ferrules on each end connected to electrodes of the tube.

Designed for permanent installation. With sufficiently high voltage indicator will give an indication if only one end is attached to line.

Greater brilliance is obtained if a plate or other metal is attached to free end giving greater capacity to electrodes.

Wherever practical the indicator may be placed directly across a high voltage line, provided sufficient resistance is placed in series with tube to limit current to only a few milliamps. Another type of indicator has been developed recently for use across a line (or from line to ground) with a suitable resistance in series.

Also furnished when specified, at \$1.00 extra, with metal strap arranged to act as condenser plate and support one end of tube.

Type R.—Neon tube is a straight tube with electrodes about 3/4-inch apart. Will give an indication on 500 volts.

Type RC.—Neon tube is straight but has a constriction between electrodes. Will give an indication on 500 volts.

Type RS.—Neon tube is of small bore tubing wound into a spiral. This type gives more illumination than Types R and RC when voltage is sufficiently high to operate same.

Requires about 3000 volts for an indication.

Type RS..... each \$4.86

No. 5000 Square D Voltage Testers

This voltage tester operates on a.c. or d.c., indicating the voltage of either.

It is used for 110 to 600 volts.

Tester does not require lamps; easily carried in pocket.

Sharp points on end of long rubber covered leads permits piercing insulation without damaging it.

Insulation is armored at entrance to case to prevent breakage.



No. 5000 Voltage Tester..... each \$18.00

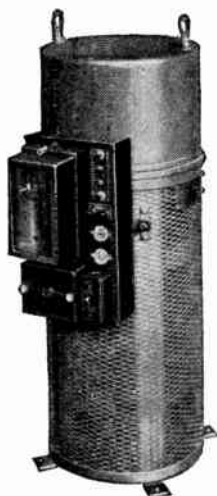
No. 5002 Voltage Tester Case..... each 2.00



G-E Type AIRS Induction Voltage Regulators

For Indoor Service

Single Phase, 60 Cycles, Air-Cooled



Large Automatic



Small Hand Operated



Small Motor Operated

This is an indoor-type, natural-draft, air-cooled induction voltage regulator for secondary circuit regulation and for testing and industrial service.

Automatic regulators can be used where lighting and power are both supplied from the same source; the regulator will maintain illumination at correct levels by compensating for voltage drop caused by changes in lighting loads, or changes in load on the power feeders.

Hand operated or manually controlled motor operated regulators can be used wherever a convenient source of variable voltage is required for various industrial processes.

For complete information, ask for Bulletin GEA-3057.

**For Secondary Circuit Regulation
Continuous Rated, Automatically Operated
10% Raise and 10% Lower Regulation**

120 Volts				480 Volts					
No.	Each	KVA. Cont. 55°C. Rise	Load Amp. at ±10% Regulation	Ship. Wt. Lb.	No.	Each	KVA. Cont. 55°C. Rise	Load Amp. at ±10% Regulation	Ship. Wt. Lb.
73X766	\$588.00	1.2	100	*150	73X778	\$588.00	1.2	25	*150
73X767	656.00	2.4	200	*170	73X779	656.00	2.4	50	*170
73X768	722.00	3.6	300	*250	73X780	1440.00	4.8	100	530
73X769	1494.00	6	500	530	73X781	1550.00	7.2	150	695
73X770	1632.00	9	750	695	73X782	1660.00	9.6	200	860
73X771	1770.00	12	1000	860	73X783	1770.00	12	250	860
†240 Volts—5/10%; or 240/120 Volts, 3-Wire—10%									
73X772	\$588.00	1.2	50/50	*150					
73X773	656.00	2.4	100/100	*170	73X784	\$606.00	1.5	25	*150
73X774	722.00	3.6	150/150	*250	73X785	690.00	3	50	*205
73X775	1494.00	6	250/250	530	73X786	1494.00	6	100	530
73X776	1632.00	9	375/375	695	73X787	1632.00	9	150	695
73X777	1770.00	12	500/500	860	73X788	1770.00	12	200	860

Any of the above regulators can be supplied equipped for line-drop compensation at a price addition of \$132. each.

**For Testing and Industrial Service
Rated for Intermittent (1 Hr.) Service
100% Raise and 100% Lower Regulation**

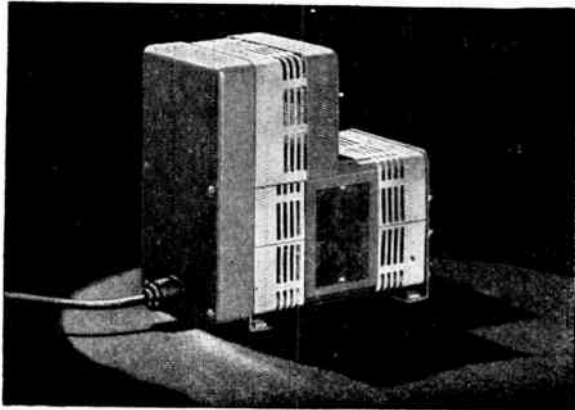
Hand Operated—120/240 Volts					Motor Operated—120/240 Volts						
No.	Each	KVA. Cont. 55°C. Rise	LOAD AMP. AT ±100% REGULATION		Ship. Wt. Lb.	No.	Each	KVA. Cont. 55°C. Rise	LOAD AMP. AT ±100% REGULATION		Ship. Wt. Lb.
			120 V.	240 V.					120 V.	240 V.	
73X762	\$284.00	2.4	20	10	140	73X804	\$326.00	2.4	20	10	150
73X763	334.00	4.2	35	17.5	195	73X805	376.00	4.2	35	17.5	205
73X764	386.00	6	50	25	240	73X806	428.00	6	50	25	250
73X765	1082.00	12	100	50	620	73X807	1190.00	12	100	50	670

*Weights do not include control panel, which is separately mounted. Shipping weight of control panel is 30 pounds.

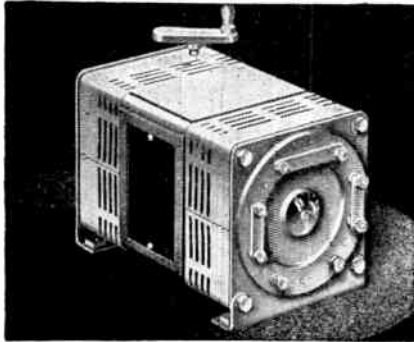
†These regulators have 2 series windings, each of which will carry 50% of the rated kva.

‡Require an extra potential transformer for the contact-making volt-meter. For 480-volt regulators, standard potential transformer No. 86X773 can be supplied at \$34. each. For 600-volt regulators, standard potential transformer No. 86X774 can be supplied at \$35. each.

G-E Inductrols Small Dry-Type, Induction Voltage Regulators for Indoor Service Single Phase, 60 Cycles, Air-Cooled



Automatically Operated Inductrol



Hand Operated Inductrol

These inductrols are for use in industrial and electronic applications. Automatically operated where voltage or current is to be maintained within narrow limits; hand operated where a source of smoothly variable voltage or current is required.

Because of their excellent appearance, great mechanical strength, light weight, and small size, these sturdy inductrols are well suited for use in factories, laboratories, and schools, as well as for hundreds of built-in applications and others which include motor speed control, heat control, illumination control, dielectric testing, rectifier control, calibrating instruments, and compensating voltages.

For complete information, ask for Bulletin GEA-4508.

Automatically Operated

120 Volts

Volt. Amp. Cont. 55°C. Rise	RAISE AND LOWER REGULATION				*Approx. Ship. Wt. Lb.	No.	†Each
	Per Cent	Amp.	Per Cent	Amp.			
300	10	25	...	...	54	31D340	\$410.
300	15	16.7	...	...	54	31D341	410.
600	10	50	...	...	71	31D342	427.
600	15	33.4	...	...	71	31D343	427.
240 Volts							
300	10	12.5	5	25	54	31D344	\$410.
300	15	8.3	7.5	16.7	54	31D345	410.
600	10	25	5	50	71	31D346	427.
600	15	16.7	7.5	33.4	71	31D347	427.

Hand Operated

120-240 Volts

Volt-Amp. Cont. 55°C. Rise	Selected (Volts)	RAISE AND LOWER REGULATION				Approx. Ship. Wt. Lb.	No.	Each
		Per Cent	Amp.	Per Cent	Amp.			
300	120	20	12.5	10	25	40	31D300	\$106.
	240	10	12.5	5	25			
300	120	30	8.3	15	16.5	40	31D301	106.
	240	15	8.3	7.5	16.6			
600	120	20	25	10	50	58	31D302	123.
	240	10	25	5	50			
600	120	30	16.7	15	33.4	58	31D303	123.
	240	15	16.7	7.5	33.4			
†1200	120	\$200	5	100	10	58	31D304	123.
	240	100	5	50	10			

*Weights do not include control panel, which is mounted separately from the regulator. Control panel weights are: ship., 30 lb.; net, 25 lb. †Prices include control panel. ‡Rated for intermittent (1 hour) service. §200 per cent raise and 100 per cent lower regulation.

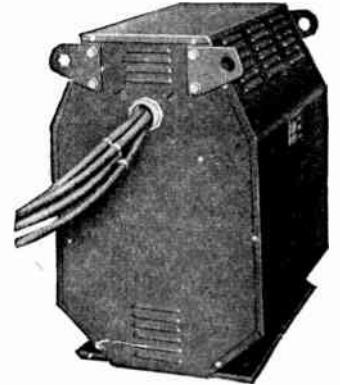
G-E Dry-Type Transformers

Type M—For Indoor and Outdoor Service

Type D—For Indoor Service Only



Type M



Type D

G-E dry-type transformers have a wide range of applications on circuits 600 volts and below. Such applications include supplying the proper voltage for special lamps, tools, bells, buzzers, airport lights, brazing, welding, testing and industrial heating equipment. They are also used for insulating circuits to promote safety, operating lights and portable tools from power circuits, boosting voltage, phase changing and many other applications.

In transformers rated 10 kva. and below, as well as auto-transformers of equivalent physical size, the Type M construction is used. It forms a solid, compact unit which dissipates heat from its external surfaces by radiation. In the larger sizes, the Type D, natural-draft construction is used. The transformer is effectively cooled by air currents which enter ventilating louvers in the housing and circulate around the core and coils.

These transformers are built in standard ratings up to 100 kva. and 600 volts, 60 cycles. Special transformers, up to 200 kva. for 60-cycle circuits, are built from an extensive line of standardized parts, economically and for quick delivery. They are applicable to circuits of 600 volts and below.

Type M transformers include a built-in junction box designed for conduit connection or for open wiring. For conduit connection, knockouts are provided in the sides, end, and back of the compartment. For open wiring, a fiber bushing is used in place of the bottom cover of the compartment.

Type D transformers have leads brought out for open wiring, through bushed holes in the side plates. For enclosed wiring, conduits can be run directly into these side plates, or when desired, 90-degree conduit outlets may be used.

Type D transformers are normally arranged for floor mounting, but when desired they can be wall mounted by the use of angle iron brackets.

Send for Bulletin GEA-897 for complete description.

G-E also has available a complete line of dry-type distribution transformers for primary circuits of 2400 to 13,200 volts, in sizes 1.5 to 500 kva. inclusive.

Send for Bulletin GEA-3714 for complete information.

G-E Type M Sign-Lighting Transformers

**For 11½ or 23-Volt Applications
For Indoor or Outdoor Service**

**Single Phase, 60 Cycles, Air-Cooled
Primary 110/220—115/230—120/240 Volts
Secondary 11/22—11½/23—12/24 Volts**

Designed primarily for sign lighting. As these transformers are compact, light in weight, and weatherproof, they can be mounted in any convenient location, such as the back of the sign.

These transformers have a wide range of application, because both the primary and secondary windings are arranged for series-multiple connections. They may be connected as a transformer with the secondary supplying 11½ or 23 volts, 2-wire, or 23/11½ volts, 3-wire; also as an autotransformer to deliver 126½ or 138 volts from a 115-volt supply, or 241½ or 253 volts from a 230-volt supply. Two or more units may be used in various combinations to obtain many other special voltages.

One of the many special applications is pipe thawing. Two transformers are used, the primaries being connected in multiple and the secondaries in series to give 46 volts. This gives sufficient capacity for thawing pipes up to 2-inch diameter. The current can be controlled to some extent by looping the secondary cables.

No.	Each	KVA. Output Cont. 55°C. Rise	Depth In.	Wall Space Inches	Approx. Ship. Wt. Lb.
61G69	\$25.00	.250	4⅞	4⅞x8½	18
61G70	35.00	.500	4⅞	4⅞x10⅞	26
61G71	44.00	.750	4⅞	4⅞x12⅞	37
61G172	53.00	1	6⅞	6⅞x11⅞	45
61G173	66.00	1.5	6⅞	6⅞x12⅞	56
61G174	79.00	2	6⅞	6⅞x13⅞	67
61G75	106.00	3	7¾	8¾x18⅞	108
61G76	155.00	5	7¾	8¾x19⅞	168

G-E Type M Service Transformers

To Supply or Insulate 115 or 230-Volt Circuits

Single Phase, 60 Cycles, Air-Cooled

For Indoor or Outdoor Service

For Oil Well, Mine and Pump-House Service



These transformers are designed especially to be used at the end of long lines such as are generally used to supply oil well, mine and pump-house service. Because of the wide voltage variation likely to be encountered at such locations, these transformers are designed to operate satisfactorily from 440 to 525 volts and may be used on either a 50 or 60-cycle circuit. The secondary voltages will vary accordingly. They are arranged to be connected directly into a conduit system and are supplied with ¾-inch pipe nipples and 12-inch leads as shown in illustration.

**Primary 440—525 Volts
Secondary 110—131 Volts**

No.	Each	KVA. Output Cont. 55°C. Rise	Depth In.	Wall Space Inches	Approx. Ship. Wt. Lb.
61G189	\$27.00	.100	4⅞	4⅞x7⅞	14
61G190	30.00	.250	4⅞	4⅞x8⅞	19
61G191	41.00	.500	4⅞	4⅞x10	29

Suitable also for 50-cycle operation.

G-E Service Transformers

To Supply or Insulate 115 or 230-Volt Circuits

Single Phase, 60 Cycles, Air-Cooled

Type M—For Indoor or Outdoor Service

For General Light and Power Service

These transformers are designed to reduce the voltage of 230, 460, or 575-volt power circuits to either 115 or 230 volts for supplying lights and other equipment. Some of the ratings are also suitable for insulating one circuit from another without change in voltage. In addition to the many single-phase applications, they can be used in banks on polyphase circuits.

The classification "service" is applied to transformers used to supply a standard utilization voltage from another standard utilization voltage.

**Primary 220-230-240 Volts
Secondary 110-115-120 Volts**

No.	Each	KVA. Output Cont. 55°C. Rise	Depth In.	Wall Space Inches	Approx. Ship. Wt. Lb.
71G18	\$6.43	.025	2⅞	2⅞x5⅞	3¼
71G19	8.06	.050	2⅞	2⅞x6	5
71G20	9.13	.075	3⅞	3⅞x5⅞	5¾
71G21	9.84	.100	3⅞	3⅞x6¼	7
71G22	10.71	.150	3⅞	3⅞x6⅞	8½
71G23	11.32	.200	3⅞	3⅞x7¼	11
61G5	22.00	.250	4⅞	4⅞x8⅞	17
61G6	31.00	.500	4⅞	4⅞x10⅞	25

**Primary 110/220-115/230-120/240 Volts
Secondary 110/220-115/230-120/240 Volts**

76G108	\$50.00	1	6⅞	6⅞x11⅞	45
76G109	61.00	1.5	6⅞	6⅞x12⅞	55
76G110	74.00	2	6⅞	6⅞x13⅞	67
61G11	100.00	3	7¾	8¾x18⅞	108
61G12	145.00	5	7¾	8¾x21⅞	160
61G13	200.00	7.5	9⅞	11⅞x22⅞	265
61G14	250.00	10	9⅞	11⅞x25¼	340
*60G601	348.00	15	24½	13⅞x21⅞	425

**Primary 440-460-480 Volts
Secondary 110-115-120 Volts**

71G24	\$6.43	.025	2⅞	2⅞x5⅞	3¼
71G25	8.06	.050	2⅞	2⅞x6	5
71G26	9.13	.075	3⅞	3⅞x5⅞	5¾
71G27	9.84	.100	3⅞	3⅞x6¼	7
71G28	10.71	.150	3⅞	3⅞x6⅞	8½
71G29	11.32	.200	3⅞	3⅞x7¼	11
61G19	22.00	.250	4⅞	4⅞x8⅞	17
61G20	31.00	.500	4⅞	4⅞x10⅞	25

**Primary 220/440-230/460-240/480 Volts
Secondary 110/220-115/230-120/240 Volts**

76G129	\$50.00	1	6⅞	6⅞x11⅞	45
76G130	61.00	1.5	6⅞	6⅞x12⅞	55
76G131	74.00	2	6⅞	6⅞x13⅞	67
61G32	100.00	3	7¾	8¾x18⅞	108
61G33	145.00	5	7¾	8¾x21⅞	160
61G34	200.00	7.5	9⅞	11⅞x22⅞	265
61G35	250.00	10	9⅞	11⅞x25¼	340

**Primary 550-575-600 Volts
Secondary 110-115-120 Volts**

71G36	\$6.93	.025	2⅞	2⅞x5⅞	3¼
71G37	8.69	.050	2⅞	2⅞x6	5
71G38	9.85	.075	3⅞	3⅞x5⅞	5¾
71G39	10.62	.100	3⅞	3⅞x6¼	7
71G40	11.55	.150	3⅞	3⅞x6⅞	8½
71G41	12.21	.200	3⅞	3⅞x7¼	11
61G40	24.00	.250	4⅞	4⅞x8⅞	17
61G41	33.00	.500	4⅞	4⅞x10⅞	25

**Primary 550-575-600 Volts
Secondary 110/220-115/230-120/240 Volts**

76G150	\$52.00	1	6⅞	6⅞x11⅞	45
76G151	64.00	1.5	6⅞	6⅞x12⅞	53
76G153	78.00	2	6⅞	6⅞x14⅞	67
61G53	104.00	3	7¾	8¾x18⅞	108
61G54	152.00	5	7¾	8¾x21⅞	160
61G55	210.00	7.5	9⅞	11⅞x22⅞	265
61G56	262.00	10	9⅞	11⅞x23⅞	340
60G609	364.00	15	24½	13⅞x21⅞	425

Type D—For Indoor Service Only

**Primary 220/440-230/460-240/480 Volts
Secondary 110/220-115/230-120/240 Volts**

60G605	\$348.00	15	24½	13⅞x21⅞	425
60G606	536.00	25	24½	15⅞x21⅞	565
60G607	685.00	37.5	29¾	17⅞x23⅞	750
60G608	825.00	50	29¾	19⅞x23⅞	890

*Type D—for indoor service only.

G-E Type M Service Autotransformers

To Supply 115 and 230-Volt Circuits
For Indoor or Outdoor Service
For General Light and Power Service

Single Phase, 60 Cycles, Dry Type
Primary 220—230—240 Volts
Secondary 110—115—120—2-Wire or 220/110—230/115—
240/120 Volts—3-Wire

Autotransformers are more economical and smaller than a transformer designed to carry the same load. Within their voltage limitations, they will perform the same function as service transformers with the exception of insulating two circuits. They may be used to obtain 115 volts from a 230-volt circuit, to derive a neutral on a 230-volt, 2-wire circuit, or to balance a 115/230-volt, 3-wire circuit. They also may be used in banks on polyphase circuits.

In ordering autotransformers, care should be exercised so that the installation will meet local electrical inspectors' requirements.

Cat. No.	Each	Kva. Output Cont. 55°C. Rise	Depth In.	Wall Space Inches	Approx. Ship. Wt. Lb.
64G2	\$22.00	500	4 ⁹ / ₁₆	4 ⁷ / ₈ x 8 ³ / ₈	17
64G3	27.00	.750	4 ⁹ / ₁₆	4 ⁷ / ₈ x 9 ⁵ / ₈	23
64G4	31.00	1	4 ⁹ / ₁₆	4 ⁷ / ₈ x 10 ⁵ / ₈	27
65G5	39.00	1.5	6 ³ / ₁₆	6 ⁷ / ₈ x 10 ¹³ / ₃₂	39
65G6	47.00	2	6 ³ / ₁₆	6 ⁷ / ₈ x 11 ⁵ / ₃₂	47
65G7	58.00	3	6 ³ / ₁₆	6 ⁷ / ₈ x 12 ²¹ / ₃₂	60
64G8	82.00	5	7 ³ / ₄	8 ³ / ₄ x 18 ¹ / ₄	103
64G9	110.00	7.5	7 ³ / ₄	8 ³ / ₄ x 20	127
64G10	137.00	10	9 ⁷ / ₈	11 ³ / ₈ x 20 ¹ / ₄	205
64G11	189.00	15	9 ⁷ / ₈	11 ³ / ₈ x 22 ¹ / ₂	255
77G592	282.00	25	9 ⁷ / ₈	11 ³ / ₈ x 27 ¹ / ₂	390

G-E Type M Dry-Type Transformers

For 32-Volt Applications
For Indoor or Outdoor Service

Single Phase, 60 Cycles
Primary 110/220—115/230—120/240 Volts
Secondary 30.6—32—33.4 Volts

These transformers derive 32-volt circuits from 115 or 230-volt lighting or power circuits; 32-volt portable lamps and portable tools are frequently used in mines, steel plants, meat packing plants, and in damp locations to prevent injury in case of accidental grounding of the circuit through the operator's body. The 32-volt lamps are often more economical and have longer life than those rated at higher voltages.

These transformers can also be used as autotransformers to boost the voltage of circuits. When so connected, the kva. output of each transformer will equal the kva. output

listed below, multiplied by $\left(\frac{H.V.}{H.V.-L.V.}\right)$ and the kva. output of a 3-phase bank will be three times that of each unit.

Cat. No.	Each	Kva. Output Cont. 55°C. Rise	Depth In.	Wall Space Inches	Approx. Ship. Wt. Lb.
61G59	\$24.00	250	4 ⁹ / ₁₆	4 ⁷ / ₈ x 8 ¹ / ₂	17
61G60	34.00	500	4 ⁹ / ₁₆	4 ⁷ / ₈ x 10 ³ / ₈	26
61G61	43.00	.750	4 ⁹ / ₁₆	4 ⁷ / ₈ x 12 ⁵ / ₈	36
76G162	52.00	1	6 ³ / ₁₆	6 ⁷ / ₈ x 11 ⁵ / ₃₂	45
76G163	64.00	1.5	6 ³ / ₁₆	6 ⁷ / ₈ x 12 ²¹ / ₃₂	56
76G164	77.00	2	6 ³ / ₁₆	6 ⁷ / ₈ x 13 ¹⁷ / ₃₂	67
61G65	103.00	3	7 ³ / ₄	8 ³ / ₄ x 18 ⁹ / ₁₆	108
61G66	151.00	5	7 ³ / ₄	8 ³ / ₄ x 21 ¹ / ₂	158

G-E Transformers and Auto Transformers for Phase Changing

Dry Type, 3 to 2, or 2 to 3-Phase, 60 Cycles
Type M—For Indoor or Outdoor Service
Type D—For Indoor Service Only

Phase-changing transformers and autotransformers are primarily of use when a phase change is made on a distribution system. They permit the economical use of motors and other polyphase equipment which would otherwise become obsolete.

The two lines of autotransformers are not interchangeable and it is necessary to determine whether the 2-phase circuit is 3-wire or 4-wire in order to select the proper unit. These autotransformers cannot be used on a 4-wire circuit having the mid-points of the two phases connected. For this application, the 2-winding transformer is recommended, although especially designed autotransformers can be furnished.

Types M and D Transformers

3-Phase—220-230-240 Volts
2-Phase—220-230-240 Volts

Type M Transformers, 3 to 2-Phase, 3 or 4 Wire

No.	Each	KVA. Output Cont. 55°C. Rise	Depth In.	Wall Space Inches	Approx. Ship. Wt. Lb.
61G77	\$76.00	1	4 ⁹ / ₁₆	4 ⁷ / ₈ x 18 ⁷ / ₈	57
61G78	141.00	3	6 ³ / ₁₆	6 ⁷ / ₈ x 21 ¹³ / ₁₆	115
61G79	188.00	5	7 ³ / ₄	8 ³ / ₄ x 29 ¹¹ / ₁₆	195
61G80	246.00	7.5	7 ³ / ₄	8 ³ / ₄ x 32 ³ / ₄	250
61G81	303.00	10	9 ⁷ / ₈	11 ³ / ₈ x 32 ³ / ₄	330
63G82	411.00	15	9 ⁷ / ₈	11 ³ / ₈ x 38 ³ / ₈	490
*75G13	615.00	25	9 ⁷ / ₈	11 ³ / ₈ x 28 ¹ / ₄	820

Type D Transformers, 3 to 2-Phase, 3 or 4-Wire

63G14	\$846.00	37.5	†30	†20x36	850
63G15	1074.00	50	†30	†22x40	1050

Type M Autotransformers, 3 to 2-Phase, 4-Wire

64G43	\$40.00	1	4 ⁹ / ₁₆	4 ⁷ / ₈ x 12 ³ / ₈	23
64G44	64.00	3	4 ⁹ / ₁₆	4 ⁷ / ₈ x 15 ³ / ₈	37
64G45	79.00	5	4 ⁹ / ₁₆	4 ⁷ / ₈ x 19 ¹ / ₄	57
64G46	97.00	7.5	6 ³ / ₁₆	6 ⁷ / ₈ x 20 ³ / ₁₆	67
64G47	113.00	10	6 ³ / ₁₆	6 ⁷ / ₈ x 21 ¹⁵ / ₁₆	82
64G48	144.00	15	6 ³ / ₁₆	6 ⁷ / ₈ x 24 ³ / ₁₆	127
64G49	194.00	25	7 ³ / ₄	8 ³ / ₄ x 29 ¹ / ₈	180
64G50	258.00	37.5	7 ³ / ₄	8 ³ / ₄ x 33 ¹ / ₈	260
65G675	316.00	50	9 ⁷ / ₈	11 ³ / ₈ x 33 ³ / ₈	380

Type M Autotransformers, 3 to 2-Phase, 3-Wire

64G52	\$44.00	1	4 ⁹ / ₁₆	4 ⁷ / ₈ x 12 ⁷ / ₈	25
64G53	70.00	3	4 ⁹ / ₁₆	4 ⁷ / ₈ x 16 ⁷ / ₈	45
64G54	90.00	5	6 ³ / ₁₆	6 ⁷ / ₈ x 19 ¹³ / ₁₆	58
64G55	111.00	7.5	6 ³ / ₁₆	6 ⁷ / ₈ x 22 ¹ / ₁₆	83
64G56	134.00	10	6 ³ / ₁₆	6 ⁷ / ₈ x 23 ¹¹ / ₁₆	100
64G57	167.00	15	7 ³ / ₄	8 ³ / ₄ x 27 ¹ / ₁₆	140
64G58	235.00	25	7 ³ / ₄	8 ³ / ₄ x 31 ¹³ / ₁₆	200
64G59	314.00	37.5	9 ⁷ / ₈	11 ³ / ₈ x 32 ¹ / ₈	320
65G676	387.00	50	9 ⁷ / ₈	11 ³ / ₈ x 35 ³ / ₈	415

*Separate main and teaser (weight per bank, dimensions per unit).

†Height.

‡Floor space.

§Care should be exercised in ordering autotransformers so that the installation will meet local electrical inspectors' requirements.

Wall Brackets for Type D Transformers

Wall Hanger Cat. No.	Each	For Transformer Kva.	Ship. Wt. Lb.
5097900G1	..*	15	15 ¹ / ₂
5097900G2	..*	25	17
5097901G1	\$5.00	37.5	26
5097901G2	5.00	50	27

Standard Conduit Outlets for Type D Transformers

Cat. No.	Each	Conduit Size, In.	Dimensions Inches	Ship. Wt. Lb.
2105285G1	\$2.00	1 ¹ / ₂	5 ³ / ₈ x 4 ¹ / ₄ x 4 ³ / ₄	3 ³ / ₄
2105286G1	2.00	2	6 ¹ / ₂ x 5 ³ / ₄ x 5 ³ / ₈	4 ³ / ₄

*No charge.

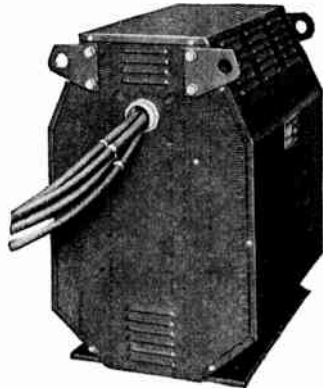
G-E Types M and D Dry-Type Distribution Transformers

Single Phase, 60 Cycles, Air-Cooled

For 2400/4160Y-Volt Circuits



Type M



Type D

APPLICATION.—For indoor service in locations where conditions of dust or moisture are not abnormally severe, and where ventilation is not too restricted. They do not require fireproof vaults, and hence can be installed close to the load center, eliminating long and costly runs of secondary copper, and improving voltage conditions at the load. All sizes designed for completely metal enclosed connections, eliminating all exposed live parts.

Kva. Incl.	Low Voltage Rating	Low Voltage Leads Can Be Connected for
1½-75	120/240	120 2-Wire, 240 2-Wire, or 240/120 3-Wire
100-200	120/240	
250-500	240/120	240 2-Wire, or 240/120 3-Wire
1½-75	240/480	240 2-Wire, 480 2-Wire, or 480/240 3-Wire
100-200	240/480	
250-500	240/480	240 2-Wire, or 480 2-Wire
1½-75	600	600 2-Wire
100-500	600	

SERVICE.—Suitable for indoor installation only.

Name Plate Voltage Ratings:
 Line No. 1—2400/4160Y to 120/240
 Line No. 2—2400/4160Y to 240/480
 Line No. 3—2400/4160Y to 600

Line No. 1 No.	Line No. 2 No.	Line No. 3 No.	Kva., Cont. 80°C. Rise	Type	Approx. Ship. Wt., Lb.
78G45	78G50	78G55	1.5	M	60
78G46	78G51	78G56	3	M	108
78G47	78G52	78G57	5	M	145
78G48	78G53	78G58	7.5	M	200
78G49	78G54	78G59	10	M	305
75G430	.....	.....	15	D	310
75G431	.....	.....	25	D	350
75G432	.....	.....	37.5	D	580
75G433	.....	.....	50	D	680

Name Plate Voltage Ratings:
 Line No. 1—2400/4160Y to 120/240 to 240/120. (4) 2½ Per Cent Taps Below 2400 Volts
 Line No. 2—2400/4160Y to 240/480 to 480/240. (2) 2½ Per Cent Rated Kva. Above and (2) 2½ Per Cent Rated Kva. Below 2400 Volts
 Line No. 3—2400/4160Y to 600. (2) 2½ Per Cent Rated Kva. Above and (2) 2½ Per Cent Rated Kva. Below 2400 Volts

Line No. 1 No.	Line No. 2 No.	Line No. 3 No.	Kva., Cont. 80°C. Rise	Type	Approx. Ship. Wt., Lb.
75G434	75G445	75G456	15	D	310
75G435	75G446	75G457	25	D	350
75G436	75G447	75G458	37.5	D	580
75G437	75G448	75G459	50	D	680
75G438	75G449	75G460	75	D	815
29H309	29H315	29H321	100	ND	2000
29H310	29H316	29H322	150	ND	2300
29H311	29H317	29H323	200	ND	2800
29H312	29H318	29H324	250	ND	3050
29H313	29H319	29H325	333	ND	3800
29H314	29H320	29H326	500	ND	4900

For 4160-Volt Circuits

APPLICATION.—For indoor service in locations where conditions of dust or moisture are not abnormally severe, and where ventilation is not too restricted. They do not require fireproof vaults, hence can be installed close to the load center, eliminating long and costly runs of secondary copper, and improving voltage conditions at the load. All sizes designed for completely metal enclosed connections, eliminating all exposed live parts.

Continued

For 4160-Volt Circuits (Con't.)

Kva. Incl.	Low Voltage Rating	Low Voltage Leads Can Be Connected for
1½-75	120/240	120 2-Wire, 240 2-Wire, or 240/120 3-Wire
100-200	120/240	
250-500	240/120	240 2-Wire, or 240/120 3-Wire

SERVICE.—Suitable for indoor installation only.

Name Plate Voltage Ratings:
 Line No. 1—4160 to 120/240 (No Taps)
 Line No. 2—4160 to 120/240 (4) 2½ Per Cent Rated Kva. Below 4160 Volts

Line No. 1 No.	Line No. 2 No.	Kva., Cont. 80°C. Rise	Type	Approx. Ship. Wt., Lb.
78G72	.....	1.5	M	80
78G73	.....	3	M	128
78G74	.....	5	M	170
78G75	.....	7.5	M	300
78G76	.....	10	M	350
78G151	78G77	15	D	360
.....	75G673	25	D	385
.....	75G674	37.5	D	625
.....	75G675	50	D	725
.....	75G676	75	D	855
.....	29H327	100	ND	2100
.....	29H328	150	ND	2500
.....	29H329	200	ND	2900
.....	29H330	250	ND	3250
.....	29H331	333	ND	4050
.....	29H332	500	ND	5000

For 4800-Volt Circuits

APPLICATION.—For indoor service in locations where conditions of dust or moisture are not abnormally severe, and where ventilation is not too restricted. They do not require fireproof vaults, and hence can be installed close to the load center, eliminating long and costly runs of secondary copper, and improving voltage conditions at the load. All sizes designed for completely metal enclosed connections, eliminating all exposed live parts.

Kva. Incl.	Low Voltage Rating	Low Voltage Leads Can Be Connected for
1½-75	120/240	120 2-Wire, 240 2-Wire, or 240/120 3-Wire
100-200	120/240	
250-500	240/120	240 2-Wire, or 240/120 3-Wire
1½-75	240/480	240 2-Wire, 480 2-Wire, or 480/240 3-Wire
100-200	240/480	
250-500	240/480	240 2-Wire, or 480 2-Wire
1½-75	600	600 2-Wire
100-500	600	

SERVICE.—Suitable for indoor installation only.

Name Plate Voltage Ratings:
 Line No. 1—4800 to 120/240
 Line No. 2—4800 to 240/480
 Line No. 3—4800 to 600

Line No. 1 No.	Line No. 2 No.	Line No. 3 No.	Kva., Cont. 80°C. Rise	Type	Approx. Ship. Wt., Lb.
78G78	78G85	78G91	1.5	M	80
78G79	78G86	78G92	3	M	128
78G80	78G87	78G93	5	M	175
78G81	78G88	78G94	7.5	M	305
78G82	78G89	78G95	10	M	355
78G83	.....	.....	15	D	375
75G683	.....	.....	25	D	385
75G684	.....	.....	37.5	D	625
75G685	.....	.....	50	D	725

Name Plate Voltage Ratings:
 Line No. 1—4800 to 120/240. (4) 2½ Rated Kva. Below 4800 Volts
 Line No. 2—4800 to 240/480
 Line No. 3—4800 to 600
 Lines 2 and 3—(2) 2½ Rated Kva. Above and (2) 2½ Per Cent Rated Kva. Below 4800 Volts

Line No. 1 No.	Line No. 2 No.	Line No. 3 No.	Kva., Cont. 80°C. Rise	Type	Approx. Ship. Wt., Lb.
78G84	78G90	78G96	15	D	360
75G686	75G696	75G706	25	D	380
75G687	75G697	75G707	37.5	D	625
75G688	75G698	75G708	50	D	725
75G689	75G699	75G709	75	D	855
29H333	29H339	29H345	100	ND	2100
29H334	29H340	29H346	150	ND	2500
29H335	29H341	29H347	200	ND	2900
29H336	29H342	29H348	250	ND	3250
29H337	29H343	29H349	333	ND	4050
29H338	29H344	29H350	500	ND	5000

G-E Type HS Oil-Immersed Distribution Transformers

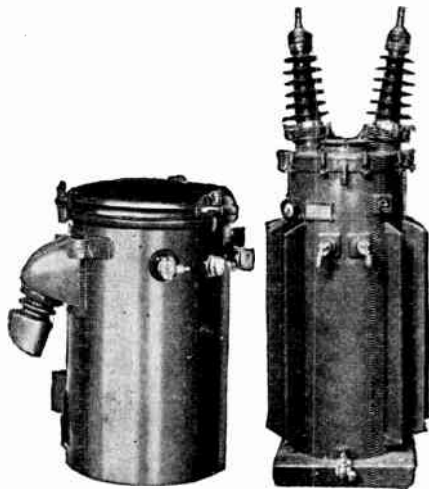
Single Phase, 60 Cycles, Self-Cooled

The G-E Type HS distribution transformer offers the highest degree of service reliability, backed by careful attention to all details of manufacture, including the selection and preparation of the raw materials used, the adoption of the most progressive manufacturing processes, and the constant improvement of transformer design.

Among the most recent of these improvements is the wound-core construction, identified by the G-E trade-mark Spirakore.

This new design, now furnished on all sizes, results in higher efficiency at heavy loads, better voltage regulation at higher power factors, low exciting current, smaller size, and lighter weight.

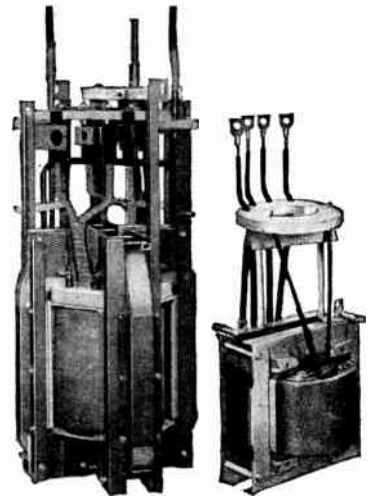
The tanks are of all-welded steel with fins, corrugations, or cooling tubes in the larger sizes to provide ample radiating surface for the dissipation of heat. Each tank is given two coats of specially selected Glyptal paint, each coat oven dried, resulting in an attractive and durable finish. For complete information, ask for Bulletin GEA-2600.



Small Distribution Transformer with Low Voltage Tank Wall Bushings



Large Distribution Transformer with Cooling Tubes and High Voltage Cover Bushings



Typical Interior Assembly of Large Spirakore Transformer

Interior Assembly of Small Spirakore Transformer

For 480 or 600-Volt Circuits

APPLICATION.—By connection of the low voltage leads, transformers are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

MOUNTING.—Sizes 100 kva. and smaller are suitable for direct pole mounting.

Name Plate Voltage Ratings:

Line No. 1—480/456/432 to 120/240
Line No. 2—600/570/540 to 120/240

Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
26H313	26H324	\$122.	1.5	3 3/4	140
26H314	26H325	142.	3	3	165
26H315	26H326	220.	5	3 3/4	190
26H316	26H327	286.	7.5	8	270
26H317	26H328	340.	10	9 1/4	295
26H318	26H329	434.	15	12 1/2	380
26H319	26H330	600.	25	19	550
26H320	26H331	786.	37.5	34	805
26H321	26H332	962.	50	34	930
26H322	26H333	1284.	75	59	1220
26H323	26H334	1600.	100	59	1535
32H240	32H242	2526.	150	82	2265
32H241	32H243	3082.	200	98	2815

For 2400 and 4160Y-Volt Circuits, No Taps

APPLICATION.—By connection of the low voltage leads, transformers having low voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for indoor or outdoor installation.

MOUNTING.—Sizes 100 kva. and smaller are suitable for direct pole mounting.

Continued Next Column

2400 and 4160Y-Volt Circuits, No Taps

Continued Name Plate Voltage Ratings: Line No. 1—2400/4160Y to 120/240, No Taps

Line No. 1	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
28H1548	\$116.	1.5	3 3/4	140
26H12	134.	3	3	160
26H13	210.	5	3 3/4	190
26H14	272.	7.5	8	270
26H15	324.	10	9 1/4	295
26H16	412.	15	12 1/2	380
26H17	570.	25	19	540
26H18	746.	37.5	34	810
26H19	914.	50	34	940

For 2400 and 4160Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads, transformers having low voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

MOUNTING.—Sizes 100 kva. and smaller are suitable for direct pole mounting.

Name Plate Voltage Ratings:

Line No. 1—2400/4160Y to 120/240—(4) 2 1/2 Per Cent Taps Below 2400 Volts
Line No. 2—2400/4160Y to 240/480—(2) 2 1/2 Per Cent Taps Above & (2) 2 1/2 Per Cent Taps Below 2400 Volts
Line No. 3—2400/4160Y to 600—(2) 2 1/2 Per Cent Taps Above & (2) 2 1/2 Per Cent Taps Below 2400 Volts

Line No. 1	Line No. 2	Line No. 3	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
26H117	26H33	26H149	\$122.	1.5	5 1/2	155
26H118	26H34	26H150	142.	3	5	180
26H119	26H35	26H151	220.	5	5 3/4	200
26H120	26H36	26H152	286.	7.5	8	270
26H121	26H37	26H153	340.	10	9 1/4	295
26H122	26H38	26H154	434.	15	12 1/2	380
26H123	26H39	26H155	600.	25	19	540
26H124	26H40	26H156	786.	37.5	34	810
26H125	26H41	26H157	962.	50	34	930
26H126	26H42	26H158	1284.	75	59	1135
26H127	26H43	26H159	1600.	100	59	1420
31H954	.....	.....	2356.	150	82	2225
.....	31H956	31H958	2248.	150	82	2225
31H955	.....	.....	2872.	200	101	2820
.....	31H957	31H959	2742.	200	101	2805

For 4160-Volt Circuits

APPLICATION.—These transformers are to provide service where it is more economical or desirable to connect transformers across phases than between line and neutral on 2400-4160-volt Y circuits. The use of these transformers gives the same service voltages as 10:1 ratio transformers connected between line and neutral.

By connection of low voltage leads, transformers are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor use.

MOUNTING.—Sizes 100 kva. and smaller are arranged for direct pole mounting.

Nameplate Voltage Ratings:

Line No. 1—4160 to 120/240—(4) 2 1/2 Per Cent Taps Below 4160 Volts
Line No. 2—4160 to 240/480—(2) 2 1/2 Per Cent Taps Above and (2) 2 1/2 Per Cent Taps Below 4160 Volts
Line No. 3—4160 to 600—(2) 2 1/2 Per Cent Taps Above and (2) 2 1/2 Per Cent Taps Below 4160 Volts

Line No. 1	Line No. 2	Line No. 3	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
26H335	28H65	28H76	\$132.	1.5	5 1/2	165
26H336	28H66	28H77	154.	3	5	185
26H337	28H67	28H78	234.	5	5 3/4	215
26H338	28H68	28H79	314.	7.5	8	275
26H339	28H69	28H80	372.	10	9 1/4	300
26H340	28H70	28H81	470.	15	12 1/2	385
26H341	28H71	28H82	664.	25	22 1/2	575
26H342	28H72	28H83	862.	37.5	38	860
26H343	28H73	28H84	1050.	50	46	1055
26H344	28H74	28H85	1394.	75	59	1190
26H345	28H75	28H86	1716.	100	59	1525
31H960	.....	.....	2500.	150	82	2240
.....	31H962	31H964	2386.	150	82	2260
31H961	.....	.....	2990.	200	101	2810
.....	31H963	31H965	2852.	200	101	2820

G-E Type HS Oil-Immersed Distribution Transformers

Single Phase, 60 Cycles, Self-Cooled

For 4800 and 8320Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads, transformers having low voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor use.

MOUNTING.—Sizes 100 kva. and smaller are suitable for direct pole mounting.

Name Plate Voltage Ratings:

- Line No. 1—4800/8320Y to 120/240—(4) 2½ Per Cent Taps Below 4800 Volts
- Line No. 2—4800/8320Y to 240/480—(2) 2½ Per Cent Taps Above and (2) 2½ Per Cent Taps Below 4800 Volts
- Line No. 3—4800/8320Y to 600—(2) 2½ Per Cent Taps Above and (2) 2½ Per Cent Taps Below 4800 Volts

Line No. 1 No.	Line No. 2 No.	Line No. 3 No.	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
26H181	26H197	26H1113	\$132.	1 5	5 1/2	160
26H182	26H198	26H1114	154.	3	5	185
26H183	26H199	26H1115	234.	5	5 3/4	205
26H184	26H100	26H1116	314.	7 5	8	275
26H185	26H101	26H1117	372.	10	9 1/4	300
26H186	26H102	26H1118	470.	15	12 1/2	385
26H187	26H103	26H1119	664.	25	22 1/2	570
26H188	26H104	26H1120	862.	37 5	34	850
26H189	26H105	26H1121	1050.	50	43	1035
26H190	26H106	26H1122	1394.	75	37	1135
26H191	26H107	26H1123	1716.	100	47	1420
31H966	.....	.....	2500.	150	82	2230
.....	31H968	31H970	2386.	150	82	2230
31H967	.....	.....	2990.	200	101	2680
.....	31H969	31H971	2852.	200	101	2680

For 2400, 4160Y, 4800, and 8320Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads, transformers having a low voltage rating of 120/240 or 240/480 are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor use.

MOUNTING.—Sizes 100 kva. and smaller are suitable for direct pole mounting.

Name Plate Voltage Ratings:

- Line No. 1—2400x4800/8320Y to 120/240—(4) 2½ Per Cent Taps Below 4800 Volts
- Line No. 2—2400x4800/8320Y to 240/480
- Line No. 3—2400x4800/8320Y to 600
- Lines No. 2 & 3 Have (2) 2½ Per Cent Taps Above & (2) 2½ Per Cent Taps Below 4800 Volts, Also Available as (1) 5 Per Cent Tap Above and (1) 5 Per Cent Tap Below 2400 Volts.

Line No. 1 No.	Line No. 2 No.	Line No. 3 No.	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
26H145	26H161	26H1177	\$140.	1 5	5 1/2	160
26H146	26H162	26H1178	162.	3	5	185
26H147	26H163	26H1179	244.	5	5 3/4	205
26H148	26H164	26H1180	330.	7 5	8	275
26H149	26H165	26H1181	392.	10	9 1/4	300
26H150	26H166	26H1182	494.	15	12 1/2	385
26H151	26H167	26H1183	698.	25	22 1/2	570
26H152	26H168	26H1184	904.	37 5	34	850
26H153	26H169	26H1185	1102.	50	43	1035
26H154	26H170	26H1186	1462.	75	37	1135
26H155	26H171	26H1187	1802.	100	47	1420
31H974	.....	.....	2614.	150	82	2250
.....	31H976	31H978	2500.	150	82	2250
31H975	.....	.....	3124.	200	101	2820
.....	31H977	31H979	2990.	200	101	2820

Note: Line 1 is also available without high voltage taps.

For 7200 and 12,470Y-Volt Circuits

APPLICATION.—By connection of low voltage leads, transformers having low voltage rating of 120/240 or 240/480 are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

MOUNTING.—Sizes 100 kva. and smaller are arranged for direct pole mounting.

For 7200 and 12,470Y-Volt Circuits (Con't.)

- Name Plate Voltage Ratings:
- Line No. 1—7200/12,470Y to 120/240
- Line No. 2—7200/12,470Y to 240/480
- Line No. 3—7200/12,470Y to 600

H-V Taps:
100 Kva. and Smaller, (3) Approx. 4½ Per Cent Taps Below 7200 Volts (Lowest Tap Reduced Kva.)
150 and 200 Kva., (4) 2½ Per Cent Taps Below 7200 Volts

Line No. 1 No.	Line No. 2 No.	Line No. 3 No.	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
26H1548	26H1596	26H1644	\$154.	1 5	5 1/4	155
26H1549	26H1597	26H1645	170.	3	5	175
26H1550	26H1598	26H1646	266.	5	5 3/4	200
26H1551	26H1599	26H1647	360.	7 5	9 1/2	275
26H1552	26H1600	26H1648	424.	10	11	315
26H1553	26H1601	26H1649	544.	15	17 1/2	470
26H1554	26H1602	26H1650	742.	25	25	650
26H1571	26H1619	26H1667	972.	37 5	35	895
26H1572	26H1620	26H1668	1178.	50	39	1165
26H1573	26H1621	26H1669	1562.	75	60	1430
26H1574	26H1622	26H1670	1864.	100	59	1580
32H1109	.....	.....	2542.	150	85	2485
.....	32H1111	32H1113	2426.	150	85	2465
32H1110	.....	.....	3014.	200	129	3200
.....	32H1112	32H1114	2876.	200	129	3175

For 12,000-Volt Circuits

APPLICATION.—By connection of low voltage leads, transformers having low voltage rating of 120/240 or 240/480 are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

MOUNTING.—Sizes 100 kva. and smaller are arranged for direct pole mounting.

Name Plate Voltage Ratings:

- Line No. 1—12,000 to 120/240
- Line No. 2—12,000 to 240/480
- Line No. 3—12,000 to 600

(4) 2½ Per Cent Taps Below 12,000 Volts

Line No. 1 No.	Line No. 2 No.	Line No. 3 No.	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
26H853	26H901	26H933	\$208.	3	5	175
26H854	26H902	26H934	284.	5	5 3/4	200
26H856	26H904	26H936	434.	10	11	310
26H857	26H905	26H937	548.	15	17 1/2	465
26H858	26H906	26H938	742.	25	25	650
26H875	26H923	26H955	972.	37 5	35	900
26H876	26H924	26H956	1178.	50	40	1165
26H877	26H925	26H957	1562.	75	59	1445
26H878	26H926	26H958	1864.	100	59	1575

For 14,400 and 13,200-Volt Circuits

APPLICATION.—By connection of low voltage leads, transformers having low voltage rating of 120/240 or 240/480 are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

MOUNTING.—Sizes 100 kva. and smaller are arranged for direct pole mounting.

Name Plate Voltage Ratings:

- Line No. 1—14,400/13,200 to 120/240
- Line No. 2—14,400/13,200 to 240/480
- Line No. 3—14,400/13,200 to 600

H-V Taps:
13,800/13,200/12,870 Rated Kva, 12,540 Reduced Kva.

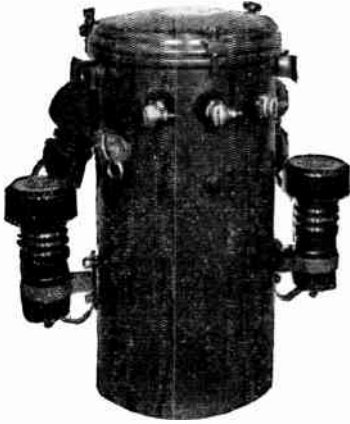
Line No. 1 No.	Line No. 2 No.	Line No. 3 No.	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
28H1561	28H1575	28H1589	\$236.	3	5 1/4	180
28H1562	28H1576	28H1590	316.	5	5 3/4	215
28H1563	28H1577	28H1591	472.	10	11	325
28H1564	28H1578	28H1592	592.	15	18	485
28H1565	28H1579	28H1593	784.	25	26	650
38H1571	28H1585	28H1599	998.	37 5	38	890
28H1572	28H1586	28H1600	1202.	50	45	1090
28H1573	28H1587	28H1601	1562.	75	60	1455
28H1574	28H1588	28H1602	1864.	100	59	1640

G-E Type HSBA Oil-Immersed Distribution Transformers

With Self-Contained Lightning Protection and Overcurrent Protection—Single Phase, 60 Cycles

APPLICATION.—By connection of the low-voltage leads to the bushing terminals inside the tank, transformers with low-voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service.

High-Voltage Pocket Bushings



Class A.—For universal use on delta and Y circuits.

- Complete with:
- Two high-voltage bushings;
 - Two pellet lightning arresters;
 - Tank isolating gap;
 - Low-voltage neutral gap;
 - Internal high-voltage fuse;
 - Low-voltage circuit breaker;
 - Overload signal lamp (optional on 1.5 and 3 kva.);
 - Support lugs for direct pole mounting.

For 2400 and 4160Y-Volt Circuits

Name Plate Voltage Rating:
2400/4160Y to 120/240 Volts

Line No. 1—Without Taps		Line No. 2—With (4) 2½ Per Cent Taps Below 2400 Volts		Kva. Cont. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
No.	With Signal Lamp Each	No.	With Signal Lamp Each			
*28H557	\$204.	*27H1131	\$210.	1 5	7¼	220
*27H121	222.	*27H1132	230.	3	6¾	240
27H122	298.	27H1133	308.	5	6¼	255
27H123	360.	27H1134	374.	7 5	11	350
27H124	412.	27H1135	428.	10	10½	365
27H125	500.	27H1136	522.	15	12½	405
27H126	658.	27H1137	688.	25	22	620
27H127	874.	27H1138	914.	37 5	36	985
27H128	1042.	27H1139	1090.	50	43	1195

*Also available without signal lamp. Price is \$14 less. Order No. 28H558, 1.5 kva., or No. 27H1130, 3 kva., Line No. 1; or No. 27H140, 1.5 kva., or No. 27H141, 3 kva., Line No. 2.

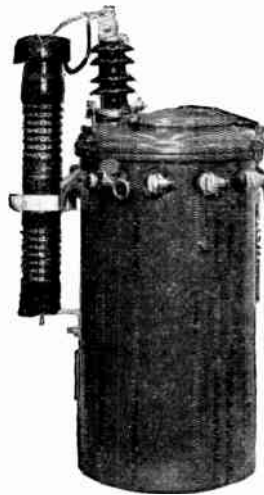
For 4800 and 8320Y-Volt Circuits

Name Plate Voltage Rating:
4800/8320Y to 120/240 Volts

Line No. 1—Without High-Voltage Taps		Line No. 2—With (4) 2½ Per Cent Taps Below 4800 Volts		Kva. Cont. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
No.	With Signal Lamp Each	No.	With Signal Lamp Each			
*26H252	\$238.	*26H241	\$244.	1 5	7¼	235
*26H253	258.	*26H242	266.	3	6¾	255
26H254	334.	26H243	346.	5	6¼	270
26H255	410.	26H244	426.	7 5	11	365
26H256	466.	26H245	484.	10	12	390
26H257	558.	26H246	582.	15	12½	430
26H258	742.	26H247	776.	25	22	645
26H259	970.	26H248	1014.	37 5	36	990
26H260	1150.	26H249	1202.	50	44	1200

*Also available without signal lamp. Price is \$14 less. Order No. 26H261, 1.5 kva., or No. 26H262, 3 kva., Line No. 1; or No. 26H250, 1.5 kva., or No. 26H251, 3 kva., Line No. 2.

High-Voltage Cover Bushings



Type HSBA transformers, in Class A, are also available for 7200/14,470Y and 7620/13,200Y-volt circuits. These ratings have high-voltage cover bushings.

Class B2.—For use on solidly grounded common-neutral circuits with the tank solidly grounded.

- Complete with:
- One high-voltage bushing;
 - One clamp-terminal tank-grounding connector;
 - One pellet lightning arrester;
 - Low-voltage neutral link bolted to tank externally;
 - Internal high-voltage fuse;
 - Low-voltage circuit breaker;
 - Overload signal lamp (optional on 1½ and 3 kva.);
 - Support lugs for direct pole mounting.

For 7200 and 12,470-Gr-Y-Volt Circuits

Name Plate Voltage Rating:
12,470 Gr-Y/7200 to 120/240

Line No. 1—Without Taps
Line No. 2—With (3) Approx. 4½ Per Cent Taps Below 7200 Volts (Lowest Tap is Reduced Kva.)

Line No. 1		Line No. 2		Kva. Cont. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
No.	With Signal Lamp Each	No.	With Signal Lamp Each			
*26H263	\$216.	*27H1164	\$224.	1.5	6¼	220
*26H264	232.	*27H1165	240.	3	6¼	240
26H265	322.	27H1166	336.	5	6½	275
26H266	412.	27H1167	430.	7.5	12	355
.....	.....	27H1168	494.	10	12	380
.....	.....	27H1169	614.	15	17½	545
.....	.....	27H1170	812.	25	26	715
.....	.....	27H1171	1082.	37.5	37	990
.....	.....	27H1172	1288.	50	45	1200

*Also available without signal lamp. Price is \$14 less. Order No. 26H267, 1.5 kva., or No. 26H268, 3 kva., Line No. 1; or No. 26H173, 1.5 kva., or No. 26H174, 3 kva., Line No. 2.

For 7620 and 13,200-Gr-Y-Volt Circuits

Name Plate Voltage Rating:
13,200 Gr-Y/7200 to 120/240

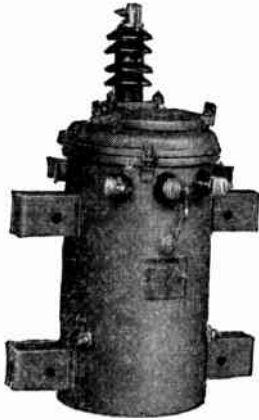
Line No. 1—Without Taps
Line No. 2—With (4) 2½ Per Cent Taps Below 7620 Volts

Line No. 1		Line No. 2		Kva. Cont. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
No.	With Signal Lamp Each	No.	With Signal Lamp Each			
*26H275	\$216.	*27H1186	\$224.	1.5	6¼	220
*26H276	232.	*27H1187	240.	3	6¼	240
26H277	322.	27H1188	336.	5	6½	275
26H278	412.	27H1189	430.	7.5	12	355
26H279	472.	27H1190	494.	10	12	380
26H280	586.	27H1191	614.	15	17½	545
.....	.....	27H1192	812.	25	26	715
.....	.....	27H1193	1082.	37.5	37	990
.....	.....	27H1194	1288.	50	45	1200

*Also available without signal lamp. Price is \$14 less. Order No. 26H281, 1.5 kva., or No. 26H282, 3 kva., Line No. 1; or No. 27H195, 1.5 kva., or No. 27H196, 3 kva., Line No. 2.

G-E Type HS Oil-Immersed Rural-Line Transformers

In Accordance with R.E.A. Requirements



These transformers are of the single-high-voltage-bushing design, with one end of the high-voltage winding permanently connected to the tank, which in turn is to be solidly grounded by connection to the common system neutral.

These transformers offer the utmost in service reliability as they embody the same perfection of detail in design and construction as the standard Type IIS distribution transformer.

- Each unit complete with:
- One high-voltage cover bushing;
 - Handhole in cover;
 - Three low-voltage tank-wall bushings;
 - Provision for direct pole mounting with the low-voltage bushings 90 degrees from the pole;
 - Two mounting positions, on opposite sides of tank;
 - Two clamp-terminal tank grounding connectors;
 - Low-voltage neutral grounded to tank.

For 7200 and 12,470-Gr-Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers are arranged for series or multiple two-wire service, or for three-wire service.

Name Plate Voltage Ratings:

12470 Gr-Y/7200 to 120/240—(3) Approx. 4½ Per Cent Taps Below 7200 Volts (Lowest Tap is Reduced Kva.)

No.	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
31H881	\$148.00	1.5	5	140
31H882	264.00	3	4¾	155
31H883	260.00	5	6¼	190
31H884	354.00	7.5	10	270
31H885	418.00	10	10¾	305
31H886	538.00	15	17½	470
31H887	736.00	25	26	640

For 7620 and 13,200-Gr-Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers are arranged for series or multiple two-wire service, or for three-wire service.

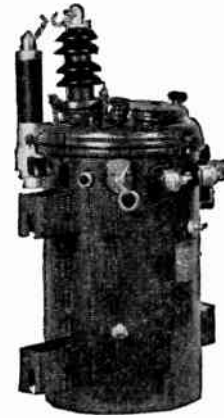
Name Plate Voltage Ratings:

13,200 Gr-Y/7620 to 120/240—(4) 2½ Per Cent Taps Below 7620 Volts

No.	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
31H888	\$148.00	1.5	5	140
31H889	164.00	3	4¾	155
31H890	260.00	5	6¼	190
31H891	354.00	7.5	10	270
31H892	418.00	10	10¾	305
31H893	538.00	15	17½	470
31H894	736.00	25	25	645

G-E Type HSBA Oil-Immersed Rural-Line Transformers

In Accordance With R.E.A. Requirements



They embody the same reliability as the conventional Type IIS transformer. Lightning protection is afforded by a hi-stroke rural arrester mounted directly on the tank, and overcurrent protection is provided by a low-voltage circuit breaker mounted inside the tank, under oil.

Each unit complete with:

- One high-voltage cover bushing;
- One hi-stroke rural arrester;
- Internal high-voltage fuse;
- Handhole in cover;
- Overload signal lamp (on sizes 5 kva. and larger);
- Three low-voltage tank-wall bushings;
- Internal low-voltage circuit breaker with external operating handle;
- Provision for direct pole mounting with low-voltage bushings 90 degrees from the pole;
- Two mounting positions, on opposite sides of tank;
- Two clamp-terminal tank grounding connectors;
- Low-voltage neutral grounded to tank.

For 7200 and 12,470 Gr-Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers are arranged for series or multiple two-wire service, or for three-wire service.

Name Plate Voltage Rating:

12,470 Gr-Y/7200 to 120/240—(3) Approx. 4½ Per Cent Taps Below 7200 Volts (Lowest Tap is Reduced Kva.)

Cat. No.	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
31H923	\$212.00	1.5	5	145
31H924	228.00	3	4½	165
31H925	338.00	5	6	200
31H926	432.00	7.5	11½	290
31H927	496.00	10	12	325
31H928	616.00	15	17½	485
31H929	814.00	25	25	655

For 7620 and 13,200 Gr-Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers are arranged for series or multiple two-wire service, or for three-wire service.

Name Plate Voltage Rating:

13,200 Gr-Y/7620 to 120/240—(4) 2½ Per Cent Taps Below 7620 Volts

Cat. No.	Each	Kva. Cont. 55°C. Rise	Oil Req. Gal.	Approx. Ship. Wt., Lb. Incl. Oil
31H930	\$212.00	1.5	5	145
31H931	228.00	3	4½	165
31H932	338.00	5	6	200
31H933	432.00	7.5	11½	290
31H934	496.00	10	12	325
31H935	616.00	15	17½	485
31H936	814.00	25	25	660

G-E Type HS Pyranol Distribution Transformers Single Phase, 60 Cycles, Self-Cooled



This transformer generally affords substantial savings over the total installed cost of oil-filled equipment for all installations indoors or in confined locations.

Filled with Pyranol, G-E's synthetic insulating and cooling liquid, which has all of the desirable characteristics of mineral oil and, in addition, is non-inflammable. Pyranol transformers can, therefore, be safely installed indoors or in confined locations without expensive fireproof vaults. They can usually be installed at the load center, giving additional savings by the elimination of long and costly runs of secondary copper, with improved voltage regulation at the load.

Pyranol transformers have made possible savings on overall installed costs of as high as 23 per cent, compared with the cost of oil-filled equipment.

Recognized by the National Electrical Code.

Pyranol is suitable for use only in Pyranol transformers, designed especially for the purpose.

Send for Bulletin GEA-2048 for complete information.

For 480 and 600-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

Name Plate Voltage Ratings:
Line No. 1—480 to 120/240—(2) 5 Per Cent Taps Below 480 Volts
Line No. 2—600 to 120/240—(2) 5 Per Cent Taps Below 600 Volts

Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol	Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol
73X416	73X429	\$366.	1.5	300	73X423	73X436	\$1078.	37.5	1150
73X417	73X430	386.	3	350	73X424	73X437	1282.	50	1350
73X418	73X431	416.	5	425	73X425	73X438	1716.	75	1700
73X419	73X432	444.	7.5	425	73X426	73X439	2090.	100	1900
73X420	73X433	486.	10	450	73X427	73X440	2776.	150	2650
73X421	73X434	596.	15	575	73X428	73X441	3400.	200	4100
73X422	73X435	822.	25	725					

For 2400 and 4160Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for indoor or outdoor installation.

Name Plate Voltage Ratings:
Line No. 1—2400/4160Y to 120/240 Without Taps

Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol	Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol
72X1		\$358.	1.5	300	72X6		\$578.	15	575
72X2		378.	3	350	72X7		802.	25	725
72X3		406.	5	425	72X8		1078.	37.5	1150
72X4		430.	7.5	425	72X9		1282.	50	1350
72X5		470.	10	450					

For 4800/8320Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers having a low voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service. Transformers having low voltage rating of 240/480 are suitable for series and multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

Name Plate Voltage Ratings:
Line No. 1—4800/8320 to 120/240 without Taps
Line No. 2—4800/8320 to 120/240—(4) 2½ Per Cent Taps Below 4800 Volts
Line No. 3—4800/8320 to 240/480—(2) 2½ Per Cent Taps Above and (2) 2½ Per Cent Taps Below 4800 Volts
Line No. 4—4800/8320 to 600—(2) 2½ Per Cent Taps Below and (2) 2½ Per Cent Taps Above 4800 Volts
(Continued)

For 4800/8320Y-Volt Circuits (Con't)

Line No. 1		Line No. 2	Line Nos. 2, 3 and 4		Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol	
No.	Each	No.	Line No. 3	Line No. 4			
28H637	\$370.	28H289	28H1290	28H1291	\$388.	1.5	300
27H850	390.	27H865	27H880	27H895	408.	3	350
27H851	420.	27H866	27H881	27H896	438.	5	450
27H852	458.	27H867	27H882	27H897	480.	7.5	450
27H853	504.	27H868	27H883	27H898	528.	10	475
27H854	614.	27H869	27H884	27H899	642.	15	575
27H855	866.	27H870	27H885	27H900	904.	25	775
29H985	1180.	29H987	29H991	29H995	1180.	37.5	1150
29H986	1400.	29H988	29H992	29H996	1400.	50	1400
		29H989	29H993	29H997	1850.	75	1700
		29H990	29H994	29H998	2240.	100	1900

For 2400 and 4160Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers having low voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service. Transformers having low voltage rating of 240/480 are suitable for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

Name Plate Voltage Ratings:
Line No. 1—2400/4160Y to 120/240—(4) 2½ Per Cent Taps Below 2400 Volts
Line No. 2—2400/4160Y to 120/480—(2) 2½ Per Cent Taps Above and (2) 2½ Per Cent Taps Below 2400 Volts

Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol	Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol	
28H284	28H285	\$366.	1.5	300	29H952	\$1078.	29H961	\$1078.	37.5	1150
27H753	27H768	386.	3	350	29H953	1282.	29H962	1282.	50	1350
27H754	27H769	416.	5	425	29H954	1716.	29H963	1716.	75	1700
27H755	27H770	444.	7.5	425	29H955	2090.	29H964	2090.	100	1900
27H756	27H771	486.	10	450	29H956	2776.	29H965	2712.	150	2650
27H757	27H772	596.	15	575	29H957	3400.	29H966	3314.	200	4100
27H758	27H773	822.	25	725						

For 2400 and 4160Y-Volt Circuits

SERVICE.—Suitable for outdoor or indoor installation.

Name Plate Voltage Ratings:
2400/4160Y to 600—(2) 2½ Per Cent Taps Above and (2) 2½ Per Cent Taps Below 2400 Volts

No.	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol	No.	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol
28H1286	\$366.	1.5	300	29H970	\$1078.	37.5	1150
27H783	386.	3	350	29H971	1282.	50	1350
27H1784	416.	5	425	29H972	1716.	75	1700
27H1785	444.	7.5	425	29H973	2090.	100	1900
27H786	486.	10	450	29H974	2712.	150	2650
27H1787	596.	15	575	29H975	3314.	200	4100
27H1788	822.	25	725				

For 2400, 4160Y, 4800, and 8320Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers having a low voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service. Transformers having low voltage rating of 240/480 are suitable for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

Name Plate Voltage Ratings:
Line No. 1—2400x4800/8320Y to 120/240—H-V. Taps, (4) 2½ Per Cent Below 4800 Volts, (2) 5 Per Cent Below 2400 Volts
Line No. 2—2400x4800/8320Y to 240/480—H-V. Taps, (2) 2½ Per Cent Below and (2) 2½ Per Cent Above 4800 Volts; (1) 5 Per Cent Below and (1) 5 Per Cent Above 2400 Volts

Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol	Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Approx. Ship. Wt., Lb. Incl. Pyranol	
28H293	28H294	\$398.	1.5	300	27H816	\$1238.	31H1	\$1238.	37.5	1150
27H810	27H820	420.	3	350	27H817	1470.	31H2	1470.	50	1400
27H811	27H821	450.	5	450	27H818	1942.	31H3	1942.	75	1700
27H812	27H822	492.	7.5	450	27H819	2352.	31H4	2352.	100	1900
27H813	27H823	536.	10	475	72X78	3104.	31H5	3036.	150	2650
27H814	27H824	662.	15	575	72X79	3706.	31H6	3612.	200	4100
27H815	27H825	932.	25	775						

Continued

G-E Type HS Pyranol Distribution Transformers
Single Phase, 60 Cycles, Self-Cooled
 Concluded

For 2400, 4160Y, 4800, and 8320Y-Volt Circuits

Name Plate Voltage Rating:
 2400x4800/8320Y to 600—(2) 2½ Per Cent Taps Below and (2) 2½ Per Cent Taps Above 4800 Volts, (1) 5 Per Cent Tap Below and (1) 5 Per Cent Tap Above 2400 Volts

No.	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol	No.	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol
2811295	\$398.	1.5	300	311110	\$1238.	37.5	1150
2711835	420.	3	350	311111	1470.	50	1400
2711836	450.	5	450	311112	1942.	75	1700
2711837	492.	7.5	450	311113	2352.	100	1900
2711838	536.	10	475	311114	3036.	150	2650
2711839	662.	15	575	311115	3612.	200	4100
2711840	932.	25	775				

For 4160-Volt Circuits

This transformer is to provide service where it is more economical or desirable to connect transformer across phases than between line and neutral on 2300/4000-volt Y circuits. The use of this transformer gives the same service voltages as 10:1 ratio transformers connected between line and neutral.

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers are arranged for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

Name Plate Voltage Rating:
 4160 Delta to 120/240—(4) 2½ Per Cent Taps Below 4160 Volts

No.	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol	No.	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol
2811287	\$388.	1.5	300	2911979	\$1180.	37.5	1150
2711800	408.	3	350	2911980	1400.	50	1400
2711801	438.	5	450	2911981	1850.	75	1700
2711802	480.	7.5	450	2911982	2240.	100	1900
2711803	528.	10	475	2911983	2958.	150	2650
2711804	642.	15	575	2911984	3530.	200	4100
2711805	904.	25	775				

For 7200 and 12,470Y-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers having low voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service. Transformers having low voltage rating of 240/480 are suitable for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor or indoor installation.

Name Plate Voltage Ratings:
 Line No. 1—7200 12,470Y to 120/240
 Line No. 2—7200/12,470Y to 240/480
 H-V. Taps—Lines 1 and 2:

1.5 to 100 Kva., (3) Approx. 4½ Per Cent Below 7200 Volts (Lowest Tap is reduced Kva.)
 150 to 200 Kva., (4) 2½ Per Cent Below 7200 Volts

Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol	Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol
2811300	28H304	\$430.	1.5	500	72X122	\$1356.	37.5	1600	
2811301	28H305	454.	3	500	72X123	1608.	50	1800	
28H302	2811306	486.	5	500	72X124	2058.	75	2250	
2811303	28H307	532.	7.5	600	72X125	2420.	100	2550	
72X119	72X135	636.	10	650	31H19	3122.	150	3100	
72X120	72X136	784.	15	875	31H20	3696.	200	4050	
72X121	72X137	1070.	25	1150					

For 7200 and 12,470Y-Volt Circuits

SERVICE.—Suitable for outdoor or indoor installation.

Name Plate Voltage Rating:
 7200 12,470Y to 600

H-V. Taps:
 1.5 to 100 Kva., (3) Approx. 4½ Per Cent Below 7200 Volts (Lowest Tap is Reduced Kva.)
 150 to 200 Kva., (4) 2½ Per Cent Taps Below 7200 Volts

No.	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol	No.	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol
2811308	\$430.	1.5	500	72X154	\$1356.	37.5	1600
2811309	454.	3	500	72X155	1608.	50	1800
2811310	486.	5	500	72X156	2058.	75	2250
2811311	532.	7.5	600	72X157	2420.	100	2550
72X151	636.	10	650	31H129	3054.	150	3100
72X152	784.	15	875	31H130	3604.	200	4050
72X153	1070.	25	1150				

For 12,000-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers having low voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service. Transformers having low voltage rating of 240/480 are suitable for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for outdoor and indoor installation.

Name Plate Voltage Ratings:
 Line No. 1—12,000 to 120/240 to 240/120. (4) 2½ Per Cent Taps Below 12,000 Volts
 Line No. 2—12,000 to 240/480. (4) 2½ Per Cent Taps Below 12,000 Volts.

Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol	Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol
28H1332	28H1334	\$528.	3	500	31H81	\$2058.	31H90	\$2058.	75 2250
28H1333	28H1335	556.	5	500	31H82	2420.	31H91	2420.	100 2550
27H1970	27H1982	652.	10	650	31H83	3122.	31H92	3054.	150 3100
27H1971	27H1983	790.	15	875	31H84	3696.	31H93	3604.	200 4050
27H1972	27H1984	1070.	25	1150	31H85	4200.	31H94	4082.	250 4900
31H179	31H188	1356.	37.5	1600	31H86	5050.	31H95	4888.	333 5500
31H180	31H189	1608.	50	1800	31H87	6660.	31H96	6458.	500 7200

For 12,000-Volt Circuits

SERVICE.—Suitable for outdoor or indoor installation.

Name Plate Voltage Ratings:
 Line No. 3—12,000 to 600. (4) 2½ Per Cent Taps Below 12,000 Volts
 Line No. 4—12,000 to 2400. (4) 2½ Per Cent Taps Below 12,000 Volts

Line No. 3	Line No. 4	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol	Line No. 3	Line No. 4	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol
28H1336		\$528.	3	500	31H99	\$2058.	31H108	\$2058.	75 2250
28H1337	28H338	556.	5	500	31H100	2420.	31H109	2420.	100 2550
27H1994	28H260	652.	10	650	31H101	3054.	31H110	3000.	150 3100
27H995	28H261	790.	15	875	31H102	3604.	31H111	3486.	200 4050
27H1996	28H262	1070.	25	1150	31H103	4082.	31H112	3884.	250 4900
31H97	31H106	1356.	37.5	1600	31H104	4888.	31H113	4586.	333 5500
31H98	31H107	1608.	50	1800	31H105	6458.	31H114	5938.	500 7200

For 13,200-Volt Circuits

APPLICATION.—By connection of the low voltage leads to the bushing terminals inside the tank, transformers having low voltage rating of 120/240 are arranged for series or multiple two-wire service, or for three-wire service. Transformers having low voltage rating of 240/480 are suitable for series or multiple two-wire service, or for three-wire service.

SERVICE.—Suitable for indoor or outdoor installation.

Name Plate Voltage Ratings:
 Line No. 1—13,200 to 120/240 to 240/120. (4) 2½ Per Cent Taps Below 13,200 Volts
 Line No. 2—13,200 to 240/480. (4) 2½ Per Cent Taps Below 13,200 Volts

Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol	Line No. 1	Line No. 2	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol
28H1339	28H1341	\$584.	3	500	31H117	\$2058.	31H126	\$2058.	75 2250
28H1340	28H342	616.	5	500	31H118	2420.	31H127	2420.	100 2550
28H119	28H31	714.	10	650	31H119	3122.	31H128	3054.	150 3100
28H120	28H32	850.	15	875	31H120	3696.	31H129	3604.	200 4050
28H121	28H33	1120.	25	1150	31H121	4200.	31H130	4082.	250 4900
31H115	31H124	1384.	37.5	1600	31H122	5050.	31H131	4888.	333 5500
31H116	31H125	1622.	50	1800	31H123	6660.	31H132	6458.	500 7200

For 13,200-Volt Circuits

SERVICE.—Suitable for indoor or outdoor installation.

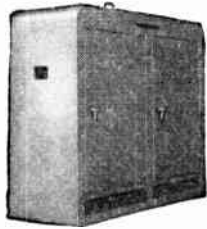
Name Plate Voltage Ratings:
 Line No. 3—13,200 to 600 Volts. (4) 2½ Per Cent Taps Below 13,200 Volts
 Line No. 4—13,200 to 2400 Volts. (4) 2½ Per Cent Taps Below 13,200 Volts

Line No. 3	Line No. 4	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol	Line No. 3	Line No. 4	Each	Kva. Cont. 55°C. Rise	Ship. Wt., Lb. Incl. Pyranol
28H1343		\$584.	3	500	31H135	\$2058.	31H144	\$2058.	75 2250
28H1344	28H345	616.	5	500	31H136	2420.	31H145	2420.	100 2550
28H143	28H272	714.	10	650	31H137	3054.	31H146	3000.	150 3100
28H144	28H273	850.	15	875	31H138	3604.	31H147	3486.	200 4050
28H45	28H274	1120.	25	1150	31H139	4082.	31H148	3884.	250 4900
31H133	31H142	1384.	37.5	1600	31H140	4888.	31H144	4586.	333 5500
31H134	31H143	1622.	50	1800	31H141	6458.	31H150	5938.	500 7200

G-E Capacitors



Pyranol Capacitors
For Low Voltage Industrial Applications
Class DTSR (Illustrated)—Dust-Tight for Indoor Service
Class LSO—For Outdoor Service



Large Capacitor Equipments
Class LLI—For Indoor Service



Large Capacitor Equipments
Class LLO—For Outdoor Service



Enclosed Capacitor Units
For Low Voltage Industrial Applications
Class EDT—Dust-Tight Design



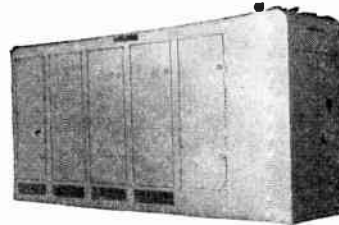
Enclosed Capacitor Units
For Low Voltage Industrial Applications
Class EWT—Weather-Tight Design



Pyranol Capacitors
For High Voltage Industrial and Substation Applications
Small Capacitor Equipments
Class HSI—For Indoor Service



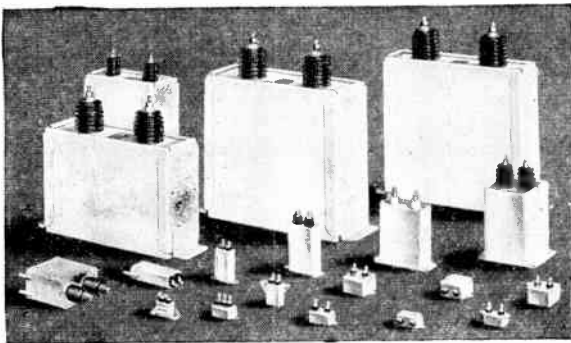
Pyranol Capacitors
For High Voltage Industrial and Substation Applications
Small Capacitor Equipments
Class PT—Pole Type for Outdoor Service



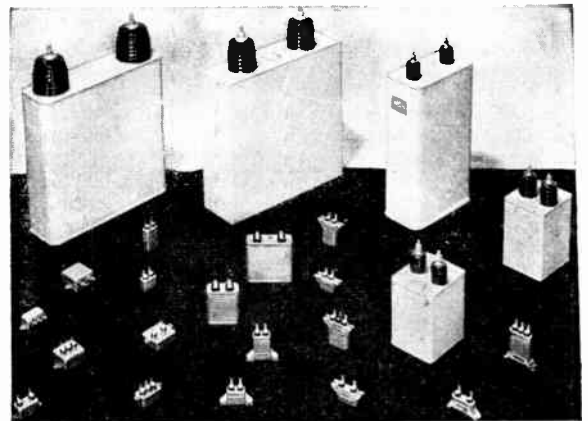
Large Capacitor Equipments
Class HLI (Illustrated)—For Indoor Service
Class HLO—For Outdoor Service



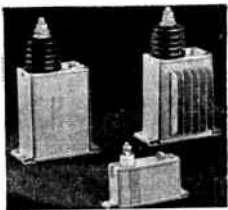
Pyranol Capacitors
Class ID—Individual Pole-Type Units



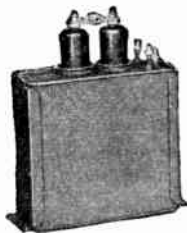
Pyranol Capacitors
Fixed Paper-Dielectric Capacitors for D.C. Applications to Jan-C-25 Specifications and Commercial Standards



Pyranol Capacitors for A.C. Applications and Commercial Standards



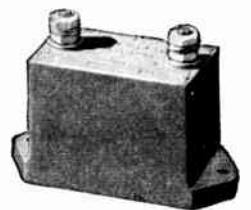
High Frequency Capacitors
Class HFBL—Paper-Dielectric Capacitors
For Blocking and By-Pass Applications



High Frequency Capacitors
Class HFP—Parallel-Plate Liquid-Dielectric Water-Cooled Capacitors



Pyranol Capacitors
Energy-Storage and Discharge Capacitors



Lectrofilm Capacitors

Can also Supply Capacitors to Meet Joint Army-Navy Specifications—Proposed JAN-C-25

G-E Pellet-Type Distribution Lightning Arresters

For Circuits 1 to 15 Kv.



3 Kv. Maximum Permissible Line-to-Ground Voltage, with Standard Hanger

The electric elements consist of a column of pellets and a series-gap assembly. The pellet column forms the valve element, preventing the flow of system current following discharge, while the series gap isolates the valve element from the line until it is sparked over by a surge.

The pellets are made of lead peroxide, with a thin, porous coating of litharge, and are assembled in a porcelain-tube container with metal electrodes in contact with each end of the pellet column. The length of the column is proportional to the arrester voltage rating.

The series-gap assembly is sealed within a nitrogen-filled gap chamber, which is entirely isolated from the pellet valve column. This sealed gap chamber filled with dry nitrogen gas prevents the entrance of moisture and makes the arrester independent of atmospheric conditions, thereby assuring permanent freedom from current leakage and corrosion.

The elements of the arrester are contained in a porcelain tube with corrugated exterior. A porcelain cap is mechanically secured by weatherproof compound of high flow point.

This compound, however, is not depended on for sealing the arrester.

Well-glazed, wet-process porcelains are used in pellet arresters of all ratings. A flexible lead, securely soldered, provides for line connection.

The clamp-type ground terminal permits either one or two solid or stranded ground wires to be clamped to the arrester, eliminating connectors, splicing, soldering, and tapping. In this way, both labor and materials are saved.

After gap breakdown, discharge current begins to flow, and the resistance of the pellet valve column decreases as long as the current increases. When the current begins to decrease, the resistance increases, and to such an extent that, at the end of a discharge, the normal system voltage is unable to maintain a current flow through the arrester. This valve action prevents any arc or short-circuit attending discharge, and thereby avoids tripping of line breakers and blowing of sectionalizing fuses from lightning.



9 Kv. Maximum Permissible Line-to-Ground Voltage and Above, with Standard Hanger

Hangers and Mountings

Altitude, 0 to 6000 Feet

The standard and special hangers which are available for pellet arresters will satisfy virtually all desired mountings of the arresters—alone, in combination with primary fuse cutouts, or on transformer tanks. It will be seen that the pellet-arrester porcelain has two mounting grooves providing for alternate positions of the arresters in either standard or special hangers, making it possible to balance either the clearances or the appearance of the installation. The arrester can be inserted in any hanger either before or after the hanger has been mounted.

Pellet Type Arresters with Standard Hangers

Table 1—For Systems with Ungrounded Neutral

Model No.	Each	CIRCUIT VOLTAGE CONSTANT POTENTIAL		Maximum Permissible Line-to-Ground Voltage, Rms.	Ship. Wt., Lb.
		Min.	Max.		
9LA10B1	\$14.00	300	1000	1000	8
9LA10B2	17.00	1000	3000	3000	11
9LA10B4	27.00	3000	6000	6000	17
9LA10B5	34.00	6000	9000	9000	26
9LA10B6	51.00	9000	12000	12000	31
9LA10B7	66.00	12000	15000	15000	37

Table 2—For Systems with Solidly Grounded Neutral

Model No.	Each	Primary Circuit Operating Voltage	Maximum Permissible Line-to-Ground Voltage, Rms.	Ship. Wt., Lb.
9LA10B2	\$17.00	3000	5000	11
9LA10B4	27.00	5000	9000	17
9LA10B5	34.00	9000	12800	26
9LA10B6	51.00	12800	15000	31
9LA10B7	66.00	15000	18000	37

Table 3—For Single-Phase Circuits with One Conductor Solidly Grounded at Source and Multigrounded along Line

Model No.	Each	Primary Circuit Operating Voltage	Maximum Permissible Line-to-Ground Voltage, Rms.	Ship. Wt., Lb.
9LA10B2	\$17.00	2400-2500	3000	11
9LA10B4	27.00	4800-5000	6000	17
9LA10B5	34.00	6900-7200	9000	26
9LA10B188	34.00	7620-7940	10000	37

Number of Arresters Required at Installation

For Table 1. Use two arresters at each single-phase installation. Use three arresters at each 3-phase installation.

For Table 2. Use one arrester on phase wire at a single-phase installation made between phase wire and neutral. Use also on neutral wire, a neutral gap if voltage to ground is not over 300 volts; if because of unbalancing, voltage is between 300 and 1000 volts, use Model No. 9LA10B1 arrester. Use two arresters at a single-phase installation between outside phase wires. Use three arresters at each 3-phase installation.

For Table 3. Use one arrester at each installation.

Pellet Type Arresters with Standard Hangers

Table 4—For Protection of Load Side of A.C. Series Lighting Transformers

Model No.	Each	Kva. Rating of Transformers Secondary Amperes (6.6 and 7.5)	Approx. Ship. Wt., Lb.
9LA10B1	\$14.00	1, 2, 3	8
9LA10B2	17.00	5, 7.5, 10, 15	11
9LA10B4	27.00	20, 25, 30	17
9LA10B5	34.00	35, 40	26
9LA10B6	51.00	50	31
9LA10B7	66.00	60, 70	37

Pellet Type Arresters with Special Hangers

Table 5

Arrester Model No. with Standard Hanger	Arrester Model No. with Special Hanger	*Type of Hanger
9LA10B2 (Hanger Style A)	9LA10B22	Clamp Type, Style D
	9LA10B32	Clamp Type, Style C
	9LA10B52	Hook Type, Style F
	9LA10B82	Combination Pole
	9LA10B14	Hook Type, Style G
	9LA10B24	Clamp Type, Style D
	9LA10B34	Clamp Type, Style C
9LA10B4 (Hanger Style A)	9LA10B54	Hook Type, Style F
	9LA10B84	Combination Pole
	9LA10B194	Bolt Type, Style B
	9LA10B15	Hook Type, Style G
	9LA10B25	Clamp Type, Style D
	9LA10B35	Clamp Type, Style C
	9LA10B61	Bolt Type, Style A
9LA10B5 (Hanger Style B)	9LA10B65	Direct Pole, Style H
	9LA10B85	Combination Pole
	9LA10B185	Clamp Type, Style E
	9LA10B16	Hook Type, Style G
	9LA10B26	Clamp Type, Style D
	9LA10B36	Clamp Type, Style C
	9LA10B66	Direct Pole, Style H
9LA10B6 (Hanger Style B)	9LA10B86	Combination Pole, Style I
	9LA10B17	Hook Type, Style G
	9LA10B27	Clamp Type, Style D
	9LA10B37	Clamp Type, Style C
	9LA10B67	Direct Pole, Style H
	9LA10B88	Direct Pole, Style H
	9LA10B98	Combination Pole
9LA10B98 (Hanger Style B)	9LA10B88	Bolt Type, Style A
	9LA10B97	Bolt Type, Style A
	9LA10B188	Clamp Type, Style E

*See the following page for sketches of special hangers.

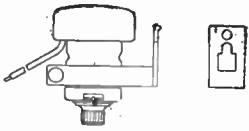
G-E Pellet-Type Distribution Lightning Arresters

For Circuits 1 to 15 Kv.

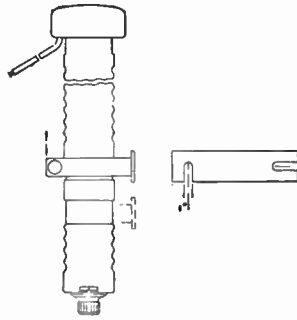
Special Hangers

In addition to the standard hangers shown on the preceding page, pellet arresters are available with special hangers, as shown in the following sketches. Arresters with special hangers have the same price as arresters of the same rating with standard hangers. To determine the number of an arrester with a special hanger, first select the standard arrester from Table 1, 2, 3, or 4, and then refer to Table 5 for the number of the corresponding arrester with the special hanger desired.

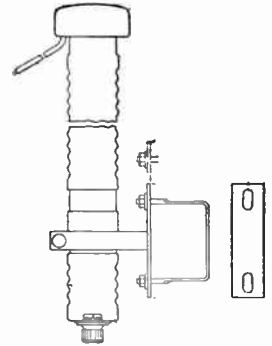
For complete description, ask for Bulletin GEA-2975.



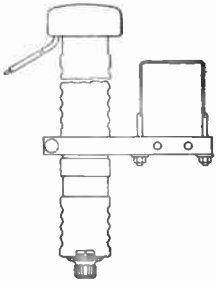
Bolt-Type Crossarm Hanger, Style A



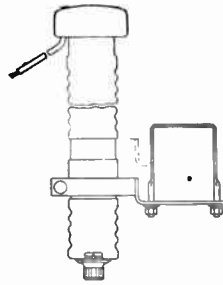
Bolt-Type Crossarm Hanger, Style B



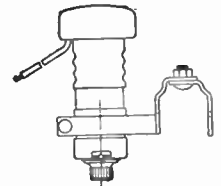
Clamp-Type Crossarm Hanger, Style C



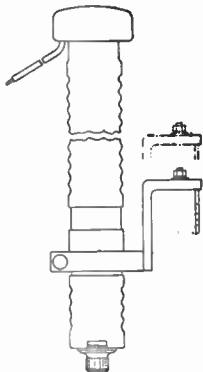
Clamp-Type Crossarm Hanger, Style D



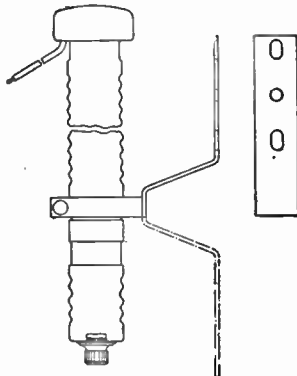
Clamp-Type Crossarm Hanger, Style E



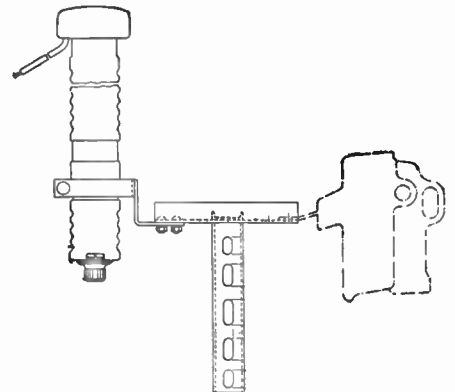
Hook-Type Crossarm Hanger, Style F



Hook-Type Crossarm Hanger, Style G



Direct Pole Hanger, Style H



Combination Pole Hanger, Style I

G-E Hi-Stroke Rural Lightning Arresters

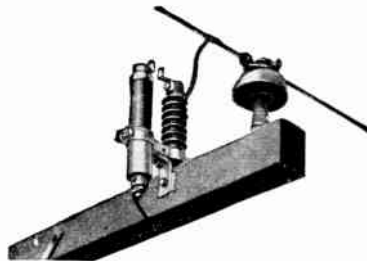
The new G-E hi-stroke arrester is a heavy duty expulsion-type arrester, having exclusive features of construction. Designed specifically for rural systems, it has high lightning discharge capacity and combines an efficiency in impulse protective level and long operating life heretofore unavailable in expulsion-type arresters. Hi-stroke arresters for separate mounting utilize the same arrester element (0-1200 amperes rms. interrupting rating) and have the same performance characteristics as those furnished since 1944 on Type HBA rural line transformers and which have already established an excellent service operating record on many rural systems.

Separate Mounting



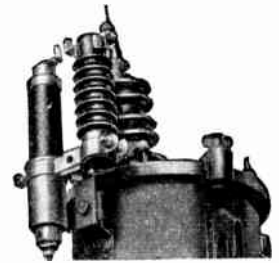
Arrester for Mounting on Crossarm, Using Clamp-Type Hanger

Circuit Volts	Model No.	Each	APPROX. Wt., Lb.	
			Net	Ship.
4800	9LA17B21	\$27.00	9	11
7200 7620	9LA17B31	34.00	9½	12



Arrester for Mounting on Crossarm, Using Bracket for Through-Bolt or Lag Screw

Circuit Volts	Model No.	Each	APPROX. Wt., Lb.	
			Net	Ship.
4800	9LA17B22	\$27.00	7½	10
7200 7620	9LA17B32	34.00	8	11



*Arrester for Transformer Mounting

Circuit Volts	Model No.	Each	APPROX. Wt., Lb.	
			Net	Ship.
7200	*9LA17B32	\$34.00	8	11

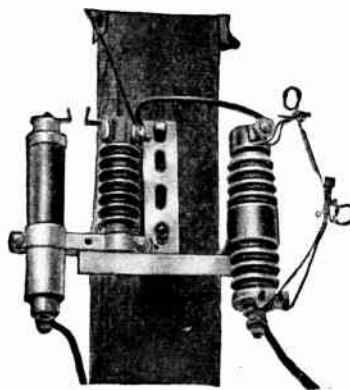
Typical Combination Mountings of Hi-Stroke Arrester and G-E Distribution Fuse Cutouts



†Hi-Stroke Arrester for Clamp-Type Crossarm Mounting with G-E Enclosed Primary Fuse Cutout

Table 1
Arrester and Clamp

Circuit Volts	Model No.	Each	APPROX. Wt., Lb.	
			Net	Ship.
4800	9LA17B21	\$27.00	9	11
4800	6X24313-A	\$10.75	8	10
7200 7620	9LA17B31	\$34.00	9½	12
\$7500	6X242A	\$13.60	11	13



‡Hi-Stroke Arrester with T-Bracket for Direct-to-Pole Mounting with G-E Flip-Open Fuse Cutout

Table 2
Arrester and Bracket

Circuit Volts	Model No.	Each	APPROX. Wt., Lb.	
			Net	Ship.
4800	9LA17B23	\$27.00	14	15
7200 7620	9LA17B33	34.00	14½	16
\$7500	9F17B22	\$11.00	8	10



§Hi-Stroke Arrester for Clamp-Type Crossarm Mounting with G-E Open-Type Dropout Fuse Cutout

Table 3
Arrester and Clamp

Circuit Volts	Model No.	Each	APPROX. Wt., Lb.	
			Net	Ship.
4800	9LA17B21	\$27.00	9	11
4800	9F3F12	\$17.00	12	15
7200 7620	9LA17B31	\$34.00	9½	12
\$7500	9F3F22	\$19.00	14	17

*Interchangeable with 9 kv. pellet arrester mounted on tank bracket of early designs of Type HBA, 7200-volt, single-bushing transformers.

†Will also accommodate enclosed or open-type dropout cutouts listed in Tables 1 and 3 respectively.

‡Will also accommodate the flip-open cutout listed in Table 2.

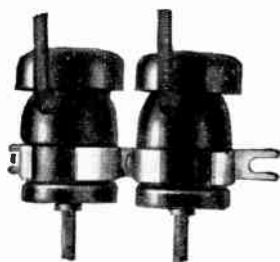
§Cutouts rated 7500/12,500 Gr Y volts can be used on grounded-neutral circuits where the voltage that an individual cutout is required to interrupt does not exceed 8 kv. rms.

G-E Low Voltage Pellet-Type Lightning Arresters

0 to 650 Volts—Altitude, 0 to 6000 Feet



Model No. 9LA10A202 Single-Pole Pellet Arrester with Mounting Bracket



Model No. 9LA10A204 Double-Pole Pellet Arrester with Mounting Bracket

For outdoor service, crossarm or pole mounting, on railway signal lines or secondary power lines, for protection of railway signal transformers, distribution-transformer secondaries, autotransformer boosters, cables, and other line apparatus in the 0 to 650-volt class.

The single-pole arrester unit consists of a series gap and a pellet valve column completely housed in a wet-process porcelain container.

The double-pole arrester consists of two single-pole units mounted in a single hanger. This arrester is economically advantageous on single-phase, 2-wire circuits.

Model No.	Each	No. of Poles	Circuit Voltage Rating Rms.	Maximum Permissible Line-to-Ground Voltage, Rms.	Ship. Wt. Lb.
*9LA10A202	\$6.50	1	0-650	650	2
†9LA10A204	13.00	2	0-650	650	4

*Use two arresters at each single-phase installation and three arresters at each 3-phase installation.

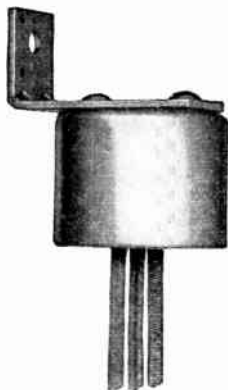
†Use one arrester at each single-phase installation.

G-E Pellet Meter or Service Protectors

115/230 Volts—Altitude, 0 to 6000 Feet



Model No. 9LA15A1 Pellet Protector for Direct Metal-Clad Mounting to Bottom Knockout Hole



Model No. 9LA15A4 Pellet Protector with Bracket for Separate Mounting

The indoor protector is designed to permit direct mounting in the knockout holes of a service switch, fuse box, meter-connection cabinet, or meter case. In some applications, it may be preferable to locate the protector on the building wall at the point where the exposed secondary circuit enters the conduit gooseneck or the service cap of the enclosed service wiring. Therefore, another design is provided for such separate outdoor mounting.

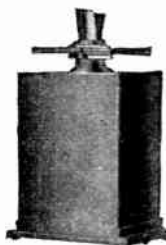
For 115-volt, single-phase, 2-wire; or 115/230-volt, single-phase, 3-wire grounded neutral, secondary services. For indoor or outdoor service.

Model No.	Each	Maximum Permissible Line-to-Ground Voltage, Rms.	Type of Mounting	Net. Wt. Lb.
9LA15A1	\$6.50	175	{ Mounting to Bottom Knockout Hole Mounting to Side Knockout Hole Separate Bracket Mounting	2
9LA15A2	7.25	175		2½
9LA15A4	4.50	175		2½

For Complete Description, Ask for Bulletin GEA-2977

G-E Thyrite Meter or Service Protectors

0 to 650 Volts—Altitude, 0 to 6000 Feet



Model No. 9LA12B3 Thyrite Protector, Three-Pole, for Indoor Installation



Model No. 9LA12B6 Thyrite Protector, Three-Pole, with Conduit Weather Cap and Mounting Bracket for Outdoor Installation

For protection of watt-hour meters, industrial power service entrances, or consumer apparatus and appliances on single or polyphase secondary circuits or services in the 0 to 650-volt class.

The case of the protector is of welded steel. Each single-pole assembly has a series gap and a Thyrite disc valve element 3 inches in diameter and 5/16 inch thick. These single-pole elements are mounted in a Textolite container, and one, two, or three of these assemblies (for single, double or three-pole protectors respectively) are sealed within the outer steel case. The bottom of the case bears complete nameplate data.

Indoor Service—For Mounting to Knockout Hole

The indoor design is arranged for mounting directly in a knockout hole in the meter case or connection box.

Model No.	Each	No. of Poles	Circuit Voltage Rating Rms.	Maximum Permissible Line-to-Ground Voltage, Rms.	Net. Wt. Lb.
9LA12B1	\$16.00	1	0-650	650	4
9LA12B2	22.00	2	0-650	650	4½
9LA12B3	25.00	3	0-650	650	5

Outdoor Service—For Separate Bracket Mounting

The outdoor design is provided with a conduit weather cap and mounting bracket as illustrated.

9LA12B4	\$18.00	1	0-650	650	4½
9LA12B5	24.00	2	0-650	650	5
9LA12B6	27.00	3	0-650	650	5½

Number of Arresters Required at Installation

Use two single-pole arresters at each single-phase installation. Use three single-pole arresters at each 3-phase installation. Use one 2-pole arrester at each single-phase installation. Use one 3-pole arrester at each 3-phase installation.

G-E Equipment for the Lightning Protection of A.C. Rotating Machines

Thorough studies have advanced the knowledge of protection for a.c. rotating machines from lightning voltages. This problem applies to a.c. generators, synchronous condensers, and large motors subjected to impulse voltages, either from directly connected exposed overhead lines, or from those transmitted to the machine through transformers.

Lightning protection of a.c. rotating machines is obtained by a combination of line-type arresters, located a short distance out from the station on each exposed line which is directly connected to the machine; by special Pyranol filled protective capacitors, and by station-type Thyrite lightning arresters in parallel with the protective capacitors, installed on the bus or at the machine terminals.

This equipment is easily installed and requires no maintenance. The fixed charges are insignificant. When it is con-

sidered that as high as 25 per cent of machine failures have been known to be caused by lightning, and that a single machine failure can result in a loss which is far greater in comparison with the cost of protective equipment, adequate protection is plainly a low cost insurance and a sound investment.

Hundreds of equipments which represent the advanced form of protection from lightning have been applied since 1929. Some of the earliest applications were made for protection of machines which had failed repeatedly from lightning, and since the protective equipment was applied, no further failures have occurred.

The table below shows the G-E equipment required for any given service application, and is applicable for protection of machines of practically any type or manufacture.

Machine	*Connection	FOR INSTALLATION AT MACHINE TERMINALS OR ON MACHINE BUS			G-E Station-Type Thyrite Arrester for Indoor and Outdoor Service		FOR INSTALLATION ON DIRECTLY CONNECTED EXPOSED OVERHEAD LINES		
		No. of Line Leads	Poles	No.	Units Required per Installation	Model No.	Units Required per Installation	Model No.	Units Required per Installation
Normal Phase-to-Phase Voltage Rating									
0-650	Single-Phase, 1 Side Grd.	1	1	‡\$F424	1	‡\$9LA12B1	1	9LA10A202	1
0-650	Single-Phase, Nongrd.	2	2	‡\$F425	1	‡\$9LA12B2	1	9LA10A204	1
0-650	3-Phase, Nongrd. or Grd. Y	3	3	‡\$F426	1	‡\$9LA12B3	1	9LA10A202	3
2400	Single-Phase, 1 Side Grd.	Clamp-Type Terminals	1	18F26	1	9LA1G289	1	9LA10B2	1
2400	Single-Phase, Nongrd.		2	18F27	1	9LA1G289	2	9LA10B2	2
2400	2-Phase, 4-Wire		2	18F27	2	9LA1G289	4	9LA10B2	4
2400	3-Phase, Nongrd. or Grd. Y		3	18F28	1	9LA1G289	3	9LA10B2	3
4160	Single-Phase, 1 Side Grd.		1	18F107	1	9LA1G290	1	9LA10B4	1
4160	3-Phase, Nongrd.		3	18F58	1	9LA1G290	3	9LA10B4	3
4160	3-Phase, Grd. Y		3	18F58	1	9LA1G289	3	9LA10B2	3
4800	3-Phase, Nongrd.		1	18F29	3	9LA1G291	3	9LA10B4	3
4800	3-Phase, Grd. Y		1	18F29	3	9LA1G290	3	9LA10B4	3
6900	3-Phase, Nongrd.		1	18F30	3	9LA1G292 or ‡9LA1G295	3	9LA10B5	3
6900	3-Phase, Grd. Y		1	18F30	3	9LA1G291	3	9LA10B4	3
11500	3-Phase, Nongrd.		1	18F35	‡3, **6	9LA1G293	3	9LA10B6	3
11500	3-Phase, Grd. Y		1	18F35	3	9LA1G292	3	9LA10B5	3
13800	3-Phase, Nongrd.		1	18F59	‡3, **6	9LA1G294	3	9LA10B7	3
13800	3-Phase, Grd. Y		1	18F95	3	9LA1G293	3	9LA10B6	3

*The same capacitors are applicable to either grounded or ungrounded-neutral circuits. However, the arresters for machines 2400 volts and above have lower valve ratings for grounded-neutral circuits than for ungrounded-neutral circuits. The listing of arresters for grounded-neutral machines is premised on the circuit neutral's being solidly and directly grounded. If the machine neutral or circuit neutral is grounded through resistance or reactance, ask for assistance in making selection of arresters.

†The pellet arresters listed for machines 2400 volts and above, can also be used in place of station-type Thyrite arresters for application at the terminals of rotating machines below 1000 kva. This application is recommended if economy of protection necessitates lower cost though less efficient protection.

‡For indoor service only.

§These arresters are Thyrite meter protectors.

¶This arrester, Model No. 9LA1G295, rated 1.5 kv., provides somewhat better protection than the Model 9LA1G-292 unit rated 9 kv., and can be used wherever there is little, if any, risk of the system line-to-ground voltage exceeding the arrester's maximum line-to-ground rating of 7.5 kv. rms., under any condition of operation.

||Where machines have no direct connection to exposed overhead lines, and where connection to transmission lines is not through Y-Y or autotransformers, use only one capacitor unit (0.25 muf.), line-to-ground.

**Where machines are directly connected to exposed overhead lines, or are connected through Y-Y or autotransformers to transmission lines, use two capacitor units in parallel per phase to obtain a capacitance phase-to-ground of 0.5 muf. This method will limit reflections within the winding of delta connected machines or at the neutral point of Y-connected machines which have their neutrals isolated or grounded through a resistance that is higher than the surge impedance of the machine winding. In general, if the neutral of a machine is grounded through a resistance of less than 50 ohms, positive reflections at the machine neutral will not occur. If a machine neutral is grounded through a reactance of less than 5 ohms (60-cycle basis), positive reflections at the machine neutral will be negligible when 0.25 muf. capacitance phase-to-ground at the machines is used. Hence, when the machine neutral is grounded through a resistance of less than 50 ohms or through a reactance of less than 5 ohms (60-cycle basis), only one capacitor unit (0.25 muf. phase-to-ground) will be required. Where two or more machines are operated in parallel, with the neutral of only one machine grounded, the capacitor applied on the machine bus for protection of all machines, or applied at the terminals of machines having neutrals ungrounded, should be 0.5 muf. capacitance phase-to-ground (2 capacitor units in parallel per phase). This method limits impulse voltage reflections at the neutrals of those machines that have ungrounded neutrals.

NOTE: For altitudes above 6000 feet, ask for engineering recommendations.

G-E Equipment for the Lightning Protection of A.C. Rotating Machines



Fig. A
No. 18F30
Capacitor
Unit



Fig. B
No. 18F28 Capacitor
Unit



Fig. C
No. 25F426
Capacitor
Unit



Fig. C
No. 25F429
Capacitor
Unit



Fig. D
Line-Type Pellet
Lightning
Arrester



Fig. E.
Model 9LA1G291 Thyrite
Station-Type Lightning
Arrester

Special Pyranol Protective Capacitors with Built-In Discharge Resistors

*Voltage Rating	Indoor		Outdoor		Poles per Unit	Mu f. per Pole	Net Wt. Lb.	Ship. Wt. Lb.
	No.	Each	No.	Each				
0-650	25F424	\$10.80	25F427	\$13.00	1	2.0	3	6
0-650	25F425	13.30	25F428	15.50	2	2.0	4	7
0-650	25F426	16.65	25F429	18.85	3	2.0	5	8
0-650	18F26	75.00	18F27	75.00	1	0.5	24	35
2400	18F27	85.00	18F28	85.00	2	0.5	24	35
2400	18F28	95.00	18F107	125.00	3	0.5	30	40
4160	18F107	125.00	18F58	170.00	1	0.5	24	35
4160	18F58	170.00	18F29	120.00	3	0.5	65	80
4800	18F29	120.00	18F30	135.00	1	0.5	35	45
6900	18F30	135.00	18F35	200.00	1	0.5	50	65
11500	18F35	200.00	18F59	250.00	1	0.25	65	80
13800	18F59	250.00			1	0.25	80	100

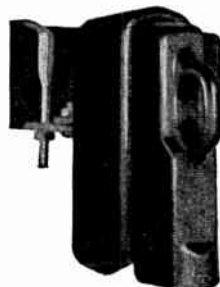
Station-Type Thyrite Arresters

Arrester Maximum Voltage Rating Line-to-Grd. Rms.	Indoor		Outdoor		Poles per Unit	Net Wt. Lb.	Ship. Wt. Lb.
	No.	Each	No.	Each			
650	9LA12B1	\$14.00	9LA12B4	\$16.00	1	3	4
650	9LA12B2	19.00	9LA12B5	21.00	2	3 1/2	4 1/2
650	9LA12B3	22.00	9LA12B6	24.00	2	4	5
650					3	4	5
3000	9LA1G289	120.00	9LA1G290	146.00	3	4 1/2	5 1/2
4500	9LA1G290	146.00	9LA1G289	120.00	1	55	65
6000	9LA1G291	146.00	9LA1G290	146.00	1	58	67
7500	9LA1G295	180.00	9LA1G291	146.00	1	60	70
9000	9LA1G292	180.00	9LA1G295	180.00	1	65	80
12000	9LA1G293	211.00	9LA1G292	180.00	1	70	85
15000	9LA1G294	297.00	9LA1G293	211.00	1	75	90
			9LA1G294	297.00	1	90	105

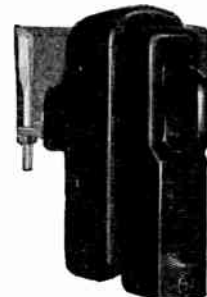
*Capacitor rating should be selected according to the normal phase-to-phase voltage rating of rotating machine, regardless of whether circuit is grounded or ungrounded neutral. Capacitor can be used where machine phases-to-phase voltage does not exceed 10 per cent above listed capacitor rating. These protective capacitors are suitable for 25, 40, 50, or 60-cycle systems.

For Complete Description, Ask for Bulletin GEA-1743

G-E Reclosing Fuse Cutouts



5000 Volts, 50 Amperes



7500, 12,500 Gr-Y Volts,
50 Amperes

Reclosing Fuse Cutouts with Clamp-Type Crossarm Hangers
The G-E reclosing fuse cutout restores service within one second after a temporary fault, by a second fuse link which is connected in the circuit after the first fuse link blows. This interruption is so brief that motors and other devices will continue in service.

If the line is patrolled after a storm, and a cutout found that indicates the first fuse has blown, this fuse link can be easily renewed by the use of a jumper, without interrupting service.

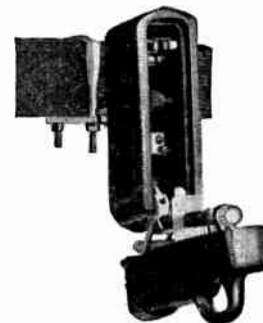
When the first fuse link is blown, positive visual indication is given by a red indicator which projects below the door and is readily visible from the ground. In addition, the door of the 50-ampere cutout is pushed out at bottom.

When the second fuse link is blown, the reclosing door drops out to a horizontal position, indicating that the circuit is open. All current transfer contacts are silver plated.



Cutout in Indicating Position

The cutout is entirely sleet-proof and will restore service after a temporary fault by connecting the second fuse link into the circuit under the most severe sleet conditions, with the door firmly frozen shut.



Cutout in Drop-Out Position

Cutout Complete with Two Fuse Holders and †Clamp-Type Crossarm Hanger

No.	Each	*Voltage Rating	†Current Rating, Amperes	Ship. Wt. Lb.
9F6R100	\$30.00	5000	50	13
9F6R200	33.00	7500/12,500 Gr-Y	50	14
9F6R300	60.00	5000	100	32
9F6R400	65.00	7500/12,500 Gr-Y	100	36

*Cutouts rated 7500/12,500 Gr-Y volts may be used on grounded neutral circuits where the voltage that an individual cutout has to interrupt does not exceed 8 kv. and where the insulation to ground meets the operating requirements.

†The interrupting capacity of 50-ampere cutouts is 1200 rms. amperes at 60 cycles; 100-ampere cutouts, 3000 rms. amperes at 60 cycles.

‡These cutouts in 50-ampere ratings can be supplied on order with any of the special hangers listed for the enclosed indicating and drop-out fuse cutouts.

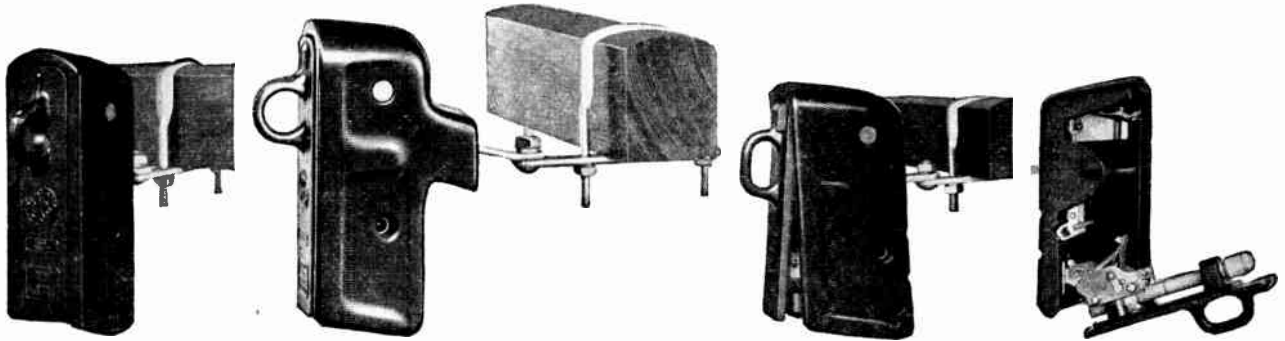
Complete Reclosing Door for Use with G-E Indicating and Drop-Out Fuse Cutout, 5000 or 7500/12,500 Gr-Y Volts

The same housing is used as with the standard G-E enclosed indicating fuse cutouts. Therefore, the reclosing door can be installed on any 50 or 100-ampere indicating and drop-out cutout now in service.

No. 73X710, for 50-Ampere Cutout, each \$25.00
No. 73X854, for 100-Ampere Cutout, each 45.00

Send for Bulletin GEA-3448 for Complete Description

G-E Enclosed Indicating and Dropout Fuse Cutouts



5000 Volts, 50 Amperes

7500/12,500 Gr-Y Volts, 50 Amperes

Cutout in Indicating Position

Cutout in Dropout Position

Cutout provides for positive indication of outages in either of two ways, depending on preference:

As an Indicating Cutout. When a fuse link melts, door opens at bottom sufficiently to give visual indication that circuit is open.

As a Dropout Cutout. Door opens to horizontal position. This not only gives indication that circuit is open, but also removes fuse holder from circuit. In this position, door and fuse holder are isolated, and open end of fuse holder is protected from even a driving rain.

Change from indicating to dropout operation is easily made. All current transfer contacts are silver plated.

Exclusive features: complete interchangeability of three doors—indicating and dropout door with single fuse holder, automatic reclosing door with two fuse holders, and disconnecting-blade door; same doors can be used with 5000-volt or 7500/12,500 Gr-Y-volt cutouts in same amp. rating.

With Disconnecting-Blade Door

Indicating and dropout cutouts can easily be converted into disconnecting switches by substituting disconnecting-blade door, complete with flexible copper connector, for the door and fuse holder. These disconnecting doors are not designed to open circuit while carrying load current.

A disconnecting door installed in 50-ampere cutout permits outout to be used as a 100-ampere disconnecting switch. One installed



No. 3995930G1 100-Ampere Disconnecting-Blade Door For 50-Ampere Cutouts

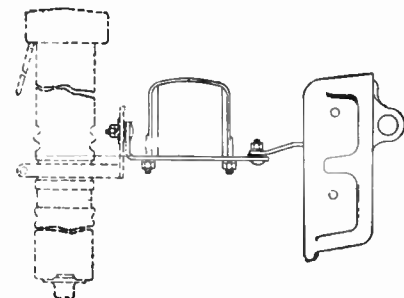
in 100-ampere cutout can be used as 200-ampere disconnecting switch. Where circuit is to remain disconnected for a period of time, flexible connector is uncoupled from upper terminal on door, pulled down, and then spring-actuated contact arm is pushed back and securely hooked to door so that it is completely out of circuit when door is closed. Flexible connector then protrudes from bottom of cutout, giving positive visual indication that the circuit is disconnected.

Cutout with Disconnecting Blade Instead of Fuse Holder

No.	Each	*Voltage Rating	Current Rating, Amp.	Type of Hanger	Ship. Wt., Lb.
9F6A13	\$10.75	5000	100	Clamp	11
9F6A23	13.70	7500/12,500 Gr-Y	100	Clamp	12
9F6A33	23.75	5000	200	Clamp	26
9F6A43	28.75	7500/12,500 Gr-Y	200	Clamp	33

*Cutouts rated 7500/12,500 Gr-Y volts may be used on grounded neutral circuits where voltage that individual cutout has to interrupt does not exceed 8 kv. and where insulation to ground meets operating requirements.

For Complete Description, Ask for Bulletin GEA-3448



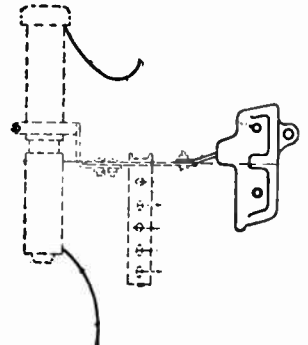
Combination Crossarm Hanger

Hangers

Clamp-type crossarm hanger for 50-ampere fuse cutout provides for mounting outout in vertical position or at an angle. In either position, cutout can be turned to any desired horizontal angle, and locked firmly in position.

The 100-ampere cutout, heavier than the 50-ampere, is arranged for vertical mounting only. Hanger is identical with smaller one, except that arm has only one hole, and parts are stronger.

In addition to the clamp-type hanger, 50-ampere fuse cutouts are available with hangers for combination of mounting with G-E pellet arresters.



Combination Pole Hanger (T-Bracket Included with Arrester, Not with Cutout)

Cutout Complete with Fuse Holder

No.	Each	*Voltage Rating	†Current Rating, Amp.	Type of Hanger	Ship. Wt., Lb.
9F6A14	\$11.30	5000	50	Clamp	11
9F6A154	11.30	5000	50	Comb. Crossarm	11
9F6A24	14.25	7500/12,500 Gr-Y	50	Clamp	12
9F6A22	14.25	7500/12,500 Gr-Y	50	Combination Pole	12
9F6A254	14.25	7500/12,500 Gr-Y	50	Comb. Crossarm	12
9F6A35	25.00	5000	100	Comb. Crossarm	26
9F6A3	25.00	5000	100	Clamp	26
9F6A4	30.00	7500/12,500 Gr-Y	100	Clamp	33

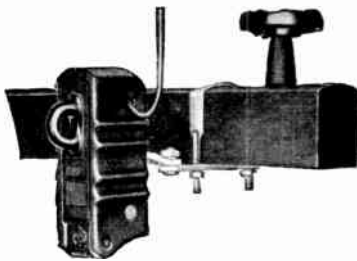
*Cutouts rated 7500/12,500 Gr-Y volts may be used on grounded neutral circuits where voltage that individual cutout has to interrupt does not exceed 8 kv. and where insulation to ground meets operating requirements.

†Interrupting capacity at 60 cycles: 50-ampere cutouts, 1200 rms. amperes; 100-ampere cutouts, 3000 rms. amperes.

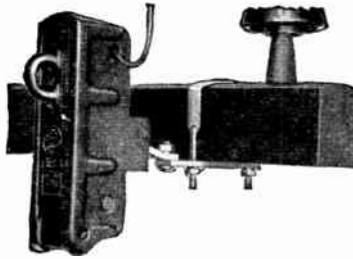
Parts for Enclosed Indicating and Dropout Fuse Cutouts

No.	Each	Description	Cutout Voltage Rating	Cutout Current Rating, Amp.
2928558G4	\$6.00	Door Complete with Toggle Mechanism and Fuse Holder.	5000 or 7500/12,500 Gr-Y	50
3906372G2	10.00			
3995930G1	5.45	Door Complete with Disconnecting Blade, Rated 100 Amperes.....	5000 or 7500/12,500 Gr-Y	50
		Door Complete with Disconnecting Blade, Rated 200 Amperes.....		
3995924G1	8.75	Door Complete with Disconnecting Blade, Rated 200 Amperes.....	5000 or 7500/12,500 Gr-Y	100

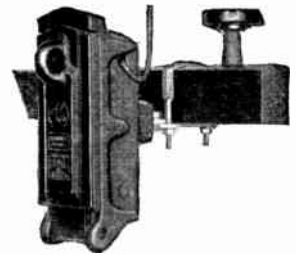
G-E Porcelain-Enclosed Non-Indicating Fuse Cutouts



No. 6X2433A, 50-Ampere,
5000 Volts



No. 6X242A, 50-Ampere,
7500, 12500 GR-Y Volts



No. 6X240A, 100-Ampere,
7500, 12500 GR-Y Volts

The G-E porcelain-enclosed fuse cutout provides a high degree of overcurrent protection under all conditions.

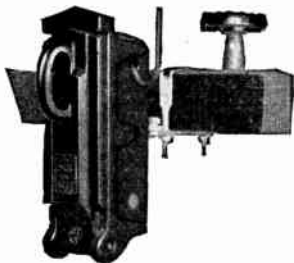
Housing is made of G-E wet-process porcelain. Barriers, which mesh with barriers on the Textolite door, prevent hot conducting gases from bridging the space between the contacts.

Full floating contact clips and terminals are self-aligning. All current carrying contacts are silver plated.

The fuse-holder tube consists of a vulcanized fiber tube over which is wound laminated Textolite having a linen-fabric base. In this way, a strong, dense, and homogeneous tube without molding seams is produced.

Cutout Complete with Fuse Holder

No.	Each	*Voltage Rating	†Current Rating, Amp.	Type of Hanger	Ship. Wt., Lb.
6X2433A	\$10.75	5000	50	Clamp	10
6X24313A	10.75	5000	50	Comb. Crossarm	10
6X242A	13.60	7500/12,500 Gr-Y	50	Clamp	13
6X241A	23.75	5000	100	Clamp	30
6X24128A	23.75	5000	100	Comb. Crossarm	30
6X240A	28.50	7500/12,500 Gr-Y	100	Clamp	31



No. 6X241A, 100-Ampere,
5000 Volts

Cutout with Disconnecting Blade Instead of Fuse Holder

6X2432A	\$10.75	5000	100	Clamp	11
6X2422A	13.60	7500/12,500 Gr-Y	100	Clamp	14
6X2412A	23.75	5000	200	Clamp	32
6X2402A	28.50	7500/12,500 Gr-Y	200	Clamp	33

*Cutouts rated 7500/12,500 Gr-Y volts may be used on grounded neutral circuits where the voltage that an individual cutout has to interrupt does not exceed 8 kv. and where the insulation to ground meets operating requirements.

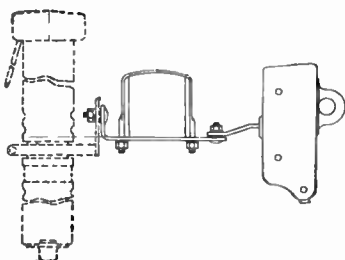
†The interrupting capacity of 50-ampere cutouts is 1200 rms. amperes at 60 cycles; 100-ampere cutouts, 3000 rms. amperes at 60 cycles.

Hangers

In addition to the clamp-type crossarm hanger illustrated above, 50-ampere porcelain-enclosed non-indicating fuse cutouts are available with the combination crossarm hanger shown below.

The clamp-type crossarm hanger for the 50-ampere fuse cutout provides for mounting the cutout either in a vertical position or at an angle. In either position, the cutout can be turned to any desired horizontal angle. The 100-ampere cutout, being heavier than the 50-ampere cutout, is arranged for vertical mounting only. Its hanger is identical with that of the smaller cutouts except that the arm has only one hole, and the parts are proportionately stronger.

Parts for Porcelain-Enclosed Non-Indicating Fuse Cutouts

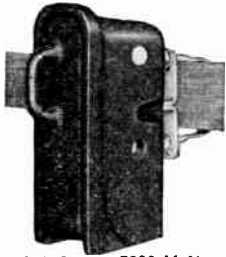


Combination Crossarm Hanger

No.	Each	Description	Cutout Voltage Rating	Cutout Current Rating, Amperes
9F4A31	\$2.85	Fuse Holder.....	5000	50
9F4A21	2.85		7500/12,500 Gr-Y	50
9F4A11	4.75		5000	100
9F4A11	4.75		7500/12,500 Gr-Y	100
29X843	2.85		100-Ampere Disconnecting Blade.....	500	50
29X842	2.85	200-Ampere Disconnecting Blade.....	7500/12,500 Gr-Y	50
29X841	4.75		5000	100
29X841	4.75		7500/12,500 Gr-Y	100

Send for Bulletin GEA-2390 for Complete Description

G-E Heavy Duty Enclosed Fuse Cutouts



200-Amp., 5000-Volt Cutout Mounted on Crossarm

General Electric offers a 5000-volt, 200-ampere, indicating fuse cutout which has the same outstanding advantages of safety, reliability, and ease of fuse renewal as the G-E porcelain-enclosed indicating and dropout fuse cutouts.

This cutout has an interrupting rating of 5000 rms. amperes at 60 cycles. It is particularly applicable for use on banks of transformers that feed industrial plants, or for sectionalizing heavy feeders.

The fuse cutout can be converted to a 400-ampere disconnect cutout simply by replacing the fuse holder with a disconnect door.

With Interchangeable Doors

Fuse Cutout Complete with Fuse Holder and Hanger

Voltage Rating	No.	Each	Current Rating	Current Interrupting	APPROX.	
			Amp. 100% Basis	Rms., Amp., at 60 Cy.	Wt., Lb.	Net Ship.
5000	9F16A7	\$55.00	200	5000	35	45

Cutout Having Disconnect Blade Instead of Fuse Holder

5000	9F16A70	55.00	400	35	45
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Parts for Cutouts Listed Above

No.	Each	Description	APPROX. Wt., Lb. Net Ship.	
79X307	\$23.50	Door, Complete with Fuse Holder	6 1/2	7 1/2
79X311	23.50	Door, Complete with 400-Ampere Disconnect Blade.....	6 1/2	7 1/2

Universal Cable-Type Fuse Links for Heavy Duty Cutouts

Ampere Rating 100% Basis	No.	Each	Overall Length Inches	Carton Quantity	Ship. Wt. Lb.
125	9F1C106	\$1.60	20	5	4 1/2
150	9F1C88	1.60	20	5	4 1/2
200	9F1C89	1.60	20	5	4 1/2

G-E Indicating Secondary Fuses Outdoor Type

The G-E indicating secondary fuse is an outdoor cartridge-type, non-renewable fuse designed to permit transformer secondary banking, transformer secondary protection, and the isolating of service entrance faults at the minimum initial expense.

The fuse element is totally enclosed and protected from the weather and cannot be twisted when swayed by the wind.

It can easily be installed with any type of overhead secondary construction by means of conventional solderless connectors.

For circuits 600 volts and below.

Packed 25 fuses in a carton, 200 amp. and less.

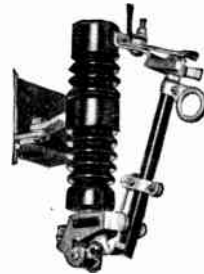
Packed 5 fuses in a carton, 250 and 300 amp.



Cutaway View

No.	Each	Amperes	Ship. Wt. Lb. per Ctn.
9F13A1	\$.90	5	3
9F13A2	.90	8	3
9F13A3	.90	10	3
9F13A4	.90	15	3
9F13A5	.90	20	3
9F13A6	.90	25	3
9F13A7	.90	30	3
9F13A8	.90	40	3
9F13A9	.90	45	3
9F13A10	.90	50	3
9F13A11	1.00	75	4 1/2
9F13A12	1.00	85	4 1/2
9F13A13	1.00	95	4 1/2
9F13A14	1.00	100	4 1/2
9F13A17	2.00	125	10 1/2
9F13A15	2.00	150	10 1/2
9F13A16	2.00	200	10 1/2
9F13A18	4.25	250	6 1/4
9F13A19	4.25	300	6 1/4

G-E Open Fuse Cutouts



100-Amp., 7500-Gr-Y-Volt Cutout Mounted On Crossarm

The G-E open-type dropout fuse cutout provides over-current protection throughout the full range of fault currents up to their rated interrupting capacity, on distribution circuits of 15,000 volts and below.

Their new bird-proof construction, attained by cementing the mounting support and upper and lower contact supporting studs into the porcelain insulator in such positions that the mounting support and hanger are confined to the opposite side from the live parts, makes possible a freedom from unnecessary outages heretofore unattained with any open-type cutout.

The fuse holder, which drops to completely open position for easy identification of blown fuse, is mounted on hinge located directly under the insulator, thereby directing the recoil force in line with the center line of the insulator.

Open Fuse Cutout, Complete with Fuse Holder

Model No.	Each	*Voltage Rating	Current Rating Amperes	Type of Hanger	Ship. Wt. Lb.
9F3F11	\$17.00	5000	100	Clamp	14
9F3F12	17.00	5000	100	Comb. Clamp	15
9F3F13	17.00	5000	100	Comb. Clamp	15
9F3F21	19.00	†7500/12,500	100	Gr Y Clamp	16
9F3F22	19.00	†7500/12,500	100	Gr Y Comb. Clamp	17
9F3F23	19.00	†7500/12,500	100	Gr Y Comb. Clamp	17
9F3F31	23.60	15,000	100	Clamp	17
9F3F32	23.60	15,000	100	Comb. Clamp	18
9F3F33	23.60	15,000	100	Comb. Clamp	18

Fuse Holder, Complete, for Open-Type Fuse Cutouts

Model No.	Each	Cutout Voltage Rating	Cutout Current Rating Amperes
9F3F11	\$8.00	5000	100
9F3F12	8.00	5000	100
9F3F13	8.00	5000	100
9F3F21	8.00	7500/12,500	Gr Y 100
9F3F22	8.00	7500/12,500	Gr Y 100
9F3F23	8.00	7500/12,500	Gr Y 100
9F3E31	9.00	15,000	100
9F3E32	9.00	15,000	100
9F3E33	9.00	15,000	100

No. 2928531G2 Switch Hooks

A malleable iron switch hook, mounted on a 42-inch treated maple pole, suitable for the operation of open-type or enclosed fuse cutouts.

Shipping weight, 3 pounds.

No. 2928531G2.....each \$5.00

*These cutouts, rated 100 amperes on 100 per cent basis, provide short-circuit operation over the full range of fault currents, with both large and small fuse links, at full rated voltage under severe circuit conditions.

†Cutouts rated 7500/12,500 volts Gr-Y can be used on grounded neutral circuits where the voltage that an individual cutout is required to interrupt does not exceed 8 kv. and where the insulation to ground meets the operating conditions.

G-E D.C. Capacitor-Type Arresters For D.C. Railway Circuits



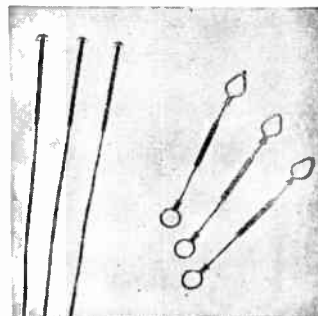
0-750-Volt D.C. Capacitor-Type Arrester with Molded Insulation Cover Removed from One Terminal

The protection of d.c. electric transportation systems involves principally the protection of d.c. generators or motors. This necessitates the reduction of turn-to-turn stresses as well as major insulation stresses from line to ground. D.c. capacitor-type arresters, because of their inherent characteristics in sloping off the amplitude of the wave, provide a high degree of protection for such systems.

No.	Each	Circuit Voltage Rating Rms.	Maximum Permissible Line-to-Ground Voltage, Rms.	Shp. Wt. Lb.
18F303	\$33.00	0-750	750	13
25F35	75.00	751-2000	2000	30
*18F34	207.00	2001-3900	3900	62

*Includes mounting bracket.

G-E Hi-Surge Universal Fuse Links



Provide maximum overcurrent protection for distribution transformers (at 1, 2, or 3 amperes), yet provide the same freedom from surge blowing as that afforded by a conventional 5-ampere fuse. For use in expulsion or flip-open type distribution fuse cutouts.

G-E Flip-Open Fuse Cutouts



The G-E flip-open fuse cutout provides overcurrent protection by means of a fuse link, without the conventional hinged fuse holder tube. Expulsion action is obtained entirely by the fuse link tube, which is a unitary part of the fuse link. The fuse link is supported in tension between spring contact arms, which pull the lower cable terminal out of the fuse link tube when the fuse link melts.

Its simple construction provides an inexpensive cutout for rural-line service where the severe interrupting duty on the cutout, and where the advantage of the hinged fuse holder type of conventional cutout may be dispensable.

Mechanical and electrical reliability is embodied in these cutouts. Their ability to meet the shocks and stresses of service has been demonstrated by flashover tests, both wet and dry, short-circuit tests, tension test of the metal-to-porcelain joints, and accelerated life tests.

*Voltage Rating	†Current Rating Amp.	Type of Hanger	APPROX. Wt., Lb.		No.	Each
			Net	Shp.		
7500/12500	50	Clamp	7½	9	9F17B21	\$11.00
	50	Comb. Clamp	8	10	9F17B22	11.00
	50	Comb. Clamp	8	10	9F17B23	11.00
15000	50	Bushing	5¼	6½	9F17B208	9.00
	50	Clamp	9	11	9F17B31	14.00
	50	Comb. Clamp	9½	12	9F17B32	14.00
	50	Comb. Clamp	9½	12	9F17B33	14.00

Fuse Links for Flip-Open Fuse Cutouts

Cap. Amp. 100% Rating	No.	Each	Shp. Wt., Lb. per Ctn. of 25	Cap. Amp. 100% Rating	No.	Each	Shp. Wt., Lb. per Ctn. of 25
1	9F1F1	\$.50	2	20	9F1F8	\$.50	2
2	9F1F2	.50	2	25	9F1F9	.50	2
3	9F1F3	.50	2	30	9F1F10	.50	3¼
5	9F1F4	.50	2	40	9F1F11	.50	3¼
8	9F1F5	.50	2	45	9F1F12	.50	3¼
10	9F1F6	.50	2	50	9F1F13	.50	3¼
15	9F1F7	.50	2	..	.....	..	..

*Cutouts rated 7500/12,500 Gr-Y can be used on grounded neutral circuits where the voltage that an individual cutout is required to interrupt does not exceed 8 kv., and where the insulation to ground meets the operating conditions.

†These cutouts will carry 100 per cent of their rated current continuously, without the conducting parts exceeding a temperature rise of 30°C, above an ambient of 40°C., as prescribed by NEMA Standards.

Hi-Surge, Universal, Cable-Type Fuse Links

100% or Continuous Rating	HI-SURGE FUSE-LINK RATING, AMPERES		Shp. Wt., Lb. per Ctn. of 25	Model No.	Each
	Surge Rating	Conventional			
1	Equivalent to	2	2	9F1CH1	\$.62
2	Conventional	2	2	9F1CH2	.62
3	5-Amp. Fuse	2	2	9F1CH3	.62

Hi-Surge, Flip-Open Fuse Links

1	Equivalent to	2	9F1FH1	\$.85
2	Conventional	2	9F1FH2	.85
3	5-Amp. Fuse	2	9F1FH3	.85

A 100% "N"-Rated Double-Duty Fuse

Low Current—1, 2, and 3-Ampere Rating for Overcurrent Protection

High Current—5-Ampere Characteristic for Withstanding Surges

For Transformer Installations, They Offer These Outstanding Advantages:

- Improved Overcurrent Protection** where 5-ampere minimum fusing has previously been used.
 - With the same freedom from blowing by motor starting, inrush lightning, or other surge currents.
 - Without rechecking their coordination with line-sectionalizing devices.
- Reduced Blowing by Surges** where 1, 2, or 3-ampere conventional fuses have previously been used.
 - With the same overcurrent protection.
 - With no need for rechecking their coordination with line-sectionalizing devices, in the majority of applications.

In These Applications of Hi-Surge Fuse Links, the Only Factors to Consider Are:

- That overload currents do not exceed the fuse rating.
- That they coordinate with service entrance fuses.

G-E Fast-Blowing Universal Cable-Type Fuse Links

For Use with All G-E Reclosing, Enclosed Indicating and Drop-Out, Enclosed Non-Indicating, and Open Type Fuse Cutouts

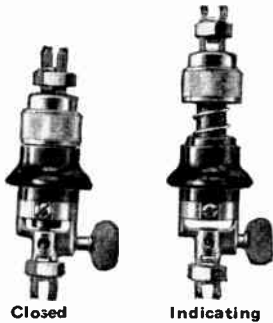
These fuse links are rated on the 100 per cent basis and are designed to carry their rated current without blowing, and to blow at not over 230 per cent rating within five minutes. All G-E fast-blowing universal cable-type fuse links may be operated safely and continuously at 100 per cent rating, with a maximum temperature rise of 30°C. for conducting parts of the fuse holder above an ambient temperature of 40°C.

Packed 25 in a carton.

No.	Each	Ampere Rating "N" (100%) per Basis	Ship. Wt. Lb. per Carton	No.	Each	Ampere Rating "N" (100%) per Basis	Ship. Wt. Lb. per Carton
9F1C16	\$.50	1	2	9F1C24	\$.50	25	2
9F1C17	.50	2	2	9F1C25	.50	30	3 1/4
9F1C18	.50	3	2	9F1C26	.50	40	3 1/4
9F1C19	.50	5	2	9F1C27	.50	45	3 1/4
9F1C20	.50	8	2	9F1C28	.50	50	3 1/4
9F1C21	.50	10	2	9F1C29	.60	75	7
9F1C22	.50	15	2	9F1C30	.60	85	7
9F1C23	.50	20	2	9F1C31	.60	95	7
.....	.....	.....	.....	9F1C32	.60	100	7

Send for Bulletin GEA-1994 for complete description.

G-E Secondary Indicating Fuse Cutouts



The G-E secondary fuse cutout gives positive indication that the circuit is open whenever a fuse link is blown, by pushing the Textolite housing down from the upper terminal cap and displaying the red fuse holder tube which is readily visible from the ground. This secondary cutout makes transformer secondary banking, transformer secondary protection, and the isolating of service entrance faults economically possible.

The fuse link is protected from the weather; in this way, maintenance is minimized. The small size and light weight of the cutout enable it to be mounted in the space between secondary lines, attached directly to the line conductor, or mounted directly on the clamp terminals of a distribution transformer (using an adapter). Cutout can be easily and safely refused.

No.	Each	Voltage Rating	*Current Rating, Amperes	Ship. Wt. Lb.
9F7A1	\$4.00	250	100	16

*Rated interrupting capacity, 3000 rms. amperes at 60 cycles.

Send for Bulletin GEA-2261 for complete description.

G-E Secondary Fuse Links

For Use with No. 9F7A1 Secondary Fuse Cutouts

The time-current characteristics of these links are identical with those of the G-E fast-blowing cable-type fuse links designed for coordination with motor-starting currents, with primary or secondary fuse links of other ratings, and with relays.

Packed 25 in a carton.

No.	Each	Ampere Rating "N" (100%) per Basis	Ship. Wt. Lb. per Carton	No.	Each	Ampere Rating "N" (100%) per Basis	Ship. Wt. Lb. per Carton
9F1S1	\$.35	5	1 1/2	9F1S8	\$.37	40	2
9F1S2	.35	8	1 1/2	9F1S9	.37	45	2
9F1S3	.35	10	1 1/2	9F1S10	.37	50	2
9F1S4	.35	15	1 1/2	9F1S11	.40	75	3
9F1S5	.35	20	1 1/2	9F1S12	.40	85	3
9F1S6	.35	25	1 1/2	9F1S13	.40	95	3
9F1S7	.37	30	2	9F1S14	.40	100	3

G-E Universal Fuse Links

For Oil Fuse Cutouts Having Notched Carrier Plugs



Universal Fuse Link Mounted in Notched Fuse-Carrier Plug



Universal Fuse Link

Time Current Characteristics

Universal fuse links, when used in G-E oil fuse cutouts of the proper rating, will carry continuously 100 per cent of the rated current of the fuse link. They will melt at approximately 150 per cent of their rating in 300 seconds (5 minutes).

Application

These universal fuse links are designed for use in all oil fuse cutouts, 100 to 300 amperes, with Model No. in the 9F2E and 9F2D series. These cutouts all have notched fuse-carrier plugs, as illustrated.

Universal fuse links can also be used in all superseded designs of G-E oil fuse cutouts, in the No. 9F2C series or earlier (except 50-ampere, 2500-volt rating), simply by cutting a notch in the lower end of the wooden fuse-carrier plug. A template is included in each carton of universal fuse links to facilitate correct notching.

Packed 2 in a box; 5 boxes per carton.

Capacity Amperes 100% Rating	Model No.	Each	Ship. Wt., Lb. per Ctn. of 10
5	9F18B1	\$.85	1 1/2
10	9F18B2	.85	1 1/2
15	9F18B3	.85	1 1/2
20	9F18B4	.85	1 1/2
25	9F18B5	.85	1 1/2
30	9F18B6	.85	1 1/2
40	9F18B7	.85	1 1/2
50	9F18B8	.85	1 1/2
60	9F18B9	.95	1
75	9F18B10	.95	1
100	9F18B11	.95	1
125	9F18B12	1.20	1 1/2
150	9F18B13	1.20	1 1/2
200	9F18B14	1.20	1 1/2
250	9F18B15	1.45	3
300	9F18B16	1.45	3

Disconnecting Blades

Copper Disconnecting Blades with Notched Ends Formed Up and Insulated with Herkolite Sieve

No.	Each	For Cutouts of Present Design, or for Cutouts of Superseded Design Having Notched Fuse Carriers, Model No.
9218955G1	\$.45	9F2 (D or E) 2, 7, 10, 11, 27, 9F2D5, D9
9218955G2	.60	9F2 (D or E) 3, 8, 12, 13, 26
9218955G3	.80	9F2D4, 9F2D15

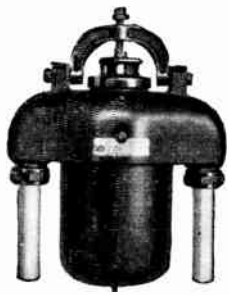
For Cutouts of Superseded Design

2576194G1	\$1.00	9F2 (A or C) 2, 7, 10, 11, 27
2576194G4	1.50	9F2 (A or C) 5, 9
2576194G2	1.25	9F2 (A or C) 3, 8, 12, 13, 26
2576194G3	1.50	9F2 (A or C) 4, 15

G-E Oil Fuse Cutouts



Pole Type
5000 Volts, 100 to 200
Amperes; 7500 Volts, 100
Amperes



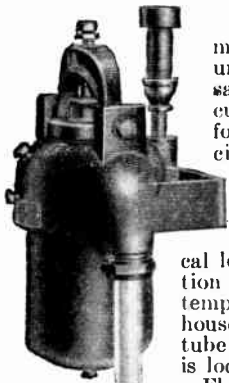
Subway Type
5000 Volts, 100 and 200
Amperes; 7500 Volts, 100
Amperes



Pothead Type
100 and 200 Amperes



**No. 73X705 Expansion
Chamber for Subway Type
Cutouts**



**No. 294258
Subway-Type
Cutout with
Pellet Vent**

The G-E oil fuse cutout is completely metal-enclosed, with a fusible element under oil, by which the circuit is broken safely and rapidly. Standard oil fuse cutouts are available in three designs for pole, subway, or pothead service on circuits up to 7500 volts and 300 amperes.

The U-shaped universal fuse links consist of laminated-metal terminal strips, forming the vertical legs and supporting a horizontal section of fusible alloy having a low melting temperature. This horizontal section is housed in a specially formed expulsion tube of insulating material. Fuse carrier is locked in place before circuit is closed.

Flame from arc is confined within housing, and prevents ignition of explosive gases and external damage.

Fuse link is under oil—this prevents deterioration from oxidation or electrolysis.

Gases are released, but oil is confined. Subway fuse cutouts have operated for years wholly submerged in water.

Fuse links are quickly and easily replaced. Oil level can be maintained without removing cutouts from service.

Heavy self-aligning contacts make possible repeated opening under load.

Cutouts may be fused closely to load, providing simultaneously, protection against overload and heavy short circuits.

G-E oil fuse cutouts are particularly applicable for subway service, for replacement of potheads, and for installations where high current-interrupting ability is required and where high-speed operation is essential. Other locations in which they can be used to advantage are:

Where quiet operation is desirable.

Where the cutouts are exposed to smoke, corrosive fumes, salt-air, explosive gases, or inflammable dust. All indoor installations.

Where it is desired to have no exposed live parts, whether the cutout is in the open or the closed position.

They are ideal for indoor industrial applications. As no flame is expelled, and as all live parts are completely enclosed, the oil fuse cutout best meets the requirements of the National Electrical Code.

Pole Type

Model No.	Each	*Volts	Rated Capacity Amperes	Interrupting Cap., Amp., at 60 Cycles with Universal Fuse Links		SHIPPING WEIGHT POUNDS	
				Cutout	Oil		
9F2E2	\$37.00	4330	100	6000	62	9	
		5000	100	5000			
9F2E3	49.00	4330	200	11000	113	21	
		5000	200	10000			
9F2D4	110.00	4330	300	11000	205	31	
		5000	300	10000			
9F2D5	110.00	7500	100	3750	200	31	

Subway Type

9F2E7	\$50.00	4330	100	6000	70	9
		5000	100	5000		
9F2E8	68.00	4330	200	11000	127	21
		5000	200	10000		
9F2D15	149.00	4330	300	11000	200	26
		5000	300	10000		
9F2D9	149.00	7500	100	3750	200	26

Pothead Type

9F2E10	\$44.00	4330	100	6000	64	9
9F2E11		5000	100	5000		
9F2E12	58.00	4330	200	11000	116	21
9F2E13		5000	200	10000		

*The 2500-volt cutouts are suitable for operation on 4000-volt Y-connected circuits with dead grounded neutral. In all cases, two cutouts are required between lines.

†For interrupting ratings when used with superseded plain or reactive links, refer to Bulletin GEA-732.

‡The bushings on Model Nos. 9F2D9 and 9F2D15 cutouts are not the separable-sleeve type, but are designed for connection to the cables using standard splicing material.

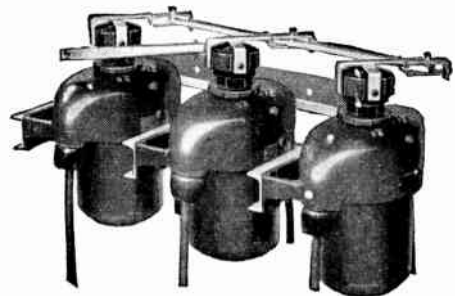
§With right-hand subway sleeve bushings.

¶With left-hand subway sleeve bushings.

¶**Venting.** Subway-type cutouts usually require accessories for venting, either by means of an expansion chamber or pellet vent. Prices above do not include venting accessories which should be selected as follows:

No. 73X705 Expansion Chamber, for Use Where Complete Submersion Is Possible..... each \$8.00
No. 294258 Pellet Vent, for Use Where Cutouts Are Not Subjected to Flooding..... each 4.00

Gang Operation of G-E Oil Fuse Cutouts



Pole-Type Cutouts Arranged for Three-Phase Operation

A simple and low cost, gang operated, three-phase assembly of standard G-E oil fuse cutouts can readily be made by the addition of a mounting rack and lever-operated mechanism for safely opening or closing the full-rated current on all three phases simultaneously.

For Pole or Pothead Type Cutouts

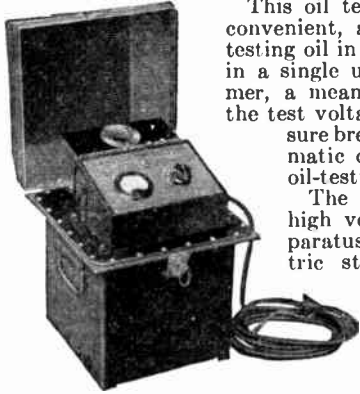
—RACK AND MECHANISM ONLY—			—FOR CUTOUTS—		
No.	Each	Ship. Wt. Lb.	Model No.	Amperes	Volts
79X789	\$19.75	50	9F2E2	100	5000
79X790	23.00	60	9F2E3	200	5000
79X809	35.00	75	9F2D4	300	5000

For Subway Type Cutouts

79X5	\$26.00	50	9F2E7	100	5000
79X6	30.00	60	9F2E8	200	5000
79X7	45.00	75	9F2D15	300	5000

Send for Bulletin GEA-732 for Complete Description

G-E 30,000-Volt 0.5-KVA. Portable Oil Testers



This oil tester affords a compact, convenient, and accurate means for testing oil in the field, as it combines in a single unit, a step-up transformer, a means for gradually raising the test voltage, a voltmeter to measure breakdown values, an automatic circuit breaker, and an oil-testing receptacle.

The successful operation of high voltage oil-insulated apparatus requires that the dielectric strength of the oil be maintained at a high value. Assurance that the oil is always satisfactory dielectrically is possible only by testing oil regularly.

All live parts of the equipment are enclosed and complete safety features assure full protection to the operator.

Furnished complete with 15 feet of 3-conductor attaching cord and plug.

No.	Each	Supply Voltage	Frequency Cycles	Shipping Weight Pounds
63G402	\$300.00	115	50 to 140	100
63G404	385.00	115	25 to 60	100
63G403	315.00	230	50 to 140	100
63G405	400.00	230	25 to 60	100

Send for Bulletin GEA-2935 for complete information.

G-E No. 10-C Oil

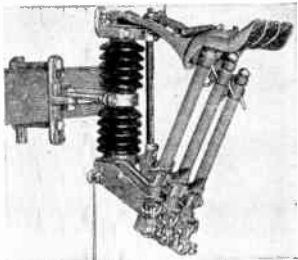
G-E No. 10-C Oil is a specially prepared insulating and cooling oil for use in transformers, feeder voltage regulators, and oil fuse cutouts.

The development of this oil and the attainment of proper characteristics and uniform quality have required the closest cooperation for many years between G-E engineers and oil refiners and involves a careful selection of proper crude oil, as well as the use and control of special refining processes applicable only to insulating oil.

Refined from selected grades of crude oil by refiners experienced in producing oil for this highly special application, this oil has the characteristics which provide both the cooling and insulating factors essential to transformer operation; it does not affect the transformer insulation, and is unaffected by these insulating materials. An important quality in transformer oil is long service life, the inherent resistance to sludge formation. Only oil known to have such properties should be used for this purpose.

Matthews Reclosing Fuswitches

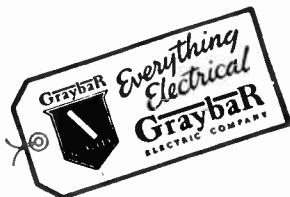
Rating, 100 Amperes, 7500 to 15000 Volts



Three-shot, repeating rural line type cutout designed to give long, trouble-free service on branch lines or other locations where uninterrupted service is required. Can be mounted on pole or cross arm. When one fuse link melts from overload due to lightning, transient, short circuit, or any other cause, the first fuse holder drops

down to indicating position and second fuse holder comes into circuit in approximately 40 cycles. Service is quickly restored and Fuswitch is ready for two more operations.

No. 1810, 100 Amperes, 7500 Volts.....each \$112.00
No. 1820, 100 Amperes, 15000 Volts.....each \$133.00



Three-E Potheads

Indoor Types



A complete line of Three-E indoor potheads is available in both open bushing and capnut styles. Aerial lugs, pothead bodies and entrance flanges can be supplied in all shapes and sizes to fit almost every installation requirement. Furnished as standard in 1, 2, 3, and 4 conductor units in all commercial ratings. Special potheads are also available.

Disconnect Potheads



Disconnect heads and dummy caps and studs are available as standard units to fit Three-E Capnut style Potheads shown.

Flexibility of these disconnect heads in fitting standard pothead studs has proved to be a very economical means of converting regular potheads into the disconnect type.

Outdoor Capnut Potheads



Suitable for either indoor or outdoor service these potheads feature one piece bodies with clamped bushings and front inspection plate. Construction is air and oil tight. Can be supplied as standard with many body styles and various types of entrance fittings to fit all requirements.

Outdoor Open Bushing Potheads

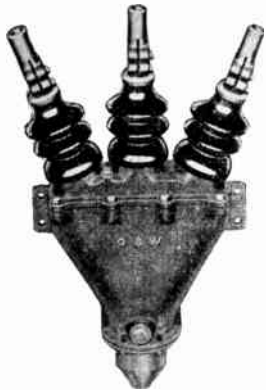


Available in 1, 2, 3, and 4 conductor units in voltages of from 2300 to 34,500.

Bushings inverted for full weather protection. Ideal for pole mounting.

G & W Potheads

Unusually high factors of safety, generous clearances, liberal designs and accurate fit of separate parts are general characteristics of G & W Potheads.



Type T Capnut

Type T Capnut Style is a logical choice for general installations—indoors as well as outdoors. The positive seal against entrance of moisture also prevents leakage of compound and cable impregnating oil. Capnut potheads will withstand appreciable internal pressure and will provide the necessary protection to paper insulated cables. Available as standard for all voltages and conductor sizes, single and multiple conductor. Specify Type T for outdoors and Type NT for indoors.



Type ES Disconnecting

Type ES is used wherever the disconnecting feature will add to the convenience of system operation. Inasmuch as all live parts are enclosed in porcelain, they provide a desirable protection in close quarters, indoors or outdoors. This pothead provides hermetically sealed protection to single and multiple conductor cables. Available in three ampere ratings, 100, 250, and 500; and in three voltage ratings, 5,000, 7,500, and 15,000. Gang operated disconnecting potheads are a further convenience for quick isolation of circuits.



Type N Straight Through

Types N, P, and L are for varnished cambric and rubber insulated cables; these are straight through style potheads and can be used indoors (or outdoors up to 600 volts). The conductors pass through the pothead without splicing and no sealing connectors are used. Hence, this style should not be used on paper insulated cables if there is an appreciable static pressure head, because taped up bushings and asphalt base compound will not seal cable oil under pressure.



Type P Porcelain Lid, 6600 Volts Indoor



Type L, 600 Volts Outdoor



Type C Flexible Band Cable Support



Type T



Type ES



Type A

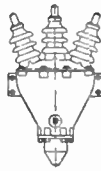


Type B

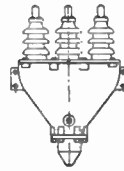
Control Cable Heads

With or without conduit fittings on top end. Bakelite lids are furnished with proper number and size of holes for conductors. Also suitable for motor connections.

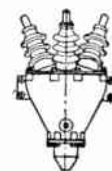
Standard Shapes of Multiple Conductor Potheads



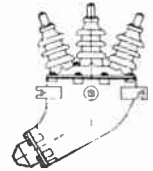
Shape B



Shape C



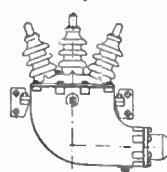
Shape D



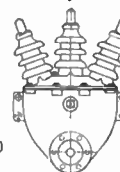
Shape BY



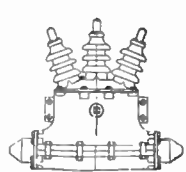
Shape BW



Shape BK



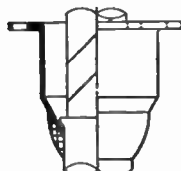
Shape BU



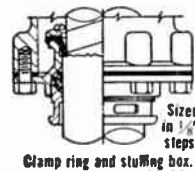
Shape BT

When ordering potheads, specify type of pothead (and whether outdoor or indoor); No. of conductors and size of conductors; voltage rating of pothead (or circuit voltage); shape of pothead, if multiple conductor; cable diameters (also style of base fittings); and whether G & W Novoid compound is wanted.

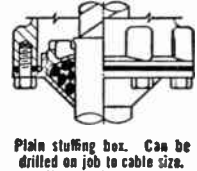
Interchangeable Base Fittings



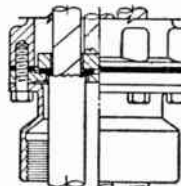
Wiping Sleeve—"WS"



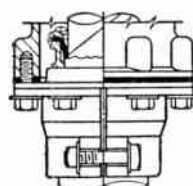
Sized in 1/8" steps.
Clamp ring and stuffing box. Invert when used with CC.
Symbol—"CR-SB"



Plain stuffing box. Can be drilled on job to cable size. Uses cord packing.
Symbol—"SB"



Symbol—"PB" & conduit coupling "CC"



Symbol—"CR-SB" & armor clamp "AC"

Conduit couplings and armor clamps are separate fittings for attachment when required.



Conduit Bell for Closing Top of Conduit and Supporting Cables



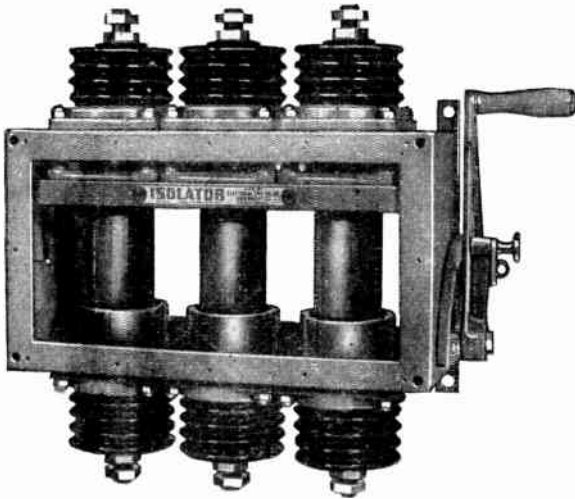
Type D Straight Splice Boxes



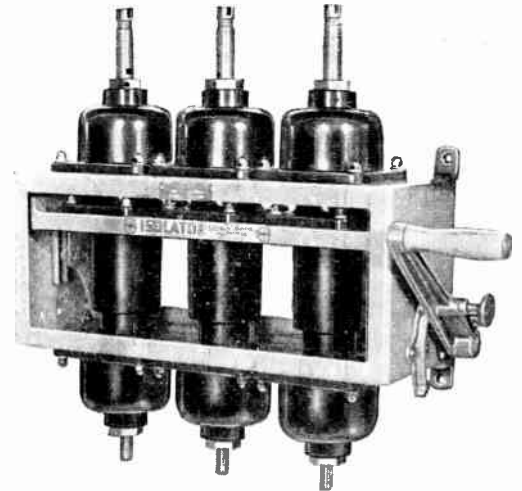
Type D 3-Way (Tee) Splice Boxes

Information regarding complete line of G & W Specialties furnished on request.

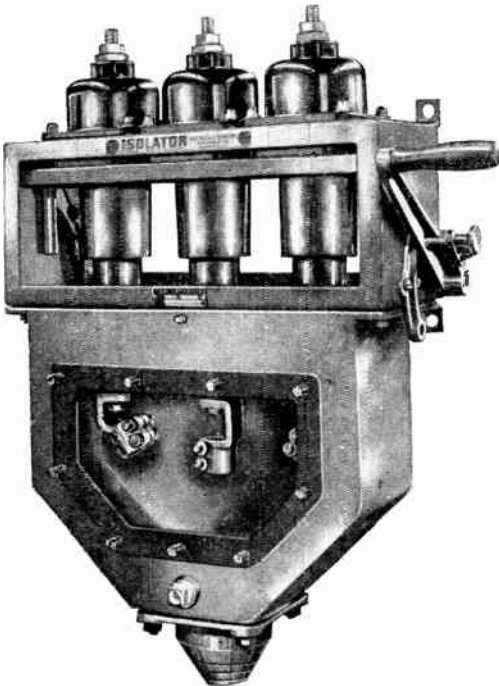
Three-E Isolators



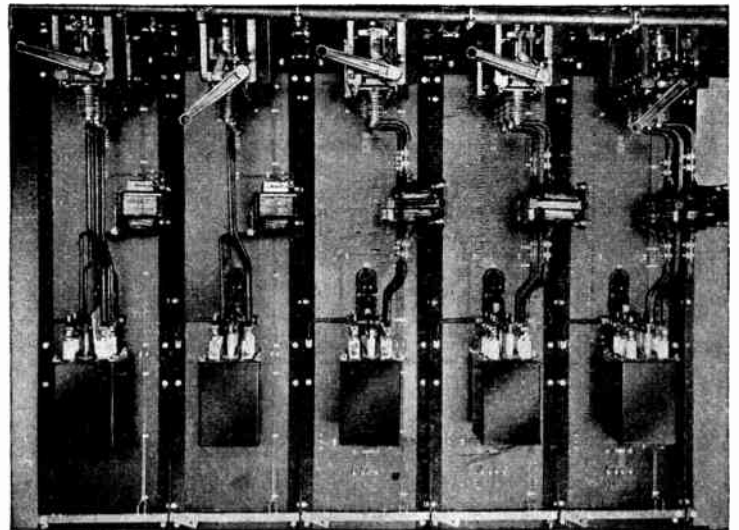
3-Phase Single Throw, 600 Ampere, 7.5 Kilovolt Isolator



3-Phase Single Throw 400 Ampere, 5 Kilovolt Load Interrupter Isolator



3-Phase Single Throw, 200 Ampere, 5 Kilovolt Cable Isolator



Rear View of Switchboard Equipped with Isolators

Three-E Isolators are essentially disconnect switches with current carrying parts enclosed in insulation. After terminal connections are made and tapped, it is a true safety-first device since it is not possible to come in contact with live parts.

The unique design of the Isolators gives them a compactness which permits of space saving in steel inclosures and bus structures, without sacrificing any proper engineering requirements.

When an Isolator is combined with a pothead body, it forms the Cable Isolator, which is an ideal device for terminating and disconnecting lead covered power cables.

Isolators and Cable Isolators have been further improved by building them with interrupter units, enabling them to open light loads and magnetizing currents.

All types of Isolators are made in voltage ratings of 5, 7.5, and 15 kilovolts, and for ampere ratings 200, 400, 600, 1200, and 2000.

Three-E Indoor Type Disconnecting Switches

The double blade type of construction is used throughout, giving the advantages of low temperature rise, self-aligning contacts, etc. The clips are cast copper.

Built for voltages from 110 to 34,500 and ampere capacity from 100 to 5,000.

Switches can be supplied in all combinations of front and back connection, of the single throw, double throw, and transfer types with or without blade locks, for flat or pipe mounting on steel, slate, marble, ebony asbestos and alberene stone.

Insulating barriers, blade stops, and terminals can be supplied for all switches.

Single Throw and Double Throw Types



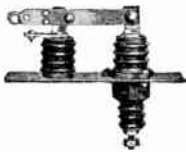
Type W-1



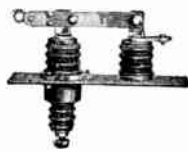
Type W-2



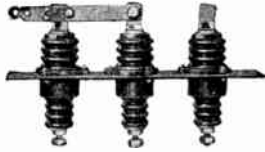
Type W-5



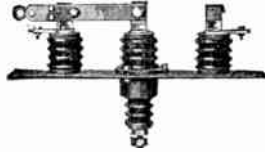
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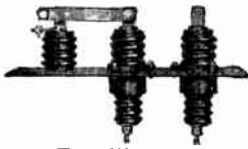
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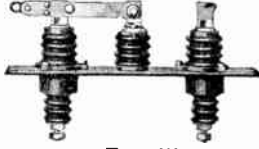
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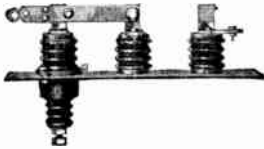
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Type W-27

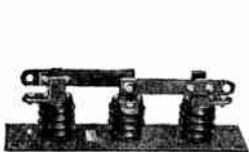


Type W-28

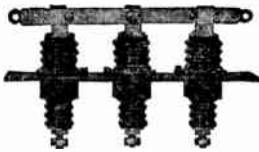


Type W-29

Transfer Types



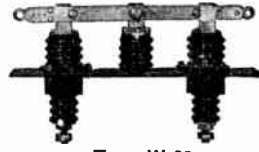
Type W-30



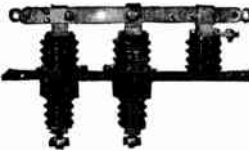
Type W-31



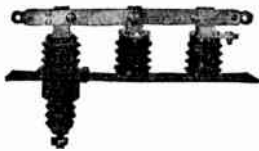
Type W-32



Type W-33



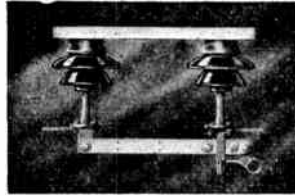
Type W-34



Type W-35

Ask for Bulletin Giving Complete Information

Three-E Outdoor Disconnects



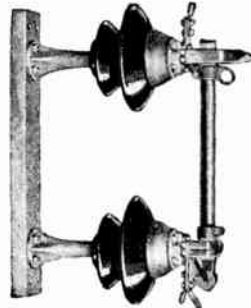
Available in single and double throw. Tandem transfer and double blade transfer in upright, vertical and underhung mountings, rating from 400 to 2000 amperes, and 7500 to 69,000 volts.

Equipped with horn type locks and N.E.M.A. standard insulators.

Distribution and Rural Line Disconnects are furnished in standard sizes of 200 to 400 amperes and from 7.5 to 15 K.V.

The 400 and 600 ampere Line Suspension Switches for all spans supplement a very complete and high quality line of Three-E Outdoor Disconnects.

Three-E Outdoor Fuse Disconnects



Type F.V.H.

Available as expulsion Fuses or arranged for use with S & C liquid fuses.

Furnished in all standard ratings and mountings for stick operation.

Features simplicity and easy fuse replacement.

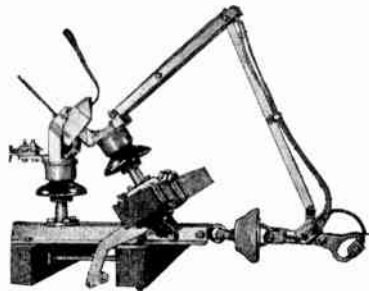
Three-E Indoor Fuses and Fuse Mountings



Available in disconnect type as shown or in permanent mounting styles.

Furnished in all standard ratings and mounting—Styles with or without locks.

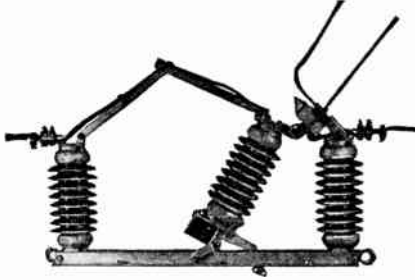
No. 8900-L Type Three-E Air Break Switches



A rural line switch for pole top mounting features ease and flexibility of mounting. Arranged for cross arm or steel structure mounting and equipped with forged rings for strain insulators.

Used with Wood or steel shafts and Pivot sleet hoods for easy operation 7500 to 34,500 volts sizes in 3 and 4 pole units.

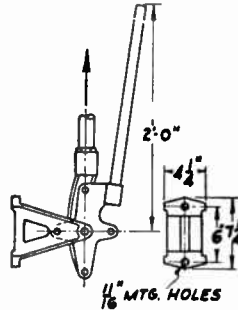
No. 8900-U Type Three-E Air Break Switches



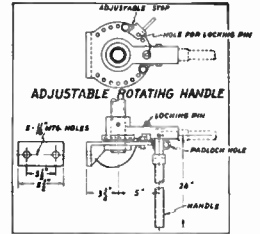
Same as No. 8900-L Type except supplied with three insulators per pole. Features simplicity of design, high quality materials, and careful construction. Pivot sleet-hoods, snap-break arcing horns, double clamp terminals furnished as standard equipment.

Available from 7500 to 34,500 volts.

Three-E Hand Control Mechanisms



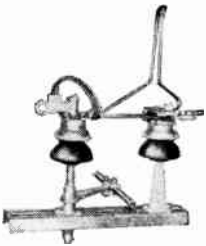
Reciprocating



Torsional

Hand operating mechanisms for remote control of switches are available in rotating or reciprocating types and furnished with locking pins. These handles are very flexible in design and can be used to advantage wherever remote control is desired.

No. 6600 Type Three-E Sidebreak Switches

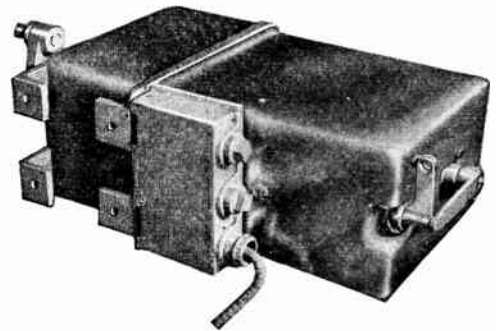


Furnished for rural service as pole units or for stations.

Pivot sleethoods standard on station types. Also available in No. 6200 style with three insulators and double break.

Standard ratings from 200 to 1200 amperes, and voltages to 161,000.

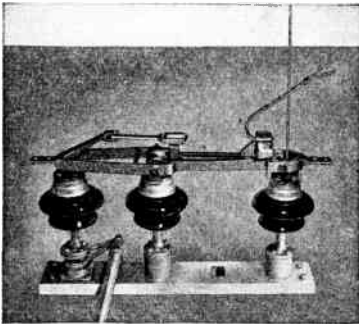
Three-E Motor Control Mechanisms



Automatic motor control of either torsional or reciprocating action for correct operation of all Three-E gang operated switches is available in the OM-100 motor mechanism.

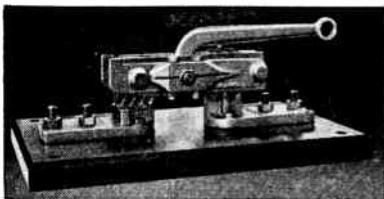
Equipped with auxiliary hand operating handle and completely sealed against dust and moisture. Internal heating unit keeps inside parts dry and always in condition for instantaneous operation

No. 8400 Three-E High Pressure Switches



Features balanced high pressure. Unusually fine design remarkably easy to operate in all weather conditions. Pressure is predetermined and does not vary. Contact surfaces are self-cleaning. Patented limiting sleeve removes 90% of the strain on current carrying parts. A long-life switch for heavy duty service at low maintenance cost. Operated by hand or motor mechanism. Ratings to 161 K.V. standard.

Type PH Three-E Indoor High Pressure Switches

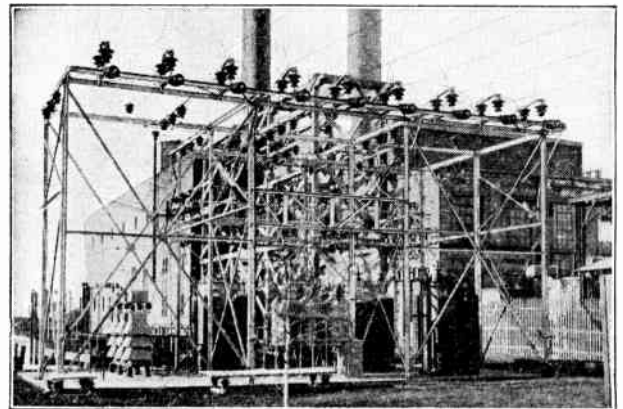


A simple yet dependable pressure switch for stick operation individually or in gangs. Uses left and right hand threaded stud principle to establish high pressure.

Contacts are self-cleaning.

Furnished in ratings of 1200 to 6000 amperes from 5 to 15 K.V. Also available in outdoor types for stick or gang operation.

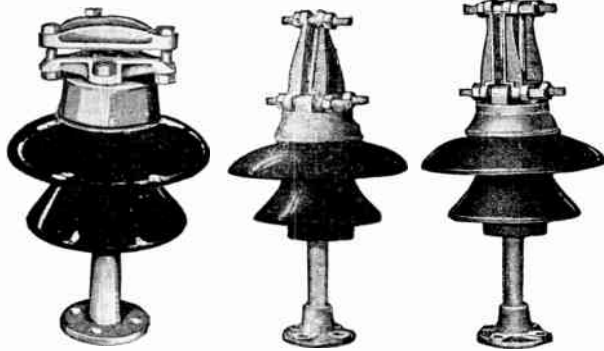
Three-E Complete Substations



More than thirty years of designing and building substations of all sizes and types, both indoor and outdoor, have equipped Three-E engineers to give you the utmost in modern, correct substations that will prove to be economical and require a minimum in the way of maintenance costs.

Three-E engineers are always available to help you with your designing, building, or operation problems.

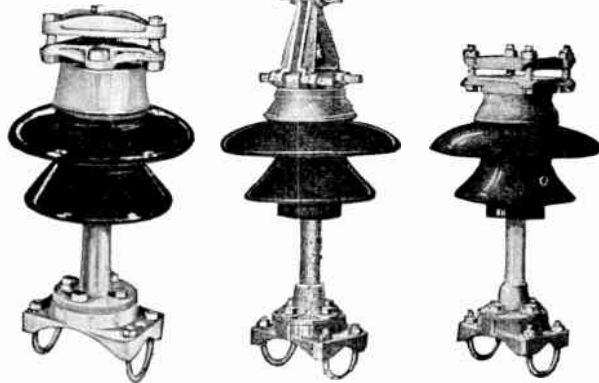
Three-E Outdoor Bus Supports



Type BFU

Type AFU

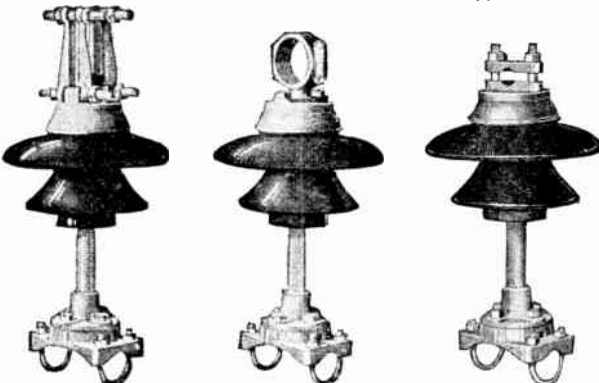
Type HFU



Type BPU

Type APU

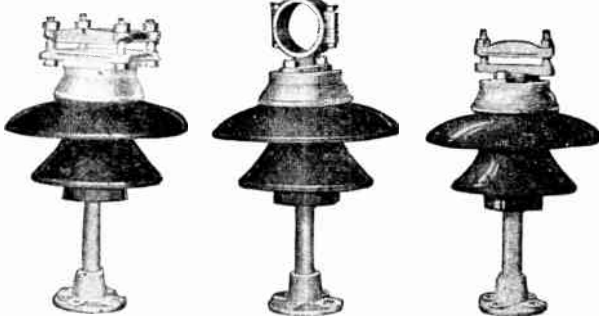
Type MPU



Type HPU

Type RPU

Type FPU



Type MFU

Type RFU

Type FFU

The Three-E line of Outdoor Bus Supports is complete in every respect. It includes upright and underhung types for carrying flat bars in vertical or horizontal positions or round conductors. Fittings are available for pipe mounting. Adjustable adaptors can be supplied to permit 90° adjustment on bus clamps. Three-E Bus Supports use outdoor insulating units which meet N.E.M.A. Standards for dimensions and performance, supplied in all ratings to 69,000 volts.

Three-E Form A-1 Indoor Bus Supports

For Flat Vertical Bus Bar



Type HF



Type HP

All bus supports illustrated are the Form A-1. Heavy pressed steel mounting bases are used on this form of bus support.

These supports are available for voltages from 5000 to 34,500 and the cantilever strength at insulator cap. of 6000 inch pounds.

Indoor bus supports are also furnished in what is known as Form A. This form uses heavy cast malleable bases.

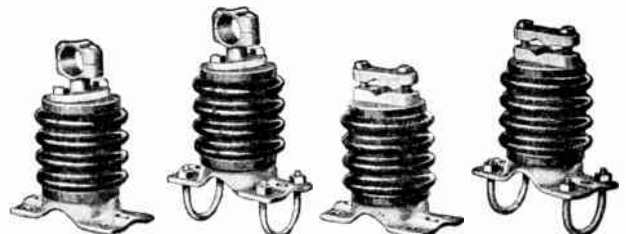


Type AF



Type AP

For Round Busses



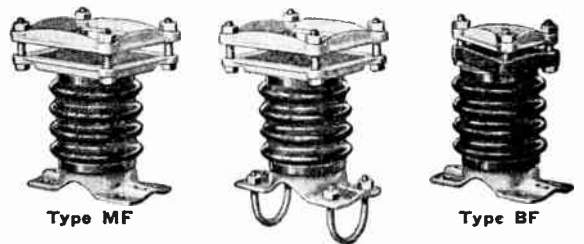
Type RF

Type RP

Type FF

Type FP

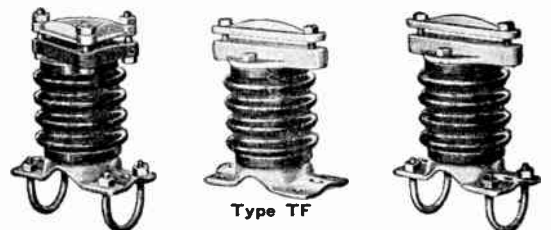
For Flat Horizontal Bus Bar



Type MF

Type MP

Type BF



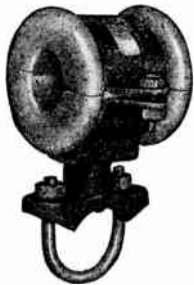
Type BP

Type TF

Type TP

Ask for Bulletin Giving Complete Information

Three-E Clamp Insulator Supports



**Type CIL
Pipe Mounting**



**Type CIL
Flat Mounting**



**Type MIL
Flat Mounting**

Consists of porcelain spools held by metal clamps. The lower half is made of heavy pressed steel and the top half of heavy pressed non-ferrous metal. Also available with a heavy cast malleable base instead of pressed steel.

Can be used on either a.c. or d.c. service. Available for conductor sizes ranging from 5/16 to 3 1/2 inches.

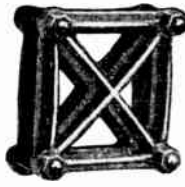
Three-E Bus Clamps

Heavy Duty

Available for all sizes of bus bars used commercially. The extra heavy duty type is recommended where a large number of bars is used to carry currents of high amperage.



Type AD



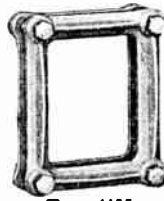
Type HD

Medium Duty

For average conditions in central station and industrial plant work. Both heavy and medium duty clamps are available for a.c. or d.c. service. Type of service should be specified when ordering.



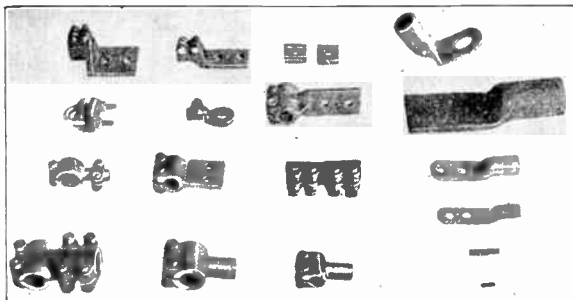
Type AM



Type HM

Three-E Electrical Copper Fittings

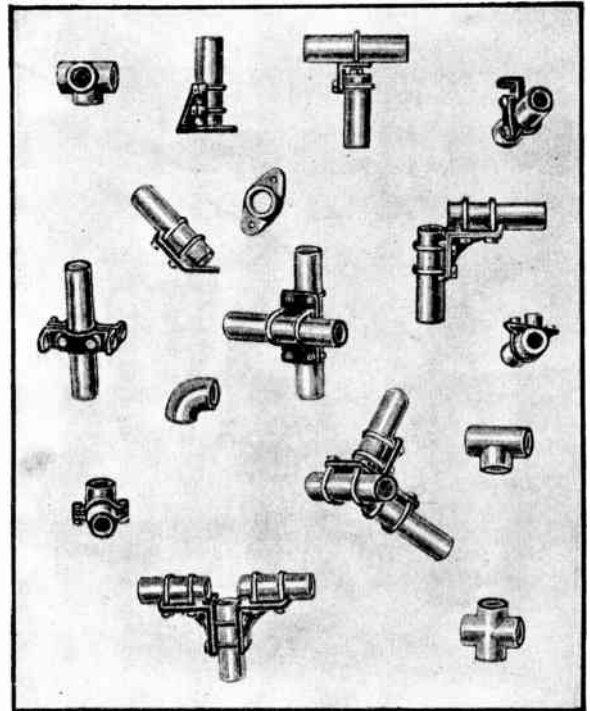
For Wire, Cable, Rod, Tubing and Bar



Only a very small portion of the Three-E line of copper fittings is shown in the above illustration. Clamp and solder types are available to meet practically every requirement in connecting wires, cables, rods, tubing and bars.

Only the best grade of electrolytic copper is used in Three-E connectors and careful machining is a major feature.

Three-E Iron Pipe Fittings



The above illustrations show but a small portion of the Three-E line of pipe fittings. Fittings can be supplied for the commercial pipe sizes in all manner of shapes to meet most any condition.

Ask for Bulletin Giving Complete Information

**GRAYBAR
INSULATING MATERIAL
ASBESTOS**

Tapes, Sleeveings, Cloth

CAMBRICS

Straight and Bias Cuts, black and yellow, standard widths and thicknesses

CORDS

Lacing and Binding

COTTON

Tapes, Webbing, Sleeveings

ENAMELS

Insulating, Air Drying

MICA

Block, Plate, Moulding, Segment, Tapes, Sheets, Etc.

PAPERS

Varnished, Insulating, Fish

SLEEVSINGS

Varnished, Saturating, Asbestos, Cotton, Fibre Glass, Lead

TAPES

Varnished cambric, Plastics, Adhesives, Liner

TUBING

Plastic, Varnished, Varnished Fibre Glass, Asbestos

VARNISHES

Air Drying, Baking

WEDGES

POLES

WESTERN RED • NORTHERN WHITE
DOUGLAS FIR

The National Pole & Treating Co., Division of Minnesota and Ontario Paper Company, supplier of Graybar poles for more than twenty-five years, has a well earned reputation for furnishing a quality product.

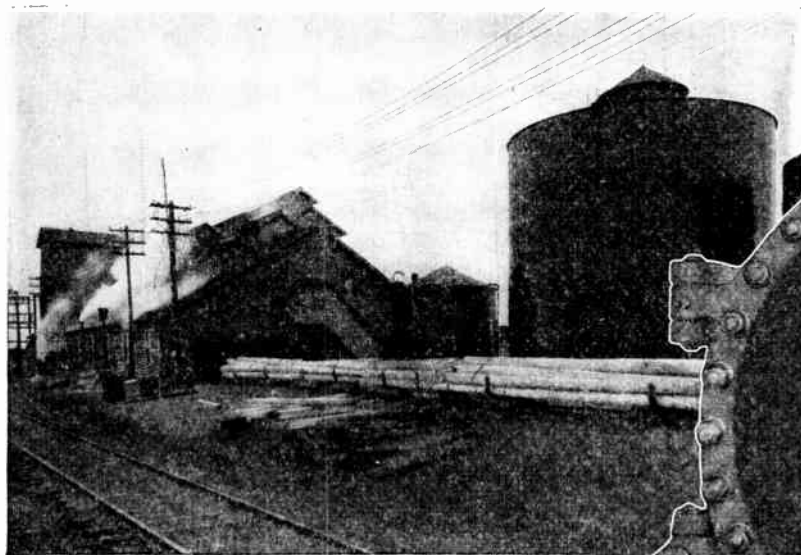
It maintains, at the treating plants, both a graduate chemist and a graduate timber pathologist, who are charged with treating operations, oil analyses, yard sanitation and research—all important essentials in the manufacture of quality poles.

It also maintains, at its concentrating yards, trained workmen, who, for a small extra charge, roof, gain and stain poles to specifications.

PRESSURE TREATED DOUGLAS
FIR POLES•
FULL LENGTH PRESSURE
TREATED SUPER-CEDAR
POLES•
BUTT TREATED
CEDAR POLES

All poles comply with A.S.A. current standard specifications, and all treatments comply fully with American Wood Preservers' Association specifications.

Treating plants are located at Minnesota Transfer, Minnesota and Hillyard, Washington.



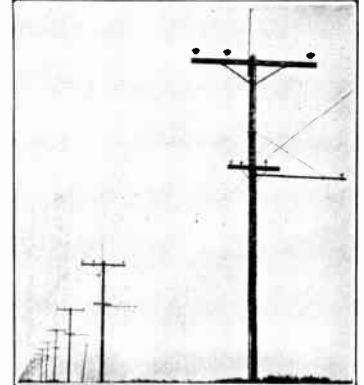
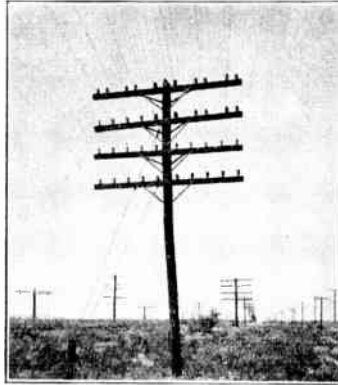
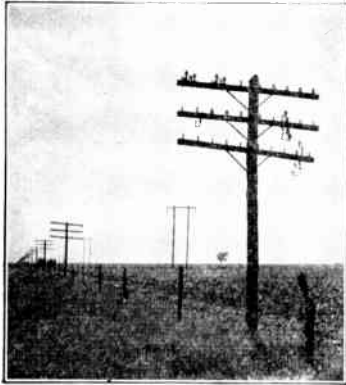
Butt and Pressure
Treated Poles



Specifications, prices, and full information will be furnished on application to the nearest:

GRAYBAR ELECTRIC COMPANY OFFICE AND WAREHOUSE

International Creosoted Pine Poles



Old Lines of International Creosoted Pine Poles
In Above Lines—6712 Poles— $\frac{1}{2}$ of 1 Per Cent Replaced in 25 Years of Service

General

Graybar Electric Company brings to the utility trade the highest quality in creosoted pine poles and offers for support of this statement the fact that its supplier has more long-time service records of poles without failures than any creosoting concern. Low annual cost, reliability, the fact that in times of financial stress or weather hazard the utility company needs lines that will stand without failure, all of these have dominated us in our creosoted pine pole policy.

International As A Supplier

Our supplier, International Creosoting and Construction Company, organized in 1875 and one of the largest commercial creosoting concerns in the business, has an outstanding record and a dominant place in the treating industry. We call special attention to the records of old and new lines cited in this concern's photographs here shown. They are typical, and a few of the many available.

Operating in one of the finest timber-producing areas in the South-West, International has added to its advantages of location and natural resources the skill of graduate chemical engineers and treating operators whose work is conducted in modern plants and well equipped laboratories. Pioneered and trained by a background of 72 years of experience, International timbermen select the cream of the timber area (surpassing even the quality of the lumber logging operations) for the manufacture of Graybar-International poles. This production moves to conditioning yards at the treating plants by means of a highly developed and well organized concentrating system. The yards themselves have been built in conformity with Government seasoning recommendations.

Always advocating pure coal tar creosote and the best grade only in the treatment of its poles, and standing against every tendency towards departures in quality or reduction in quantity of the preservative that would make of the user's line an experimental laboratory. Graybar-International creosoted pine poles have gone to almost every state of the Union and without exception have given outstanding service.

Reasons For The Standing Of The International Pine Pole

- | | |
|--------------------|---------------------|
| 1—Long Life | 5—Cleanliness |
| 2—Low Annual Cost | 6—Fire Resistant |
| 3—Great Strength | 7—Bird Resistant |
| 4—Lasting Strength | 8—Termite Resistant |

The utilities of the United States use more creosoted pine than all other treated poles put together. Only briefly need their qualifications be given to account for this preference. The tall straight pine trees of the South are natural poles. They grow with a gradually tapering stem, practically without branches, and when sheared of their bark and browned as the result of treatment, they present a stately appearance in the line. Their wood is the strongest of the poles commonly used in line construction. Fortunately pine is a wood into which creosote goes very deeply during the course of scientifically controlled and proper treating operation, and the depth of this protection is the reason for the exceedingly long life of the pine pole. It is the explanation also of pine's resistance to termite attacks, for the checks which open in

every wood and expose it to the ravages of these insects do not go past the deep creosote penetration in the pine pole. Modern methods and advances in the science of wood preservation now makes available the creosoted pine pole so well manufactured in appearance, and with surface so clean that they are in use on the streets of New York, Detroit, Los Angeles, St. Louis, Baltimore, Boston, San Francisco, and thousands of other cities.

American Standards Association Specifications for Southern Pine Poles

Approved June 20, 1931

**Introduction**

These specifications cover southern pine poles which are to be given a preservative treatment. The poles are to be classified in accordance with the American Standard Dimensions of Creosoted Southern Pine Poles (05e2-1931), which is a part of these specifications.

The length and class of poles wanted and full details of the framing desired shall be stated in the orders.

The details of any marking, including length and class marks, to be placed on the poles shall be in accordance with instructions from the purchaser.

Complete detailed instructions shall be given the supplier in all cases where modifications are to be made in these specifications to meet special requirements.

1.—Material Requirements**1.1—Species**

All poles shall be cut from live southern pine timber: Longleaf Pine (*Pinus palustris*), Shortleaf pine (*Pinus echinata*), Loblolly Pine (*Pinus taeda*), Slash Pine (*Pinus caribaea*), and Pond Pine (*Pinus rigida serotina*).

1.2—Prohibited Defects

All poles shall be free from decay, red heart, cracks, plugged holes, and bird holes. Nails, spikes, and other metal shall not be present in the poles unless specifically authorized by the purchaser.

1.3—Permitted Defects

1.31 BLUE SAP STAIN.—Blue sap stain that is not accompanied by softening or other disintegration of the wood (decay) is permitted under these specifications.

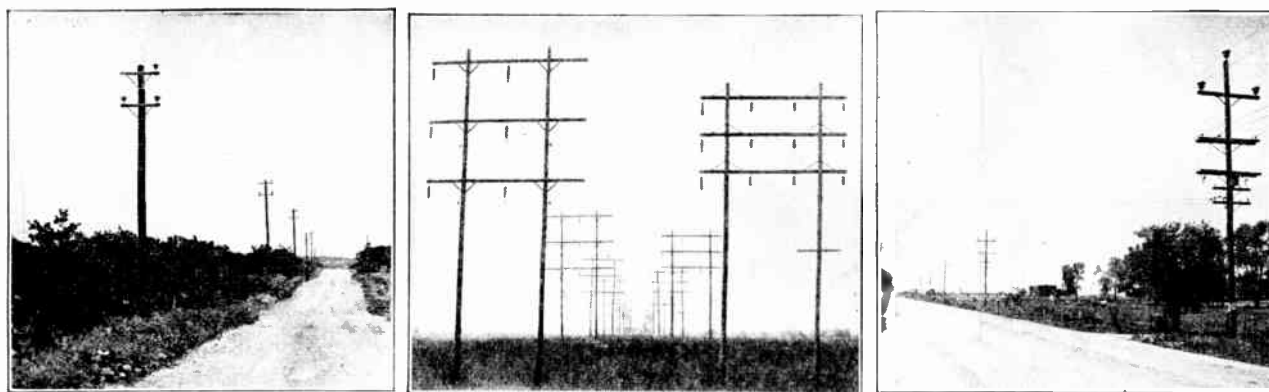
1.32 HOLLOW PITH CENTERS.—Hollow pith centers in the tops or butts of poles and in knots are permitted.

1.4—Limited Defects

1.41 CHECKS.—The top and side surfaces of poles shall be free from injurious checks.

1.42 SHAKES.—Shakes in the butt surface extending over not more than one-quarter ($\frac{1}{4}$) of the circumference are permitted provided they are at least one (1) inch distant from the edge of the butt. Shakes extending over more than one-quarter ($\frac{1}{4}$) of the circumference are permitted when they are inside of a circle whose center corresponds to the center of the butt surface and whose diameter equals one-half ($\frac{1}{2}$) of the average butt diameter.

International Creosoted Pine Poles



New Lines of International Creosoted Pine Poles
In Above Lines—4026 Poles—No Replacements in 18 Years of Service

Specifications for Southern Pine Poles

Continued

Shakes in the top surface whose width does not exceed one-sixteenth ($\frac{1}{16}$) of an inch are permitted provided they do not extend over more than one-half ($\frac{1}{2}$) of the top circumference.

1.43 SPLITS.—Splits are prohibited in the top surfaces of poles. Splits in butt surfaces are permitted provided that their height from the butt along the side surfaces does not exceed two (2) feet.

1.44 GRAIN.—No pole shall have more than one (1) complete twist of grain in any twenty (20) feet of length.

1.45 INSECT DAMAGE.—Insect damage consisting of holes less than one sixteenth ($\frac{1}{16}$) of an inch in diameter is permitted.

1.46 KNOTS.—The diameter of any single knot or knot cavity, or the sum of the diameters of all knots and knot cavities in any one (1) foot section shall not exceed the limits set up in the following table. Knots and knot cavities one-half ($\frac{1}{2}$) of an inch or under in diameter shall be ignored in applying the limitations for sum of diameters.

Limitations of Knot Size

Length of Pole	MAXIMUM SIZES PERMITTED, INCHES—		
	DIAMETER OF ANY SINGLE KNOT OR KNOT CAVITY	Sum of Diameters of All Knots and Knot Cavities in Any 1 Foot Section	Classes
45 Ft. and Under	4	3	8
50 Ft. and Over	5	5	10

Knots one (1) inch or over in diameter, showing discoloration or softness of fibre, indicating possible decay, shall be neatly gouged to a depth of not more than one-fifth ($\frac{1}{5}$) of the diameter of the pole at the point where the knot is located, to permit determination of the character and extent of decay. The gouging shall be done without unnecessary removal of sound wood, and in such a manner as to insure drainage of water from the hole when the pole is set. Where such gouging does not completely remove the decay (heart rot), the pole shall be rejected.

Knots under one (1) inch in diameter need not be gouged unless after trimming the presence of decay is revealed and upon further examination the decay is found to extend to a depth of more than two (2) inches.

When more than one (1) cavity is present in a pole, the sum of the depths of all cavities in the same six (6) inch longitudinal section of the pole shall not exceed one-third ($\frac{1}{3}$) of the mean diameter of that section.

1.47 SCARS.—No pole shall have a turpentine face or other scar located within two (2) feet of the ground line.

In other sections of the pole, scars which have been smoothly trimmed so as to remove all bark and all surrounding or overhanging wood that is not completely intergrown with the wood of the body of the pole are permitted, provided

(a) that such trimming does not result in abrupt changes in the contour of the pole surface and that trimmed scar does not have a depth of more than one (1) inch, except that where the diameter of the pole at the location of the scar is more than ten (10) inches the depth may be one-tenth ($\frac{1}{10}$) of the diameter; and

(b) that the circumference of the pole at any point on trimmed surfaces located between the butt and a point two (2) feet below the ground line is not less than the circumference of the pole at the ground line.

1.48 SHAPE.—Poles shall be free from short crooks.

A pole may have sweep subject to the following limitations:

(a) Where sweep is in one (1) plane and one (1) direction only, a straight line joining the surface of the pole at the ground line and the edge of the pole at the top shall not be distant from the surface of the pole at any point by an amount greater than one (1) inch for each six (6) feet of length between these points.

(b) Where sweep is in two (2) planes (double sweep) or in two (2) directions in one (1) plane (reverse sweep), a straight line connecting the mid-point at the ground line with the mid-point at the top shall not at any intermediate point pass through the external surface of the pole.

2.—Dimensions

2.1—Length

Poles under fifty (50) feet in length shall not be over three (3) inches shorter or six (6) inches longer than nominal length. Poles fifty (50) feet or over in length shall not be over six (6) inches shorter or twelve (12) inches longer than nominal length.

Length shall be measured between the extreme ends of the pole.

2.2 Circumference

Poles shall be classified in accordance with the American Standard Dimensions of Creosoted Southern Pine Poles. Minimum allowable circumferences at six (6) feet from the butt (except for Classes 8, 9, and 10), and at the top, for each length and class of pole listed, are shown in this standard. Poles having circumferences which are greater, at the same points of measurement, than those shown for the length and class desired, shall be acceptable, provided that the six (6) foot from butt circumference is less than the minimum given for the second larger class pole of the same length. The top dimensional requirement shall apply at a point corresponding to the minimum length permitted for the pole.

International Creosoted Pine Poles

Measurement of Sweep and Short Crook in Poles

Diagram 1—Measurement of Sweep in One Plane and One Direction

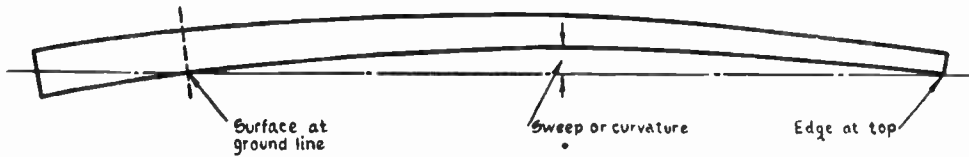


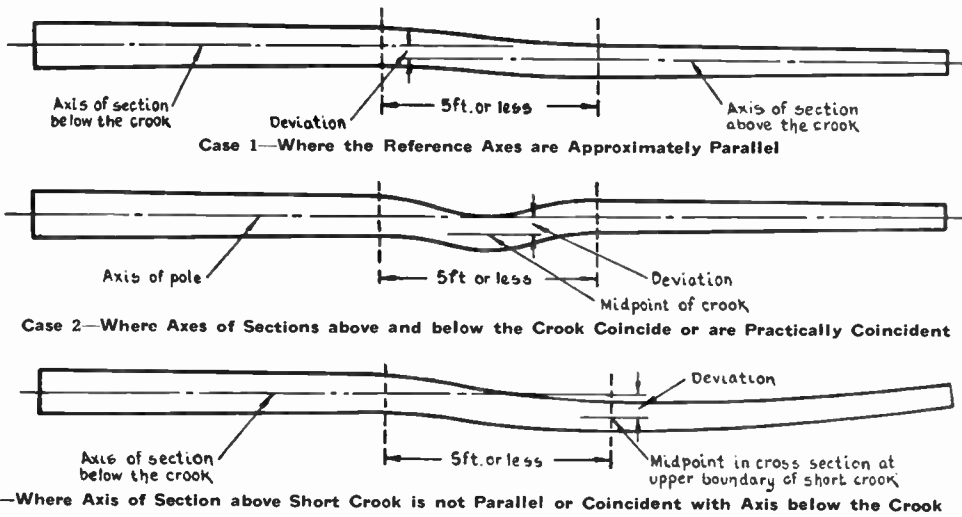
Diagram 2—Measurement of Sweep in 2 Planes (Double Sweep) or in 2 Directions in One Plane (Reverse Sweep)



NOTE: Diagram No. 2 applies to the measurement of double sweep in Western Red Cedar and Southern Pine

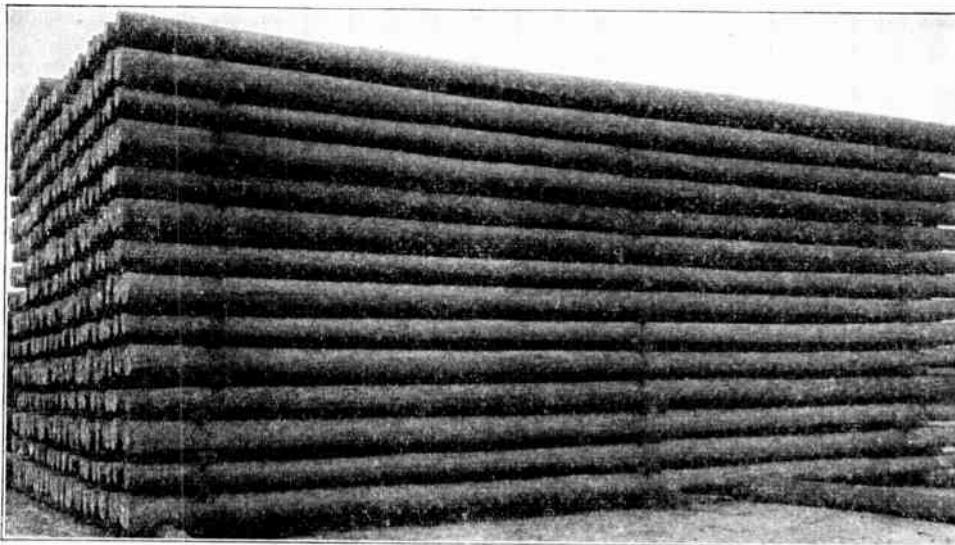
Poles. For measurement of double sweep in Northern White Cedar and Chestnut Poles, see text.

Diagram 3—Measurement of Short Crook (Three Cases Shown)



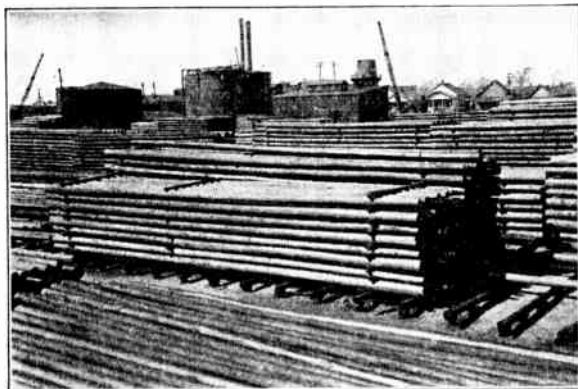
NOTE: The three cases shown under Diagram 3 are typical and are intended to establish the principle of meas-

uring short crooks. There may be other cases not exactly like those illustrated.



International Pine Poles have the Straightness and Symmetry of a Machined Product

International Creosoted Pine Poles



Stacks Such as Here Shown on One of International's Conditioning Yards Make Possible Our Quick Shipment of Quality Creosoted Pine Poles

Top Dimension Poles

Top dimension poles conform in all respects to American Standards Association Specification poles, with the sole difference that top diameter poles specify minimum top diameter only; whereas A. S. A. Specification poles specify both minimum top circumference and circumference six feet from the butt.

Length Feet	TOP DIAMETER IN INCHES*							
	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
16	4-5	5-6	6-7	...	...	...	...	...
18	4-5	5-6	6-7	...	...	...	...	...
20	4-5	5-6	6-7	7-8	...	...	...	...
25	4-5	5-6	6-7	7-8	8-9	...	...	...
30	...	5-6	6-7	7-8	8-9	...	...	...
35	...	5-6	6-7	7-8	8-9	...	...	...
40	...	...	6-7	7-8	8-9	9-10	...	...
45	...	...	6-7	7-8	8-9	9-10	...	...
50	...	...	...	7-8	8-9	9-10	...	...
55	...	...	...	7-8	8-9	9-10	...	...
60	...	...	...	7-8	8-9	9-10	10-11	...
65	...	...	...	7-8	8-9	9-10	10-11	...
70	...	...	...	7-8	8-9	9-10	10-11	...
75	...	...	...	7-8	8-9	9-10	10-11	...

Anchor Logs

Anchor logs conform in all respects to the specification for top dimension poles.

3	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
4	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
6	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
7	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
8	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
9	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
10	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
11	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
12	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
13	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
14	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
15	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13

*Note: Top diameter is determined by placing a tape around the circumference of the pole at the base of the roof.

What an Order Should Show

To avoid delays and prevent the possibility of error, an inquiry or an order for International poles should contain the following information:

- 1.—Name of consignee.
- 2.—Destination of shipment.
- 3.—Date shipment is desired.
- 4.—Number of poles required.
- 5.—Length and minimum top diameter.
- 6.—Number of pounds of creosote required per cubic foot of wood.
- 7.—Type of framing desired. A blue print or sketch is preferable. Poles can be framed more economically at a treating plant than in the field at point of installation. Insofar as possible therefore complete framing instructions are desirable.

*Specification for the Preservative Treatment of Southern Yellow Pine Poles

Rueping Empty Cell Process

*Note: A descriptive specification only. It must be recognized that specifications do not guarantee quality, and should not be regarded as adequate protection to the buyer. In any treated wood, the all important factor is the source of supply.

General

The following specification is intended to obtain an empty cell treatment for the poles; and if the material to be treated is in a different condition as to moisture and seasoning, material for each retort charge shall be selected as to condition of moisture so that there will be no great difference in degree of seasoning in any one charge. Only perfectly sound poles shall be treated. The treating plant shall be equipped with indicating and recording gauges and other necessary apparatus for accurately observing and recording the treating process. Above the level of the creosoting cylinder there shall be an overhead drum for the purpose of determining that the cylinder is full of preservative and free from air and the gauge reading indicating a full cylinder shall not be taken until the preservative is seen to overflow through the valve on top of this drum; there shall also be a sap drum below the level of the cylinder by means of which sap and condensation shall be removed regularly. The treating plant must have all the necessary chemicals, a laboratory and laboratory apparatus to enable the quality of preservative to be determined.

Seasoning

Air-Seasoning

In air-seasoning, the poles shall be stacked in such a manner as to provide free air circulation and minimum contact between individual pieces in each stack. These stacks shall be placed on treated or otherwise permanent skids at least six inches above the ground on a well drained storage yard free from vegetation and decaying wood, so located that prevailing winds strike it freely, and each layer shall be separated by creosoted strips. Alleys between the stacks shall be wide, continuous and straight. The material shall remain until in the judgment of the inspector it is sufficiently seasoned to obtain the maximum benefit from the treatment.

Seasoning By Steam

When time for air-seasoning is not available, steam seasoning shall be used. Live, saturated steam shall be admitted to the treating cylinder taking care that all air is swept from the cylinder before the outlet valve is closed. Pressure shall then be raised gradually to the maximum temperature desired, this maximum being determined by the treating inspector. It should not be less than 254° F., not more than 259° F. The duration of the steaming process is dependent upon the degree of seasoning of the poles in the cylinder charge but shall in no case be carried to such an extent as to injure the timber.

Initial Vacuum

After the steaming process has been completed the steam shall be blown off and the treating cylinder exhausted as quickly as possible to as high a vacuum as possible, which must be at least twenty-four inches at sea level or proportionately less at higher altitudes. This vacuum shall be maintained for at least one hour or for whatever longer period is necessary, so that the wood may be as dry and free from air as practicable. During the exhaustion process the temperature within the treating cylinder shall be maintained by means of steam under pressure in the closed coils. The cylinder shall be relieved of sap and condensation continuously.

International Creosoted Pine Poles

Specification for the Preservative Treatment of Southern Yellow Pine Poles

Seasoning—Continued

Initial Air Pressure

In the case of air-seasoned poles, Initial Air Pressure is the first step in the treating process. With steam-seasoned poles this step immediately follows the Initial Vacuum.

The poles shall be subjected to air pressure of sufficient intensity and duration (usually 40 lbs. to 100 lbs.) to provide under a quick high vacuum the ejection of surplus preservative, and to insure a retention and proper distribution of the stipulated number of pounds of preservative per cubic foot of wood.

Treatment

The creosote shall be introduced between 170° F. and 210° F., the cylinder pressure being maintained constant until the cylinder is filled. The oil must be seen by the inspector to flow from the overhead drum on top of the treating cylinder, thus assuring him that the cylinder is completely filled with the preservative. The pressure shall then be gradually raised to and maintained at a minimum of 150 lbs. per square inch until there is obtained the largest gross absorption that can be reduced to the stipulated final retention, calculation being based on readings of the working tank gauges and the weight of the creosote at 100° F. The quantity of oil for final retention shall be based on the cubic content of wood in the treating cylinder as determined by actual measurement of the top and butt of each pole in each charge. Under no conditions may shortage of oil in one charge be offset by overage in another; the minimum final retention in each case must be 100 per cent of the quantity of creosote specified.

Final Vacuum

After pressure is completed and the cylinder is emptied of oil a sufficient vacuum shall be promptly created and maintained until the timber can be removed from the cylinder free from dripping oil.

Penetration

The treating processes shall be directed toward complete sapwood penetration with the preservative.

Preservative

For preservative see Creosote Specification.

Note: A final retention of 8, 10 or 12 pounds of creosote per cubic foot are most frequently used. Of these, the 8-pound treatment is specified in the great majority of cases.

Standard Specifications for Creosote Oil American Wood Preservers Association

Grade 1

- 1.—The oil shall be a distillate of coal-gas tar or coke-oven tar.¹ It shall comply with the following requirements:
- 2.—It shall not contain more than three per cent of water.
- 3.—It shall not contain more than 0.5 per cent of matter insoluble in benzol.²
- 4.—The specific gravity of the oil at 38° C., compared with water at 15.5° C., shall be not less than 1.03.
- 5.—The distillate, based on water-free oil, shall be within the following limits:
 - Up to 210° C., not more than 5 per cent.
 - Up to 235° C., not more than 25 per cent.
- 6.—The residue above 355° C., if it exceeds 5 per cent shall have a float test of not more than 50 seconds at 70° C.
- 7.—The oil shall yield not more than 2 per cent of coke residue.
- 8.—The foregoing tests shall be made in accordance with the standard methods of the American Wood-Preservers' Association. (See Manual—Creosote, Analysis.)

¹Owing to the complexity of the chemical composition and physical properties of coal-tar creosote oil, and to the fact that some of the same compounds and properties which characterize coal-tar creosote are found in certain petroleum derivatives, the determination of the purity of creosote is difficult. When there is not certain assurance that the oil is a pure product, the following tests will aid in arriving at an opinion as to its coal-tar origin:

A.—Fraction distilling between 210° and 235° C. is usually solid or contains some solids when cooled to 25° C.

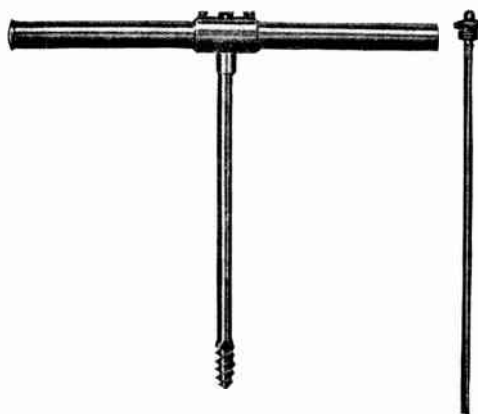
B.—All of the fractions up to 315° C. contain tar acids in varying amounts, usually at least 1 per cent calculated on the amount of the fraction tested. (See Manual—Creosote, Analysis, Tar Acids.)

C.—The specific gravity of the fraction between 235° and 315° C. is usually not lower than 1.025 and specific gravity of the fraction between 315° and 355° C. is usually not lower than 1.085 at 38° C. compared with water at 15.5° C. However, some pure coal-tar distillates fall slightly below these limits.

If the oil does not comply with at least one of the foregoing tests it is undoubtedly not a pure coal-tar creosote.

²Samples of oil taken from working tanks may show an increase in matter insoluble in benzol due to treating operations. Such increases provided they do not exceed by 1 per cent the specification limits should not serve to cause rejection of the oil for non-conformity with specifications if it can be shown that the original fresh oil was of specified quality.

Depth of Creosote Penetration



Increment Borer

The increment borer shown here is used for extracting sections of wood from poles to determine how deeply the preservative has penetrated into the wood.

The use of this instrument is recommended as one means by which the buyer can gauge the quality of the product he receives. It does not damage the pole and the only precaution is that a creosoted wood plug be driven into the hole after the boring has been extracted.

For adequate protection it is essential that creosote penetrates wood deeply (see discussion on penetration later in this section).

Prices for increment borers, on request.

Machine Trimming

All International poles are now being machine trimmed for their entire length. The machines are the most modern type that has been developed, and the depth of cut is uniform from top to butt. Only a light shaving is made to remove the knots and other protuberances. The grading into classes is done after the trimming.

Machine trimming has many advantages. The freshly trimmed surface facilitates seasoning. Unnecessary cutting into the body of the pole by hand trimming and gouging is eliminated. The appearance of the pole is greatly improved and bleeding is further reduced.

International Creosoted Pine Poles
Estimated Weights of Poles

American Standards Association Specification Poles

Length Pole Feet	8 Pounds Final Retention									
	ESTIMATED WEIGHTS IN POUNDS									
	A.S.A. SIZE GROUP									
	1	2	3	4	5	6	7	8	9	10
16	....	....	....	....	254	212	179	240	179	122
18	....	....	409	363	301	263	216	277	212	141
20	635	555	479	418	353	310	259	315	235	169
25	898	808	686	602	508	423	362	423	324	221
30	1241	1076	921	780	672	573	489	541	423	...
35	1603	1410	1213	996	865	733	616	682	...	...
40	1974	1734	1499	1260	1048	884	761	...	...	...
45	2369	2087	1772	1528	1250	1062	921	...	...	...
50	2820	2435	2068	1777	1476	1246	1081	...	...	...
55	3220	2801	2411	2077	1739	1481	...	...	...	...
60	3798	3187	2750	2298	1988	1683	...	...	...	...
65	4362	3628	3163	2646	2265	...	...	...	...	...
70	4874	4145	3502	2947	2538	...	...	...	...	...
75	5429	4644	3892	3285	...	...	...	...	...	...

Top Dimension Poles

Length Pole Feet	8 Pounds Final Retention							
	ESTIMATED WEIGHTS IN POUNDS							
	TOP DIAMETER, INCHES							
	4-5	5-6	6-7	7-8	8-9	9-10	10-11	
16	113	164	226	...	...	...	...	...
18	146	207	277	...	...	...	...	...
20	160	226	306	400	...	...	...	...
25	226	316	418	536	672	...	...	...
30	...	408	541	686	855	...	...	...
35	...	522	682	855	1058	...	...	...
40	...	...	857	1048	1278	1537	...	...
45	...	...	1011	1255	1523	1824	...	...
50	...	...	...	1485	1791	2129	...	...
55	...	...	...	1734	2082	2463	...	...
60	...	...	...	2012	2402	2825	3285	...
65	...	...	...	2312	2740	3210	3722	...
70	...	...	...	2636	3111	3628	4188	...
75	...	...	...	2989	3511	4075	4686	...

10 Pounds Final Retention

16	....	....	....	....	262	218	184	247	184	126
18	....	....	422	364	310	272	223	286	218	146
20	655	572	495	432	364	320	267	325	243	175
25	926	834	708	621	524	437	373	437	335	228
30	1280	1111	951	805	694	592	504	558	437	...
35	1654	1455	1251	1028	892	757	635	703	...	...
40	2037	1790	1547	1300	1082	912	786	...	...	...
45	2444	2153	1828	1576	1290	1096	951	...	...	...
50	2910	2512	2134	1833	1523	1285	1116	...	...	...
55	3322	2891	2488	2144	1795	1528	...	...	...	...
60	3919	3288	2837	2372	2052	1736	...	...	...	...
65	4501	3744	3264	2731	2338	...	...	...	...	...
70	5029	4278	3613	3041	2619	...	...	...	...	...
75	5602	4792	4016	3390	...	...	...	...	...	...

10 Pounds Final Retention

16	116	169	233	...	...	...	...	...	...	...
18	150	213	286	...	...	...	...	...	...	...
20	165	233	315	412	...	...	...	...	...	...
25	233	325	431	553	693	...	...	...	...	...
30	...	421	558	708	882	...	...	...	...	...
35	...	538	703	882	1091	...	...	...	...	...
40	...	...	873	1081	1319	1586	...	...	...	...
45	...	...	1043	1295	1571	1882	...	...	...	...
50	...	...	...	1532	1848	2197	...	...	...	...
55	...	...	...	1789	2148	2541	...	...	...	...
60	...	...	...	2076	2478	2915	3390	...	...	...
65	...	...	...	2386	2827	3312	3841	...	...	...
70	...	...	...	2720	3210	3744	4321	...	...	...
75	...	...	...	3084	3623	4205	4835	...	...	...

12 Pounds Final Retention

16	....	....	....	....	270	225	190	255	190	130
18	....	....	435	375	320	280	230	295	225	150
20	675	590	510	445	375	330	275	335	250	180
25	955	860	730	640	540	450	385	450	345	235
30	1320	1145	980	830	715	610	520	575	450	...
35	1705	1500	1290	1060	920	780	655	725	...	...
40	2100	1845	1595	1340	1115	940	810	...	...	...
45	2520	2220	1885	1625	1330	1130	980	...	...	...
50	3000	2590	2200	1890	1570	1325	1150	...	...	...
55	3425	2980	2565	2210	1850	1575	...	...	...	...
60	4040	3390	2925	2445	2115	1790	...	...	...	...
65	4640	3860	3365	2815	2410	...	...	...	...	...
70	5185	4410	3725	3135	2700	...	...	...	...	...
75	5775	4940	4140	3495	...	...	...	...	...	...

12 Pounds Final Retention

16	120	175	240	...	...	...	...	...	...	...
18	155	220	295	...	...	...	...	...	...	...
20	170	240	325	425	...	...	...	...	...	...
25	240	335	445	570	715	...	...	...	...	...
30	...	435	575	730	910	...	...	...	...	...
35	...	555	725	910	1125	...	...	...	...	...
40	...	...	890	1115	1360	1635	...	...	...	...
45	...	...	1075	1335	1620	1940	...	...	...	...
50	...	...	...	1580	1905	2265	...	...	...	...
55	...	...	...	1845	2215	2620	...	...	...	...
60	...	...	...	2140	2555	3005	3495	...	...	...
65	...	...	...	2460	2915	3415	3960	...	...	...
70	...	...	...	2805	3310	3860	4455	...	...	...
75	...	...	...	3180	3735	4335	4985	...	...	...

Characteristics of Quality Pine Poles

Status of Pine Poles

During a period covering the last several years, more treated pine poles have been used than all other treated poles put together. The utility that uses this commodity therefore is using the most generally accepted pole of the utility field. Important lines that must stand up under greatest stress and for the longest period of time are well built when built with quality-creosoted pine poles. Every sleet storm brings a further degree of proof of this fact. Bearing in mind the salvage value even of an abandoned line of creosoted pine poles, the costliness of individual pole failures, and creosoted pine's comparatively low annual cost, it seems difficult to think of any line not sufficiently important to justify their use.

Life of Creosoted Pine Poles

Whole lines of creosoted pine poles furnished by our supplier 25 and 30 years ago are still in use with practically no replacements, and are obviously good for many years to come. Many estimates have been made of the life to expect, and the Pennsylvania Electric Association, as the result of a study, estimated 35 years. This figure seems conservative with so many International creosoted pine lines now approaching that age and still in good condition. The

oldest lines still standing, and differences in climatic conditions, make it impossible to forecast definitely just what life to expect from the creosoted pine pole.

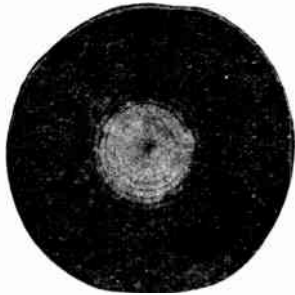


Section of the Chemistry Laboratory
Scientific Control Is Essential

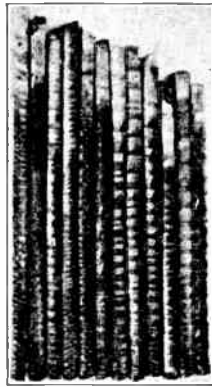
International Creosoted Pine Poles Characteristics of Quality Pine Poles

Continued

Value of Penetration



Uniform Penetration
Is a Criterion of Good
Treatment



Deep Penetration
Means Long Life
For the Poles

While several factors are important, and particularly the grade of preservative is important, no single factor has such bearing on the life and the quality of creosoted pine poles as the depth of creosote penetration and the uniformity of creosote penetration. Untreated wood of any kind commonly used for poles will decay eventually, and the only preventive is to have the penetration of the preservative deep and uniform and of proper grade. This is accomplished only when skilled technicians analyze the creosote and apply the treating process.

Strength

The standard for ultimate fiber stresses for the commonly used pole woods has been developed by the Sectional Committee on Wood Poles under the sponsorship of the Telephone Group, American Standards Association. These ultimate fiber stresses quoted verbatim are tabulated below.

Northern White Cedar.....	3600 lbs. per sq. in.
Western Red Cedar.....	5600 lbs. per sq. in.
Chestnut.....	6000 lbs. per sq. in.
Southern Yellow Pine (Creosoted)....	7400 lbs. per sq. in.

Fire Resistance

Fires that rage across the dry cane fields of Cuba crack insulators, melt steel, and burn untreated wood to ashes, but creosoted pine poles stand the flames. Such is the actual experience. Along almost every railroad right-of-way fire gangs burn the weeds each fall and it is a matter of common record that while untreated posts burn completely, creosoted pine poles are undamaged. Under these severe conditions the creosoted pine pole may take fire and smolder and smoke for a while, but finally the fire smothers itself out, leaving a practically undamaged pole. The action is analogous to a burning oil lamp wherein the wick though it forms the support for the flame is itself consumed very slowly.

Appearance and Cleanliness

Early in the history of the development of creosoted pine poles some question was raised as to their use on city streets. It was feared that the bleeding of some of the poles might cause trouble if the clothing of pedestrians rubbed against them. No longer are these objections heard either in protest or propaganda. International's care in timber selection, the skill of its production and manufacturing forces, and advances in the science of timber treatment all have contributed to relegate these objections to the background and to give to the business district and the residential street the security and economy of the creosoted pine pole. Graybar-International poles are in use in the business and residential districts of the largest cities of the United States, and in thousands of the smaller ones. The present-day pole is a clean pole. It is smooth and shapely and stands with the appearance of tapered wrought-iron pipe, rather than that of processed trees.

Termites

Termites are attracting more and more attention because of their attacks on poles. Formerly termites lived in the forests, but as the forests become depleted they seek shelter elsewhere and find their way into untreated structural wood. Untreated pole lines have been accused of acting as termite highways by means of which they could fly from pole to pole and then to residence; infesting new areas. It is a fact that termites have now been found in all but three states of the United States.

Creosoted pine poles are practically immune to termite attack. Even though checks in the wood may form, they do not go deep enough to expose untreated interior wood that would afford shelter for these insects.


Improved Roof



The illustration shows a new type of pole roof that many of the utility companies are standardizing upon. It is a one-way roof, cut at an angle of 15°. It is to be recommended.

The advantages of this roof are:

1. Reduces Checking

A roof cut in this  manner leaves a minimum of wood along the center line, the natural cleavage point of the pole. This invites checking. The one-way roof eliminates this disadvantage.

2. Provides Better Drainage

As the roof of a pole weathers, the springwood rings of any species being softer than the summerwood, weather faster, causing the summerwood to stand out in ridges. On the two-way roof these ridges form retaining cups for rain water while on the one-way roof they drain.

3. Conserves the Preservative

Evaporation is a surface phenomenon. There is less surface on a one-way than on a two-way roof.

Marked Poles



Above is the mark by which Graybar-International poles are identified wherever found. This appears as a date-brand on the side ten feet from the butt of the pole; and is supplemented by an identifying brand on the top and the butt of each pole. These marks are conclusive evidence of our confidence in the quality of the product and the desire to be permanently identified with it.

Beware of unmarked poles. If in a few years they begin to fail, the experience is that it is impossible to tie them definitely to the source of supply. On the other hand when a company consistently uses high grade materials and good preservative treatment which result in long-time dependable service, the company willingly and permanently attaches its name to the product.

UNION MONOTUBE POLES

For Transmission and
Distribution Service

MONOTUBE steel poles are the product of a manufacturer who has specialized in steel pole design and construction for over forty years.

Monotube steel poles are designed to be used for the same purpose as wood, structural steel, or sectional tubular poles.

Made of high grade, open hearth steel, their tensile strength and elastic limit are increased still further by the exclusive Union Metal cold rolling process. The result is a stronger, longer lived, and more rugged steel pole than produced by any other process.

In the manufacture of Monotube steel poles, variable strength requirements are met by increasing the diameter of the pole or utilizing heavier steel plate. Available in 11 gage, 7 gage, 3 gage, and 0 gage steel with ground line diameters ranging from 6 to 14 inches.

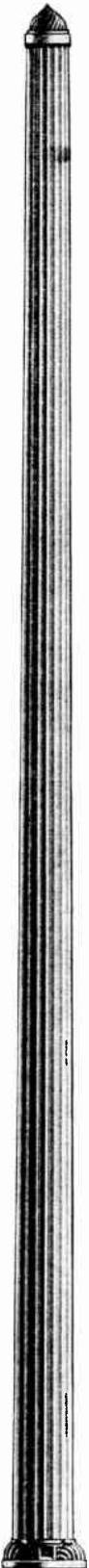
Monotubes are available in two designs, plain round or fluted. Both types are generally preferred equipped with a steel anchor base which is bolted directly to the concrete foundation; the plain round type, however, can also be furnished for embedment directly into the concrete.

Because of its continuous taper and one-piece construction, a pole of uniform quality and improved appearance results. Furthermore, the extraordinary strength of the Monotube eliminates the need for several sets of poles. There are many installations which successfully combine such services as power and light circuits, street lighting, trolley span wire suspension, fire and police alarm circuits, and other municipal services—thus eliminating the necessity for several sets of poles.

Monotube Advantages

Economy of Installation and Maintenance
Great Strength with Light Weight
One-Piece Tapered Construction
Attractive Appearance
Flexibility

Complete information, prices and delivery on Union Metal Poles is available from your nearby Graybar office and warehouse.



Union Monotube Steel Floodlighting Poles

For Nighttime Sports

Meets the demand for tall floodlighting poles to provide adequate lighting, combined with a pleasing appearance, for all night sports.

A standardized line, streamlined in appearance and engineered to provide maximum strength and durability, that will withstand a 100-mile an hour wind when mounting the maximum number of floodlights indicated in the head arrangement selected.

Poles can be completely wired, and the lights mounted and positioned on the ground before erection.

Made of cold rolled steel in nominal heights of 40, 60, 80, and 100 feet. This standardization of heights results in lower cost, permits stock to be carried, and makes prompt shipment of poles possible. These advantages would be lost if the poles had to be tailor made for each installation.

Does not require guying. Anchored to concrete foundations.

Designed for underground wiring service.

Furnished with supports for mounting service platform, transformers, primary cutouts, and distribution boxes together with all necessary wire and cable inlets and outlets, handhole, etc.

The mounting frames are provided with slotted holes for bolting floodlights in position, and the pole comes complete with climbing steps.

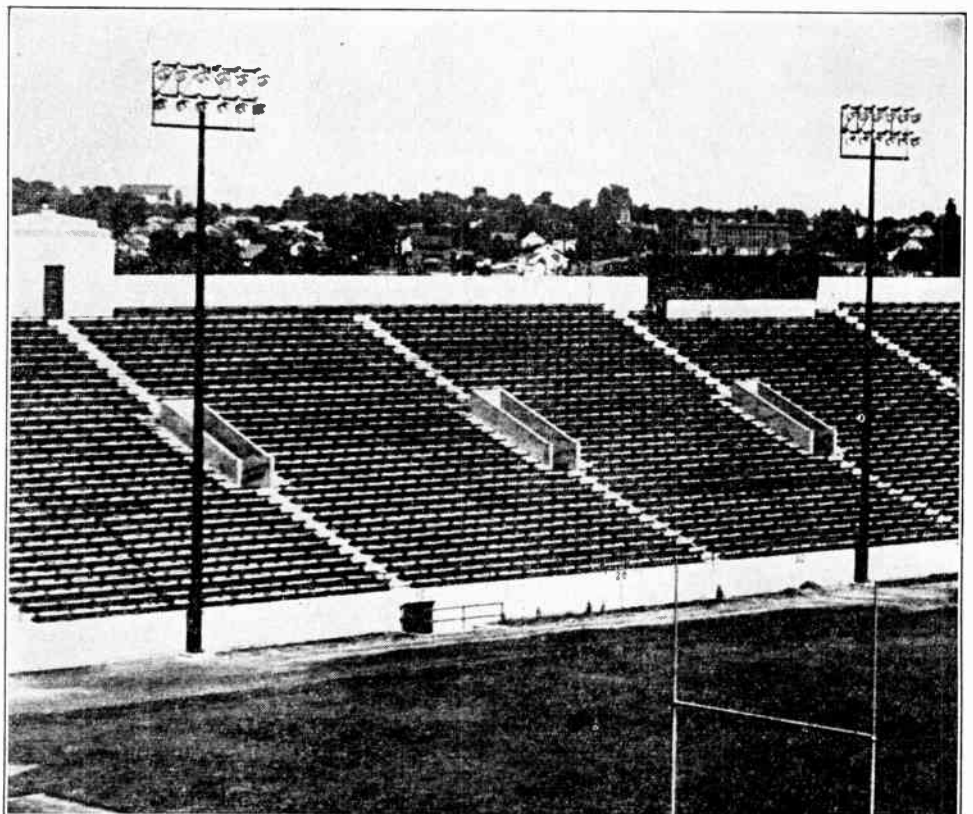
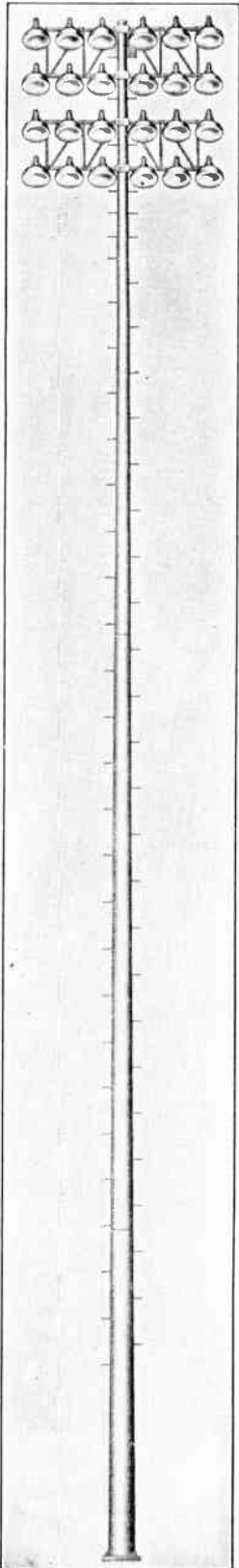
Other features are an all welded safety service platform, etc., for the convenience of the owner, contractor, and service men.

Available in the following light groups: 2 lights; 4 to 8 lights; 10 to 12 lights; 14 to 16 lights; and 18 to 24 lights.

Pole and equipment are given one coat of rust resisting paint inside and out before shipment.

The 40 and 60-foot poles are shipped in one piece and the 80 and 100-foot poles are shipped in two sections. Upper and lower sections are shop fitted before shipment and are properly marked for field identification. The taper assures a tight field joint when the two sections are forced together. No welding is necessary.

For additional information write for catalog.



Rainier Crossarms



The indispensable characteristics in a crossarm are strength and durability. Strength to carry the dead load of conductor, sleet and wind, and to withstand shock within any combination of these two duties that may be imposed upon the arm in service. Durability is just as necessary as strength because the arm is intended for many years of service and the cost to replace an arm in the line is many times the price of the arm itself.

Lightness in weight is also important. The lighter arms are less costly to transport and install and of course they place a lesser burden on the pole structures.

Rainier fir crossarms meet all of these requirements. They are carefully graded with the strength reducing defects eliminated. They are seasoned to approximately equilibrium moisture content which adds further to the strength. They are seasoned slowly and under such control that from the start to the finish of the seasoning process, the moisture content of the interior is substantially the same as at the surface of the arm. Even microscopic as well as visible checking is held to a minimum, so that the finished arm is sound and solid. It will not readily soak up moisture nor admit decay fungi to the interior of the arm.

The largest factory is at Chehalis, Washington, where the finest dry kilns and kiln control equipment are located. The dry kiln operations are supervised by men who are specialists and experts in the drying of crossarm sizes of Douglas fir. Carload orders can be shipped economically from Chehalis to all parts of the United States.

Minimum Carload Weight—Fir from Pacific Coast Mills, 44,000 pounds. Small cars are scarce and weight of at least

50,000 pounds should be figured on. Cars to contain as high as 90,000 pounds can be had.

For the benefit of customers who desire LCL quantities of crossarms, particularly with drillings of non-standard sizes or specially spaced, and to provide immediate delivery of any quantities in emergencies, factories are maintained at Chicago, Illinois; Kansas City, Missouri; Newark, New Jersey; and Texarkana, Texas. These factories are fully provided with manufacturing equipment and are heavily stocked with crossarm lumber which permits prompt attention to the needs of users in all parts of the country. Kiln drying at these factories is not economical due to the cost of fuel, but each point carries a reasonable stock of blanks, kiln dried on the West Coast, for customers who ask for kiln dried arms. All these factories have well designed drying sheds in which the ventilation is controlled. All of these plants are equipped with precision instruments for checking the character of drying while the lumber is being conditioned, and in all of them the highest standards of lumber grading are followed.

Southern yellow pine when properly graded is rated equal in strength to Douglas fir. With proper care before treatment, then with pressure treatment under the recognized standards with high grade creosote oil, there can be no question of such arms lasting as long as any other part of the line structure. Pine arms are considerably heavier than fir, but are preferred in a good many localities, due to shorter distances from the source of supply and consequent saving in freight rates. Creosoted yellow pine crossarms are produced at Texarkana, Texas.

Rainier Clear Douglas Fir Crossarm Specifications

General

This specification covers clear Douglas fir crossarm in sizes 5x6-inch cross-section and smaller.

Dimensions. All arms furnished shall conform to the design and dimensions specified by the purchaser. Allowable variations shall be within the limits shown on the drawing included herewith. Where allowable variations are not shown approximate conformity to the dimensions given, consistent with good commercial practice, is required.

Seasoning. The average moisture content of any lot of arms shall be not less than 12% nor more than 20% of the oven dry weights. The difference between the moisture content of a section one-half the width and one-half the height of the arm, cut from the center, and the slabs surrounding such section shall not be more than 5%.

Annual Rings. Not less than 8 annual rings per inch on either end of the piece, except that arm having 33 $\frac{1}{3}$ % summerwood may have not less than 6 rings per inch.

Checks, Shakes and Splits. No arm shall contain shakes or splits. On top of arm, no checks more than 6 inches long. No checks anywhere shall measure more than one-third the length of the arm nor more in depth than one-fifth the distance to the opposite face.

Grain. Except in deviations at knots and pitch pockets, arms shall be free from spiral or diagonal grain with a slope of more than 1-inch in 12 inches.

Knots. No knots in clusters. No knot exceeding 1 inch in the middle half and no knot exceeding 1 $\frac{1}{4}$ inches in any part of the arm. No 6-inch section in the middle half shall contain plurality of knots of which the diameters added together exceed 1 inch and no 12-inch section elsewhere shall contain knots of which the diameters added together exceed 1 $\frac{1}{4}$ inches.

No knot exceeding $\frac{1}{2}$ inch shall intersect any pin or bolt hole, and no knot exceeding $\frac{3}{4}$ inch shall be closer than its own diameter to any hole bored for a wood pin.

Loose knots and knot holes that show no evidence of decay shall not be cause for rejection, provided their diameters are within the maximum limits for knots, and will drain water when the arm is in its normal position on the pole.

The size of any knot shall mean its measurement across the smallest diameter.

Pitch Pockets. Shall not exceed $\frac{3}{4}$ inch in depth. No pitch pocket on top of an arm more than 4 inches in length, nor more than 8 inches in length elsewhere.

Sapwood. Not over $\frac{1}{3}$ the girth of any cross-section.

Loose Heart or Boxed Heart. No loose heart nor heart centers.

Rot. No stain, rot or decay.

Wane. No wane within $\frac{1}{4}$ inch of pin or bolt hole or on more than one edge. No wane surface more than $\frac{3}{4}$ inch wide within 12 inches of the middle bolt hole, or 1 $\frac{1}{2}$ inches elsewhere.

Warp. A straight edge laid lengthwise on the concave surface of an arm shall show no offset for the arm greater than $\frac{1}{10}$ -inch per foot of length. No arm shall be twisted or bent in more than one direction.

Finish. Arms shall be planed smooth on all 4 sides, cut accurately to length, ends coated with transparent but moisture-resistant gloss oil compounds, bored and roofed as ordered.

Rainier Structural Douglas Fir Crossarm Specifications

General. This specification covers Rainier Structural Douglas Fir Crossarms made from dense select structural fir lumber in sizes 5x6-inch cross-section and smaller.

Dimensions. All arms furnished shall conform to the design and dimensions specified by the purchaser. Allowable variations shall be within the limits shown on the drawing included herewith. Where allowable variations are not shown, approximate conformity to the dimensions given, consistent with good commercial practice, is required.

Seasoning. The average moisture content of any lot of untreated arms of cross-section not exceeding 4x5 inches shall be not less than 12% nor more than 20% of the oven dry weights. The difference between the moisture content of a section one-half the width and one-half the height of the arm, cut from the center and the slabs surrounding such section shall not be more than 5%.

Dense Material. All crossarms shall be manufactured from lumber containing not less than six annular rings per inch on either one end or the other of a piece and in addition one-third or more summerwood (the dark portion of the annual ring) on either one end or the other. The contrast in color between summerwood and springwood shall be distinct.

Coarse grained pieces excluded by this rule are accepted as dense if they average one-half or more summerwood.

Checks. On top of arm. No checks more than 6 inches long. No checks anywhere shall measure more than one-third the length of the arm nor more in depth than one-fifth the distance of the opposite face.

Grain. Except in case of deviations at knots and pitch pockets, the grain, meaning the direction of the longitudinal wood fibers, shall throughout the central one-third portion of the arm, not depart from parallelism with the axis of the crossarm by more than 1 inch in 15 inches (approximately 4 degrees).

Knots. No knots in clusters. No knot exceeding 1/2 inch in its smallest diameter intersecting pin or bolt holes. In the middle half of the arm no knot exceeding 3/4 inch in diameter shall be closer than its own diameter to any hole bored for wood pins.

Otherwise any number of knots in any location may appear as follows:

Face.....	inches	3-4	4 1/4-6
Diam. between Center and Brace Bolt Holes. in.		1	1 1/4
Diam. between Brace Bolt Holes and Ends. in.		1 1/4	1 1/2

Loose knots and knot holes that show no evidence of decay shall not be cause for rejection provided their diameters are within maximum limits for knots, and will drain water when the arm is in its normal position on the pole.

Knots shall be measured across smallest dimension.

Pitch Pockets. Shall not exceed 3/4 inch in depth. No pitch pocket on top of an arm more than 4 inches in length, nor more than 8 inches in length elsewhere.

Sapwood. Bright sapwood permitted on not more than one-third the girth.

Loose Heart or Boxed Heart. No arms shall contain loose heart nor the exact pith center of the log.

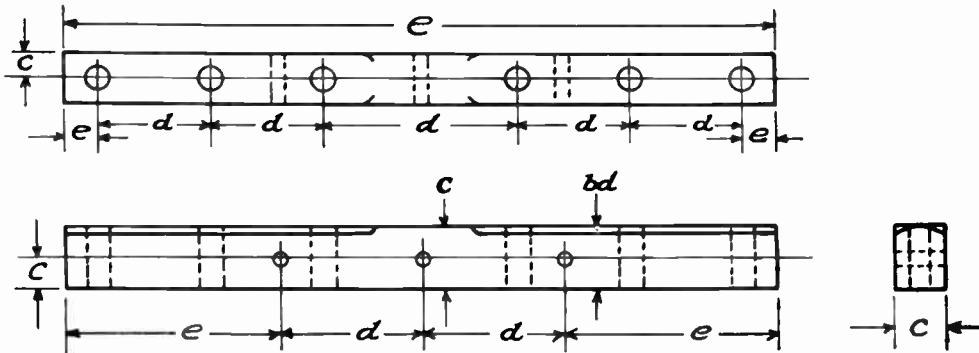
Rot. Rot, dot or red heart will not be permitted.

Wane. Wand shall not be present within 1/4 inch of pin or bolt hole or on more than one edge of an arm. The width of the wane surface shall not exceed 3/4 inch within 12 inches of the middle bolt hole and 1 1/2 inch elsewhere.

Warp. A straight edge laid lengthwise on the concave surface of an arm shall show no offset for the arm greater than one-tenth or an inch per foot of length. No arm shall be twisted nor bent in more than one direction.

Finish. Arms shall be planed smooth on all four sides, cut accurately to length, ends coated with transparent but moisture-resistant gloss oil compound, bored and roofed as ordered. All workmanship of highest commercial quality.

Dimensional Tolerances



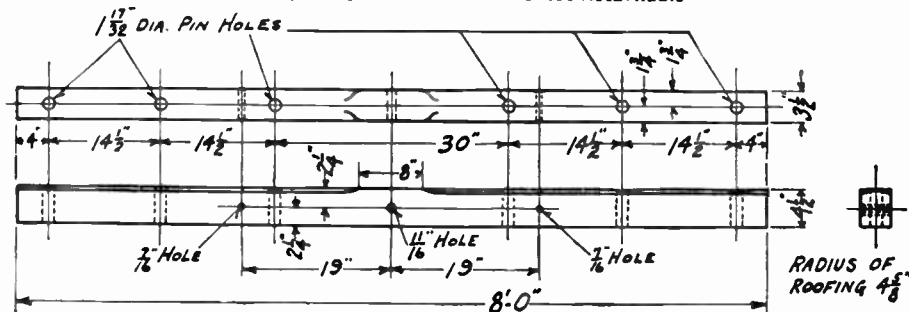
Allowable Variations

Dimensions.....	c	d	e	ed	bd
Over.....	inches 1/16	1/8	1/4	1/16	0
Under.....	inches 1/16	1/8	1/4	1/8	1/8

Size of Hole Unless Otherwise Ordered

For Steel Bolt or Pin					
Size.....	inches	3/8	1/2	5/8	3/4
Hole.....	inches	7/16	9/16	11/16	13/16
For Wood Pin					
Size.....	inches	1 1/4	1 1/2	1 3/4	
Hole.....	inches	1 1/32	1 1/32	1 25/32	

Particular Care Should Be Taken in Ordering Arms with Special Borings or Spacing of Holes
Arms Specially Manufactured Are Not Returnable



Written on the Order as Follows: 8 Ft. 3 1/2 x 4 1/2 Fir (6 Pin 1 1/32-In. Diam.). Pin Spacing 30-In. Center Pins (or Simply C), 14 1/2-In. Side Pins (S), 4-In. End Pins (E) 7/16-In. Brace Bolt Holes (B.B.) 38 Inches Apart—Center Bolt (C.B.) 1 1/16 In. Diameter.

Unless Otherwise Noted, All Arms Will Be Roofed or Rounded on Top to Shed Water

Rainier Wood Crossarms

Pony Arms, 2 3/4 x 3 3/4 Inches

No.	Per 100 Arms	Length	Pin	PIN HOLES			Diameter Center Bolt Hole Inches	*BRACE BOLT HOLES, IN.		WT., LB.		
				Diameter Inches	Center	SIDES		Ends	Distance Apart	Diam.	Douglas Fir	S.Y.P. Creosoted 8 #
RA101	\$20.00	2'	2 Pin	1 9/32	17	.....	3 1/2	1 1/16	..	7/16	540	800
RA102	25.00	2' 6"	2 Pin	1 9/32	23	.....	3 1/2	1 1/16	..	7/16	675	1000
RA103	30.00	3'	2 Pin	1 9/32	29	.....	3 1/2	1 1/16	25	7/16	810	1200
RA104	40.00	3' 6"	4 Pin	1 9/32	16	9 1/2	3 1/2	1 1/16	28	7/16	945	1300
RA105	60.00	5' 2"	6 Pin	1 9/32	16	9 3/4	3 1/2	1 1/16	28	7/16	1395	2000
RA106	70.00	6' 10"	8 Pin	1 9/32	16	9 3/4	3 3/4	1 1/16	28	7/16	1845	2600
RA107	90.00	8' 6"	10 Pin	1 9/32	16	9 3/4	4 3/4	1 1/16	28	7/16	2295	3200
RA108	100.00	10'	12 Pin	1 9/32	16	9 5/8	3 7/8	1 1/16	28	7/16	2700	3800

Electric Light Arms, 3 1/4 x 4 1/4 Inches

RA110	\$39.375	3'	2 Pin	1 17/32	28	.....	4	1 1/16	25	7/16	1062	1500
RA111	52.50	4'	4 Pin	1 17/32	16	12	4	1 1/16	28	7/16	1416	2100
RA112	65.625	5'	4 Pin	1 17/32	18	17	4	1 1/16	28	7/16	1770	2600
RA113	78.75	6'	4 Pin	1 17/32	22	21	4	1 1/16	32	7/16	2124	3100
RA114	78.75	6'	6 Pin	1 17/32	16	12	4	1 1/16	32	7/16	2124	3100
RA115	105.00	8'	6 Pin	1 17/32	18	17 1/2	4	1 1/16	32	7/16	2832	4100

Light Distribution Arms, 3 1/4 x 4 1/4 Inches

RA120	\$52.50	3' 2"	2 Pin	1 17/32	30	.....	4	1 1/16	28	7/16	1120	1600
RA121	78.75	5' 7"	4 Pin	1 17/32	30	14 1/2	4	1 1/16	38	7/16	1976	2900
RA122	105.00	8'	6 Pin	1 17/32	30	14 1/2	4	1 1/16	38	7/16	2832	4100
RA123	131.25	9' 2"	8 Pin	1 17/32	30	12	4	1 1/16	38	7/16	3245	4700

New England Arms, 3 1/4 x 4 1/4 Inches

RA130	\$39.375	3'	2 Pin	1 17/32	30	.....	3	1 1/16	33	7/16	1062	1500
RA131	78.75	5' 6"	4 Pin	1 17/32	30	13 1/2	4 1/2	1 1/16	36	7/16	1947	2800
RA132	105.00	7' 9"	6 Pin	1 17/32	30	13 1/2	4 1/2	1 1/16	36	7/16	2743	3950
RA133	131.25	10'	8 Pin	1 17/32	30	13 1/2	4 1/2	1 1/16	36	7/16	3540	5100

Pacific Arms, 3 1/4 x 4 1/4 Inches

RA140	\$39.375	3'	2 Pin	1 17/32	28	.....	4	1 1/16	32	7/16	1062	1500
RA141	65.625	5'	4 Pin	1 17/32	28	12	4	1 1/16	32	7/16	1770	2600
RA142	91.875	7'	6 Pin	1 17/32	28	12	4	1 1/16	32	7/16	2478	3600
RA143	118.125	9'	8 Pin	1 17/32	28	12	4	1 1/16	42	7/16	3186	4600
RA144	144.375	11'	10 Pin	1 17/32	28	12	4	1 1/16	42	7/16	3894	5610

Telephone Arms, 3 1/4 x 4 1/4 Inches

RA150	\$78.75	6'	6 Pin	1 9/32	16	12	4	1 1/16	25	7/16	2124	3100
RA151	118.125	8' 6"	10 Pin	1 9/32	16	9 3/4	4	1 1/16	42	7/16	3009	4300
RA152	131.25	10'	10 Pin	1 9/32	16	12	4	1 1/16	42	7/16	3540	5100
RA153	131.25	10'	10 Pin	1 9/32	32	10	4	1 1/16	42	7/16	3540	5100

Telegraph Arms, 3 1/4 x 4 1/4 Inches

RA160	\$78.75	6'	6 Pin	1 9/32	19	11 1/4	4	1 1/16	36	7/16	1980	2900
RA161	131.25	10'	10 Pin	1 9/32	22	11 1/4	4	1 1/16	36	7/16	3300	4800
RA162	131.25	10'	10 Pin	1 9/32	33	10	3 1/2	1 1/16	37	7/16	3300	4800

Medium Distribution Arms, 3 1/2 x 4 1/2 Inches

RA170	\$59.37	3' 2"	2 Pin	1 17/32	30	.....	4	1 1/16	28	7/16	1266	1900
RA171	59.37	4'	2 Pin	1 17/32	40	.....	4	1 1/16	32	7/16	1600	2400
RA172	89.06	5' 7"	4 Pin	1 17/32	30	14 1/2	4	1 1/16	38	7/16	2233	3400
RA173	118.75	8'	6 Pin	1 17/32	30	14 1/2	4	1 1/16	38	7/16	3200	4800
RA174	148.44	9' 2"	8 Pin	1 17/32	30	12	4	1 1/16	38	7/16	3666	5500

Rural Distribution Arms, 3 1/2 x 4 1/2 Inches

RA180	\$59.37	4'	1 Pin	1 1/16	..	.....	4	1 1/16	38	7/16	1600	2400
RA180A	89.06	5' 7"	2 Pin	1 1/16	59	.....	4	1 1/16	38	7/16	2233	3400
RA181	118.75	8'	2 Pin	1 1/16	88	.....	4	1 1/16	38	7/16	3200	4800

Rural Transmission Arms

RA182	\$166.67	10'	2 Pin	1 1/16	112	.....	4	1 1/16	38	7/16	4660	7000
RA183	166.67	10'	2 Pin	1 1/16	112	.....	4	1 1/16	60V	7/16	4660	7000

Heavy Distribution Arms, 3 3/4 x 4 3/4 Inches

RA190	\$166.67	10'	4 Pin	1 13/16	38	36	5	1 13/16	60V	9/16	4660	7000
RA191	166.67	10'	8 Pin	1 17/32	30	13 5/8	4 1/8	1 1/16	38	9/16	4660	7000

Heavy New England Arms, 3 3/4 x 4 3/4 Inches

RA200	\$50.00	3'	2 Pin	1 17/32	30	.....	3	1 1/16	33	9/16	1398	2100
RA201	100.00	5' 6"	4 Pin	1 17/32	30	13 1/2	4 1/2	1 1/16	36	9/16	2563	3700
RA202	133.33	7' 9"	6 Pin	1 17/32	30	13 1/2	4 1/2	1 1/16	36	9/16	3612	5400
RA203	166.67	10'	8 Pin	1 17/32	30	13 1/2	4 1/2	1 1/16	36	9/16	4660	7000

Rainier Special Crossarms

No.	Per Lineal Foot	RA1	RA2	RA3	RA4	RA5	RA6	RA7	RA8	RA9
Size	..... inches	2 3/4 x 3 3/4	3 x 4 1/4	3 1/4 x 4 1/4	3 1/2 x 4 1/2	3 3/4 x 4 3/4	3 3/4 x 5 3/4	4 x 5	4 3/4 x 5 3/4	5 3/4 x 7 3/4
Douglas Fir: Wt. per Lineal Ft.	..... pounds	2.70	3.30	3.54	4.00	4.66	6.00	5.20	7.50	12.00
Southern Yellow Pine Creosoted 8 # : Wt. per Lineal Ft.	..... pounds	3.80	4.80	5.10	6.00	7.00	9.00	7.80	11.30	18.00

*Brace bolt holes marked V drilled through the arm vertically; all others drilled horizontally.

Soil Classification

The term soil classification indicates a basis by which you may estimate the amount of holding power an anchor of given size or design may be expected to have.

Soil classification is perhaps the most difficult factor to set up in a manner that can be interpreted fairly equally by all those concerned with anchor installations in all sections of the country. Attempts to classify soils by name, even generally, were misleading because of the numerous mixtures encountered in field conditions which, while they seemed to closely resemble each other, exhibited widely ranging strengths. Mixture of red and blue clay to one man was hardpan and to another was moist clay, etc. . .

A review of a large number of tests, however, revealed that moisture content and its effect on the soil in question, rather than a fine division of soils, was more of a determining factor provided the moisture content varied sufficiently to allow easily determined division points. Such a set-up did present itself and anchor holding powers estimated on this basis were much closer than those attempting to analyze the soil content. This set-up is offered as a suggested classification of soils for anchor installation.

Class 1. Hard Rock (solid).

Class 2. Shale, Sandstone, (solid or in adjacent layers).

Class 3. Hard, Dry, (hardpan. Requires use of digging bar. Usually found under a Class 4 strata. Resembles soft rock.)

Class 4. Crumbly, Damp, (usually clay predominates. Insufficiently moist to pack into a ball when squeezing by hand. Particles crumble off).

Class 5. Firm, Moist, (usually clay predominates. Other soils commonly present. When squeezed by hand will form into a firm ball. Most soils in well drained areas will fall into this classification).

Class 6. Plastic, Wet, (usually clay predominates as in Class 5. Due to unfavorable moisture conditions such as areas subjected seasonally to heavy rainfall, sufficient water is present to penetrate the soil to appreciable depth and though the area is fairly well drained, the soil during such seasons becomes plastic and when squeezed will readily assume any shape. This soil is not uncommon in fairly flat terrain).

Class 7. Loose, Dry, (found in arid regions usually sand or gravel predominates. Filled in or built up areas in dry regions fall into this class. As the term implies, there is very little bond to hold the particles together).

Loose, Wet, (same as Loose Dry for holding power. High in sand, gravel, or loam content. Holding power at some seasons good, but during rainy seasons absorbs excessive moisture readily with resultant loss of holding power. Predominate in poorly drained areas).

Class 8. Swamps and Marshes (includes areas that are marshes only seasonally).

As pointed out before, most soils will vary some in their classification during a calendar year. Fortunately this variation is not too great in most cases due to the excellent drainage of the land or due to the presence of a water-shedding layer of clay or hardpan above the anchor. In some cases though, prolonged rains and melting snows have converted firm soils into a wet soft mass that flows about the anchor allowing it to work upward if the anchor loading is too heavy.

Chance Never-Creep Anchors

Without Rods



This anchor pulls against solid undisturbed earth; none of the holding area is wasted.

Easy to handle and easy to install. To install, bore the hole, drive rod into hole, and hang plate on rod.

Consists of a rod and a plate. Rod is drop-forged steel with thimble-eye head and pointed Never-Creep knob on lower end. Plate is a certified malleable casting.

Order the rod separately.

Steel

No.	Size of Anchor Inches	Area Sq. In.	Rod, Inches Diam. Lgth.	SOIL HOLDING STR. LB.				Wt. Lb. per 100		
				Soil Classification						
				3	4	5	6	7		
617	6x17	102	5/8	84	21500	18500	14500	11500	7500	904
622	6x22	132	3/4	96	25000	21500	17500	13500	9500	1180
822	8x22	176	3/4	96	30000	26000	20500	16000	11500	1689
827	8x27	216	3/4	108	34000	29000	23500	18500	13500	1935

Malleable

835	8x35	280	1	108	41000	34500	27500	22000	16500	2750
1040	10x40	400	1	120	50000	43000	34000	27500	21000	4761

No. 15 Chance Never-Creep Installing Bars



Used for placing the plate in position in the hole; the opposite end is for tamping. Length, 10 feet. Net weight, 9 pounds.

Chance Expanding and Tamping Bars



Fits over rod. Used to expand anchor and tamp loose dirt.

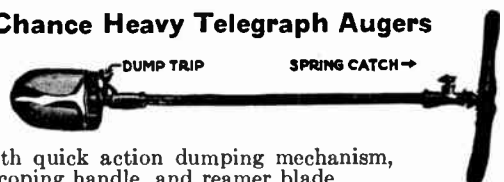
No.	Length, feet	Net Weight, pounds	Regular		Heavy	
			10	12	10H	12H
	10	21	10	12	10	12
			21	28	25 1/2	33 1/2

No. 16 Chance Never-Creep Mauls



Used especially for driving Never-Creep Rods. Has two wood faces and two iron faces. Net weight, 12 pounds.

Chance Heavy Telegraph Augers

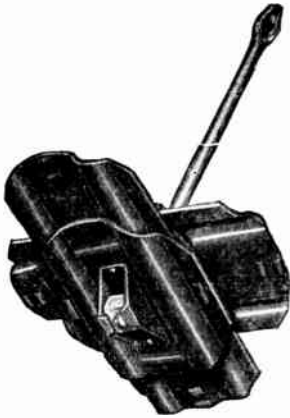


With quick action dumping mechanism, telescoping handle, and reamer blade.

No.	812	610
Diameter of Holes Bored, inches	8-12 3/4	6 1/2-8 1/2
Net Weight, pounds	28	26

Chance Steel Expanding Anchors

Without Rods



The Chance Steel Expanding Anchor will withstand the most severe punishment without danger of breakage. It is fool-proof in construction and powerful in pull.

Easily installed in any position. Nut retainer prevents riding up the rod during expansion.

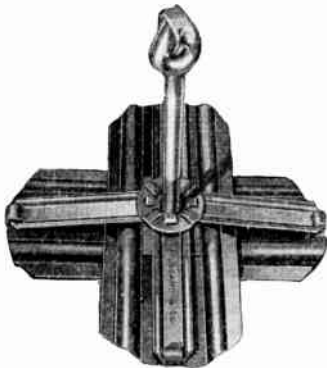
Anchor No.	Size In.	Area Sq. In.	Rod, INCHES		SOIL HOLDING STR. LB.					Wt. Lb. per 100
			Diam.	Lgth.	Soil Classification					
			*3	4	5	6	7			
62	50	1/2	84	13000	11000	9000	7000	4000		
64	6	70	1/2	84	16000	14000	11000	8500	5000	745
826	8	98	5/8	84	20000	17500	13500	10500	7000	1018
846	8	115	5/8	84	22000	19000	15000	11500	7500	1384
8410	8	130	3/4	84	24000	20500	16000	12500	8500	1567
841	8	130	1	84	24000	20500	16000	12500	8500	1583
1044	10	200	1	108	31000	26500	21000	16500	12000	2525
124	12	300	1	120	40000	34000	26500	21500	16000	4175

*Not recommended for hard, dry soils.

Hubbard Hub-Anchors

Expanding Type

PATENT APPLIED FOR



Hubbard Anchors are made in two styles, two-way and four-way, and with various areas. Installation is accomplished by digging an 8-inch diameter hole (6-inch for No. 26050) at the proper angle for the guy, inserting the anchor and rod and applying any standard expanding tool until the anchor is fully expanded. Tamp dirt solidly after each three or four shovels-full, while back filling.

Hub-Anchors are constructed of heavy gage steel and will stand expansion into the hardest types of soil encountered without deformation.

No.	Per 100 Pcs.	Style	Area Sq. In.	Rod Diameter Inches	Approx. Ship. Wt. Lbs. per 100 Pcs.
26050	2-Way 6"	53	1/2 & 5/8	485
28090	2-Way 8"	94	5/8 & 3/4	965
48100	4-Way 8"	112	5/8 & 3/4	1350
48120	4-Way 8"	125	5/8 & 3/4	1400
48135	4-Way 8"	135	5/8 & 3/4	1500

Chance No-Wrench Screw Anchors

With Rods



This anchor has a large triple eye rod which admits a bar for a wrench to use in screwing the anchor down.

Easy to install. Hub is small and the blade is sharp and thin. Drill point aids dirt displacement and speeds installation.

Has extra holding power because of small hub and wide tapered blade. Drop-forged steel rod and anchor are securely welded together at both top and bottom of anchor blade.

Anchor No.	Size Anchor Inches	Area Sq. In.	Rod, INCHES		SOIL HOLDING STR. LB.				No. In. Bdl. per 100	Wt. Lb. per 100
			Diam.	Lgth.	Soil Classification					
			4	5	6	7				
4345	4	12 1/2	3/4	54	6000	4500	3000	1500	5	805
6346	6	28	3/4	66	8500	6500	5000	2500	5	1040
816	8	50	1	66	11000	8000	6500	3500	3	1900
10146	10	78	1 1/4	66	13000	10000	8000	4500	1	3200
10148	10	78	1 1/4	96	16000	12500	10000	6000	1	4100

Chance Swamp Screw Anchors

Without Pipe



The Chance Swamp Anchor is so constructed that the pipe wedges into the hub and becomes a part of the anchor.

Extra lengths of pipe may be added to attain the desired depth.

The triple eye nut accommodates 1, 2, or 3-guy strands.

Anchor No.	Size Anchor Inches	Area Sq. In.	Size Pipe In.	*SOIL HOLDING STR., LB.		No. In. Bdl.	Wt. Lb. per 100
				Soil Classification	In.		
8125-A	8	50	1 1/4	6000	2	1300	
10150-A	10	78	1 1/2	9000	2	1600	
122-A	12	113	2	12000	2	2670	
152-A	15	176	2	15000	1	3675	

*These values are only typical figures for installations extending 8 feet into the plastic clay underneath the layer of mushy silt or quicksand. Because of the wide variations found in testing in swamps, a test set-up is recommended where extensive guying in a swampy area is contemplated. High loads can be sustained where these anchors are driven very deep.

Chance Rock Anchors

With Rods



Before Expansion

This anchor eliminates the necessity for carrying lead, concrete, or grouting equipment on the job.

Installed in a small hole bored with hand or mechanical rock drill. Expanded and wedged against the side of the hole by turning the rod.

When strain is applied the wedge becomes tighter.

This anchor does an excellent, safe, rock anchoring job.



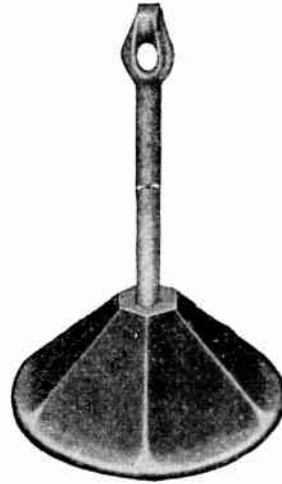
After Expansion

No.	Size Anchor Inches	Rock Drill Size Inches	ROD, INCHES.		SOIL ANCHOR ULTIMATE STR., LB. Soil Classification 1	Wt. Lb. per 100
			Diam.	Lgth.		
R-315	1 3/4	2	3/4	15	Rod Strength	498
R-330	1 3/4	2	3/4	30	Rod Strength	678
R-353	1 3/4	2	3/4	53	Rod Strength	954

Set in holes drilled 2 inches in diameter and 12 inches deep in hard rock, these anchors will develop the full strength of the anchor rod.

Chance Pyramid Cone Anchors

Without Rods



The Chance cone anchor has flat opposing faces and flaring base, creating a wedging action that greatly increases holding power.

Nut retainer aids installation.

No.	Size Anchor Inches	Area Sq. In.	ROD, INCHES Diam.	Lgth.	SOIL HOLDING STR., LB. Soil Classification	SOIL HOLDING STR., LB. Soil Classification				Wt. Lb. per 100
						*2	3	4	5	
8	8	63	5/8	84	Rod Strength	14000	11000	9000	650	
10	10	104	5/8	84	Rod Strength	19000	15000	11500	975	
12	12	132	3/4	96	Rod Strength	21500	17500	14000	1575	
16	16	239	3/4	108	Rod Strength	31000	25000	20000	2600	
19	19	336	1	120	Rod Strength	38500	31000	25000	4850	

*In shale or stone, these anchors develop the strength of the rod.

Chance Wrench Type Screw Anchors

With Rods



This wrench type anchor has a socket and a square shank combined. A regular screw anchor wrench fits down over the square shank that is built up inside the socket.

There is no danger of splitting the wrench and no need for extra wrench fittings.

Anchor is shipped complete with threaded steel rods and thimble-eye nuts.

No.	Size Anchor Inches	Area Sq. In.	ROD, INCHES		SOIL ANCHOR ULTIMATE STRENGTH, POUNDS Soil Classification				No. In. Bdl.	Wt. Lb. per 100
			Diam.	Lgth.	4	5	6	7		
1126-S	6	28	1/2	67	8500	6500	5000	2500	5	988
1586-S	6	28	5/8	67	8500	6500	5000	2500	5	1120
1588-S	8	50	5/8	67	11000	8000	6500	3500	3	1680
1348-S	8	50	3/4	67	11000	8000	6500	3500	3	1980
15810-S	10	78	5/8	67	13000	10000	8000	4500	3	2170
13410-S	10	78	3/4	67	13000	10000	8000	4500	3	2455

No. 600 Chance Screw Anchor Wrenches



This wrench gives ample leverage for turning a screw anchor into the ground.

Net weight, 36 pounds.

Everstick Cone Anchors



Used wherever rigid type anchor is required. Made of malleable iron with special ribbed construction which adds to its holding power and strength.

Everstick nut housing feature is used to assure a compact, tight connection between rod and anchor.

HOLDING POWER. In setting cone anchor, a sufficient amount of rock, dependent upon soil conditions, must be well tamped on top of anchor before back filled.

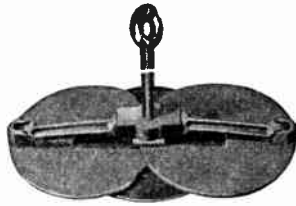
No.	6-C	8-C	10-C	12-C	16-C	19-C	23-C
Size Anchor and Hole.....in.	6	8	10	12	16	19	23
Size Rod or Smaller.in.	5/8	3/4	3/4	1	1	1	1 1/4
Weight Anchor.lb.	2 1/2	5	10 1/2	14	20	40	54



Everstick Expanding Anchors
For All Types of Pole Line Construction
2-Way Anchors



Open



Closed

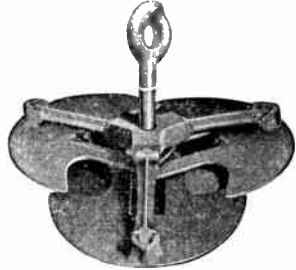
Sturdy anchor, easy to install.

No.	Each	Anchor Size Rod and Hole		Area Expanded Sq. In.	Wt. Anchor Lb.	HOLDING POWER, POUNDS		
		In.	Smaller In.			Sand	Clay	Hardpan
62	6	5/8	55	7	3000	5000	7000
82	8	3/4	100	11	6000	11000	16000

3-Way Anchors



Open

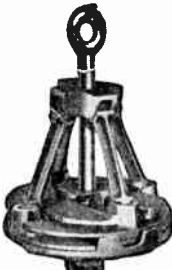


Closed

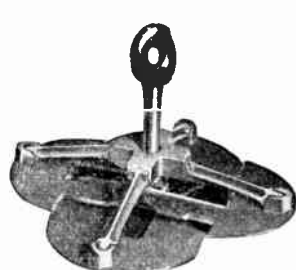
Ideal guy anchor for all around construction and maintenance. Easy to install. Simple to expand. Maximum holding power.

No.	Each	Anchor Size Rod and Hole		Area Expanded Sq. In.	Wt. Anchor Lb.	HOLDING POWER, POUNDS		
		In.	Smaller In.			Sand	Clay	Hardpan
633	6	5/8	65	7 1/2	5000	8000	11000
834	8	5/8	90	11	6000	10000	14000
836	8	3/4	110	14	8000	13000	18000
8310	8	3/4	125	15	12000	18000	24000
8312	8	1	125	16	12000	18000	24000
10316	10	1	175	28	18000	32000	45000

4-Way Anchors



Open



Closed

For heavy duty guying. Ease of expansion, super strength, and excess holding power are features of this anchor.

No.	Each	Anchor Size Rod and Hole		Area Expanded Sq. In.	Wt. Anchor Lb.	HOLDING POWER, POUNDS		
		In.	Smaller In.			Sand	Clay	Hardpan
64	6	5/8	70	9	5000	8000	12000
84-3/4"	8	3/4	125	16	12000	18000	24000
84-1"	8	1	132	16	12000	18000	24000
104	10	1	210	30	20000	35000	50000
124	12	1 1/4	310	55	30000	50000	70000

Hubbard Steelwing Anchors
Hot Galvanized



Anchor turns into the ground like a corkscrew and holds against a large area of undisturbed earth. It is easy to install or reclaim and the large Hubeye permits the insertion of a bar for leverage. The wing diameter is stamped on the rod (except Nos. 7542 and 7543) just under the eye as a permanent, above-ground record of its holding strength.

The No. 7524 Baby Steelwing, furnished with a 4-inch wing, is designed for permanent light guying or a temporary anchorage for heavier guys.

Nos. 7542 and 7543 are smaller sizes designed for anchoring fences, trees and other similar light work.

Hubeye		E.E.I. Eye		WING		Rod Diam. In.	Overall Lgth. Ft.	Ship- ping Wt. Lb. per 100
No.	Per 100	No.	Per 100	Diam. In.	Pitch In.			
....	*7542	....	2 3/4	1 3/8	1/2	1 1/2	130
....	7543	....	2 3/4	1 3/8	1/2	2 1/2	200
7524	†7524-A	....	4	1 3/4	3/4	4 1/2	800
7526	7526-A	....	6	1 1/2	3/4	5 1/2	1100
7527	7527-A	....	7	1 3/4	1	5 1/2	1750
7528	7528-A	....	8	2	1	5 1/2	2000
7530	7530-A	....	10	2 1/2	1 1/4	5 1/2	3200
7550	7550-A	....	10	2 1/2	1 1/4	8	4300

*Open eye. †A. T. & T. Co. Std. Prices upon application.

Swamp Anchors

Consists of a steel wing and short shaft. Short shaft is threaded to take a 1 1/4-inch standard pipe coupling or 1 1/2 x 1 1/4-inch malleable iron pipe reducer.

The pipe coupling and reducer are not included but will be furnished if specified.

A special Hubeye nut, threaded to fit the pipe, is provided for the guy attachment.



No.	WING, INCHES Diam. Pitch	Rod Diam. In.	Overall Lgth. Ft.	Pipe Size In.	Ship. Wt. Lb. per 100
7548	8 2	1.66	*	1 1/4	† 920
7549	10 2 1/2	1.66	*	1 1/2	† 1370

Prices upon application. *10 inches plus pipe. †less pipe.

No. 7546 Hubbard Rock Guy Bolts
Hot Galvanized



Used in solid rock formations or in stone or concrete walls.

Of 1-inch round steel, 18 inches over all, with standard drop forged oval eye (1 1/2 x 2 inches inside eye).

No. 7546, Ship. Wt. 660 Pounds..... per 100 \$237.98

Hubbard Rock Guy Bolts
Hot Galvanized



Used in solid rock formations, in stone or concrete walls.

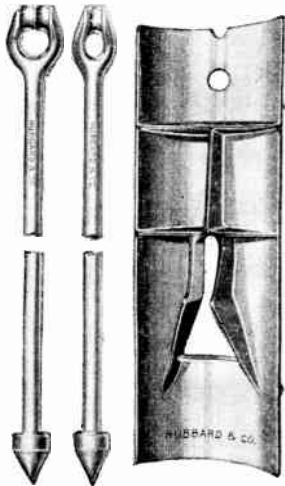
Has split bottom end and wedge that spreads end as bolt is driven against bottom of hole. Of one-inch round steel, 18 inches over all with standard drop forged oval eye (1 1/2 x 2-inch inside eye).

Shipping weight per 100, 665 pounds.

*No. 7547, Eye Bolt and Wedge..... per 100 \$279.69
No. 7547-G, Hubeye Bolt and Wedge..... per 100 300.95

*A. T. & T. Co. Std.

Hubbard Plate Anchors and Anchor Rods



Hubbard plate anchors are made of malleable iron and are used with Hubeye plate anchor rods.

A hole is dug at right angles to the line of stress and the rod driven through to it. The anchor plate is then lowered by an installing tool and hooked over the conical end of the anchor rod. Tension is applied and the hole is filled.

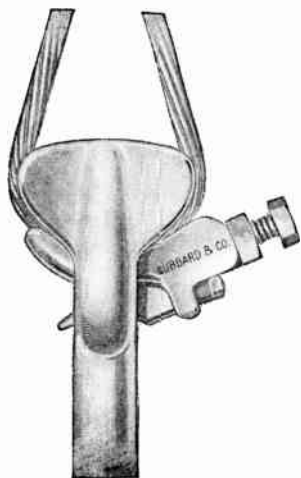
Plate Anchors

No.	Per 100	Approx. Area Sq. In.	ANCHOR SIZE, IN.—		Rod Diam. In.	Ship. Wt. per 100
			Width	Length		
2615	90	6	15	1/2-5/8	844
2618	110	6	18	5/8-3/4	969
2620	120	6	20	5/8-3/4	1075
2820	160	8	20	5/8-3/4	1650
2825	200	8	25	3/4	1950
2830	240	8	30	3/4	2875
2835	280	8	35	3/4-1	2750
1040	400	10	40	1	4761
1300					900

Installing Tool

Plate Anchor Rods

Hubeye			Tu-Hubeye			Diam. Rod In.	Over-all Lgth. Ft.
No.	Per 100	Ship. Wt. Lb. per 100	No.	Per 100	Ship. Wt. Lb. per 100		
28405	\$143.68	390	.....	.....	.....	1/2	5
28406	155.18	450	.....	.....	.....	1/2	6
28407	167.30	510	.....	.....	.....	1/2	7
28416	167.60	680	28516	\$217.42	688	1/2	6
28417	185.89	755	28517	255.00	763	5/8	7
28418	204.11	830	.....	.....	.....	5/8	8
28426	236.60	960	28526	240.99	970	3/4	6
28427	263.00	1120	28527	267.39	1130	3/4	7
28428	289.41	1245	28528	293.79	1255	3/4	8
28429	315.83	1350	28529	320.19	1460	3/4	9
28430	342.36	1500	.....	.....	.....	3/4	10
28437	460.62	2150	28537	467.31	2160	1	7
28438	509.43	2300	28538	514.65	2310	1	8
28440	607.39	2600	28540	611.14	2610	1	10
.....	.....	.....	28542	707.63	2910	1	12



No. 4243 Hubbard Bonding Clamps

Hot Galvanized

Affords a uniform contact area between the guy strand and the curve of the Hubeye.

Weight per 100, 20 pounds.

No. 4243 . . . per 100 \$40.86

Hubbard Anchor Rods

Hot Galvanized



Standard oval eye anchor rod used to form the dead-man type of anchorage. The eye is drop forged and is stronger than the rod itself. Diameters of 3/4 inch or under have rolled threads, larger diameters have cut threads. All rods threaded 3 1/2 inches.

No.	Per 100	Diam. Rod In.	Overall Lgth. Ft.	Width Eye In.	Length Eye In.	Shipping Wt. Lb. per 100
7355	\$107.75	1/2	5	1 1/4	1 1/2	350
7356	119.25	1/2	6	1 1/4	1 1/2	405
7357	130.79	1/2	7	1 1/4	1 1/2	510
7415	148.09	5/8	5	1 1/2	2	550
\$7416	166.41	5/8	6	1 1/2	2	650
†7417	184.70	5/8	7	1 1/2	2	750
\$7418	202.99	5/8	8	1 1/2	2	850
7426	230.57	3/4	6	1 1/2	2	910
7427	256.09	3/4	7	1 1/2	2	1060
†7428	281.61	3/4	8	1 1/2	2	1220
7429	308.68	3/4	9	1 1/2	2	1360
\$7430	335.92	3/4	10	1 1/2	2	1520
7438	490.70	1	8	1 1/2	2	2265
\$7440	587.27	1	10	1 1/2	2	2735
\$7442	683.84	1	12	1 1/2	2	3200
7444	1129.65	1 1/4	10	1 3/4	2 1/4	4500

Hubbard Hubeye Anchor Rods

Hot Galvanized



Hubeye



Tu-Hubeye

Designed to provide a smooth curve with an ample radius for protection to the strand at the bend, thereby eliminating the use of a guy thimble. The strength of the Hubeye is greater than that of the rod.

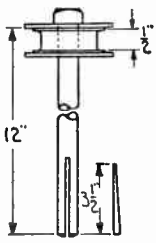
The Tu-Hubeye, for two guys, is forged with the same generous radius as the Hubeye.

Hubeye			Tu-Hubeye			Diam. Rod In.	Overall Lgth. Ft.
No.	Per 100	Ship. Wt. Lb. per 100	No.	Per 100	Ship. Wt. Lb. per 100		
8405	\$117.33	370	.....	.....	.....	1/2	5
8406	128.84	440	.....	.....	.....	1/2	6
†8407	140.38	500	.....	.....	.....	1/2	7
8415	157.68	550	8515	\$164.60	615	5/8	5
8416	176.00	654	8516	183.14	674	5/8	6
8417	194.29	758	8517	201.68	778	5/8	7
†8418	212.57	862	8518	219.71	882	5/8	8
8426	243.50	960	8526	245.31	1000	3/4	6
8427	269.03	1145	8527	272.38	1195	3/4	7
8428	294.55	1400	8528	299.45	1440	3/4	8
†8429	321.62	1460	†8529	325.16	1500	3/4	9
8430	348.86	1665	8530	352.38	1705	3/4	10
8437	461.03	2050	8537	466.76	2175	1	7
8438	508.67	2300	8538	514.11	2400	1	8
8439	556.32	2550	8539	561.41	2625	1	9
†8440	605.24	2800	†8540	610.59	2860	1	10
8442	701.80	3370	8540 1/2	707.06	3360	1	12
.....	.....	.....	†8541	1173.41	4400	1 1/4	10
.....	.....	.....	8542	1501.48	5230	1 1/4	12

†A. T. & T. Std. †A. R. A. Std. §E. E. I. Std.

Hubbard Rock Guy Anchors

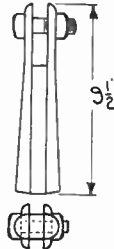
Hot Galvanized



No. 7544

Used in solid rock or in masonry. Installed at an approximate right angle to line of guy pull.

No. 7544 consists of a one-inch round steel bolt with a 1½-inch square head, 2 round washers and a round thimble. Bottom of bolt is split for a wedge which spreads end of anchor as it is driven against bottom of hole.



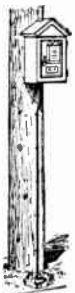
No. 7545

No. 7545 consists of two drop forged, wedge shaped sides, one shim and a ¾x2½-inch machine bolt. To install, a hole of the proper size is drilled and the two sides are placed in the hole. Shim is driven down between the two sides, expanding them against the sides of hole, and machine bolt is re-assembled. Anchor is then ready for use.

No.	*7544	*†7545
Per 100	\$442.59	215.29
Size Hole to Be Drilled..... inches	1	1¾
Length Overall..... inches	12¾	9½
Approx. Ship. Wt. per 100 Pieces... lb.	400	520

*A.T.&T. Co. Std. †Western Union Std. ‡A.R.A. Std.

Hubbard-Copperweld Alarm Box Grounders



No. 9335

The alarm-box grounder takes the place of the conduit and grounding wire previously used for connecting police and fire alarm boxes to ground. It makes a neat installation, which is quickly and easily installed, and will last a lifetime. Consists of a ¾-inch Copperweld rod with a bushing and a stranded copper lead wire for attachment to the alarm-box and internal mechanism.

The adapter type is for use on boxes with unthreaded holes. Copperweld staples for attachment to pole are also included. At bottom, it is connected to a ¾-inch ground rod with clamp No. 9492 or No. 9592.

Adapter Type No.....	9235	9236	9237
Bushing Type No.....	9335	9336	9337
Diameter Rod..... inches	¾	¾	¾
Length Rod..... feet	5	6	7
Ship. Weight per 100..... pounds	225	265	305

Hubbard Steel Ground Rods

Hot Galvanized
With Copper Wire

The wired rod has a length of No. 12 gage copper wire bonded firmly to upper end with five inches free for making ground wire connection.

All possibility of wire stripping loose is eliminated by the top turn being looped under itself, relieving the bond from carrying strain concentrated at that point. Special lengths of wire can be furnished.

No.	Per 100	Diameter Inches	Length Feet	Shipping Wt. Lb. per 100
*9505	\$94.76	1½	5	365
9506	107.70	1½	6	418
9516	148.46	1½	6	660
9538	477.96	1	8	2420

*A. T. & S. Co. Std.

Without Copper Wire

Ground rod without wire has a hole at the upper end for attaching ground wire. Hole is located 1 inch from the upper end of rod.

No.	Per 100	Diameter Inches	Diameter Hole Inches	Length Feet	Shipping Wt. Lb. per 100
9555	\$48.00	¾	1/8	5	203
9556	55.58	¾	1/8	6	245
9565	70.61	1½	3/32	5	346
9566	86.93	1½	3/32	6	415
9567	99.60	1½	3/32	7	484
9576	122.44	5/8	3/16	6	650
9577	141.16	5/8	3/16	7	750
9578	160.90	5/8	3/16	8	850
9580	200.06	5/8	3/16	10	1043
9582	239.79	5/8	3/16	12	1261

Without Copper Wire

Hubbard Drive Head Steel Ground Rods

Hot Galvanized

Forged of high manganese steel with the ground wire clamp an integral part of the head. No bending allows large diameter wires to be attached. Chamfered head will not chip or flow when hammered. The reversible keeper used in two positions to accommodate wires from No. 00 to No. 4 and from No. 4 to No. 8. Both clamp and head are completely tinned.



No.	Per 100	Diameter Inches	Length Feet	Shipping Wt. Lb. per 100
25855	\$177.98	5/8	5	640
25856	195.87	5/8	6	745
25857	213.75	5/8	7	850
25858	231.64	5/8	8	955
25859	249.52	5/8	9	1060
25860	267.39	5/8	10	1165
25866	329.06	3/4	6	1040
25867	362.81	3/4	7	1190
25868	396.70	3/4	8	1340
25869	430.55	3/4	9	1490
25870	464.43	3/4	10	1640
25872	531.92	3/4	12	1940

Hubbard-Copperweld Ground Rods

Offers the permanence of copper plus the strength of steel. Made by molten weld process which assures a permanent bond between the copper and the steel.

¾-In. Diam.		¾-In. Diam.		¾-In. Diam.	
No.	Approx. Lgth. Ft. Ship. Wt. Lb. per 100	No.	Approx. Lgth. Ft. Ship. Wt. Lb. per 100	No.	Approx. Lgth. Ft. Ship. Wt. Lb. per 100
9415	5 200	9442	12 1280	9458	18 2890
9416	6 240	9443	13 1390	9459	19 3045
9387	7 280	9443½	14 1500	9460	20 3100
9388	8 320	9444	15 1605	1-In. Diam.	
½-In. Diam.		9656	16 1715	9466	6 1650
9425	5 340	9657	17 1825	9467	7 1925
9426	6 410	9658	18 1935	9468	8 2200
9427	7 480	9659	19 2045	9469	9 2475
9428	8 550	9660	20 2155	9470	10 2750
9429	9 615	¾-In. Diam.		9471	11 3025
9430	10 685	9445	5 775	9472	12 3300
9431	11 755	9446	6 930	9473	13 3575
9432	12 825	9447	7 1085	9473½	14 3850
9433	13 895	9448	8 1240	9474	15 4130
9434	14 965	9449	9 1395	9476	16 4405
9434½	15 1035	9450	10 1550	9477	17 4680
¾-In. Diam.		9451	11 1705	9478	18 4955
9435	5 535	9452	12 1860	9478½	19 5230
9436	6 640	9453	13 2015	9479	20 5500
9437	7 750	9454	14 2170	9691	25 6875
9438	8 855	9455	15 2425	9693	30 8250
9439	9 960	9456	16 2580	9695	35 9625
9440	10 1070	9457	17 2735	9697	40 11000
9441	11 1180				

Prices upon application.

Hubbard-Copperweld Sectional Ground Rods



Consists of three parts, the rod, the coupling, and the driving stud. Couplings are made of bronze and studs are made of a special steel to withstand driving blows.

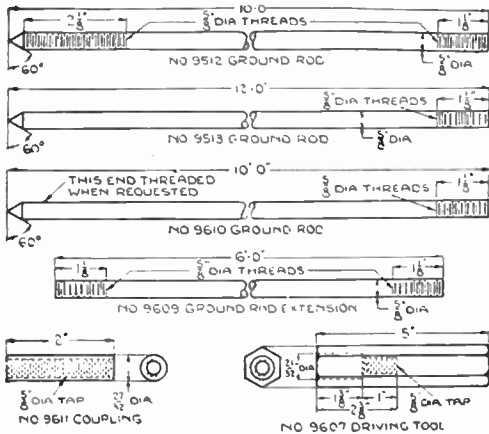
Available in ½, 5/8, and ¾-inch diameter. The size of the sectional rod is the diameter of the thread.

When ordering sectional rods, stock numbers may be specified by adding a number 2 before the stock number of the standard rod. Furnished in 10-foot lengths.

No.	Description	Wt. Lb. per 100
29430	½-Inch x 10-Foot Sectional Rod.....	685
29440	5/8-Inch x 10-Foot Sectional Rod.....	1070
29450	¾-Inch x 10-Foot Sectional Rod.....	1550
9533	½-Inch Bronze Coupling.....	18
9534	5/8-Inch Bronze Coupling.....	30
9535	¾-Inch Bronze Coupling.....	46
9537	5/8 to ¾-Inch Bronze Reducing Coupling.....	38
29533	½-Inch Driving Stud.....	15
29534	5/8-Inch Driving Stud.....	23
29535	¾-Inch Driving Stud.....	35

Prices upon application.

Hubbard Sectional Ground Rods Hot Galvanized



Used where deep grounding is desired. Continuous sections may be coupled together with a No. 9611 coupling and driven to any desired depth. For driving by hammer, No. 9607 driving tool is furnished, which screws securely over end threads of ground rod and will not jam or injure threads during driving.

No.	Type	Diam. In.	Lgth. Ft.	Approx. Ship. Wt. Lb. 100
9511	Hi-Carbon, Not Threaded	5/8	10	1043
9512	Hi-Carbon, Threaded	5/8	10	1043
9513	Hi-Carbon, Threaded	5/8	12	1251
9514	Hi-Carbon, Not Threaded	5/8	12	1251
9515	Hi-Carbon, Threaded	5/8	15	1561
9607	Heat Treated Driving Tool	..	..	156
9609	Hi-Carbon	5/8	6	626
9610	Threaded Ground Rod	5/8	10	1043
9611	Galvanized Coupling	..	..	15

Hubbard-Copperweld Ground Wire Clamps Type A



No. 9492 with Safety Set-Screw

Safety Screw Type No.	Sq. Hd. Bolt Type No.	Rod Diam. In.	Wire Size	Approx. Shipping Wt. Lb. per 100
9490	9590	3/8	6 to 12 A.W.G. Solid	15
9491	9591	1/2	4 to 10 A.W.G. Solid	25
9492	9592	5/8	3/8-In. Strand to 8 A.W.G. Solid	35
9493	9593	3/4	3/8-In. Strand to 8 A.W.G. Solid	45
9495	9595	1	4/0 Strand to 4 A.W.G. Solid	50
9496	..	1 1/4	Pipe 4/0 Strand to 4 A.W.G. Solid	120

The great strength and high elastic limit of this non-ferrous clamp enables it to maintain permanently low-resistance grounding connections.

Accommodates solid or stranded ground wires, and is furnished either with safety set-screw or square head set-screw.



No. 9592 with Square Head Bolt

Type B



With Safety Set-Screw

6490	6590	3/8	6 to 14 A.W.G.	8
6491	6591	1/2	2 to 10 A.W.G.	15
6492	6592	5/8	2 to 8 A.W.G.	30
6493	6593	3/4	2 to 8 A.W.G.	40

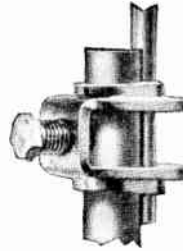
Designed to allow the use of Hubbard-Copperweld ground rods and clamps at a lower assembly cost.

Provides a permanent high pressure connection, which is made quickly without the use of solder.



With Square Head Bolt

Reliable Ground Rod Clamps



Furnished with 1/2-inch hex head screw.

At 200-225 pounds pressure, corners become rounded.

Coating minimizes corrosion and galvanic action.

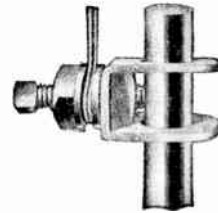
Furnished with hollow head set screws when specified.

One hexagon wrench included with each 50 clamps or less.

Bronze clamps are for copper and copperweld rods. Galvanized steel clamps are for steel rods and pipes.

Bronze		Galv. Steel		Rod. Inches Max. Min.	Wire A.W.G. Max. Min.	Std. Pkg.	Ship. Wt. Lb. per 100
No.	Per 100	No.	Per 100				
E48	\$18.60	S48	\$11.00	1 1/2	3/4	1	14
E58	21.10	S58	13.20	5/8	1 1/2	3/0	14
E68	24.30	S68	14.30	3/4	5/8	3/0	14

Reliable Galvanized Steel Kling Klamps For Steel Rods and Pipes

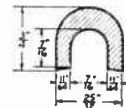


Heavily galvanized. Furnished with tinned washers for use with copper or iron ground wires.

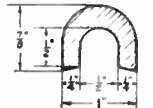
Cupped point bites into rod insuring good contact.

No.	Per 100	Rod, INCHES Max. Min.	WIRE A.W.G. Max. Min.	Std. Pkg.	Ship. Wt. Lb. per 100
K48	\$11.00	1 1/2	2	14	100
K58	13.20	5/8	3/2	14	100

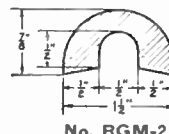
Rainier Wood Ground Wire Moldings



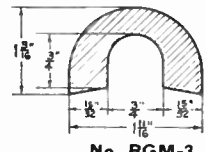
No. RGM-1-A



No. RGM-1



No. RGM-2



No. RGM-3

No.	Each	Wt. per 1000 Lin. Ft.	RGM-1-A	RGM-1	RGM-2	RGM-3
..	100	120	180	310

Staples

For Ground Wire



Packed in standard kegs weighing 100 pounds.
 Length.....inches 1 1/2
 Spread.....inches 3/16
 Galvanized Wire Gage No.....9
 Approximate Number in Keg.....7200
 Prices upon application.

For Ground Wire Moulding

Hot dipped galvanized after cutting.
 Packed in standard kegs weighing 100 pounds.
 Length.....inches 2 3
 Spread.....inches 1 1
 Size Wire.....inches 3/16 1/4
 Approximate Number in Keg.....2800 1200
 Prices upon application.

Hubbard U-Cable Guards and Straps

Hot Galvanized

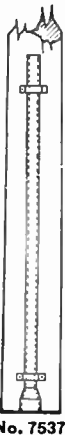
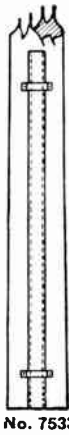
When telephone or power cables enter the ground at the base of a pole or the side of a building, they are protected by U-cable guards. The guards are formed of No. 14 gage steel pressed to a U-shape which provides protection for pedestrians as well as providing stiffness for guard.

Nos. 7536 and 7537 have a 2 1/8-inch inside diameter belled bottom to fit over ground conduit.

A. T. & T. Co. Standard.

U-Cable Guards

No.	Per 100	Length Feet	INSIDE DIAM. INCHES		Ship. Wt. Lb. per 100
			Top	Bottom	
7531	\$140.13	6	1 1/8	1 1/8	495
7531 1/2	.....	8	1 1/8	1 1/8	660
7532	200.46	5	2 3/16	2 3/16	825
7533	297.81	8	2 3/16	2 3/16	1408
7534	349.01	5	3 3/16	3 3/16	1210
7535	428.30	8	3 3/16	3 3/16	1925
7536	275.50	5	1 1/4	2 1/8	550
7537	437.54	8	1 1/4	2 1/8	875



Mounting Straps

No.	Per 100	Size Steel Inches	Used with Cable Guard No.	Diam. Holes In.	Ship. Wt. Lb. per 100
7538	\$7.85	1/8 x 3/4	7531	9/32	19
7539	9.49	1/8 x 3/4	7532-3	9/32	23
7540	17.22	3/16 x 1	7534-5	11/32	61
7541	7.84	1/8 x 3/4	7536-7	9/32	19

Hubbard-Copperweld and Galvanized Staples



The larger sizes of Hubbard-Copperweld Staples are used for attaching ground wire moulding to the pole and the smaller sizes for insulated or bare ground wires.

Nos. 7521 and 7522 are used for standard one-inch moulding attachments.

Copperweld Rolled Point Staples

No.	Per 100	Length Inches	Width Inside Inches	Thickness Inches	Approx. Shipping Wt. Lb. per 100
7493	1 1/4	1/4	.114	1.0
7494	1 1/2	5/16	.144	1.5
7495	1 3/4	3/8	.144	2.0
7496	2	1/2	.162	2.25
7497	3	3/4	1/4	7.0
7498	3	1 1/4	1/4	8.5
7499	3 3/4	1 3/4	3/16	15.0
7521	2	1 1/16	3/16	4.0
7522	3	1	1/4	8.0
7523	3 1/2	1 1/2	1/4	10.0

Copperweld Cut Point (Fence) Staples

7650	.....	2	1 1/2	.162	2.25
7651	.....	1 3/8	1 1/2	.162	1.75
7652	.....	1 1/2	3/8	.162	2.00
7653	.....	2	1 1/4	.162	2.25
7654	.....	1 1/4	3/16	.114	.75

Galvanized Rolled Point Staples

8511	.....	1	3/8	1/8	.75
8512	.....	2	1 1/2	.162	2.25
8513	.....	2	1 1/16	3/16	2.80
8521	.....	3	3/4	1/4	6.65
8522	.....	3	1 1/16	1/4	7.00
8523	.....	3	1 1/2	1/4	7.75

Galvanized Cut Point Staples

8533	.....	1 1/2	3/16	.148	1.50
8535	.....	1 1/2	5/16	.148	1.75

Hubbard Machine and Crossarm Bolts
Hot Galvanized



Bolts over 6 inches in length are drive pointed. Nuts are included; washers must be ordered separately.

3/8-Inch Diameter				5/8-Inch Diameter					
No.	Per 100	Lgth. Lb. Thrld. In.	Lgth. Thrld. In.	No.	Per 100	Lgth. Lb. Thrld. In.	Lgth. Thrld. In.		
9601	.....	1	1	8.2	9803 1/2	.....	3 1/2	3 1/2	53
9601 1/4	.....	1 1/4	1 1/4	8.8	9804	.....	4	3	57
9601 1/2	.....	1 1/2	1 1/2	9.9	9805	.....	5	3	67
9602	.....	2	2	11.4	9806	\$19.96	6	3	80
9602 1/2	.....	2 1/4	2 1/2	12.8	9807	21.30	7	3	90
*9603	\$5.12	3	3	13.8	†9808	22.78	8	4	100
9603 1/2	5.35	3 1/2	3	16.8	9809	23.94	9	4	108
*9604	5.71	4	3	18.4	††9810	25.90	10	4	113
9604 1/4	5.92	4 1/2	3	18.9	9811	.....	11	6	120
†9605	6.21	5	3	20.1	††9812	28.40	12	6	127
*9605 1/2	6.50	5 1/2	3	22.8	††9814	31.28	14	6	131
9606	6.72	6	3	23.5	††9816	33.81	16	6	157
1/2-Inch Diameter				3/4-Inch Diameter					
9701	.....	1	1	15.0	9901 1/2	.....	1 1/2	1 1/2	67
9701 1/4	.....	1 1/4	1 1/4	17.6	9902	.....	2	2	74
9701 1/2	.....	1 1/2	1 1/2	20.2	9902 1/2	.....	2 1/2	2 1/2	80
9702	.....	2	2	22.7	9903	.....	3	3	89
†9702 1/2	.....	2 1/2	2 1/2	24.6	9903 1/2	.....	3 1/2	3	97
9703	.....	3	3	27.3	9904	.....	4	3	108
9703 1/2	.....	3 1/2	3	29.7	9905	.....	5	3	119
†9704	.....	4	3	33.6	9906	.....	6	3	131
††9704 1/2	\$9.83	4 1/2	3	36.6	9907	.....	7	3	142
††9704 3/4	10.01	4 3/4	3	38.5	9908	\$36.32	8	4	165
†9705	10.23	5	3	41.6	9910	40.04	10	4	183
††9706	11.18	6	3	45.1	9912	43.85	12	6	202
†9707	15.81	7	3	51.9	9914	47.60	14	6	228
9708	17.09	8	4	60.6	9916	51.62	16	6	257
9709	.....	9	4	68.4	9918	55.35	18	6	268
9710	19.24	10	4	76.2	9920	59.08	20	6	303
9712	21.07	12	6	85.8	9922	63.03	22	6	336
9714	23.20	14	6	91.6	9924	66.74	24	6	360
9716	25.83	16	6	106.0	9926	70.57	26	6	382
9718	28.21	18	6	121.0	9928	74.59	28	6	466
9720	30.72	20	6	133.0	3/2-Inch Diameter				
3/2-Inch Diameter				9801 1/2	.....	1 1/2	1 1/2	37.0	
3/2-Inch Diameter				9802	.....	2	2	41.0	
3/2-Inch Diameter				9802 1/2	.....	2 1/2	2 1/2	45.0	
3/2-Inch Diameter				9803	.....	3	3	49.0	

†A.T. & T. Co. Std. *Western Union Std. †E.E.I. Std. †A.R.A. Std.

Hubbard Double Arming Bolts
Hot Galvanized



Furnished with full length thread and four nuts.

No.	Per 100	Diameter Inches	Length Overall Inches	Shipping Wt. Lb. per 100
9844	\$28.32	1 1/2	14	120
9846	30.02	1 3/4	16	129
9848	32.78	1 1/2	18	138
9850	34.40	1 1/2	20	146
9852	36.82	1 1/2	22	163
9854	38.48	1 1/2	24	172
††9864	53.05	1 1/2	14	194
††9866	55.50	1 1/2	16	200
††9868	59.31	1 1/2	18	218
††9870	61.83	1 1/2	20	235
†9872	65.77	1 1/2	22	253
†9874	68.30	1 1/2	24	271
9884	65.28	3/4	14	279
9886	69.31	3/4	16	301
9888	73.87	3/4	18	350
9890	78.15	3/4	20	372
9892	82.42	3/4	22	383
9894	86.95	3/4	24	427

†A.T. & T. Co. Std. *Western Union Std. †E.E.I. Std. †A.R.A. Std.

Hubbard Eye Bolts

Hot Galvanized

Standard Oval Eye Bolts



No.	Per 100	Diam. Rod Inches	Length Under Eye Inches	Width Eye Inches	Length Eye Inches	Shipping Wt. Lb. Per 100
39937	.....	1/2	6	1 1/4	1 1/2	82
39939	.....	1/2	8	1 1/4	1 1/2	94
39941	.....	1/2	10	1 1/4	1 1/2	107
39943	.....	1/2	12	1 1/4	1 1/2	120
39945	.....	1/2	14	1 1/4	1 1/2	134
39947	.....	1/2	16	1 1/4	1 1/2	147
39949	.....	1/2	18	1 1/4	1 1/2	160
39951	.....	1/2	20	1 1/4	1 1/2	172
§39956	\$51.33	5/8	6	1 1/2	2	131
39957	.....	5/8	7	1 1/2	2	138
§39958	53.94	5/8	8	1 1/2	2	145
39959	.....	5/8	9	1 1/2	2	157
§39960	56.69	5/8	10	1 1/2	2	169
§39962	59.20	5/8	12	1 1/2	2	179
§39964	61.81	5/8	14	1 1/2	2	192
§39966	64.46	5/8	16	1 1/2	2	205
§39968	67.20	5/8	18	1 1/2	2	229
§39970	69.79	5/8	20	1 1/2	2	242
39972	72.42	5/8	22	1 1/2	2	267
39974	75.04	5/8	24	1 1/2	2	280
39976	76.59	3/4	6	1 1/2	2	195
39977	.....	3/4	7	1 1/2	2	204
39978	81.12	3/4	8	1 1/2	2	213
39979	.....	3/4	9	1 1/2	2	222
39980	85.64	3/4	10	1 1/2	2	231
39982	90.29	3/4	12	1 1/2	2	248
39984	94.93	3/4	14	1 1/2	2	277
39986	99.60	3/4	16	1 1/2	2	308
39988	104.48	3/4	18	1 1/2	2	345
39990	109.35	3/4	20	1 1/2	2	374
39992	114.22	3/4	22	1 1/2	2	404
39994	119.10	3/4	24	1 1/2	2	434

§E.E.I. Std.

Double Arming Eye Bolts

Furnished with three nuts and roll-threaded to 1 1/2 inches from the eye. Furnished with the standard E.E.I. eye.

29784	\$104.93	5/8	14	.....	.....	203
29786	108.04	5/8	16	.....	.....	253
29788	111.73	5/8	18	.....	.....	267
29790	115.42	5/8	20	.....	.....	286
29794	131.39	3/4	14	.....	.....	290
29796	135.92	3/4	16	.....	.....	360
29798	140.70	3/4	18	.....	.....	376
29800	145.48	3/4	20	.....	.....	411

Hubbard Screw Eye Bolts

Hot Galvanized



Supplied with either E.E.I. type eyes or Hubeye. Threads are gimlet point style.

No.	39929	39930	39931	39932	8462	283.69	9172	298.39	1	12	6	497
Per 100	\$50.78	61.42	83.29	105.80	8464	294.07	9173	309.90	1	14	6	546
Diameter.....inches	3/8	1/2	5/8	3/4	8466	304.22	9174	320.78	1	16	6	594
Length Under Eye.....inches	2 1/2	6	6 3/4	6 3/4	8468	315.10	9175	332.53	1	18	6	642
Shipping Weight .....	.....	.....	.....	.....	8470	320.55	.....	.....	1	20	6	690
..... per 100 pounds	20	77	112	183	.....	.....	.....	.....	.....	.....	.....	.....

Hubbard Hubeye Bolts

Hot Galvanized



No. 9062



No. 9152

Hubbard drop forged straight and angle Hubeye bolts are designed to provide a smooth curve through the eye with a large radius for protection to the strand at the bend, thereby eliminating the use of guy thimbles.

The eyes of the angle Hubeye bolts are forged at a 45° angle to the shank.

One-inch sizes have cut threads, smaller sizes are roll-threaded.

All Hubeye bolts are drive pointed.

Straight		Angle		DIMENSIONS, INCHES				Approx. Ship. Wt. Lb. per 100
No.	Per 100	No.	Per 100	Diam.	Lgth. Under Eye	Lgth. of Thread		
9056	\$61.94	9149	\$67.41	5/8	6	4	110	
9057	63.23	9149 1/2	68.74	5/8	7	6	121	
9058	64.55	9150	70.06	5/8	8	6	132	
9059	65.88	9150 1/2	71.35	5/8	9	6	143	
9060	67.20	9151	72.67	5/8	10	6	154	
9062	69.92	9152	75.41	5/8	12	6	176	
9064	72.53	9153	78.00	5/8	14	6	198	
9065	73.90	9153 1/2	79.27	5/8	15	6	209	
9066	75.28	9154	80.53	5/8	16	6	220	
9068	77.89	9155	83.39	5/8	18	6	242	
9070	80.53	9156	86.11	5/8	20	6	264	
9076	89.56	9159	96.38	3/4	6	4	179	
9078	94.34	9160	101.14	3/4	8	4	204	
9080	99.12	9161	105.90	3/4	10	6	229	
9082	103.73	9162	110.55	3/4	12	6	255	
9084	108.51	9163	115.45	3/4	14	6	280	
9085	110.95	9163 1/2	117.82	3/4	15	6	306	
9086	113.41	9164	120.19	3/4	16	6	319	
9088	118.19	9165	124.97	3/4	18	6	344	
9090	123.05	9167	129.73	3/4	20	6	369	
9092	127.81	9168	134.49	3/4	22	6	395	
9094	132.70	9169	139.25	3/4	24	6	420	
8458	261.31	9170	275.42	1	8	6	400	
8460	272.32	9171	287.02	1	10	6	448	
8462	283.69	9172	298.39	1	12	6	497	
8464	294.07	9173	309.90	1	14	6	546	
8466	304.22	9174	320.78	1	16	6	594	
8468	315.10	9175	332.53	1	18	6	642	
8470	320.55	.....	.....	1	20	6	690

Hubbard Carriage Bolts
Hot Galvanized



Used in attaching braces to crossarms. Furnished with standard heads, shoulders, nuts and rolled threads.

No.	Per 100	Diameter Inches	Length Inches	Length Thread Inches	Approx. Shipping Wt. Lb. per 100
9633	\$4.53	3/8	3	1 3/4	14.5
9633 1/2	4.84	3/8	3 1/2	1 3/4	16.5
††† 9634	5.12	3/8	4	1 3/4	18.3
††† 9634 1/2	5.37	3/8	4 1/2	1 3/4	20.0
§ 9635	5.62	3/8	5	1 3/4	21.1
9635 1/2	5.92	3/8	5 1/2	1 3/4	22.5
9636	6.15	3/8	6	1 3/4	23.3
9643	8.19	1/2	3	2 1/2	26.7
9643 1/2	8.60	1/2	3 1/2	3	29.2
9644	9.03	1/2	4	3	33.3
9644 1/2	9.45	1/2	4 1/2	3	36.7
9645	9.90	1/2	5	3	38.6
9645 1/2	10.34	1/2	5 1/2	3	41.2
9646	10.84	1/2	6	3	44.0
9647	13.16	1/2	7	3	50.0
9648	14.41	1/2	8	4	59.0
9650	17.37	1/2	10	4	72.0
9652	19.84	1/2	12	6	85.0
9654	21.94	1/2	14	6	99.0
9655	24.30	1/2	16	6	105.0

†A.T. & T. Co. Std. *Western Union Std. §E.E.I. Std.
‡A.R.A. Std.

Hubbard Lag Screws
Hot Galvanized



Unless otherwise specified, fetter drive lag screws will be furnished on all orders except for 1/4 and 3/16 inch diameters, which are furnished with gimlet point thread only.

No.	Per 100	Diameter Inches	Length Inches	Length Thread Inches	Approx. Shipping Wt. Lb. per 100
9721 1/2	.....	1/4	1 1/2	1 1/8	2.0
9722	\$3.24	1/4	2	1 5/8	3.5
9722 1/2	3.52	1/4	2 1/2	1 3/4	5.0
9723	3.80	1/4	3	2	6.5
9724	4.43	1/4	4	2 1/2	8.0
9732	3.75	5/16	2	1 3/4	5.2
9732 1/2	4.17	5/16	2 1/2	2	6.2
9733	4.53	5/16	3	2 1/4	7.5
9733 1/2	5.01	5/16	3 1/2	2 1/2	9.7
9734	.....	5/16	4	2 1/2	11.9
†9742 1/4	4.21	3/8	2 1/4	2	8.8
*9742 1/2	4.34	3/8	2 1/2	2	9.7
9743	4.53	3/8	3	2	11.0
9743 1/2	4.80	3/8	3 1/2	2 1/2	12.8
*†9744	5.16	3/8	4	2 7/8	14.6
9744 1/2	5.35	3/8	4 1/2	3	16.4
9745	5.62	3/8	5	3	16.9
9746	6.19	3/8	6	3	19.9
9752 1/2	6.17	1/2	2 1/2	2	18.4
9753	6.72	1/2	3	2 1/2	20.9
9753 1/2	7.28	1/2	3 1/2	3	23.4
§9754	7.73	1/2	4	2 1/2	26.0
††9754 1/2	8.17	1/2	4 1/2	2 7/8	27.8
9755	8.84	1/2	5	3 1/4	32.1
9755 1/2	.....	1/2	5 1/2	3	33.9
9756	9.85	1/2	6	3	38.3
††9756 1/2	10.34	1/2	6 1/2	2 7/8	43.2
9757	10.83	1/2	7	3	46.4
9764	15.23	5/8	4	3	42.6
9764 1/2	15.88	5/8	4 1/2	3	46.0
§9765	16.53	5/8	5	3 1/2	50.6
9765 1/2	17.18	5/8	5 1/2	3	55.2
†9766	17.83	5/8	6	2 7/8	60.0
9770	.....	3/4	5	3	74.5
9771	.....	3/4	6	3 1/2	84.9
9772	.....	3/4	7	4	99.4
9773	.....	3/4	8	4 1/2	112.2

†A.T. & T. Co. Std. *Western Union Std. §E.E.I. Std.
‡A.R.A. Std.

Peirce Wood Screws

Hot Galvanized



Threads and screwdriver slot are kept clean and free of excess zinc.

No.	Per 100	1051 1/2	1052 1/2	1053
No.		\$3.88	4.66	5.40
Size No.		16	16	16
Length.		1 1/2	2 1/2	3
Ship. Wt. per 100.		3.1	4.6	5.4

Hubbard-Copperweld Nails

Used for attaching strain plates, or for locking pins and detachable pole steps, mounting conduit or cable guard straps and many other attachments where permanent safety from corrosion is necessary.

No.	Per 100	Nail Size	Length Inches	Shipping Wt. Lb. per 100
8252	2d	1	1/8
8253	3d	1 1/4	1/8
8254	4d	1 1/2	1/4
8255	5d	1 3/4	1/2
8256	6d	2	3/4
8258	8d	2 1/2	1 1/8
8259	9d	2 3/4	1 1/2
8260	10d	3	1 3/8
8262	12d	3 1/4	1 3/4
8266	16d	3 1/2	2 1/4
8270	20d	4	3 1/4
8280	30d	4 1/2	4 3/4
8290	40d	5	6 1/4
8300	50d	5 1/2	7 1/2
8310	60d	6	10

Hubbard Static-Proof Hardware

Static-proof hardware is a type of hardware that can be completely locked in place by using tapped washers and lock nuts and which offers larger areas of contact between the hardware and the structure.

Standard hardware on ordinary timber is subject to loosening by shrinkage of wood and vibration. If this fault is not corrected, it becomes necessary to retighten hardware regularly twice a year. This, in turn, results in an additional hazard due to the crushing of wood fibers each time the hardware is taken up, with consequent tendency to induce decay.

The design of static-proof hardware provides a bond between all metal parts. This bond is secured by thread washers and lock nuts and has the effect of making the hardware into a one-piece assembly.

All holes in arms or poles should be bored the same size as the bolt, assuring a drive fit. When ordering brace bolts, add 1/2-inch to standard lengths to allow for the use of tapped washers, and 1 inch to standard lengths for bolts where both standard nuts and washer nuts are to be used.

Hubbard Washer Head Bolts

Hot Galvanized

With Threaded Washer



No. 4157

No.	Per 100	DIMENSIONS, INCHES				Approx. Ship. Wt. Lb. per 100
		Diam.	Head Diam.	Bolt Lgth.	Thread Lgth.	
4157	\$29.33	3/8	1 3/8	4 1/2	1 3/4	35
4158	29.79	3/8	1 3/8	5	2 1/2	37
4159	47.59	1/2	1 1/2	6	3 1/4	87
4160	48.34	1/2	1 1/2	6 1/2	3 3/4	90

Hubbard Washer Head Bolts

Hot Galvanized

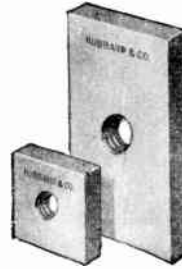
With Threadless Washer



No. 4163

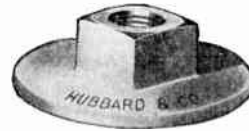
No.	Per 100	DIMENSIONS, INCHES				Approx. Ship. Wt. Lb. per 100
		Bolt Diam.	Head Diam.	Bolt Lgth.	Thread Lgth.	
4163	\$43.84	1/2	1 1/2	7	3	64
4164	45.27	1/2	1 1/2	8	4	69
4165	47.96	1/2	1 1/2	10	4	79
4168	73.80	5/8	2 1/2	8	4	163
4169	76.25	5/8	2 1/2	10	4	179
4170	78.69	5/8	2 1/2	12	6	193
4171	81.62	5/8	2 1/2	14	6	208
4172	84.02	5/8	2 1/2	16	6	223
4173	87.28	5/8	2 1/2	18	6	238
4174	91.92	5/8	2 1/2	20	6	253
4175	96.57	5/8	2 1/2	22	6	268
4176	101.21	5/8	2 1/2	24	6	283
4182	99.92	3/4	3	12	6	277
4183	103.49	3/4	3	14	6	300
4184	107.05	3/4	3	16	6	323
4185	112.17	3/4	3	18	6	346
4186	115.70	3/4	3	20	6	369
4187	119.21	3/4	3	22	6	392
4188	122.74	3/4	3	24	6	415

Hubbard Threaded Washers



No.	Per 100	DIMENSIONS, INCHES			Approx. Ship. Wt. Lb. per 100
		Threaded Hole	Lgth.	Width	
4110	\$11.77	1/4	1 1/4	1 1/4	11
4111	11.77	3/8	1 3/4	1 3/4	11
4112	17.23	1/2	3	1 3/4	37
4113	17.23	5/8	3	1 3/4	37
4114	17.23	3/4	3	1 3/4	37

Hubbard Washer Nuts

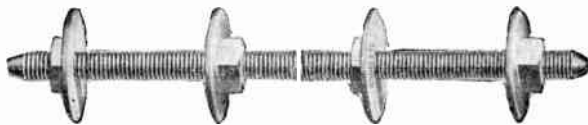


No.	Per 100	DIMENSIONS, INCHES				Approx. Ship. Wt. Lb. per 100
		Bolt Diam.	Size of Square	Nut Diam.	Nut Thickness	
9192		3/8	5/8	1 3/8	13/32	7
4193	\$15.56	1/2	1 1/8	1 1/2	1/2	12
4194	36.99	5/8	1 3/8	2 1/2	13/16	35
4195	39.62	3/4	1 1/8	3	13/16	50
4196	84.51	7/8	1 5/8	4 1/2	31/32	110

Hubbard Double Arming Bolts

Hot Galvanized

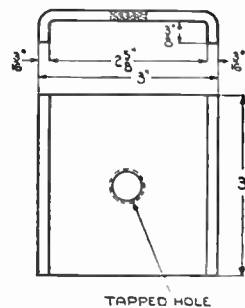
With Washer Nuts



No. 29842

No.	Per 100	Diam. Bolt In.	Lgth. In.	Approx. Ship. Wt. Lb. per 100	No.	Per 100	Diam. Bolt In.	Lgth. In.	Approx. Ship. Wt. Lb. per 100
29844	80.20	1/2	14	109	29886	200.00	3/4	16	368
29846	81.99	1/2	16	117	29888	204.57	3/4	18	389
29848	84.89	1/2	18	126	29890	208.21	3/4	20	410
29850	86.59	1/2	20	135	29892	214.95	3/4	22	431
29852	89.12	1/2	22	143	29894	218.42	3/4	24	452
29854	90.87	1/2	24	152	29902		7/8	12	644
29862	183.54	5/8	12	224	29903		7/8	14	678
29864	186.17	5/8	14	238	29904		7/8	16	712
29866	188.80	5/8	16	252	29905		7/8	18	746
29868	192.90	5/8	18	266	29906		7/8	20	780
29870	195.24	5/8	20	280	29908		7/8	24	848
29872	198.93	5/8	22	294	29911		7/8	30	950
29874	203.64	5/8	24	308	29914		7/8	36	1052
29882	190.85	3/4	12	326	29917		7/8	42	1154

Hubbard Threaded Flange Washers



Used on the arm end of wood brace attachments.

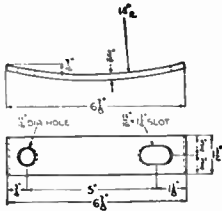
When a flanged washer is screwed against the arm with the flanges down, the brace slips over the bolt and is trapped by the flanges of the washer.

Flanges serve as a lock after installation and as a wrench hold for turning the washer tight.

No.	Per 100	DIMENSIONS, INCHES			Approx. Ship. Wt. Lb. per 100
		Threaded Hole	Lgth.	Width	
5552	\$28.17	1/2	3	3	60
5553	28.17	5/8	3	3	60
5554	28.17	3/4	3	3	60
5555	28.17	7/8	3	3	60

Hubbard Spring Washers

Hot Galvanized



No. 4629

No. 4538

Made of high quality spring steel. No locknuts need be used since the angle of the spring washer when compressed forms an effective lock.

No. 4629 is for use with pressed steel pole top pins. Mounted vertically on the back of the pole, No. 4629 locks the nuts on the pin mounting bolts.

No.	Per 100	Bolt Size	DIMENSIONS, INCHES		Overall Length	Approx. Ship. Wt. Lb. per 100
			Hole Diam.	Steel Size		
4629	\$26.57	5/8	11/16	3/16x1 1/2	6 7/8	56
4535	26.85	5/8	11/16	1/4x1 1/4	3 1/2	50
4536	.....	3/4	13/16	1/4x1 1/4	3 1/2	50
4538	16.47	3/8	9/16	5/32x1	2 1/16	25
4539	16.47	1/2	9/16	5/32x1	2 1/16	25
4540	34.57	5/8	11/16	1/4x1 3/4	3 1/2	100
4541	34.57	3/4	13/16	1/4x1 3/4	3 1/2	100
4542	34.57	7/8 and 1	1 1/16	1/4x1 3/4	3 1/2	100

Hubbard Lock Washers

Hot Galvanized Spring Washers

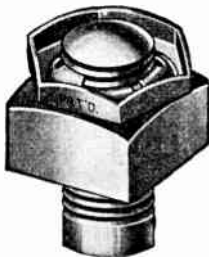
Used for locking nuts on metal surfaces.



No.	Per 100	Size In.	Hole Diam. In.	Bolt Diam. In.	Ship. Wt. Lb. per 100
5034	\$.80	1/8x3/32	7/16	3/8	1.1
5035	1.64	1/16x1/8	9/16	1/2	2.4
5036	2.95	1/16x3/32	11/16	5/8	3.3
5037	4.15	1/4x3/16	13/16	3/4	5.5
5038	5.52	1/4x5/16	1 1/16	1	10.1

Hubbard Palnuts

Hot Galvanized



Applied after the regular nut is completely tightened. By continued turning of the Palnut, after it has contacted regular nut, prongs of Palnut are drawn into root of bolt thread locking the nut permanently.

The resilient Palnut takes no load from the regular nut. Palnut grips like the jaws of a chuck.

No.	4530	4531	4532	4533	4534
Per 100	\$.95	1.75	2.36	3.09	5.09
Bolt Size.....in.	3/8	1/2	5/8	3/4	7/8
Threads per Inch.....	16	13	11	10	9
Ship. Wt. per 100.....lb.	.39	.72	1.20	1.50	2.60

Hubbard M.F. Locknuts

Hot Galvanized



No.	Per 100	Bolt Size In.	Ship. Wt. Lb. per 100
4510	\$.95	3/8	11
4511	1.75	1/2	24
4512	2.36	5/8	42
4513	3.09	3/4	64
4514	5.09	7/8	92
4515	5.94	1	115

Hubbard Square Washers

Hot Galvanized



Cleanly cut and smoothly galvanized. There are no irregularities of the zinc coating to interfere with the proper seating of bolt heads or nuts.

Can be supplied with nail holes at slight extra cost.

No.	Per 100	Size Inches	Diameter Hole Inches	Diameter Bolt Inches	Ship. Wt. Lb. per 100
7811	\$3.83	2 x2 x 1/8	9/16	1/2	16
7812	3.83	2 x2 x 1/8	11/16	5/8	16
7812 1/2	5.00	2 x2 x 3/16	13/16	3/4	19
7813	5.98	2 1/4 x 2 1/4 x 3/16	11/16	5/8	25
7813 1/2	5.98	2 1/4 x 2 1/4 x 3/16	9/16	1/2	25
††\$7814	5.98	2 1/4 x 2 1/4 x 3/16	13/16	3/4	25
7816	10.00	3 x3 x 3/16	13/16	3/4	53
††\$7817	13.01	3 x3 x 1/4	13/16	3/4	69
7818	18.23	4 x4 x 3/16	13/16	3/4	96
†7819	24.08	4 x4 x 1/4	13/16	3/4 & 7/8	127
7819 1/2	50.40	4 x4 x 1/2	13/16	3/4	218
††\$7820	50.40	4 x4 x 1/2	1 1/16	1	251
†7826	26.51	3 1/2 x 3 1/2 x 3/8	1 1/16	3/4 & 7/8	136
†7827	82.67	6 x 6 x 3/8	1 1/16	1	407

*Western Union Std., †A. T. & T. Co. Std., †A. R. A. Std. ‡E. E. I. Std.

Hubbard Curved Washers

Hot Galvanized



Cleanly cut and smoothly galvanized. There are no irregularities of the zinc coating to interfere with the proper seating of bolt heads or nuts.

No.	Per 100	Size Inches	Diameter Hole Inches	Diameter Bolt Inches	Ship. Wt. Lb. per 100
7809 1/2	\$24.13	4 x4 x 1/4	15/16	7/8	127
7810	13.27	3 x3 x 3/16	13/16	3/4	46
7822	7.70	2 1/2 x 2 1/2 x 3/16	11/16	5/8	34
7823	13.58	3 x3 x 1/4	13/16	3/4	66
7823 1/2	13.58	3 x3 x 1/4	11/16	5/8	66
7824	21.86	3 x3 x 3/16	1 1/8	1	94
*7825	16.95	3 1/4 x 3 1/8 x 1/4	13/16	3/4	85
*7829	28.41	3 1/2 x 3 3/8 x 3/8	13/16	3/4	120
*7830	28.41	3 1/2 x 3 3/8 x 3/8	1 1/8	1	120

*A. R. A. Std.

Hubbard Round Washers

Hot Galvanized



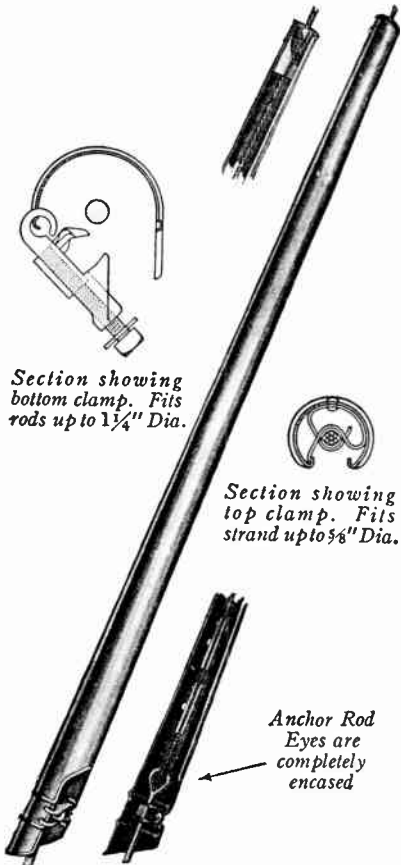
Cleanly cut and smoothly galvanized. There are no irregularities of the zinc coating to interfere with the proper seating of bolt heads or nuts.

Can be supplied with nail holes at slight extra cost.

No.	Per 100	O.D. In.	Gage No.	Diameter Hole Inches	Diameter Bolt Inches	Ship. Wt. Lb. per 100
††\$7801	\$.70	1	14	7/16	3/8	1.8
†7802	1.09	1 1/4	14	1/2	3/8 Carriage	2.9
††\$7803	1.73	1 3/8	12	9/16	1/2	4.6
††\$7805	3.43	1 3/4	10	11/16	5/8	9.2
7805 1/2	3.43	1 3/4	10	13/16	3/4	9.2
7806	4.38	2	9	1 1/16	3/4	11.0
7808	7.35	2 1/2	8	1 1/16	1	19.0

*Western Union Std. †A. T. & T. Co. Std. †A. R. A. Std. ‡E. E. I. Std.

Guy Wire Protectors Hot Galvanized



No. 7658 Loxfast-Light Type Loxfast Type

Top attachment accommodates strand up to 5/8-inch diameter. Bottom clamps are adjustable to fit rods up to 1 1/4 inches in diameter.

No.	Per 100	Overall Length Feet	DIAMETER, IN.		Steel Gage	Ship. Wt. Lb. per 100
			Inside Top	Inside Bottom		
7657	\$406.11	7	2	3 3/4	18	1100
7658	434.49	8	1 3/4	3 3/4	18	1200
Loxfast-Heavy						
27657	\$446.47	7	2	3 3/4	16	1400
27658	492.57	8	1 3/4	3 3/4	16	1550

Half-Round

Clamping is accomplished by U-bolts which are designed to fit either strand, rod or clamp. The protector will not turn over on the wire.

No.	Per 100	Length Feet	Steel Gage	No. Bolts	Ship. Wt. Lb. per 100
7557	\$345.81	7	14	2	1100
7558	374.67	8	14	2	1200
7559	384.55	8	14	3	1300

Peirce Pole Struts Hot Galvanized

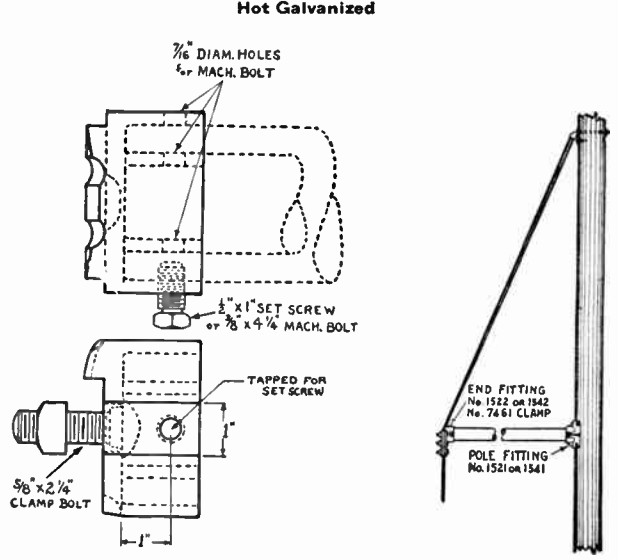
Pole can be made self-supporting or hog-guyed by means of pole struts.

Such trussed poles should be set in concrete, deeper than usual, and slack spans used on each side.

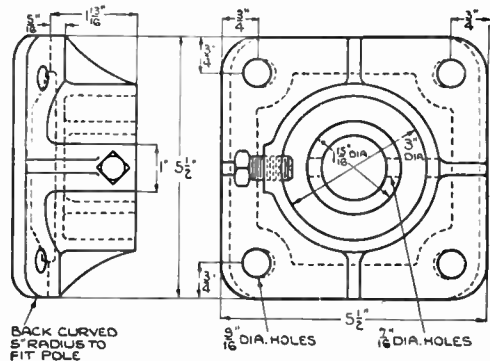
Made of heavy steel channel. May be sprung slightly during installation to fit variation in pole diameter. Three 1/2-inch lag screws attach them in position. Two struts are needed for each pole.

No.	Per 100	1500	1518	1519
Per 100	\$498.28	\$518.57	\$678.51	
Extension from Pole, in.	11	18	24	
Channel Horizontal Legs, in.	2x 9/16x 3/16	2x 9/16x 3/16	2 1/2 x 5/8 x 3/16	
Shipping Weight, Per 100, lb.	850	1050	1600	

Peirce Pipe Sidewalk Guy Arm Fittings Hot Galvanized



No. 1522 to 1542
End Fittings



Nos. 1521 to 1541 Pole Plates

Designed for two sizes of pipe, 2-inch and 2 1/2-inch. The smaller size fits over the central core and the larger size fits inside the outer shell. This arrangement is indicated by the top view of the end fitting diagram.

Assembly is secured by a set screw against the pipe or a machine bolt through the pipe.

A No. 7461 guy clamp is attached over the 5/8-inch stud which replaces the end bolt of the clamp.

End Fittings for Sidewalk Guying

No.	Per 100	Furnished With	*Use Guy Clamp No.	Size of Pipe Inches	Approx. Ship. Wt. Lb. per 100
1522	\$193.79	Set Screw, 1/2x1-Inch	7461	2 & 2 1/2	337
1542	193.79	Mach. Bolt, 3/8x1 1/4-Inch	7461	2 & 2 1/2	355

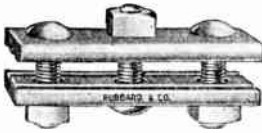
*Not included.

Pole Plates for Sidewalk Guying

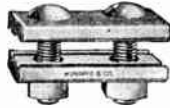
No.	Per 100	Furnished With	Size of Holes In.	No. of Holes	Approx. Ship. Wt. Lb. per 100
1521	\$232.36	Set Screw, 1/2x1-Inch	9/16	4	472
1541	232.36	Mach. Bolt, 3/8x1 1/4-Inch	9/16	4	490

Hubbard Guy Clamps

Hot Galvanized



No. 7461



No. 7402

Hubbard Vise Clips

Hot Galvanized



Hot rolled to a 3/8-inch thickness from steel plates. Clamping principle employed is the straight, parallel groove, smoothly galvanized.

Particular care is exercised to keep clamp sections straight so that bolts will not be drawn tight on an area which may be warped out of contact with strand with consequent loss of holding power. Accurately spaced grooves and carefully centered holes. Cleanly sheared sections so that groove ends cannot cut or injure strand.

Clamp bolts are made of special steel to prevent elongation and eliminate stripping. Heads are made large to provide maximum clamping area and shoulders trap bolts to prevent turning while tightening.

Sizes with three or more bolts shipped with bolts reversed.

Consists of an assembly of two carriage bolts and two clamping members, which will provide a large gripping area. There are no sharp edges or corners to injure the strand. Bolt heads are prevented from turning by a shoulder trapped in the top and bottom members.

Heavy Type—5/8-Inch Clamp Bolts

No.	Per 100	No. of Bolts	Length Inches	Width Inches	Size Strand Inches	Shipping Wt. Lb. per 100
7460	\$194.76	3	6	2 1/8	3/8 to 5/8	397
†7461	83.87	3	6	1 1/2	3/16 to 1/2	284
7462	56.59	2	4	1 1/2	3/16 to 1/2	186
7464	111.50	4	8	1 1/2	3/16 to 1/2	388

Medium Type—1/2-Inch Clamp Bolts

7447	\$30.95	1	1 1/6	1 9/16	1/4 to 3/16	64
*†7448	39.89	2	3 3/4	1 9/16	1/4 to 3/16	138
7449	56.34	3	4	1 9/16	1/4 to 3/16	188
*†7450	68.72	3	6	1 9/16	1/4 to 3/16	224

Light Type—1/2-Inch Clamp Bolts

7401	\$27.04	1	1 3/4	1 9/16	1/8 to 1/4	48
7402	37.19	2	3 3/4	1 9/16	1/8 to 1/4	106
7403	53.25	3	5 3/4	1 9/16	1/8 to 1/4	150
7404	68.83	4	7 3/4	1 9/16	1/8 to 1/4	210
7445	30.95	1	1 1/4	1 1/4	1/8 to 3/32	30

*Western Union Std. †A. T. & T. Co. Std. ‡A. R. A. Std. §E. E. I. Std.

No.	Per 100	Size of Strand Inches	Diam. Carriage Bolts Inches	Approx. Ship. Wt. Lb. per 100
5447	\$35.00	1/4	3/8	45
5448	35.00	5/16	7/16	65
5449	40.00	3/8	7/16	95
5450	45.00	1/2	1/2	80

Hubbard Safety Clips

Hot Galvanized



No.	Per 100	Strand Size Inches	Approx. Ship. Wt. Lb. per 100
5470	\$35.00	1/4	25
5471	35.00	3/16	29 25
5472	40.00	3/8	36
5473	45.00	7/16	48
5474	45.00	1/2	57
5475	50.00	5/8	100

Hubbard Wire Rope Clips



No. 7486

Hubbard Guy Thimbles

Hot Galvanized



No. 7593

Size Strand Inches	Malleable			Drop-Forged		
	No.	Per 100	Wt. Lb. per 100	No.	Per 100	Wt. Lb. Per 100
1/4	8480	\$8.00	14	7480	\$35.00	30
5/16	8481	9.00	16	7481	35.00	30
3/8	8482	12.00	22	7482	40.00	47
7/16	8483	15.50	28	7483	45.00	71
1/2	8484	18.50	40	7484	45.00	73
9/16	8484 1/2	24.50	52	.....	.....	.....
5/8	8485	24.50	55	7485	55.00	101
3/4	8486	35.00	85	7486	70.00	157
7/8	8487	50.00	125	7487	85.00	242
1	8488	60.00	145	7488	100.00	264
1 1/8	8489	95.00	240	7489	125.00	332
1 1/4	8490	112.00	300	7490	150.00	448
1 3/8	8491	130.00	435	7491	175.00	488
1 1/2	8492	150.00	480	7492	200.00	544
1 3/4	.....	.....	.....	7194	550.00	880

Made from half oval steel, grooved to fit guy strand and bent to proper radius to prevent the strand from being sharply bent.

Furnished with open loop so it may be slipped over eyes.

No.	7593	7594	7595
Per 100	\$9.58	12.93	17.96
Size Strand	3/8 inches	1/2	5/8
Size Guy Rod	1/2 & 5/8 inches	5/8 & 3/4	1
Ship. Wt. per 100	11 lb.	21	42

If desired thimble can be supplied in copper or bronze at special prices.

Hubbard Drop-Forged Turnbuckles

Hot Galvanized



Eye and Shackle

Eye and Hook

Turnbuckle parts including bodies, hooks, eyes, and shackle, excepting plain stubs, are drop-forged from open hearth steel. Bodies are fitted with hexagonal ends so that turnbuckles may be taken up with a wrench at the end as well as with a lever at the center.

In the case of shackle assemblies, shackle bolts are furnished $\frac{3}{8}$ -inch in diameter for the $\frac{3}{8}$ and $\frac{1}{2}$ -inch size turnbuckles; $\frac{1}{2}$ -inch in diameter for the $\frac{5}{8}$ -inch sizes; $\frac{5}{8}$ -inch in diameter for the $\frac{3}{4}$ -inch sizes; $\frac{3}{4}$ -inch in diameter for the 1-inch sizes; $1\frac{1}{8}$ -inch in diameter for the $1\frac{1}{2}$ -inch sizes.

Stub and stub style is furnished for use where stubs are to be welded to tie rods and other similar types of construction.

Special assemblies can be made to suit requirements.

Diam. and Takeup Inches	Eye and Hook		Shackle and Eye		Shackle and Shackle	
	Galv. Per 100	S.C. Per 100	Galv. Per 100	S.C. Per 100	Galv. Per 100	S.C. Per 100
$\frac{1}{4}$ x4	\$50.00	\$42.00	\$58.00	\$50.00	\$66.00	\$55.00
$\frac{5}{16}$ x4 $\frac{1}{2}$	55.00	45.00	64.00	54.00	72.00	60.00
$\frac{3}{8}$ x6	72.00	60.00	74.00	64.00	88.00	78.00
$\frac{1}{2}$ x6	96.00	80.00	110.00	95.00	130.00	115.00
$\frac{1}{2}$ x9	145.00	120.00	170.00	140.00	190.00	155.00
$\frac{1}{2}$ x12	170.00	140.00	200.00	160.00	230.00	185.00
$\frac{5}{8}$ x6	115.00	95.00	130.00	110.00	150.00	125.00
$\frac{5}{8}$ x9	175.00	145.00	200.00	170.00	230.00	190.00
$\frac{5}{8}$ x12	210.00	170.00	240.00	200.00	270.00	220.00
$\frac{5}{8}$ x18	260.00	220.00	310.00	260.00	350.00	290.00
$\frac{3}{4}$ x6	150.00	125.00	175.00	145.00	200.00	165.00
$\frac{3}{4}$ x9	230.00	190.00	270.00	220.00	300.00	250.00
$\frac{3}{4}$ x12	270.00	220.00	310.00	260.00	350.00	290.00
$\frac{3}{4}$ x18	360.00	300.00	420.00	350.00	470.00	390.00
$\frac{3}{4}$ x24	420.00	350.00	490.00	410.00	550.00	460.00
$\frac{7}{8}$ x12	340.00	280.00	390.00	320.00	450.00	370.00
$\frac{7}{8}$ x18	430.00	360.00	500.00	420.00	575.00	470.00
$\frac{7}{8}$ x24	525.00	440.00	625.00	510.00	700.00	575.00
1x6	240.00	200.00	276.00	230.00	318.00	265.00
1x12	420.00	350.00	480.00	400.00	550.00	460.00
1x18	550.00	450.00	650.00	525.00	725.00	600.00
1x24	675.00	550.00	800.00	650.00	875.00	725.00
1x36	850.00	700.00	1000.00	825.00	1150.00	925.00
$1\frac{1}{8}$ x12	525.00	420.00	600.00	490.00	675.00	550.00
$1\frac{1}{8}$ x18	675.00	550.00	800.00	650.00	875.00	725.00
$1\frac{1}{8}$ x24	825.00	675.00	950.00	800.00	1050.00	875.00
$1\frac{1}{8}$ x36	1050.00	850.00	1200.00	975.00	1350.00	1100.00
$1\frac{1}{4}$ x12	725.00	600.00	900.00	750.00	1100.00	900.00
$1\frac{1}{4}$ x18	900.00	750.00	1100.00	900.00	1300.00	1050.00
$1\frac{1}{4}$ x24	1150.00	950.00	1300.00	1100.00	1500.00	1250.00
$1\frac{1}{4}$ x36	1600.00	1300.00	1700.00	1400.00	1800.00	1500.00
$1\frac{1}{2}$ x12	1100.00	900.00	1300.00	1050.00	1500.00	1200.00
$1\frac{1}{2}$ x18	1350.00	1100.00	1575.00	1300.00	1800.00	1500.00
$1\frac{1}{2}$ x24	1700.00	1400.00	2000.00	1650.00	2300.00	1900.00
$1\frac{1}{2}$ x36	2200.00	1800.00	2600.00	2100.00	3000.00	2400.00
$1\frac{3}{4}$ x18	2800.00	2300.00	3300.00	2700.00	3800.00	3000.00
$1\frac{3}{4}$ x24	2200.00	1800.00	2800.00	2250.00	3300.00	2700.00
$1\frac{3}{4}$ x36	2800.00	2300.00	3400.00	2800.00	3900.00	3200.00
$1\frac{3}{4}$ x48	3600.00	3000.00	4200.00	3500.00	4800.00	3900.00
$1\frac{3}{4}$ x60	4700.00	3800.00	5500.00	4400.00	6200.00	5000.00
2x24	4200.00	3500.00	5000.00	4100.00	5800.00	4700.00
2x36	5000.00	4000.00	5900.00	4800.00	6800.00	5500.00
2x48	6200.00	5000.00	7400.00	6000.00	8500.00	7000.00
$2\frac{1}{4}$ x24	6000.00	5000.00	7400.00	6000.00	8500.00	7000.00
$2\frac{1}{4}$ x36	6800.00	5500.00	8400.00	6900.00	10000.00	8200.00
$2\frac{1}{4}$ x48	8600.00	7000.00	10500.00	8400.00	12500.00	9800.00
$2\frac{1}{2}$ x24	8000.00	6500.00				
$2\frac{1}{2}$ x36	9300.00	7500.00				
$2\frac{1}{2}$ x48	11000.00	9000.00				

Dimensions

Diam. Bolt In.	Open In.	Closed In.	Lgth. Opening In.	Diam. Bolt			Lgth. Opening In.
				In.	In.	In.	
$\frac{3}{8}$	17	11	6	$\frac{3}{4}$	19 $\frac{1}{4}$	13 $\frac{1}{4}$	6
$\frac{1}{2}$	18	12	6	$\frac{3}{4}$	25 $\frac{1}{4}$	16 $\frac{1}{4}$	9
$\frac{1}{2}$	24	15	9	$\frac{3}{4}$	31 $\frac{1}{4}$	19 $\frac{1}{4}$	12
$\frac{1}{2}$	30	18	12	1	21 $\frac{1}{4}$	15 $\frac{1}{4}$	6
$\frac{5}{8}$	19	13	6	1	33 $\frac{1}{4}$	21 $\frac{1}{4}$	12
$\frac{5}{8}$	25	16	9	1 $\frac{1}{4}$	29 $\frac{1}{4}$	17 $\frac{1}{4}$	6
$\frac{5}{8}$	31	19	12	1 $\frac{1}{4}$	35 $\frac{1}{4}$	23 $\frac{1}{4}$	12

For One Lock Nut Add 5 Per Cent
For Two Lock Nuts Add 10 Per Cent

Hubbard Forged Steel Turnbuckles

Hot Galvanized



Eye and Eye

Hook and Eye

Size Inches	Eye and Eye			Hook and Eye			
	Eye and Eye Per 100	Eye and Hook Per 100	Eye and Clevis Per 100	Hook and Hook Per 100	Clevis and Hook Per 100	Clevis and Clevis Per 100	Stub and Stub Per 100
$\frac{3}{8}$ x 6	\$71.00	\$71.00	\$73.00	\$71.00	\$73.00	\$83.00	\$56.00
$\frac{3}{8}$ x 9	122.00	122.00	130.00	122.00	130.00	139.00	82.00
$\frac{3}{8}$ x12	162.00	162.00	191.00	162.00	191.00	221.00	104.00
$\frac{1}{2}$ x 6	92.00	92.00	101.00	92.00	101.00	127.00	57.00
$\frac{1}{2}$ x 9	141.20	141.00	174.00	141.00	174.00	190.00	89.00
$\frac{1}{2}$ x12	165.00	165.00	195.00	165.00	195.00	334.00	106.00

Dimensions

Lengths open and closed are given for hook and hook and eye and eye turnbuckles. Add two inches to sizes shown for stub and stub. In $\frac{3}{8}$ -inch sizes only, add $\frac{1}{2}$ -inch to sizes shown for clevis and clevis.

Size Inches	Closed Inches	Open Inches	Eye Width Inches	Eye Length Inches	OPENING, IN.	
					Hook	Clevis
$\frac{3}{8}$ x 6	11 $\frac{1}{2}$	17 $\frac{1}{2}$	$\frac{9}{16}$	1	$\frac{1}{2}$	$\frac{9}{16}$
$\frac{3}{8}$ x 9	14 $\frac{1}{2}$	23 $\frac{1}{2}$	$\frac{9}{16}$	1	$\frac{1}{2}$	$\frac{9}{16}$
$\frac{3}{8}$ x12	17 $\frac{1}{2}$	29 $\frac{1}{2}$	$\frac{9}{16}$	1	$\frac{1}{2}$	$\frac{9}{16}$
$\frac{1}{2}$ x 6	12 $\frac{1}{2}$	18 $\frac{1}{2}$	$\frac{3}{4}$	1	$\frac{5}{8}$	$\frac{5}{8}$
$\frac{1}{2}$ x 9	15 $\frac{1}{2}$	21 $\frac{1}{2}$	$\frac{3}{4}$	1	$\frac{5}{8}$	$\frac{5}{8}$
$\frac{1}{2}$ x12	18 $\frac{1}{2}$	30 $\frac{1}{2}$	$\frac{3}{4}$	1	$\frac{5}{8}$	$\frac{5}{8}$

Hubbard Alley Arm Braces

Hot Galvanized

Used extensively on distribution lines in alleys or where obstructions make it necessary to support wires on one side of pole and at points where poles must be set slightly out of alignment. Arm being off-set in this case makes it possible to avoid a slight angle in the line. Braces are attached to pole with $\frac{1}{2}$ -inch lag screws and to arm with $\frac{1}{2}$ -inch machine bolts. Furnished with steps.

Type A

No.	Per 100	Lgth. Ft.	Size Inches	Angle	Wt. Lb. per 100	No.	Per 100	Lgth. Ft.	Size Inches	Angle	Wt. Lb. per 100
7972	\$424.45	6	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{3}{16}$	$\frac{3}{16}$	1750	7974	\$505.71	8	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{3}{16}$	$\frac{3}{16}$	1975

Type B



This is the standard brace for side arm mounting.

7979	\$345.73	5	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{3}{16}$	$\frac{3}{16}$	1240	7983	\$404.72	7	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{16}$	$\frac{3}{16}$	1400	
7981	312.51	5	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{16}$	$\frac{3}{16}$	1000	7984	426.99	7	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{3}{16}$	$\frac{3}{16}$	1660	
7982	382.03	6	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{16}$	$\frac{3}{16}$	1200	7985	983.12	10	2	x2	$\frac{1}{4}$	3800

*E. E. I. Std.

Type C

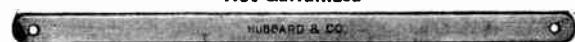


Can be used either under or on the side of the arm.

7996	\$386.36	6	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{3}{16}$	$\frac{3}{16}$	1796	7998	\$467.61	8	$1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{3}{16}$	$\frac{3}{16}$	2200
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Hubbard Flat Crossarm Braces

Hot Galvanized



Rounded Corner Style

Made from new open hearth steel punched for a $\frac{1}{2}$ -inch through bolt or lag screw at the pole end and $\frac{3}{8}$ -inch carriage bolts at the arm end. Ribbed braces. Clearance is allowed so that ribbed portion does not interfere with attachment to arm on either side.

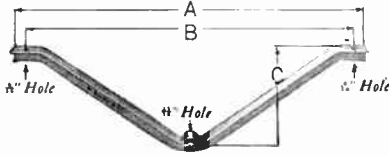
All braces are furnished with rounded corners.

No.	Per 100	No.	Per 100	Size Steel Inches	Length Over All Inches	Wt. Lb. per 100	Ship. per 100
†*8020	\$26.97	6620	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	20	156	
8022	29.28	6622	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	22	172	
8024	31.71	6624	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	24	187	
8026	34.79	6626	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	26	202	
††8028	36.52	6628	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	28	218	
*8030	38.93	6630	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	30	233	
8032	41.37	6632	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	32	249	
8120	33.12	8320	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	20	185	
8122	36.21	8322	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	22	201	
8124	39.14	8324	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	24	220	
8126	42.19	8326	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	26	238	
§8128	45.12	8328	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	28	256	
8130	48.29	8330	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	30	275	
8312	51.22	8332	.....	$\frac{1}{2}$ x $1\frac{1}{2}$	32	293	

*A.T.&T. Co. Std. †A.R.A. Std. ‡Western Union Std. §E.E.I. Std.

Hubbard Angle Crossarm Braces

Hot Galvanized



In the construction of heavy pole lines, the one-piece angle steel crossarm brace is in general use. It fastens under the arm with

1/2-inch machine bolts and to the pole with a 3/8-inch through bolt or lag screw. Special sizes supplied on request. When ordering, state size of angle, A, B, and C dimensions, and hole sizes.

No.	Per 100	Angle Size Inches	DIMENSIONS INCHES			Ship. Wt. Lb. per 100
			A	B	C	
7948	\$226.80	1 1/2 x 1 1/2 x 3/16	51	48	14	974
7950	196.65	1 1/2 x 1 1/2 x 3/16	40	37	12	781
7952	226.80	1 1/2 x 1 1/2 x 3/16	51	48	14 3/4	979
7953	309.73	1 3/4 x 1 3/4 x 3/16	63	60	18	1408
7954	343.58	1 3/4 x 1 3/4 x 3/16	69	66	20	1551
7955	364.30	1 3/4 x 1 3/4 x 3/16	75	72	18	1639
7956	413.16	2 x 2 x 3/16	75	72	22	1958

E.E.I. Standard

No. 7940. For use with E.E.I., 7 foot, 2-pin medium voltage crossarm.

No. 7942. For use with E.E.I., 10 foot, 4-inch pin, medium voltage crossarm.

No. 7943. For use with E.E.I., special high voltage crossarms.

7940	\$212.51	1 1/2 x 1 1/2 x 3/16	45	42	12	858
7941	244.04	1 1/2 x 1 1/2 x 3/16	51	48	18	1067
7942	268.51	1 1/2 x 1 1/2 x 3/16	63	60	18	1210
7943	375.73	1 3/4 x 1 3/4 x 3/16	75	72	22	1716

Hubbard Vertical Braces

Standard Type
Hot Galvanized

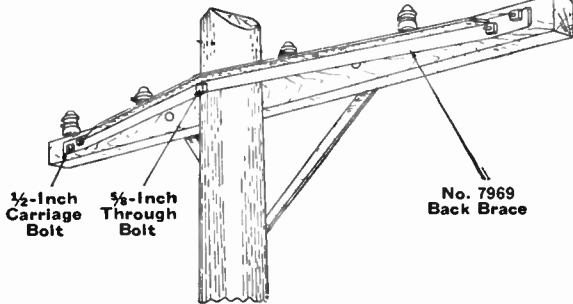


No.	Per 100	No. of Arms	Spacing Inches	Length Overall Inches	Size Angle Inches	Shipping Wt. Lb. per 100
7977	141.28	3	18	38	1 1/2 x 1 1/2 x 3/16	620
7978	204.30	4	18	56	1 1/2 x 1 1/2 x 3/16	840
*7986	102.32	2	24	26	1 1/2 x 1 1/2 x 3/16	380
*7987	189.66	3	24	50	1 1/2 x 1 1/2 x 3/16	700
7988	268.63	4	24	74	1 1/2 x 1 1/2 x 3/16	1160

*E. E. I. Std.

Hubbard Crossarm Back Braces

Hot Galvanized



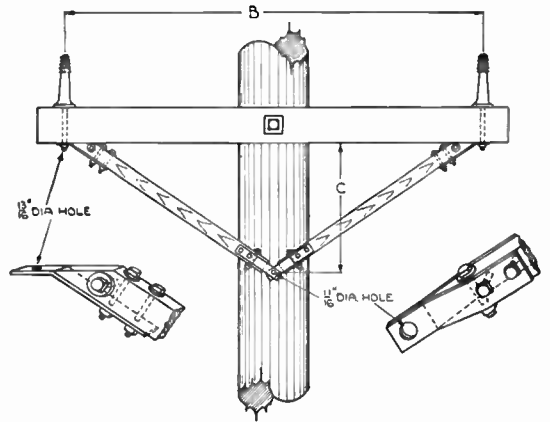
Used to reinforce crossarms at corners and terminal poles and in many cases eliminates the necessity for double arming.

The angles are made of open hearth steel and are attached to the arm by means of two 1/2-inch machine bolts at each end. If vertical brace is not used, crossarm attachment may be made by using 1/2-inch carriage bolts.

No.	Per 100	Angle Size Inches	Overall Length Inches	Shipping Wt. Lb. per 100
7965	307.42	1 1/2 x 1 1/2 x 3/16	60	750
7966	378.38	1 1/2 x 1 1/2 x 3/16	72	1060
7967	477.68	1 3/4 x 1 3/4 x 3/16	94	1660
*7969	525.20	1 3/4 x 1 3/4 x 3/16	109	1825

*A. T. & T. Co. Std.

Hubbard Square 2-Piece Wood Crossarm Braces



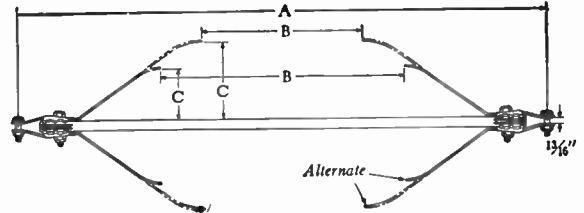
Made of hickory, 1 1/2-inch square, creosote dipped. Fitted with hot galvanized fittings. Under compression, the strain against the metal pieces at the lower end is borne by the wedging effect rather than the assembly bolts. The same is true at the top except that crossarm acts as one plane of the wedge. Under tension, reinforcing bolts prevent wood from splitting. Members are the same so they may be interchanged or mounted on either side of the pole.

Original series is for carriage bolt attachment to crossarm. B Series is for pin attachment. Pole and arm mounting bolts are not included. Nos. cover two pieces making one complete brace.

Carriage Bolt			Pin			DIMENSIONS, INCHES
No.	Per 100	Approx. Ship. Wt. Lb. per 100	No.	Per 100	Approx. Ship. Wt. Lb. per 100	
5537	\$184.09	550	5537-B	\$184.09	550	37 12
5542	187.26	580	5542-B	187.26	580	42 12
5547	192.02	640	5547-B	192.02	640	48 14 3/4
5548	192.02	675	5548-B	192.02	675	48 18
5560	200.09	735	5560-B	200.09	735	60 18
5561	210.93	815	5561-B	210.93	750	60 26 1/2
5566	217.68	785	5566-B	217.68	785	66 20
5572	233.68	850	5572-B	233.68	850	72 22
5584	254.58	1050	5584-B	254.58	1050	84 24

Hubbard O-B Wood Guy Strain Insulators

Fittings Hot Galvanized

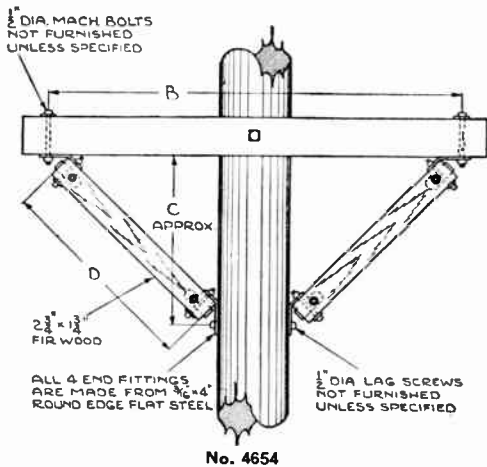


Provision is made for wood shrinkage and the loading of the wood fibers by friction and tension rather than by shear. These features are provided by the self-tightening grip and inner friction plates which will develop the full strength of the wood over a period of many years.

Furnished with arcing horns unless otherwise specified. The number 6 or 9 after the No. indicates length of clear wood.

No.	Ultimate Strength Pounds	Length Overall Inches	Shipping Weight Pounds per 100	No.	Ultimate Strength Pounds	Length Overall Inches	Shipping Weight Pounds per 100
79750-6	7000	93	5500	79752-6	24000	93	6100
30594-9	7000	129	5050	29647-9	24000	129	5767
79750-9	7000	129	6455	79752-9	24000	129	7370
30478-6	12000	93	5000	30783-6	36000	93	6900
79751-6	12000	93	5800	79753-6	36000	93	8500
30478-9	12000	129	5350	30783-9	36000	129	7367
79751-9	12000	129	6755	79753-9	36000	129	9770

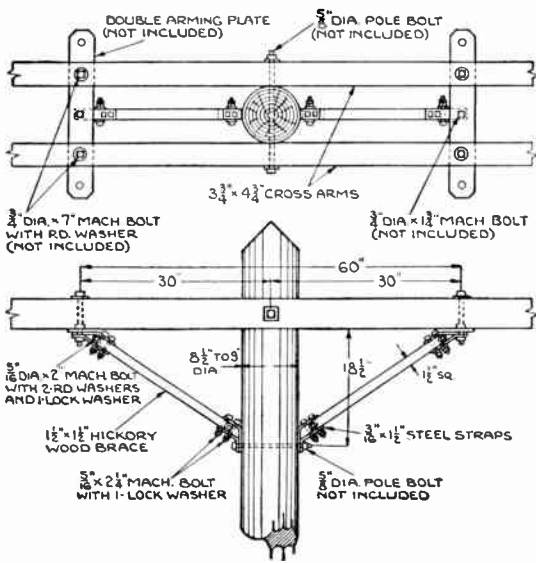
Hubbard Side Attachment Wood Braces For Single Arm Mounting



No. 4654

No.	Per 100	DIMENSIONS, INCHES				Mtg. Pole	Holes, In.	Arm	Holes, In.	Approx. Ship. Wt. Lb. per 100
		Overall Spread	B	C	D					
4654	\$209.48	50	48	20	24 1/4	9/16	9/16	1200		
4656	234.21	62	60	26	32 1/2	9/16	9/16	1300		

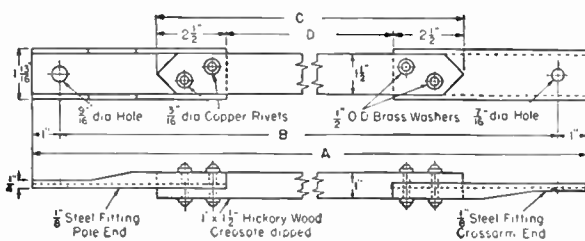
For Double Arm Mounting



No. 4662

No.	Per 100	DIMENSIONS, INCHES				Pole Mtg. Hole	Arm Mtg. Hole	Approx. Ship. Wt. Lb. per 100
		Spread	Drop	Pole	Arm			
4662	\$200.00	60	18 1/2	1 1/16	1 1/16	943		

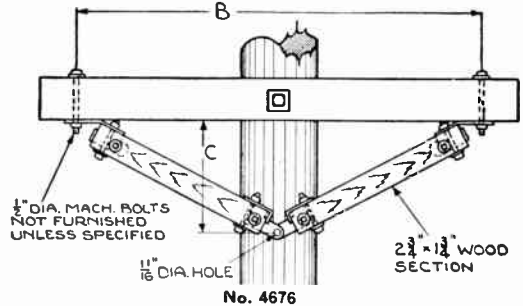
Hubbard Wood Crossarm Braces



No. 8128-W

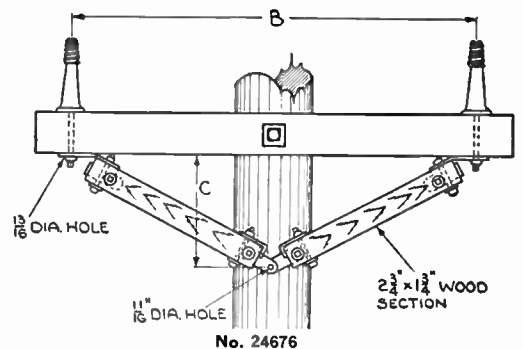
No.	Per 100	DIMENSIONS, INCHES				Approx. Ship. Wt. Lb. per 100
		A	B	C	D	
8128-W	\$90.00	28	26	19	14	415

Hubbard Braces



No. 4676

Hubbard 2-Piece Wood Crossarm Braces



No. 24676

Hubbard Pin Type Wood Braces

No.	Overall Spread In.	Arm Mtg. Hole In.	Pin Type		Per 100	DIMEN., IN.			Pole Mtg. Hole In.	Approx. Ship. Wt. Lb. per 100
			Wood Section In.	Arm Mtg. Hole In.		B	C			
4676	43 3/4	9/16	24676	20 1/2	13 1/16	\$201.68	42	12	1 1/16	1100
4677	43 3/4	9/16	24677	26 3/8	13 1/16	209.61	42	21	1 1/16	1200
4678	49 3/4	9/16	24678	26 1/2	13 1/16	209.61	48	18	1 1/16	1200
4679	49 3/4	9/16	24679	30 1/2	13 1/16	217.68	48	24	1 1/16	1300
4680	61 3/4	9/16	24680	31 1/2	13 1/16	217.68	60	18	1 1/16	1300
4681	61 3/4	9/16	24681	39	13 1/16	251.27	60	30	1 1/16	1500
4682	63 3/4	9/16	24682	35 1/2	13 1/16	235.27	62	23 5/8	1 1/16	1400
4683	73 3/4	9/16	24683	38 3/8	13 1/16	251.27	72	22	1 1/16	1500
4684	73 3/4	9/16	24684	47 1/2	13 1/16	261.85	72	36	1 1/16	1700
4685	85 3/4	9/16	24685	44 3/4	13 1/16	256.03	84	24	1 1/16	1650
4686	87 3/4	9/16	24686	51 1/4	13 1/16	276.40	86	33 5/8	1 1/16	1800

Rainier Crossarm Braces

Made Entirely of Wood



Provides the advantages of all-wood construction without reducing strength or life of pole structure or increasing its cost. Adequately survives shock and abuse.

The right and left-hand members are identical and interchangeable, any two pieces make a pair.

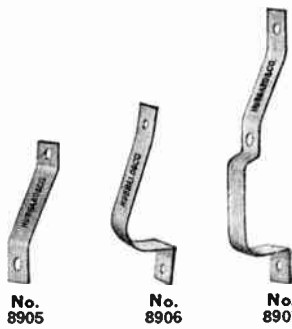
Only three bolts are required to install a pair.

Interchangeable with double span steel braces.

No.	Size Inches	Span Inches	Drop Inches	Wt. Lb. per Pair
RB4212-5	1 3/4 x 2 3/4	42	12 1/2	7
RB4814-5	1 3/4 x 2 3/4	48	14 1/2	7 1/2
RB4818	1 3/4 x 2 3/4	48	18	7 1/2
RB4824	1 3/4 x 2 3/4	48	24	8 1/2
RB6018	1 3/4 x 2 3/4	60	18	9 1/2
RB6030	1 3/4 x 2 3/4	60	30	10
RB7221-5	1 3/4 x 2 3/4	72	21 1/2	10 1/2
RB7236	1 3/4 x 2 3/4	72	36	12 1/2

Hubbard Reinforcing and Safety Straps

Hot Galvanized



Used as an added safeguard for cable suspension clamps at points of extreme stress.

No. 8905 is employed to reinforce messenger bolt. No. 8906 is a safety strap to prevent cable from falling if messenger gives way. No. 8907 combines two items in one piece.

No.	Per 100	Size Steel In.	Wt. Lb. per 100
†*8905	\$39.07	1 1/2 x 1/8	32
†*8906	58.67	1 3/4 x 1/8	64
*8907	99.60	1 3/4 x 1/8	100

*A.T. & T. Co. Std. †A.R.A. Std.

Hubbard Cable Suspension Clamps

Hot Galvanized



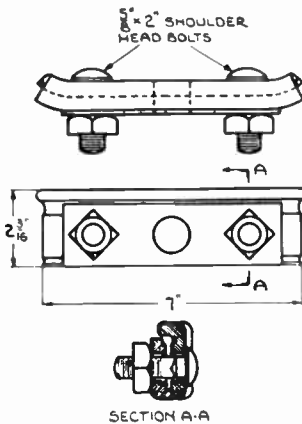
For use over a through bolt which is also employed as a clamp bolt. One or more nuts or washers are generally used between clamp and pole to provide clearance.

No.	††*8901	††*8903	8904
Per 100	\$29.54	77.41	77.41
Type	1-Bolt	3-Bolt	3-Bolt
Overall Length	2 3/8 in.	5 5/8 in.	5 5/8 in.
Mounting Hole Diam.	1 1/16 in.	1 1/16 x 1 3/16 in.	1 3/16 in.
Strand Size	1/4 to 3/16 in.	1/4 to 3/16 in.	1/4 to 7/16 in.
Shipping Weight per 100	84 lb.	224 lb.	224 lb.

*A.T. & T. Co. Std. †A.R.A. Std. ††Western Union Std.

No. 8902 Corner Cable Suspension Clamps

Hot Galvanized



For power or communication cable messengers. Used for heavy strains at corners where the included angle of the messenger is approximately 110° or over up to 180°.

It is used with the curved ends pointing toward the pole when the pull is toward the pole and with the curved ends away from the pole when the pull is away.

Used on 6000 and 10000-pound strand with the cable groove of the clamp below the pole bolt and on 16000-pound strand with the groove above the pole bolt. A reinforcing strap is

recommended when 16000-pound strand is used. Clamp is drop forged from high carbon steel.

Three-bolt type. Overall length, 7 inches. Mounting hole diameter, 1 3/8 inches. Strand size, 1/4 to 3/16 inch inclusive.

Shipping weight per 100 375 pounds.

No. 8902.....per 100 \$155.00

No. 8930 Hubbard Crossover Clamps

Hot Galvanized



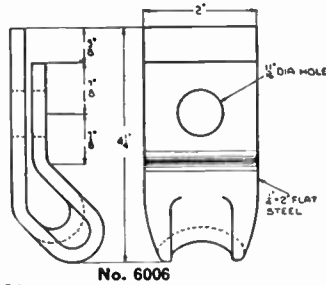
Used for clamping messengers together when they cross at right angles. Size of strand, 5/16 to 1/2 inch. Size of sides, 3 1/4 x 1 1/2 x 1 1/2 inches.

Bolts furnished are 1/2-inch oval shoulder, clamp bolts.

No. 8930, Ship. Wt. 170 Pounds.....per 100 \$134.49

Hubbard Storm Guy Straps

Single Bolt Type
Hot Galvanized



Nos. 6005 and 6006 are similar with the one exception of the diameter of the mounting holes.

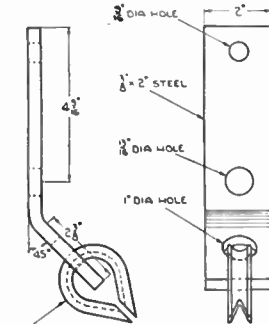
The wire groove is rounded so as to give the strand a safe bending radius.

No.	6004	6005	6006
Per 100	\$26.32	46.25	46.25
Material	inches 1/4 x 1 1/2	1/4 x 2	1/4 x 2
Diameter of Hole	inches 1 1/16	1 3/16	1 1/16
Ship. Wt. per 100	pounds 86	110	110

Hubbard Storm Guy Straps

Flat Strap Type

Hot Galvanized



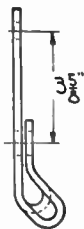
No. 6007, for one-bolt, and No. 6009, for one-bolt and one-lag screw, are furnished with a No. 7594 guy thimble.

No.	6007	6009
Per 100	\$46.51	53.12
Material	inches 3/8 x 2	3/8 x 2
Length	inches 5 3/8	7 3/4
Diameter of Hole	inches 1 1/16	3/16 & 1 3/16
Ship. Wt. per 100	pounds 146	200

Hubbard Storm Guy Straps

Combination Single Bolt and Flat Strap Type

Hot Galvanized



Necessary to meet the needs of various operating companies, both power and communications. Generally mounted back to back. Constructed with rounded wire grooves to give the strand a safe bending radius.

Nos. 6001, 6002 and 6011 are made of steel.

No. 6003 is made of malleable iron.

No.	6001	6002	6003	6011
Per 100	\$44.78	62.21	57.23	44.78
Material	inches 1/4 x 1 1/2	1/2 x 2	...	1/4 x 1 1/2
Length	inches 7	7 1/4	5 1/2	7
Upper Hole Diameter	inches 9/16	9/16	9/16	9/16
Lower Hole Diameter	inches 1 3/16	1 3/16	1 1/16	1 1/16
Ship. Wt. per 100 Pieces	lb. 117	195	100	119

Hubbard Servisleeves

PAT. No. 192177

Hot Galvanized



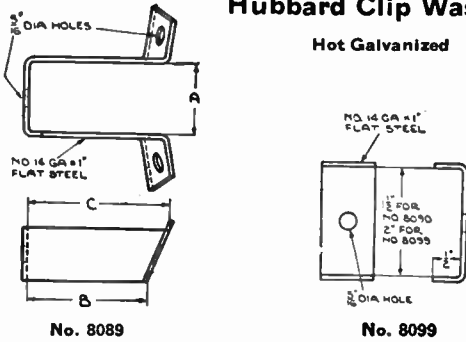
Installed by slipping sleeve over guy wire, belled end toward the clamp, and driving it over loose end of strand.

No.	7451	7452	7453	7454	7455	7456
Per 100	\$10.60	10.60	10.60	12.76	12.76	18.70
Size Strand	in. 3/16	1/4	3/16	3/8	7/16	1/2
Length Overall	in. 1 1/4	1 3/8	1 1/2	1 3/4	2	2 1/4
Ship. Wt. per 100	lb. 2.2	3.4	5.5	7.8	11.0	14.3

For Copperweld

No.	27452	27453
Per 100	\$10.60	10.60
Strand Size	3 No. 9	3/16-Inch
Length Overall	inches 1 3/8	1 1/2
Approx. Ship. Wt. per 100	lb. 3	5

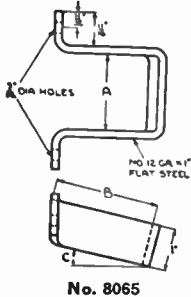
Hubbard Clip Washers



No. 8089 top clip washer and No. 8090 bottom clip washer are to be used with Graybar Standard No. 1 Wood Bracket. No. 8098 top clip washer and No. 8099 bottom clip washer are to be used with Graybar Standard No. 2 Wood Bracket.

No.	Top		Bottom	
	8089	8098	8090	8099
Per 100	\$11.86	12.59	2.71	2.74
A Dimension	1 1/2 inches	2	...	...
B Dimension	1 1/16 inches	2	...	...
C Dimension	1 15/16 inches	2 1/4	...	...
Shipping Wt. per 100	17 lb.	20	6	8

Hubbard Bracket Straps



Two bracket straps, top and bottom, are used on each wood bracket. A.T. & T. Standard.

No.	Per 100	Description	DIMENSIONS			Ship. Wt. Lb. per 100
			A In.	B In.	C	
8065	\$11.86	Bottom	1 15/16	1 5/16	19°	16
8066	12.87	Top	1 15/16	2 1/16	19°	25
8067	14.15	Top	1 3/4	2	15°	22
8068	11.86	Bottom	1 3/4	7/8	15°	15

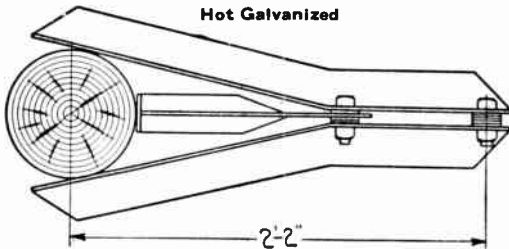
No. 8913 Hubbard Strand Connectors



Used with guy clamps for joining messenger ends. Non-insulating. Cable grooves and eyes are 3/4-inch diameter. Cable loops around 1/4-inch diameter thimble. Eye is egg-shaped to accommodate large and small strand and to facilitate threading.

No. 8913, Ship. Wt. 100 Pounds per 100 \$142.68

Hubbard Cable Extension Arms



To suspend cables at some distance from the pole. Attached at the top by one 5/8-inch through bolt. T-iron brace is fastened by lag screws. Cable attached by a short 5/8-inch machine bolt with a washer under the head.

No. 8903 Three-bolt cable suspension clamp is attached on the machine bolt under the arm in a horizontal position. Extension of the cable from the pole can be varied 8 1/2 inches with No. 8920 and 18 inches with No. 8921.

No.	Per 100	Description	Extension from Center of Pole	Angle Size	Ship. Wt. Per 100
8920	\$1480.91		26 in.	44 1/2°	3050 lb.
8921	2693.42		44 1/2 in.	3 1/2 x 2 1/2 x 5/16	6050 lb.

*A. T. & T. Co. Std.

Hubbard Guy Shims

Hot Galvanized
Six or more guy shims are used per pole to prevent messenger or guy strand from cutting into the wood.

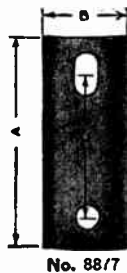
Diameter of nail holes, 1/4-inch.

No.	Per 100	Dimensions	Ship. Wt. Per 100
7570	\$10.74	1 1/2 x 1 1/2 x 8 inches	57 pounds
7571	13.16	1 1/4 x 3/16 x 8 inches	68 pounds

Hubbard Load or Breast Plates

Hot Galvanized
Used as back bearing plates when either the guy loop and saddle or the straight-away loop and saddle are subject to heavy strains.

The curved plate is provided with one hole and one slot on four-inch centers.



No.	Per 100	Bolt Hole	Bolt Slot	Hole Spacing	Size Steel	Ship. Wt. per 100
8877	\$31.75	3/4 in.	7/8 in.	4 in.	7 x 2 1/2 x 1/4 in.	112 lb.
8878	31.75	3/4 in.	7/8 in.	4 in.	7 x 2 1/2 x 1/4 in.	112 lb.

Hubbard Flat Lift Plates



No. 8890

No. 8890 measures 7 x 2 1/2 x 1/4 inches and has one 9/16-inch hole, and one 1 x 1 3/16-inch oval hole.

No. 8891 measures 7 x 2 1/2 x 3/16 inches and has two 9/16-inch holes, one 1/16-inch hole, and one 1 1/2-inch hole.

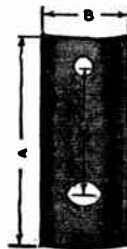


No. 8891

No.	Per 100	Bolt Diam. In.	Size Bolt Hole In.	Plate Thickness Inches	Approx. Ship. Wt. Lb. per 100
8890	\$31.75	3/4	1 3/16 x 1	1/4 Flat	124
*8891	34.69	1	1 3/32	3/16 Flat	151

*A.T. & T. Co. Std.

Hubbard Curved Lift Plates



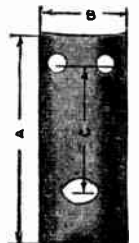
No. 8887

Hot Galvanized

These plates are used under the eye of Hubeys angle bolts to distribute the strain of down-guys over a greater area.

Dimensions, 7 x 2 1/2 in.

All plates curved.



No. 8897

No.	Per 100	Diameter Bolt Inches	Size Bolt Hole Inches	Thick. Plate Inches	ATTACH. HOLES	Shipping Wt. Lb. per 100
8887	\$25.47	5/8	1 1/16 x 1 5/16	3/16	1	99
8888	31.75	3/4	1 3/16 x 1 1/16	1/4	1	128
8889	34.69	1	1 1/16 x 1 3/16	3/16	1	151
8897	25.47	5/8	1 1/16 x 1 5/16	3/16	2	95
8898	31.75	3/4	1 3/16 x 1 1/16	1/4	2	124
8899	34.69	1	1 1/16 x 1 3/16	3/16	2	148

Hubbard Drop Forged Bolt Eyes

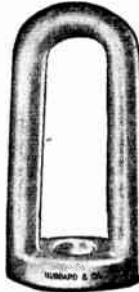
Hot Galvanized

Used extensively for dead-ending and guying. The standard bolt eye may be used for attaching dead-ending insulators to the cross arm. The long eye is often used for supporting suspension insulators with a hook in the cap of the upper unit.

Unthreaded slot provides clearance for the insertion of bolt.



No. 7514



No. 7515

No.	Per 100
7514	\$58.09

Standard Bolt Eye			No. 7515		
Diam. Bolt In.	Bolt Hole In.	Width Eye In.	Length Eye In.	Shipping Wt. Lb. per 100	
5/8	1 1/16 x 1 3/16	1 1/8	1 1/2	83	
Long Bolt Eye					
5/8	1 1/16 x 1 3/16	1 3/8	3 3/32	117	
3/4	1 3/16 x 1 1/16	1 3/8	3 3/32	119	
5/8	1 1/16 x 1	1 5/16	2 13/32	109	
3/4	1 3/16 x 1 1/16	1 3/16	2 1/2	112	

Hubbard Drop Forged Straight Bolt Hubeyes

Hot Galvanized

Has unthreaded slot to provide clearance for the insertion of bolts. Used for cross arm guying where a circuit has been dead-ended, although it is suitable for many other guying and dead-ending needs.

Follows the standard Hubeye design. Will take strand 1/2 inch diameter and under.



No.	Per 100	Diam. Bolt In.	Bolt Hole In.	Width Eye In.	Length Eye In.	Shipping Wt. Lb. per 100
7519	7520	5/8	1 1/16 x 1	1 3/8 x 1 5/8	2 1/2	138
7519	7520	3/4	1 3/16 x 1 1/16	1 5/16	2 1/2	138

Hubbard Drop Forged Angle Bolt Hubeyes

Hot Galvanized

Used almost exclusively for down guys. Eliminates the use of strain plates, guy hooks, guy thimbles, nails and lag screws and saves from three to five feet of guy strand. Often used on the nut end of a bolt for a down guy attachment with a straight bolt eye under the head of the bolt as a dead-end.

Nos. 1100 and 1101 will take strand 1/2 inch diameter and under. Furnished with round unthreaded hole, no clearance being needed.



No.	Per 100	Diam. Bolt In.	Bolt Hole In.	Width Eye In.	Length Eye In.	Shipping Wt. Lb. per 100
1100	1101	5/8	3/4	7/8	1	118
1100	1101	3/4	7/8	1	1	118

Hubbard Drop Forged Standard Eye Nuts

Hot Galvanized

This eye nut requires the use of a thimble. Used on through bolts, eye bolts, double arming bolts, etc. and for other attachments where it is desired to convert a standard, threaded bolt to an eye bolt.

Commonly used for dead-ending a messenger wire or span guy on the threaded end of an angle hubeye bolt on the opposite end of which is attached a down guy.



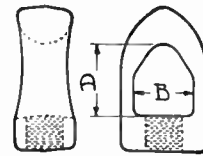
No.	Per 100	Diam. Bolt In.	Width Eye In.	Length Eye In.	Shipping Wt. Lb. per 100
7500	\$42.88	1/2	1 1/8	1 1/8	55
7501	42.88	5/8	1 1/8	1 1/8	55
*7502	42.69	5/8	1 1/2	1 11/16	65
7503	49.43	3/4	1 1/2	1 11/16	65
7504	49.43	3/8	1 1/8	1 1/8	36
7505	49.43	1/2	1 1/8	1 1/8	34
7506	49.43	5/8	1 1/8	1 1/8	32

*Western Union Std.

Hubbard Drop Forged Guyeye Nuts

Hot Galvanized

Used on through bolts, eye bolts, double arming bolts, straight and angle Hubeye bolts, cross arm bolts, anchor rods and for other attachments where it is desired to convert a standard, threaded bolt to an eye bolt.



Commonly used for dead ending a messenger wire or span guy on the threaded end of an angle Hubeye bolt on the opposite end of which is attached a down guy.

No.	Per 100	Diam. Bolt In.	Width Eye In.	Length Eye In.	Shipping Wt. Lb. per 100
*7660	*7661	*7662	5/8	3/4	1
\$64.62	73.23	82.97	1 5/8	1 5/8	2
1 1/16	1 1/16	1 3/4	114	114	170

*A. T. & T. Co. Std.

Hubbard Drop Forged Hubeye Nuts

Hot Galvanized

Used on through bolts, eye bolts, double arming bolts, straight and angle hubeye bolts, cross arm bolts, anchor rods and for other attachments where it is desired to convert a standard, threaded bolt to a hubeye bolt.

Commonly used for dead ending a messenger wire or span guy on the threaded end of an angle hubeye bolt on the opposite end of which is attached a down guy.



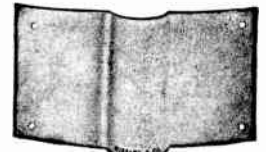
No.	Per 100	Diam. Bolt In.	Width Eye In.	Length Eye In.	Shipping Wt. Lb. per 100
7509	\$63.14	1/2	7/8	1 1/2	80
7510	63.14	5/8	7/8	1 1/2	80
7511	71.54	3/4	7/8	1 1/2	77
7512	82.97	1	1 1/4	1 11/16	166

Hubbard Strain Plates

Hot Galvanized



No. 7575



No. 7576

Used to protect the pole fibres from being cut by messenger or guy strand.

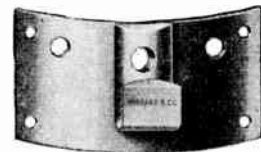
Furnished standard, with offset to fit 1 1/4-inch maximum diameter ground wire moulding.

Diameter nail holes, 1/2 inch.

No.	Per 100	Type	Dimensions In.	Gage	Ship. Wt. per 100 Lb.
*7575	7576	7579	4x8	4x8	4x6
\$21.85	22.59	25.90	14	14	14
95	95	75			

*Western Union Std. †A. R. A. Std.

Hubbard Hook Type Strain Plate



No. 7580

Used to protect the pole fibers from being cut by messenger or guy strand.

No. 7577 has a welded hook, one 1/16-inch guy hook and hole, and two 1/16-inch lag screw holes.

No.	Per 100	Type	Dimensions In.	Gage	Ship. Wt. per 100 Lb.
7577	7580	Heavy Guy Hook	4x8	4x6	
\$72.19	54.20	Heavy Guy Hook	14	14	
134	114				