

**RADIO'S GREATEST VALUES!!**



**American Sales Company**

**WHOLESALE RADIO DISTRIBUTORS**

**44 WEST 18<sup>TH</sup> STREET**

**NEW YORK, N. Y.**

**CATALOG N° 67**

# IMPORTANT PURCHASING INFORMATION

## 1. Terms—Our terms are strictly cash.

We buy and sell for cash, which makes it possible for us to quote you our bargain prices.

We allow a discount of 2% only when full amount of cash is sent with order, otherwise at least a 20% deposit is required with all orders, balance C. O. D. All merchandise sold F. O. B., N. Y.

Prices in this catalog supersede all others and are subject to change without notice.

2. **How to Order**—Write plainly on enclosed post-paid order blank, mentioning Catalog and Page Numbers. Enclose remittances with post office or express money order, check or bank draft.

All merchandise offered subject to stock on hand and prior sale, we therefore suggest that you place your orders as quickly as possible.

Substituting: Our policy is not to substitute; but only when permitted, substitution will be made with goods of equal or better quality, if merchandise ordered from catalog happens to be sold.

3. **Shipping**—When ordering goods please state whether we shall ship via parcel post, express or freight. Include sufficient amount to cover charges. Any excess amount paid us for carrying charges will be refunded. If shipping charges are not sent with order, merchandise will go forward charges collect.

3A. **Terms on Foreign Freight Shipments**—Establish irrevocable letter of credit in our favor for total amount of order, in New York Exchange, less 2% cash discount and include consular fees, insurance, ocean freight and forwarding (\$3.00) charges. Credit to be

established in a New York City bank and payable to us against sight draft with all negotiable papers attached. Small charge for export packing. F. A. S., N. Y.

3B. **Terms on Foreign Parcel Post Shipments**—Send full remittance of order, less 2% cash discount and include parcel post and consular charges. Let us know whether shipment shall go forward registered or ordinary parcel post.

4. **Guarantee**—Every item is fully guaranteed to be as represented.

If a customer is dissatisfied with any merchandise selected and notifies us within 10 days after receipt, the price paid will be allowed in full for credit on any other purchase, if merchandise is returned in same condition as forwarded by us.

Any goods returned to us must be shipped back in original containers and condition, shipping charges prepaid, first obtaining our permission to return same.

5. **Damage in Transit**—We take extreme care in packing all merchandise and same is delivered to transportation company in good condition for which we receive a clear receipt.

File promptly a claim with the carrier for any goods delivered to you damaged.

6. **Our References**—The National City Bank of New York (Atlantic Branch); Irving Trust Co., Woolworth Bldg., New York City; Manufacturers Trust Co., 44 Union Square East, New York City; Dun's or Bradstreet's. We have been established since 1919. Members of the Merchants Association of New York.

THIS CATALOGUE  
IS ISSUED FOR  
THE TRADE

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Watkins 9—3041-2-3  
CABLE ADDRESS  
AMSAG, NEW YORK

## DEPARTMENTS READY TO ASSIST YOU

### CUSTOMERS' SERVICE

We are pleased to introduce Miss Katherine A. Norton, who is the manager of this department. She has requested us to tell you that to safeguard against any possibility of losing any of your orders and remittances, we have installed the latest double checking system.

You must realize that your mail goes through many hands before it is opened in this department, and Miss Norton's suggestion is that you "Register" all orders that have cash remittances enclosed.

Some times it is rather difficult to read names and addresses; therefore it would help materially if you would kindly print your name and address to eliminate any possible error.

We have a large staff in our organization which will shortly be increased to meet the demand created by this catalogue. Make sure your full remittance or 20% deposit, is enclosed with your order before mailing.

### SALES

As sales manager, Mr. S. Klepper is in direct contact with the present competitive market, therefore he has priced all merchandise in this catalogue exceedingly low, to enable you to make a substantial profit. His many years in the merchandising field have given him a keen insight on changing economic conditions.

He is desirous of supplying your every need, therefore, if the merchandise you desire is not listed in this catalogue, do not hesitate to write this department.

All our merchandise is shipped you, exactly as advertised. No substitution is made unless authorized by you.

### PURCHASING

Our purchasing agent, Mr. H. Klepper, has had twelve years of purchasing experience in the radio and electrical field.

Constantly traveling to secure those radio bargains for you, he is qualified to select the proper merchandise. Although we are wholesale radio and electrical distributors for more than ninety manufacturers of national reputation, he is on the constant lookout for new desirable merchandise for you to sell.

From time to time radio manufacturers desire to sell their surplus stocks and we, due to our large cash purchasing power, are able to purchase this material at low prices, passing same to you at tremendous savings.

### ADVERTISING

Clear, concise description of merchandise, minus the ballyhoo, is what our advertising manager, Mr. M. Klepper, has always desired to give you in our catalogue and magazine advertising. From time to time this department will issue a catalogue, "flyer" or "mail insert," which will keep you posted as to new merchandise and prices.

You will always receive your copy if you will keep us advised when you change your mailing address.

### AMATEUR AND TECHNICAL

This department maintains a transmitting and proving laboratory with a reference library, functioning under the guidance of Mr. Robert M. Lacey, who has been active in the amateur field since 1914. During the war he served duty as radio operator aboard U. S. submarines and naval shore stations. He carries a first grade commercial operator's license, together with a special 20 meter amateur phone license bearing the call W210P.

The duty of this department is to answer all technical questions and test under actual working conditions, all apparatus and parts we offer for sale.

No doubt many of the amateurs remember our periodical publication "Key Klix," which dealt in articles, experiments and problems of amateur short-wave transmission and reception, also a question and answer department, which was mailed to the amateurs free of any cost. If you will write and advise us if you wish to have this publication continued, submitting any new wrinkle that you have, dealing with any branch of the transmission art, we shall be pleased to continue this publication, if the response is gratifying. Don't forget, we are the oldest "Ham" supply house, established since 1919.

### PUBLIC ADDRESS AND AMPLIFIER

The great response we received by the installation of our Public Address Department necessitated engaging the services of Mr. M. Musler, who will be glad to take care of your public address and amplifier problems.

Mr. Musler suggests when you write for quotations on equipment for public address material, that you supply us with as much information as possible, as to the nature of installation such as: the size of audience; outdoor or indoor installation; if indoor, give the measurements of room or auditorium together with height of ceiling and texture of walls. If outdoor, what is the approximate noise level surrounding said installation? Is installation for voice only or voice and music? How far are loud speakers to be operated from microphone? How far is microphone or microphones from main amplifier? How many microphones and speakers will be used and where. Type of current and voltage available? A general sketch will materially assist in securing the best and most economical combination.

### SHIPPING

We have placed in operation an extensive system to rush your shipments to you quicker than ever. More floor space has been devoted to this department, with many new helpful features. As merchandise is shipped from our headquarters, it is replenished from our reserve stocks in a large warehouse, which covers thousands of square feet in addition to the 15,000 square feet at 44 West 18th Street.

The manager of this department, Mr. John Warner, has requested us to ask you not to forget to mark your orders in which way you desire your shipment to go forward; i.e., via parcel post, express or freight.

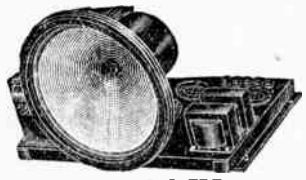
In the years of experience Mr. Warner has had in this department, he has noticed where shipments go forward C. O. D., there is a substantial sum charged by the transportation company, or post office for C. O. D. collections. Full remittances, including transportation charges, will save you these costs.

# Clearance Prices on Remaining Stock of Genuine KOLSTER Products

Every item is brand new and in original packing. We honestly believe that these items are the best money makers for wide-awake dealers and represent the finest bargains obtainable. Licensed by R. C. A and Lektophone Patents.

## KOLSTER

### A. C. DYNAMIC SPEAKER AND POWER AMPLIFIER



**Model K5**  
11½ x 11½ x 19"  
Shipping Wght. 75 lbs.  
**LIST PRICE**  
**\$175.00**  
(without tubes)

This finely matched, rugged unit comprises a complete heavy-duty Electro-Dynamic Speaker, including a 210 or 250 Power Amplifier with "B" supply unit, all self-contained on a steel frame. If desired, the 210 or 250 Power Amplifier will also supply 22, 67 and 90 volts "B" current, sufficient for any

set using up to eight tubes. These voltages are brought out to binding posts, conveniently.

Following tubes are required for its operation: 2 UX281 for full wave rectification, 1 UX210 (or UX250) as a Power Amplifier. A 20 foot cable is included with each instrument. The Kolster 10" Dynamic Speaker has a remarkable tone and does not rattle under power. It is built in a heavy cast-iron case and can stand abuse.

Operates on 110 volts, 60 cycle A. C.

The parts in this unit are worth many times the price you pay and can be used in high power work in constructing an amateur transmitter or amplifier.

# \$9.50

LESS TUBES  
Cat. No. S-3945

### Lowboy Cabinet for Speaker

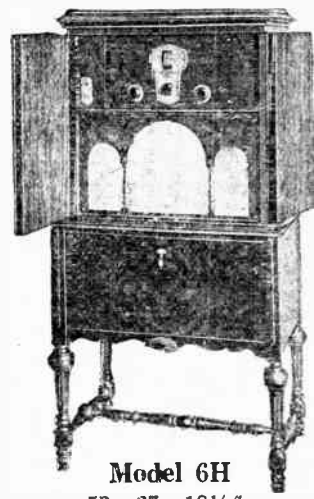
Shipping Weight 101 lbs.

# \$2.75

Cat. No. S-3947

## KOLSTER

### 9 TUBE CONSOLE RECEIVER WITH KOLSTER K-5 A. C. DYNAMIC SPEAKER



**Model 6H**  
53 x 27 x 18½"  
Shipping Wght. 245 lbs.  
**LIST PRICE**  
**\$295.00**  
(without tubes)

This receiver, licensed by R. C. A., employs the famous Kolster 6 T. R. F. circuit and operates on either an indoor or outdoor antenna. It uses three stages of R. F., Detector (4 gang condensers) and two stages of A. F. in addition to the 210 or 250 Power Stage in the K-5 unit. A three point tap switch aerial adjuster operated from the panel gives hairline selectivity. By simply adding an "A" eliminator and a small 4½ volt "C" battery, this set can be operated from 110 volts, 60 cycle A. C.

Single dial control, simple to operate.

This receiver embodies everything looked for in a modern set. The Kolster 10" cone Dynamic Speaker has a remarkable tone and is one of the few which uses genuine leather in its construction. The complete receiver uses 6 UX201A tubes, 2 UX-281 tubes, 1 UX210 (or UX250) tube.

The cabinet is a beautiful highboy console of burl walnut with maple overlay and has full swinging doors.

# \$18.50

LESS TUBES  
Cat. No. S-3946

### Cabinet only

Shipping Weight 145 lbs.

# \$5.90

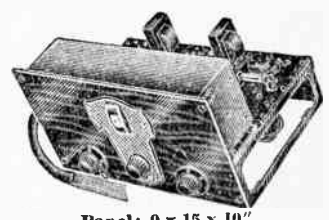
Cat. No. S-3948

## KOLSTER 6-D

### SIX-TUBE BATTERY OPERATED RECEIVER



This famous 6-tube battery receiver is the Kolster 6-D. For the person who wants a battery-operated receiver, this Genuine Kolster set represents the acme of design and construction. The four-gang condenser, resistors, coils and audio transformers are all of high grade. For selectivity and distance-getting qualities, it is unsurpassed. Using five 201-A tubes in the three R. F. stages, detector and first audio (a UX200-A can be used in the detector to good advantage) with a UX112-A or 171-A in the second audio, this receiver supplies sufficient volume.



Panel: 9 x 15 x 10"  
Net Weight: 16 lbs.

Cat. No. S-3949 Table Model **\$11.50** (less tubes)

Cat. No. S-3950 Chassis only **\$9.50** (less tubes)

**American**

**5 Tube Midget Receiver**

Variable-Mu Pentode



Uses two 235, one 224, one 247, one 280 tubes.

3 gang condenser (3 tuned circuits)

Rola 6" Dynamic Speaker. Beautiful Walnut Cabinet. Size: 12 1/2" x 15 1/2" x 10". Full Vision Dial. Phono attachment. Volume control. Selective. Sensitive, fine quality with Quiet operation.

For 110 volt, 60 cycle A. C. .... **\$15.75**  
Cat. No. 1394

Above chassis and speaker only **\$14.50**  
Cat. No. 1395

For 110 volt, 25 cycle A. C., with cabinet ..... **\$18.75**  
Cat. No. 1396

110 volt, 25 cycle chassis and speaker only ..... **\$17.50**  
Cat. No. 1397

For 220 volt, 60 cycle A. C., with cabinet ..... **\$17.75**  
Cat. No. 1398

220 volt, 60 cycle A. C. chassis and speaker only ..... **\$16.50**  
Cat. No. 1399

**American**

**6 Tube Midget Receiver**

Variable Mu, Push-Pull Pentode



Uses two 235, one 224, two 247, one 280 tubes.

3 gang Condenser (3 tuned circuits); Tone Control; Volume Control; Phono attachment with "Phono-Radio" switch. Full vision Dial with traveling Pilot Light and indicator. Beautiful Walnut Cabinet. Size: 15 x 19 x 10 1/2". Rola 8" Dynamic Speaker. Quiet operation, selective, sensitive, with ample volume.

For 110 volt, 60 cycle A. C. operation ..... **\$21.50**  
Cat. No. 1386

Above chassis and speaker only **\$19.00**  
Cat. No. 1387

For 110 volt, 25 cycle A. C. in cabinet ..... **\$24.50**  
Cat. No. 1388

25 cycle chassis and speaker only ..... **\$22.00**  
Cat. No. 1389

For 220 volt, 60 cycle A. C. in cabinet ..... **\$23.50**  
Cat. No. 1390

220 volt, 60 cycle chassis and speaker only ..... **\$21.00**  
Cat. No. 1391

For 110 or 220 volt D. C., using three 236's, one 237, two 238's (Push-Pull Pentodes), in cabinet ..... **\$23.50**  
Cat. No. 1392

D. C. chassis and speaker only ..... **\$21.00**  
Cat. No. 1393

YOU will agree that our decision in selecting quality at a low price is in keeping with our motto: "The customer must be satisfied."

Our new line of radio and phonograph-radio combination receivers were thoroughly tested over a long period of time to assure long life. We took into consideration tone, selectivity, durability and appearance. There can be no reason for dissatisfaction with the extra careful design of these receivers.

Constant, non-erratic performance is assured, as all circuits are carefully shielded and wired to prevent any parasitic coupling of radio and audio frequency currents. The power transformers, chokes and condensers are amply large to insure constant humless operation. Tubes last longer in these receivers, due to the excellent voltage control of oversized transformer.

All receivers are quoted less tubes

**American**

**6 Tube All-Wave**

Midget Receiver

Variable Mu, Push-Pull Pentode



Covers 200 - 2000 Meter Band.

Uses two 235, one 224, two 247, one 280 tubes

No plug-in Coils. Incorporates change-over switch for changing wavelength.

3 gang Condenser (3 tuned circuits); Tone Control; Volume Control. Full vision dial with traveling Pilot Light and Indicator. Phono attachment with "Phono-Radio" switch.

Rola Dynamic Speaker, 8". Beautiful Walnut Cabinet. Size: 14 1/2 x 19 x 10 1/2". Sensitive, selective, quiet operation with ample volume. This receiver will tune to the regular broadcast ship, commercial, aircraft and foreign broadcast wavelengths.

For 110 volt, 60 cycle A. C. **\$31.50**  
operation ..... Cat. No. 1361

Above Chassis and Speaker **\$29.00**  
Only. .... Cat. No. 1362

For 110 volt, 25 cycle A. C. in cabinet ..... **\$34.50**  
Cat. No. 1363

25 cycle Chassis and Speaker **\$31.75**  
Only. .... Cat. No. 1364

For 220 volt, 60 cycle A. C. in cabinet ..... **\$33.50**  
Cat. No. 1365

220 volt, 60 cycle Chassis and Speaker Only. .... **\$31.00**  
Cat. No. 1366

For 110 or 220 volt D. C. using three 236's, one 237, two 238's (Pentode Push-Pull). In cabinet ..... **\$31.50**  
Cat. No. 1367

D. C. Chassis and Speaker Only. **\$29.00**  
Cat. No. 1368

At an additional cost of \$3.75 the 6 tube American Receivers can be furnished to include the 75-200 meter short-wave band in addition to the broadcast band. A non-inductive selector switch eliminates the use of plug-in coils.

**American**

**7 Tube Super Heterodyne**

Midget Receiver

Variable Mu, Push-Pull Pentode

Uses two 235, two 224, two 247, one 280 tubes

3 gang condensers (3 tuned circuits), tone control, volume control, phono attachment with Full vision dial with "Phono-Radio" switch, traveling pilot light. Rola 8" Dynamic Speaker. Beautiful Walnut cabinet Size 19x15x10 1/2. Hairline tuning, super-sensitive using the Super-Heterodyne circuit. Plenty of volume. Quiet in operation. This receiver operates as well as any good 8-tube Super-Heterodyne.



For 110 volt, 60 cycle A. C. .... **\$27.50**  
Cat. No. 1355

Chassis and Speaker only ..... **\$25.00**  
Cat. No. 1356

For 110 volt, 25 cycle A. C. .... **\$30.50**  
Cat. No. 1357

Chassis and Speaker only ..... **\$28.50**  
Cat. No. 1358

For 220 volt, 60 cycle A. C. .... **\$29.50**  
Cat. No. 1359

Chassis and Speaker only ..... **\$27.00**  
Cat. No. 1360

**American**

**6 Tube 2 Volt Air-Cell**

BATTERY MIDGET RECEIVER

Screen-Grid and Pentode Tubes

Uses Four 232's, one 230, one 233 Tubes

This midget receiver is extremely sensitive with exceedingly fine tone. It is equipped with a Jensen or RCA electromagnetic speaker unit which gives a realism to voice or music never accomplished in a battery receiver before.

To accomplish high gain and good selectivity, four tuned circuits are used (4 gang variable condenser). Three radio frequency screen-grid with a screen-grid power detector. A 230 tube is used in the first audio stage, which is fed to a power pentode output tube.

To satisfy your tone requirements, a tone control has been included. This receiver is also equipped with phonograph pickup connections, with "Phono-Radio" switch. For ease of tuning a full vision dial is incorporated, with illuminated traveling indicator. Requires an Eveready air cell "A" battery, which should last a year with moderate use; three 45 volts of "B" batteries, and three 4 1/2 volts "C" batteries, which are not supplied at prices quoted.



In Midget Cabinet ..... **\$26.50**  
Cat. No. 3718

Chassis and Speaker only ..... **\$21.50**  
Cat. No. 3719

## American Phonograph and Radio

with Dual 78 and 33 1/2 R. P. M. Phonograph Motor



6 Tube, Variable Mu, Push-Pull Pentode Receiver with new Polycron Audak Transcription Pick-up

Uses two 235, one 224, two 247, one 280 tubes.

Here is an excellent seller. Not only is it a fine Radio Receiver, but by means of a throw over switch you can operate the phonograph.

Will play all types of records, including the new Victor Long Playing "Transcription" Recordings.

Has a new type Green Flyer Induction Motor which has a dual speed of 33 1/3 or 78 R. P. M., and may be operated at either speed.

An Audak Pick-Up, with volume control, 12" turntable, and automatic stop is incorporated. Rola 8" Dynamic Speaker. Beautiful Walnut Cabinet. Size: 23 1/2 x 17 1/2 x 14". 3 gang Condenser (3 tuned circuits); Tone Control; Volume Control; Full vision dial with traveling Pilot Light and indicator.

Sensitive, quiet, selective and with ample volume.

For 110 volt, 60 cycle A. C. **\$59.50**  
Cat. No. 1375

For 110 volt, 25 cycle, A. C. **\$62.50**  
Cat. No. 1376

For 220 volt, 60 cycle A. C. **\$61.50**  
Cat. No. 1377

Same Combination with a 7-tube Super-Heterodyne Chassis (Described on other page)

For 110 volt, 60 cycle A. C. **\$63.50**  
Cat. No. 1378

For 110 volt, 25 cycle A. C. **\$66.50**  
Cat. No. 1379

For 220 volt, 60 cycle A. C. **\$65.50**  
Cat. No. 1380

For 110 volt D. C., using three 236's, one 237, two 238's (Push-Pull Pentodes) **\$59.50**  
Cat. No. 1381



Model 80 A. C.

Bremer-Tully is known the world over for its precision laboratories, having built parts for the set builder and the amateur in early days of broadcasting. It is obvious that a manufacturer who could design such quality radio parts should be qualified to design and build an excellent receiver.

Uses four 227 tubes in three stages of ultra-selective Tuned Radio Frequency and a tuned Power Detector (Four gang condenser). A special sensitivity control is embodied on the front panel. A Pentode 247 is used in super-power Audio Amplification with a 280 supplying full-wave rectified current to the tubes.

A Rola Dynamic Speaker, with a special Pentode matching transformer, gives life-like reproduction of radio programs and is powerful enough to reproduce the amount of volume delivered by the Pentode Tube. Properly by-passed with a 25 mfd. condenser for the bias of Pentode tube, giving pure bass reproduction.

The cabinet is substantially built of grained walnut and stands 40 inches high, bringing tuning panel to eye level when sitting. Its fine finish harmonizes it with the surroundings of any home furnishing. Operates on 110-120 Volts, 50-60 Cycle A. C. current.

**\$29.75**  
Cat. No. S-1962

## American Grandfather Clock Radio

6 Tube Variable Mu, Push-Pull Pentode Uses two 235, one 224, two 247, one 280 tubes



Has a Sessions Electric, Noiseless Clock; Rola 8" Dynamic Speaker; Caswell-Runyon Cabinet of Matched Oriental Striped Walnut. Size 63 x 15 x 11".

3 gang Condensers (3 tuned circuits); Tone Control, Volume Control, Phono Attachment, with "Phono-Radio" switch. Full vision dial with traveling Pilot Light and Indicator.

Selective, sensitive, humless operation with ample volume.

For 110 volt, 60 cycle A. C.

**\$43.50**

Cat. No. 1382

For 110 volt, 25 cycle A. C.

**\$46.50**

Cat. No. 1383

For 220 volt, 60 cycle A. C.

**\$45.50**

Cat. No. 1384

For 110 or 220 volts D. C., using three 236, one 237, two 238 tubes (Push-Pull Pentode)

**\$45.50**

Cat. No. 1385

## Grandfather Clock Radio

with 7-tube Super-Het Chassis

(Described on other page)

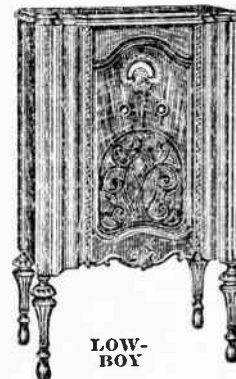
110 volt, 60 cycle A. C. **\$47.75**  
Cat. No. 3705

110 volt, 25 cycle A. C. **\$51.50**  
Cat. No. 3706

220 volt, 60 cycle A. C. **\$49.75**  
Cat. No. 3707

## American 6 Tube Console Receiver

Variable Mu, Push-Pull Pentode



LOW-BOY

Uses two 235, one 224, two 247, one 280 tubes.

Beautiful Caswell-Runyon Walnut Cabinet, 39" high.

3 gang Condenser (3 tuned circuits).

Full vision dial with traveling Pilot Light. Tone control; volume control and phono attachment with "Phono-Radio" switch.

Rola 8" Dynamic Speaker. Selective, sensitive, quiet operation, with ample volume.

For 110 volt, 60 cycle A. C. **\$39.75**  
Cat. No. 1369

For 110 volt, 25 cycle A. C. **\$42.75**  
Cat. No. 1370

For 220 volt, 60 cycle A. C. **\$41.75**  
Cat. No. 1371

Console with 7-tube Super-Het Chassis (Described on other page)

For 110 volt, 60 cycle A. C. **\$43.25**  
Cat. No. 1372

For 110 volt, 25 cycle A. C. **\$46.50**  
Cat. No. 1373

For 220 volt, 60 cycle A. C. **\$45.50**  
Cat. No. 1374

## American

## 6 Tube 2 Volt Air-Cell BATTERY CONSOLE RECEIVER

Screen-Grid and Pentode Tubes

Uses four 232, one 230, one 233 tubes

This midjet receiver is extremely sensitive with exceedingly fine tone. It is equipped with a Jensen or RCA electro-magnetic speaker unit, which gives a realism to voice or music never accomplished in a battery receiver before.

To accomplish high gain and good selectivity, four tuned circuits are used (4 gang variable condenser).

Three radio frequency screen-grid with a screen-grid power detector. A 230 tube is used in the first audio stage, which is fed to a power pentode output tube.

To satisfy your tone requirements, a tone control has been included. This receiver is also equipped with phonograph pickup connections with "Phono-Radio" switch. For ease of tuning a full vision dial is incorporated with traveling Pilot light and indicator.

Requires an Eveready air cell "A" battery, which should last a year with moderate use; three 45 volts of "B" batteries and three 4 1/2 volt "C" batteries, which are not supplied at prices quoted.

In Console Cabinet **\$42.50**  
Cat. No. 3720

Chassis and Speaker **\$21.50**  
Cat. No. 3719



LOW-BOY

# Kolster (6-D) 6 Tube Battery Receiver

In Console Less K-5 Speaker

Uses five 201-A, and one 112-A or 171-A Tubes

By popular demand, we can supply the famous Kolster 6-D battery-operated receiver in the Kolster 6-H console cabinet. This unit does not include the Kolster Electro-Dynamic Speaker and Power Amplifier. The speaker compartment has a baffle board for a 10" Speaker. The battery compartment has sufficient room for either batteries or eliminators. For outlying districts where A. C. or D. C. current is not available, this receiver will work exceptionally well. Just add any type of speaker to this set to make it complete.

**\$13.50**

less tubes  
Cat. No. S-2753

The new 2-volt tubes may be used with this receiver.



## KOLSTER CABINET

Used with the 6-H Receiver and K-5 Dynamic Speaker. Can be used with any A. C. receiver chassis or can be built into a high class battery receiver.

Made of a beautiful burled walnut with maple overlay and full swinging doors. It takes a receiver front of 15 x 8 1/2", has a battery compartment and a separate compartment with room for a 10" speaker with a baffle board provided.



**\$5.90** Size: 53 x 27 x 18 1/2"

Cat. No. 1779



Model 80  
D. C.

## BREMER-TULLY

### 7 Tube 110 Volt, D. C. Receiver

- 1. D. C. All Electric
- 2. Seven Tubes in All.
- 3. Four Screen-Grid.
- 4. New Two-Volt Tubes.
- 5. Rola Dynamic Speaker.
- 6. Consumption: 17 Watts
- 7. Push-Pull Audio.

An entirely new creation to fill the demand for a D. C. Electro-Dynamic Receiver. It employs the latest type of shielded circuit using the new Two-Volt Tubes; three Screen-Grid. Radio Frequency Stages, all tuned, using three UX232's; a tuned Screen-Grid Power Detector using a UX232; a quality first Audio Stage using a UX230 and a power Audio Stage using two UX231's in Push-Pull. The output is fed through a special output transformer, into a Rola 7 inch Dynamic Speaker.

The selectivity, distance getting qualities and general performance of this receiver is superb. It is sharp and does not require an elaborate antenna system. The cabinet is substantially built of grained walnut and stands 40 inches high, bringing tuning panel to eye level when sitting.

**\$26.50**

Less tubes  
Cat. No. S-3453

## National Phanstiehl Screen-Grid 5 Tube Midget Receiver

Subject to standard R. M. A. guarantee  
Uses 201A amplifier, 224 screen-grid T. R. F. amplifier, 227 power detector, 112A power audio stage and a 280 full wave rectifier.

Absolutely the smallest, lightest and cheapest midget receiver made today. It enables every home to have a radio. It uses the latest type of Utah Magnetic Speaker which reproduces faithfully.

Will receive distant signals as well as the powerful and weak local stations. Does not need a large antenna due to the fact that it employs screen-grid R. F. amplification. It weighs but 9 pounds.



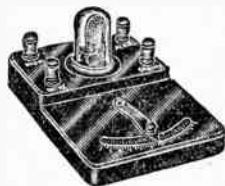
Size: 9 3/4 x 13 1/2 x 7 1/2"

**\$11.50**

less tubes  
Cat. No. S-1963

## American Crystal Receivers

These inexpensive, highly efficient, miniature receivers open an entirely new field of profit to the radio dealer. There is practically no limit to the number of these sets that can be sold. There is a type for every age and requirement. The sets come equipped with Supersensitive Crystals and require no batteries, therefore costing nothing to operate. It is the logical choice for the smaller boy. Boost your sales with these receivers, they are as popular as ever.



THE "SUPERTONE" SET

Has a range of from 200 to 600 meters and will receive signals further than 25 miles. Fixed detector is dust-proof.

**75c**

Cat. No. 1957

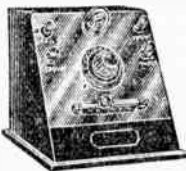
Complete with Head Phones and Antenna Equipment, ready to operate.

**\$2.25**

Cat. No. 1958,

THE "SELECTIVE" SET

This is the finest of all crystal receivers. Has variable condenser and will bring in one station at a time. Loud and clear.



**\$2.50**

Cat. No. 1959

Complete with Head Phones and Antenna Equipment, ready to operate.

**\$3.95**

Cat. No. 1960,

## New 1932 Universal I.C.A. Companion Portable 7 Tube Radio

The I. C. A. COMPANION truly THE universal Radio . . . for use in the city . . . country . . . on the farm . . . in automobile . . . boat or airplane . . . anywhere.

Uses two 233, three 237, two 236 tubes.

Operates on either A. C., D. C., or with batteries. Weighs only 14 lbs. 7 Tubes, Volume Control, Built-in Speaker, Single Dial Control, Leatherette case.

The I. C. A. Universal Companion answers the world-wide demand for a single radio, usable on either A. C. or D. C. electric current (105 to 125 volts) and also on battery or dry A battery



power (6 volt storage A battery and 135 volts B battery). Just think of it—a single radio receiver that takes the place of three radio sets.

The circuit is the last word in radio using the new 6.3 volt, screen grid heater tubes, allowing considerable voltage variation without effecting reception.

Change over from electric A. C. or D. C. to battery operation is accomplished by merely inserting a plug which is furnished with each receiver into either one of the sockets marked for electric and for battery. No change of tubes.

Only a short antenna or ground connection is necessary for perfect reception. A special Jack is provided for head phone use. All self-contained in handsome leatherette traveling case measuring 12 x 11 x 8 1/2.

**\$23.70**

(less tubes)  
Cat. No. 1407

For 220 Volts, A. C.

For 220 volts A. C. use step-down transformer consuming approximately 50 watts. Cat. No. 1408

**\$3.15**

Cat. No. 1408

For 220 Volts D. C.

For 220 volts D. C. use external resistance housed in a perforated metal box. Cat. No. 1409

**\$2.70**

Cat. No. 1409

## Pandora Crystal Set



Selective. Very efficient. Receives loud and clear when operated within twenty-five miles of broadcasting stations. Metal beautifully enameled in various colors. With crystal.

**\$1.15**

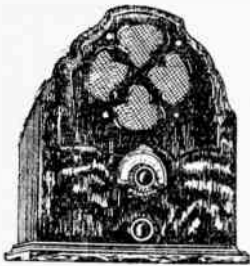
Cat. No. E-62

Complete with Head Phones and Antenna equipment, ready to operate. Cat. No. E-62C

**\$2.65**

## I. C. A. Insulette A. C. Midget Receivers

200-600 or 200-2000 Meters



Uses 2-235, 1-224, and 1-230 Tubes.  
For Home, Office, Camp or to carry with you any place you go, these new Insulettes are ideal outfits. Weighs only 14 pounds. Size 13½x11x8". Contains a Dynamic Speaker, Phonograph pick-up connection, single full vision tuning control, volume control, on-off switch.

One model ranges from 200 to 600 meters and another from 200 to 2,000 meters. With the long wave model one can quickly switch from intermediate to long wave lengths by merely turning a switch. Operates from 110 v., 60 cycles, A. C.

Cat. No. 3994—Long Wave Model (200-2000 meters) ... **\$29.40**

Cat. No. 3995—Broadcast Model (200-600 meters) .... **\$19.95**

Operates from 220 v., 60 cycles, A. C.

Cat. No. 3996—Long Wave Model (200-2000 meters) ... **\$29.95**

Cat. No. 3997—Broadcast Model (200-600 meters) ..... **\$21.45**

All above receivers sold less tubes

## I. C. A. Portable Companion Radio

Uses 2-227 Tubes



Here is a compact portable receiver that is complete in itself. Just plug into a light socket, make ground connection and put on Head Phones. You don't need an aerial. And on some powerful locals you can obtain good results with a magnetic speaker. Single dial tuning, one volume control and selective. How many times have you wanted to listen to a special program, but could not because others objected.

Also excellent for those who travel, at parties or patient in a hospital.

Compact—only 7½x13x14", weight 10 lbs. With Head Phones, less tubes.

Cat. No. 3998—110 v., 60 cycles, A. C., **\$13.50**

Cat. No. 3999—110 v., D. C., Any

Cat. No. 4000—220 v., 60 cycles, A. C., Type

## A. C. Dayton-Flewelling Short Wave Adapter



With Complete Set of Coils

From 15 to 200 Meters  
Enables you to receive short-wave signals in conjunction with our present broadcast receiver. Enjoy the thrills of foreign reception in your own home. Complete with four plug-in coils which cover from 15 to 200 meters.

Obtains its power from set through adapter. **\$4.75**

Mention type of detector tube used in your receiver.

Cat. No. H-38—For Screen Grid Detector.

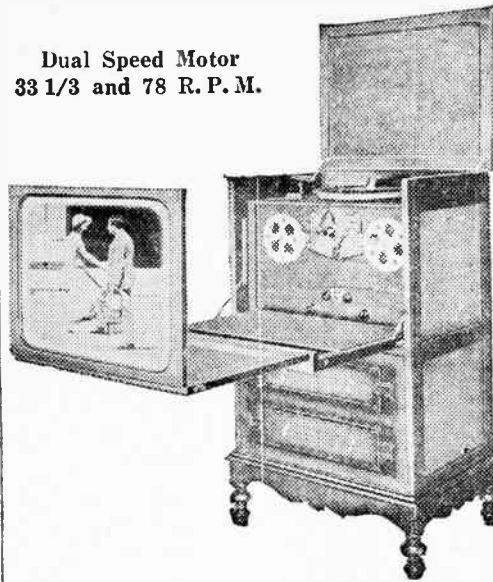
Cat. No. H-39—For Battery Detector.

Cat. No. H-40—For 227 Detector.

No tube required

# TALKIOLA

Dual Speed Motor  
33 1/3 and 78 R. P. M.



## 16 M. M. Talking Picture Projector and Radio Receiver

Combines the pleasures of Radio, Phonograph, and Talking Pictures in your own home. Excellent for meeting rooms, clubs, schools, universities, etc.

Sound equipment sufficient for audiences up to 500 people. External screen of larger size may be used in place of built-in translucent screen. Latest Audak Phonograph pick-up for 16 in. records is used.

The dual speed 16 in. turntable may be used as a phonograph to play regular Victor or Brunswick records, and at a speed of 33-1/3 will play the new Victor long-playing "Transcription" records and is also used for the Talkie Movie Record. Silent movies may be shown without the use of sound.

This machine employs a 6 tube radio receiver, using three 224's, two 245's, and one 280. Equipped with volume and tone controls. The dynamic speaker is removable for placing near screen.

Projector is exceptionally quiet and comes equipped with a 1½ in. lens. It will throw a 7 x 9 ft. picture approximately 50 feet. Ample space in this beautiful walnut cabinet to accommodate film and records.

For operation on 110 volt, 60 cycle A. C.

**\$349.50**

less tubes

Cat. No. 1596

## KOLSTER 8-Tube A. C. Receiver

With Kolster 10-Inch Dynamic Speaker



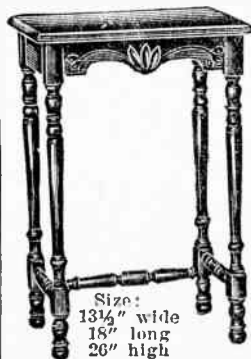
Size:  
53 x 27 x 18½"

An 8-tube receiver which incorporates the famous Kolster K-5 Electro-Dynamic Speaker fed by a stage of 210 or 250 amplification. The cabinet is identical to the 6-H. Complete tubes are: three UX-226's in Tuned R.F., one UY-227 in a tuned detector circuit, one UY-227 in the first audio, one UX-210 or 250 in second audio, and two UX-281's in full-wave rectification. This receiver is humless and is more selective than the average set, and uses a 4-gang condenser (4 tuned circuits). Pre-selector-vario R.F. stage coupled to the antenna. The tone quality is excellent. Also has Phono-Pickup Outlets. A phonograph motor and pickup can easily be installed in lower compartment. (See Phono motors and Pickups listed on pages 108, 110 and 111.) Operates from 110 volt 60 cycle A. C.

**\$28.50**

Cat. No. S-3452  
less tubes

## Midget Receiver Table



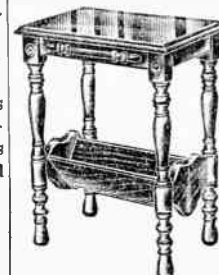
Size:  
13¼" wide  
18" long  
26" high

Something new in the line of tables for radio receivers, this new creation is made specifically for midget or junior types of radio sets. A size that is adaptable to any Midget receiver. It is made of gumwood finished in walnut.

**\$2.50**

Cat. No. 1896

## Finest Midget Receiver Table Made



Solid Walnut

With Book Trough  
This sturdy Midget Receiver Table is absolutely the strongest and best made. It is made of solid walnut and measures 12 x 18 x 24". It is a combination radio and book table since a shelf is provided for standard-size books. Solid construction and finest workmanship.

**\$4.75**

Cat. No. S-1805

## Photo-Cells '3' & '4' Series

Send for booklet of complete information and special prices



## Gumwood Midget Table

With Book Trough

Finished in either walnut or mahogany. Please specify finish desired.

**\$3.25**

Size: 13½ x 18 x 26"

Cat. No.

20% Deposit Must Accompany All C. O. D. Orders

# American AUTOMOBILE RECEIVERS

After many months of severe tests on land and sea, we are offering you the finest in auto receivers and accessories that the engineering art has been able to produce. All antenna, speaker, "A" and "B" battery leads are completely shielded. Our auto receivers may be used on motor, yacht and airplane with excellent results. Full instructions and drilling templates are packed with each auto receiver... Manufactured to our rigid specifications.

## Model 50

Uses 3-224, 1-238, 1-171A

This receiver, though it is priced exceptionally low, is an extremely sensitive, out-performing other makes at twice the price.

Here is what you receive—

- 1—5-Tube American Auto Receiver.
- 1—Jensen Auto Dynamic Speaker.
- 1—Remote Control with 4-ft. Cable.
- 6—Spark Plug Suppressors.
- 1—Distributor Suppressor.
- 1—Condenser-Generator Silencer.
- 1—4 Battery "B" Battery Box.

Complete with a set of factory matched Eveready 4-Pillar tubes.

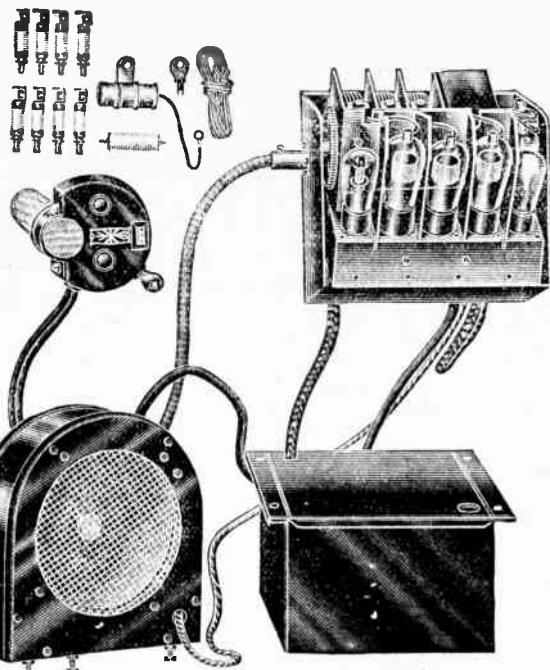
**\$36.50**

Cat. No. 3150

"A" Battery Drain 2½ amps.

"B" Battery Drain 18 mils.

4—45 Volt "B" Batteries Required.



Metal cover for receiver chassis not shown, but supplied.

## Model 60

Uses 3-236, 1-237, 2-238 Pentodes

The model 60 receiver uses a balanced push-pull output, and has a better tone than model 50. Chassis is slightly larger than the model 50.

Here is what you receive—

- 1—6 Tube American Auto Receiver.
- 1—Magnavox Auto Dynamic Speaker.
- 1—Remote Control with 4-ft. Cable.
- 8—Spark Plug Suppressors.
- 1—Distributor Suppressor.
- 1—Condenser-Generator Silencer.
- 1—3 Battery "B" Battery Box.

Complete with a set of factory matched Arcturus tubes.

**\$39.50**

Cat. No. 3151

"A" Battery Drain 1.8 Amps.

"B" Battery Drain 18 Mils.

3—45 "B" Batteries Required.

## Model 70

Uses 3-224, 224, 2-237, 2-238 Pentodes

In the model 70 receiver you have the De Luxe of all auto receivers. Imagine it; screen-grid, pentode push-pull and automatic volume control which will prevent fading. When you listen to this receiver in your car you will agree with us that it is the finest auto receiver you ever heard.

Here is what you receive—

- 1—7 Tube American Auto Receiver.
- 1—Jensen Auto Dynamic Speaker.
- 1—Remote Control with 4 ft. Cable.
- 8—Spark Plug Suppressors.
- 1—Distributor Suppressor.
- 1—Condenser-Generator Silencer.
- 1—4 Battery "B" Battery Box.

**\$49.50**

Cat. No. 3152

Complete with set of factory matched Eveready 4-Pillar tubes.

"A" Battery Drain 3½ amps.

"B" Battery Drain 22 mils.

4—45 Volt "B" Batteries Required.

We can supply the above automobile receivers for operation only on "short waves," 75 to 200 meters at an additional cost of \$2.50. Will tune in the amateur 80 meter band and police signals.

## American AUTOMOBILE "B" BATTERY ELIMINATORS

Also for use on boats, aeroplanes and busses. Built by one of the largest factories, whose name we are not allowed to mention, due to our selling this eliminator at a low price, which is made possible by our large purchasing power. Fully guaranteed to give you full satisfaction.

Insures constant smooth, noiseless, high voltage for the operation of a radio set in automobile, boat, etc.

Consists of a very efficient 6 or 12 volt motor in combination with a rotary transformer. Receives its operating current from the regular 6 or 12 volt battery.

Built of the highest quality materials throughout and is designed to withstand years of usage under rough and trying conditions. Will improve the performance of any automobile radio set.

The motor and transformer is journaled in highest quality oil-packed ball bearings at both ends and the entire unit is encased in a dust and moisture proof housing.

Draws less than 3 amps, which is less than the current drain of a single headlight bulb.

It becomes part of the radio and is turned on or off simultaneously with the radio set.

Simple to install, compact, being only 5¾ x 8 x 6¼" deep, requiring one-third the space of "B" batteries.

135 volt, 30 mil. output

**\$24.50**

Cat. No 3040

180 volt, 30 mil. output

**\$25.50**

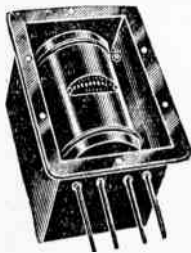
Cat. No. 3041

World Radio History

180 volt, 30 mil. output  
Adjustable voltage 45 to 135 volts.

**\$26.50**

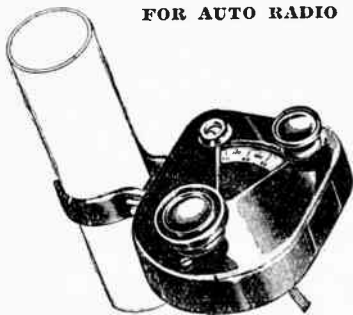
Cat. No. 3042





**American Remote Control Unit**

FOR AUTO RADIO



This remote control unit was designed for easy installation where you have your own receiver and wish to make it up-to-date for auto installation. Equipped with keylock switch to prevent tampering. Micrometer tuning and volume control. Finished in black Duco and equipped for steering post mounting.

**\$3.75**

Cat. No. 2802

Supplied with 1' Flexible Shaft and Coupling

ADDITIONAL FLEXIBLE CABLE WITH SHAFT

**36c per Foot**

Cat. No. 2803

STEEL ROD, 1/4" DIAMETER.....Cat. No. 2803A

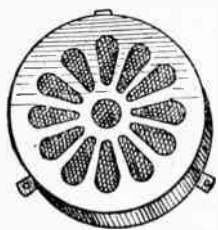
**5c per Foot**

UNIVERSAL COUPLING FOR CABLE OR ROD

**30c Each**

Cat. No. 2804

**Utah Six Volt Auto Dynamic Speaker**



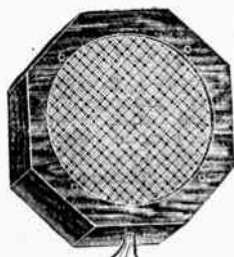
8 1/4" diameter

Universally accepted as the finest dynamic speaker for automobile work. Can be supplied for single or push-pull pentode or 171-A output. When ordering, kindly specify type of output transformer desired.

**\$4.85**

Cat. No. 2805

**Trimm Automobile 6 Volt Dynamic Speaker**



List: \$20.00

For use with 171, 231, and 245 tubes

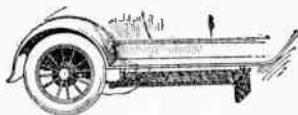
This speaker has been specially designed for use in conjunction with automobile radio receivers. It derives its field current from the storage battery in the car. In hexagon baffle box which is easily mounted.

Contains output transformer

**\$4.25**

Cat. No. S-3173

**American Running Board Antenna**



This antenna is of the latest design and is recommended for any auto receiver. It is the only running-board antenna to have and quickly installed. Two holes in the running-board is all that is needed.

**\$2.50**

Cat. No. 2797

**American Under-Car Antenna**



Attaches between front and rear axle. This antenna has a larger CAPACITY than a running-board antenna. It is stretched between front and rear axle of car and has a spring to take up any tension and keep antenna taut. Easy to install. No holes to drill. Equipped with MUD GUARD.

**\$2.95**

Size: 72" x 4 1/4" Cat. No. 2798

**Automobile Aerial Kit**



Meets a strong demand for a complete Automobile Aerial Kit. Contains: one can of 50 feet of adhesive aerial tape; one can of insulating fabric, to be taped over the aerial; one-half pint of top dressing for waterproofing the aerial installation; one brush; 10 ft. of flexible copper-covered wire; one piece of solder and instruction sheet.

**\$1.75**

Cat. No. 2597

**Special Weatherproof Shielded Auto-Radio Battery Cable**



To prevent extraneous electrical interference from entering your auto radio, via battery leads, we are offering the "A" and "B" battery cable, listed below. All insulation is weather-proofed.

Two conductor "A" battery cable. No. 16, wire-stranded, tinned, rubber and water-proofed cambric insulation. Colors: black and red.

per ft. **6c**

Cat. No. 2806

Three conductor "B" battery cable. No. 18, wire-stranded, tinned, rubber and water-proofed cambric insulation. Colors: black, red and yellow.

per ft. **7c**

Cat. No. 2807

**Porcelain Nail-It**



**Knobs**

Two Piece

Made of high grade glazed porcelain. Equipped with grip tight edges to hold lead-in wire firmly.

**2c each**

\$1.25 per 100

Cat. No. 4172

**American Auto Interference Suppressors**



2799

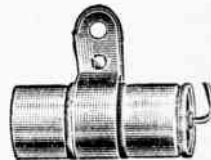
**SPARK PLUG SUPPRESSORS**

**DISTRIBUTOR SUPPRESSOR**

**CONDENSER-GENERATOR SUPPRESSOR**  
1 mfd.



2800



2801

**28c ea.**

Cat. No. 2799

**28c ea.**

Cat. No. 2800

**62c ea.**

Cat. No. 2801

**Automobile Power Converter**

6 Volts to 110 Volts, 60 Cycle A. C.



Showing installation under hood of automobile. An amazing new invention. Now you can obtain 110 v., 60 cycle A. C. current (the same kind of current you have in your home) from your ordinary automobile 6 volt storage battery. No hum, and no ignition suppressors or filters required.

Also excellent for use by the boat owner besides the automobile owner.

Delivers up to 80 watts, and draws 10 amps. from the battery intermittently (not a steady drain). This small drain on the battery is compensated for by stepping up the charging rate on the automobile or boat generator to 15 amperes. The battery is not harmed in the least.

This unit has a safety fuse which prevents battery drain to a danger point. Your car or boat will never be stalled on account of a dead battery due to short circuit.

This instrument is a power box of a thousand uses such as:

Operating an A. C. Midget Radio, Curling Irons, Immersion Heaters, Drink Mixers, small Electric Fans, Trouble Lights, etc. Installation is quick and easy. You can do it yourself in a few minutes.

Compact, 4 x 4 x 10". Weight: 10 lbs.

Complete with Dashboard Switch and all necessary wires for installation.

**\$29.50**

Cat. No. 2593

**SOCKET WRENCH SET**



This Socket Wrench Set is made of high grade steel, and is skillfully machined in every detail.

All parts are Cadmium-plated. 6 sockets: 1/2", 3/8", 5/8", 1 1/8", 3/4", and 7/8".

Cat. No. 1677 **49c**

**Let Us Quote on Your Special Requirements**

## BUD POLICE THRILLER

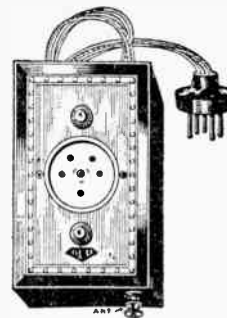


For heart-throbbing excitement, listen-in to police calls. Many incidents do not find their way into newsprint that are heard on Police wavelengths

BUD POLICE THRILLERS are made in two types. One type is to be used where there is ample space for the adapter and tube to fit into the socket. This type is known as our Catalog No. 2400, which is for Screen-Grid Detector, and No. 2700, which is for sets using No. 227 or 327 tubes for Detectors. The other type is to be used where the cabinet of the radio set is so constructed that the No. 2400 or 2700 Police Thriller would not fit in because of insufficient space in cabinet. Because of this we have designed our No. 2401 and 2701, which has a plug attached to the Police Thriller. This plug is to be placed into Detector Tube Socket.

BUD POLICE THRILLER when connected to broadcast receiver changes the tuning from 80 to 200 meters on the broadcast receiver. This will enable you to bring in amateur broadcasts in addition to Police Calls.

Instruction for operation of BUD POLICE THRILLER in broadcast receiver is printed on each box.



No. 2401 for sets using screen-grid detector tubes.

No. 2701 for sets using 227 or 327 detector tubes.

**\$2.06**

Cat. No. 2398

No. 2400 for sets using screen-grid detector tubes.  
No. 2700 for sets using 227 or 327 detector tubes.

**\$1.47**

Cat. No. 2397

## Brunswick Model 100 Short Wave Converter

20-60 and 120-200 Meters

Uses Two 224 Screen-Grid Brunswick Tubes

This Brunswick Short-Wave Converter was designed to operate with Brunswick receivers using pentode output tubes, but can be also used with sets using 245 output with a slight change. You can tune in U. S. Relay Stations, Foreign Short-wave Broadcast and Police Signals. Supplied complete with 3 coils and two Brunswick 224 tubes. Filament and plate voltage supplied by your receiver through pentode adapter furnished.

Black Coil—20 to 35 meters.  
Red Coil—37 to 60 meters.  
Green Coil—120 to 200 meters.

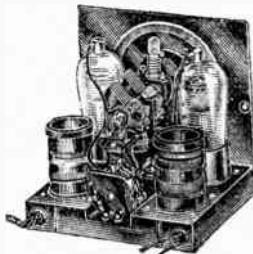
Standard Brunswick equipment supplied: 3 coils and 2-224 tubes.

**\$17.50**

Cat. No. S-1653



Front View



Chassis

Two additional coils required to cover 60 to 120 meters. These coils will only be sold when purchased with above converter.

**\$2.75**

Per pair

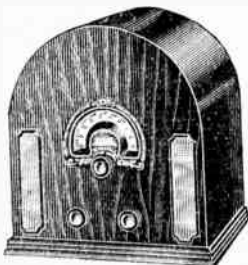
Cat. No. S-1654

## Baird Super-Het Short Wave Converter

20-200 METERS

Uses two 227 and one 224 tubes

Listen to all the foreign broadcasting, police signals, ship to shore stations and amateur calls. The Short-Wave and Television Corporation presents this new three-tube Short-Wave Converter which will enable you to easily convert your present T. R. F. or Super-Heterodyne A.C. Broadcast receiver to a Super-Het Short-Wave receiver.



Uses no plug-in coils. Has a change-over switch covering three bands, namely: 24-40, 40-80, 80-200 meters.

Installed by any one in five minutes. Simple to operate, having only one control knob. Can be left attached to receiver when tuning regular broadcast reception.

Deriving its own "A" supply from a transformer installed in the chassis, and the "B" supply from adapter supplied which connects into your radio set.

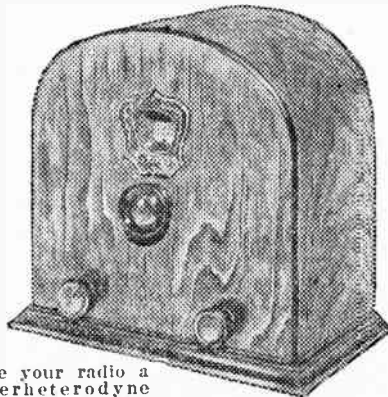
Beautiful in appearance, compact, size: 10 1/4" high, 9 3/4" wide, and 9" deep. With full-vision dial.

less tubes  
**\$16.50**

Cat. No. 3503

## American Super-Het. Shortwave Converter

Uses two 221's, one 227, one 280 tubes; 15-200 Meters



Make your radio a superheterodyne Short-Wave Receiver, and receive police signals, ships to shore phone and short-wave signals.

Single, illuminated dial tuning. Self-contained power supply. Operates from 110 volt, 60 cycle A. C. No plug in coils.

Selective. Fully shielded metal chassis. Walnut cabinet, size: 7 1/2" wide, 5 1/2" deep, 10" high. Weight: 8 lbs.

Does not have to be disconnected when regular broadcast is desired. Easy to connect to your present receiver.

**\$18.50**

(less tubes)

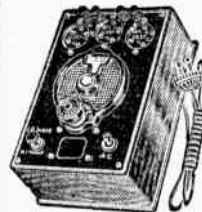
Cat. No. 2585

## The New Short Wave

# AIR-KING

20-125 Meters

## Super Heterodyne S. W. Converter



This converter uses 3-UY227, one as an R. F. stage, another as a short wave 1st detector, and a third as an oscillator. In conjunction with an electric receiver, it makes the R. F. stages act as an intermediate amplifier, the detector as a second-detector and the audio amplifier as a booster of signal strength. It has a built-in filament trans-

former and requires "B" voltage of 45 to 135 volts, which can be tapped from your regular broadcast receiver voltage divider, dynamic field, R. F. or Audio transformer plus "B" posts. For the best results, the receiver used in conjunction should be in or as near to an oscillating condition as possible. It makes no difference what types of tubes are used in the R. F. or Detector sockets of the receiver. There are no plug-in coils. Wave-lengths are covered by means of a switch and condenser.

It is not necessary to disconnect or connect the super-converter when broadcast reception is desired or vice versa.

**\$12.50**

less tubes

Cat. No. H-1

Same as above for operation from 110 volt, D. C. power line. Self-contained power unit.

**\$12.50**

Uses three 201-A tubes.

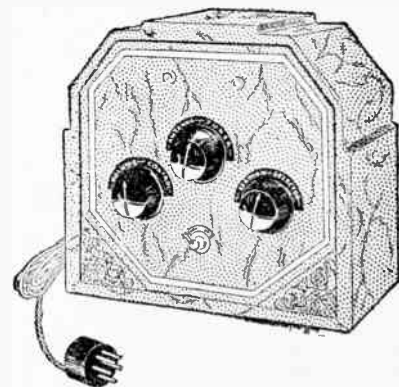
less tubes Cat. No. 2580

## American

## Super-Het Short Wave Converter

20-200 Meters

Uses three 227 tubes



This Converter is adaptable to any A. C. radio set and converts the set to a short-wave super-heterodyne circuit. Has a wave band switch to switch wave lengths and does not use plug-in coils.

Easily installed and can be attached at all times to the radio. When regular broadcasting is desired, throw switch off, and the regular programs will be heard again.

Listen to police calls, amateurs, ship to shore communication, etc. Supplies its own power. Operates on 110 v., 60 cycle A. C.

**\$11.75**

less tubes

Cat. No. 2845

**I. C. A. VISIONETTE TELEVISION KIT**

A scientifically engineered Televisor with the I. C. A. "Twin-Rotor" synchronous motor and adjustable viewing mirror.



Shipping Weight: 20 lbs.

This kit contains all necessary parts to easily assemble and construct a practical and efficient television receiver.

It incorporates several novel features which materially add to the comfort of viewing television pictures. Unlike the system most commonly employed, the image is not seen through a lens, but in a mirror. This accomplishes a threefold purpose. The angle of vision is considerably widened, permitting more people to look in, and the adjustability of the mirror permits the picture to be focused to suit the level of the observer's eyes, whether he is standing or sitting. A lens interposed between the disc and the mirror easily magnifies the picture to twice its normal size without distortion or loss of detail.

The disc is driven horizontally by a small but efficient synchronous motor, insuring constant synchronization with the transmitting station. Vertical and horizontal framing is accomplished by a lever attached to motor.

When attached to the output of a good short wave radio receiver this television outfit will give faithful picture reproduction. Close adherence to the complete set of blueprints and instructions furnished with the Kit will insure the rapid and easy construction of the televisor.

The kit includes a special mirror, visor with focusing adjustments, a rugged frame, the essential motor parts, a synchronizing control, 60 line scanning disc and Neon tube.

**Completely Assembled and Wired**  
with Neon tube

**\$28.50**  
Cat. No. 1400

**\$33.00**  
Cat. No. 3923

**I. C. A. COMBINATION 5 TUBE SHORT WAVE RADIO AND TELEVISOR**

Wave Length: 75-200 Meters

Uses Two 235's, One 224, One 247, One 280 Tubes

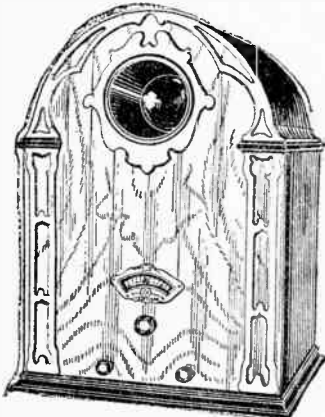
Complete with Synchronous Motor; 110 V., 60 Cycle, 1200 r. p. m. Aluminum scanning disc, 60 holes. Magnifying lens. Neon lamp and adjustable stand, dynamic speaker.

Here is the ideal complete radio and television outfit for the home. Everything self-contained in a beautiful walnut cabinet. Just snap on the switch and tune in the television station you prefer, or switch over to receive regular short-wave broadcasting.

Single Full Vision Dial Tuning Control, Volume Control and on Off Switch on same knob. Phonograph Jack connections and switch for changing grid bias of detector to more suitable value for phonograph amplification. Special Impedance matching Transformer between Pentode Output tube and Neon Lamp for maximum transfer of energy at all frequencies encountered in television reception. Resistance coupling between Power Detector and Pentode Power Amplifier.

The receiver can also be used for the reception of other than television stations which operate between 75 to 200 meters, such as Amateur Phone Stations, Police Call Signals, Coast Guard, Weather Bureau Aviation Stations, and Ship to Shore Telephone Stations. Weight: 50 lbs. less tubes

**\$117.60**  
Cat. No. 1406



For 110 v., 60 cycle A. C.

**DeForest-Jenkins 8 Tube Television and Broadcast Receiver**

Wavelength 80 to 600 Meters

Uses Two 435's, Two 424's, One 427, Two 445's, and One 480

The last word in an All-Purpose Receiver that brings you a world of radio thrills. Tune in any broadcast program—police radio alarms, airplane calls, amateur conversations, radio experiments. And then for the thrill of thrills, tune in television.

Not only is this receiver primarily an ideal Television Tuner and Amplifier, but in addition it serves as a broadcast receiver by simply turning a switch.

Tuning Range: 80 to 600 meters, divided into two bands.

Audio Amplifier: 20 to 40000 cycles for full-tone reproduction of sound or picture. Two —45's in parallel deliver 4000 milliwatts of undistorted output. Non-motor-boating. Humless. Self-healing electrolytic condensers. Full vision illuminated dial. Combination tone control and speaker-radiovisor switch. Attractive cabinet. "Rola" dynamic speaker.

Weight: 32 lbs. Dimensions: 21 x 12".

**\$47.70**  
Cat. No. 1611



MODEL J. D. 30

JD-30 Receiver Complete for broadcast or television bands and set of matched DeForest tubes. For 110 volt, 60 cycle A. C.

**Pioneer 7 Tube Television Receiver Chassis**

100-200 Meters

Uses two 235, three 227, one 247, one 280 tubes

A fine Television Receiver using 3 stages of resistance coupled amplification (two 227's and one 247). Uses two 235 as R. F. tubes and one 227 as detector.

Has a fine audio frequency response from 15-40000 cycles, and incorporates a double filter. Does not use any plug-in coils.

Furnishes field current of 2500 ohms for a dynamic speaker. Completely assembled and wired. Less tubes

**\$19.75**

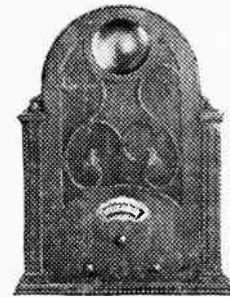
Cat. No. 3993

**"See-All" Combination Short Wave Radio and Televisor**

Wave Length 85-230 Meters

Uses two 235, two 224, one 245, one 280 tubes

This combination is a complete radio and Television outfit for the home. Combines all the features of the "See-All" Televisor and receiver, in a beautiful walnut cabinet, size 26 x 18 x 10 inches. Full vision dial, tone and volume control, with 6" lens. Factory wired. Less tubes and Neon Bulb.



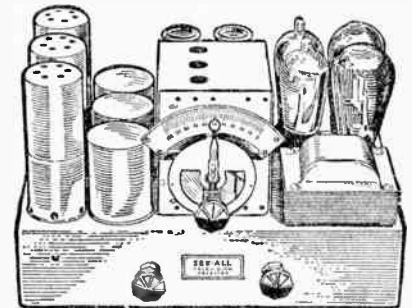
**\$40.87**

Cat. No. 1617

**"See-All" Television Receiver Chassis**

Especially designed for use with "See-All" Television or any Televisor Equipment.

Uses two 235's, two 224's, one 245, one 280 tubes 85 to 230 Meters



This receiver enables you to receive Television pictures with all their detail. Has flat curve from 20 to 50,000 cycles for true reception. Resistance-coupled amplification in first audio stage, using a 224 tube which feeds into a stage of 245, also resistance-coupled. Output is connected to a Televisor, or to a speaker where Short Wave signals are desired. For 110 volt, 60 cycle A. C. (Assembled on chassis base, unwired.)

**\$23.70**

Cat. No. 1618

Same as above factory wired. (less tubes) . . . . .

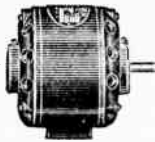
**\$26.95**

Cat. No. 1619

## Baldor Synchronous Television Motors



Horizontal Mounting



Vertical Mounting

These Ball Bearing, high quality precision Motors have the Rotors and Shafts ground to a .0001 tolerance. All types are single phase. Can be had in speed of either 900 or 1200 R. P. M. in vertical or horizontal position with coupler. Models "1" and "Y-2C" will operate scanning discs up to 16 inches. Models "X-2C" and "W-1C" will operate scanning discs up to 24 inches.

Type D—1/20 H. P. 110 volt 60 cycle A. C. **\$21.50**

Cat. No. 1601

Requires a 3 mfd., 550 volts, D. C. condenser, which is not included in price.

Type Y-2C. 1/4 H. P. 110 or 220 volt, 60 cycle A. C. **\$33.50**

Cat. No. 1605

Requires a 3 mfd., 550 volts, D. C. condenser, which is not included in price.

Type X-2C. 1/4 H. P. 110 or 220 volt, 60 cycle A. C. **\$39.50**

Cat. No. 1606

Requires a 4 mfd., 550 volts D. C. condenser, which is not included in price.

Type W-1C. 1/3 H. P. 110 or 220 volt, 60 cycle A. C. **\$49.75**

Cat. No. 1607

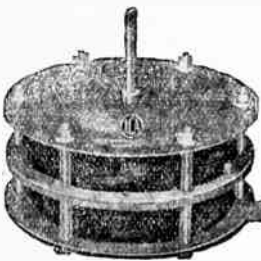
Requires a 6 mfd., 550 volts D. C. condenser, which is not included in price.

Can also be supplied at small additional cost for 110 volt, 25 cycle A. C.

All models are furnished with couplers.

## I. C. A. Television Motor

Newest type. Synchronous. 1200 R. P. M.



Especially adapted for television receivers using discs up to 24". A real smooth running synchronous motor eliminating the necessity of using a speed control on motor for synchronization of Television pictures.

"Twin-Rotor"

For 110 volt, 60 cycle A. C.

**\$19.90**

Cat. No. 1620

## I. C. A. Television Motor Chucks

The diameter of the chuck is 6 inches which insures positive alignment of discs to motor. Supplied to fit 1/4", 5/16", or 3/8" motor shaft. Specify size of shaft. **\$2.95**

Cat. No. 1655

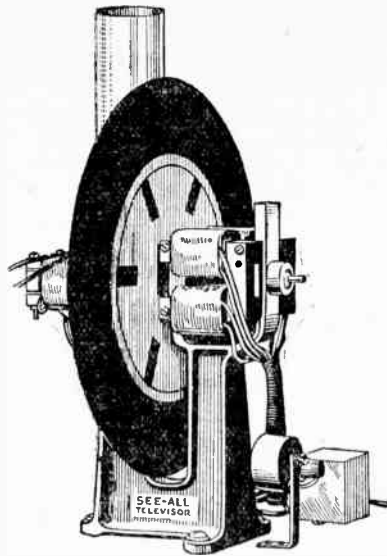
## Television Lens

Especially adapted for the "See-All" Television or can be used with any Television. 6" diameter, 1 1/2" thick. **\$1.95**

**\$1.95**

Cat. No. 1613

## "See-All" Television Kit



The lowest priced successful quality Television being sold.

Easily assembled in less than 30 minutes by anyone.

Get in on the ground floor of this amazing new industry. Be among the first to see as well as hear your radio entertainment. You get all this in this kit: Complete eddy current motor; 60 line square hole double spiral scanning disc made of special alloy aluminum; Rheostat; Condenser; adjustable lamp housing and bracket; Synchronizing wheel; all necessary wiring; complete blue prints of television; complete blue prints of short wave receiver; detailed assembling instructions.

Unconditionally guaranteed against mechanical or electrical defects.

For 110 volt, 60 cycle, A. C. **\$11.61**

Cat. No. 1414

## Aluminum Scanning Disc



Size of Disc 12" Dia.

60 line, square hole, double spiral, made of special alloy aluminum. One of the finest scanning discs made.

**\$1.75**

Cat. No. 1354

Can also quote on 45 or 48 line aluminum scanning disks.

## I. C. A. Television Amplifier

Model 115



Weight: 4 1/2 lbs.

The I. C. A. Television, three-stage amplifier is most advanced in features and construction. It is complete with all resistors and coupling condensers thereby taking the place of all apparatus after the detector. Inasmuch as the brilliancy of the Neon lamp is contingent upon the current output of the last amplifier tube or tubes, the amplifier is so wired that it is possible to use two power tubes in parallel. **\$10.50**

less tubes.

Cat. No. 1405

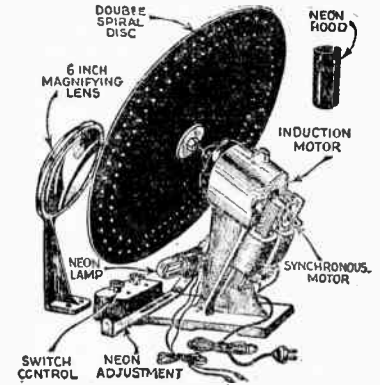
## Television Lens Assembly

Includes mounting frame, etc. 4" diameter, 1/2" thick. **\$3.25**

**\$3.25**

Cat. No. 1614

## Pioneer Complete Television Scanner



Due to unique design, several persons can view the picture at the same time. An 8-inch focal length lens, 6 inches in diameter, gives a 4-inch picture.

PERFECT VISION

The scanning disc and the magnifying lens are both placed at an angle from the vertical, and the neon lamp is viewed from the lower part of the disc instead of the top. This makes possible a perfect view of the picture without necessitating stooping and stretching as is the case with other makes of Televisors. It also allows a smaller and more compact structure. This is an original development of Pioneer engineers.

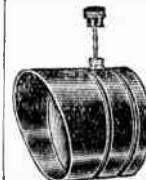
By the use of round holes in the disc, an enormous amount of light is lost in scanning. A study of this condition led to the adoption of square holes, which, while much more expensive to punch, reduces the loss of light to a minimum. The Pioneer disc also employs 120 holes rather than the 60 generally used. This has the effect of greatly simplifying perfect framing of the picture. These square holes are punched by a specially constructed machine which assures accuracy to the thousandth part of an inch.

Motor—An induction motor is used to drive the disc up to 1200 R.P.M. when it is cut out of the circuit and the Pioneer Synchronizer then drives the disc at exactly the correct speed. The motor operates for less than a minute in starting. There is only one switch to operate. One turn starts the induction motor and the next turn cuts it out of the circuit and allows the Pioneer Synchronizer to function continuously. An exclusive feature of the Pioneer Television is the absence of rheostats and speed controls. It is impossible for the Pioneer Synchronous drive to operate at anything but the correct speed. It is absolutely positive in action. This feature is of utmost importance to Television and without it a successful outfit could not be built.

Complete as shown..... **\$25.85**

Cat. No. 2178

## I. C. A. Television, Telescope and Vision Magnifier



Made up of a special imported magnifying glass and is enclosed in special telescopes. Magnifies the pictures considerably and is made to permit a number of people to view television pictures at one time.

Cat. No. 1403  
1404

Diameter  
2 1/2"  
5"

\$2.94  
5.88

# TESTING EQUIPMENT



# METERS

## Set Analyzer



A 2-Meter Set Tester with facilities for checking tubes under the same conditions as exist when in their sockets.

**SERVICING Scope of Model 566**

Tests with Tester Plug inserted in radio set. Voltages: filament, heater, two cathode, three bias, two control grid, two plate, and space charge grid. Current: Screen, charge grid, three plate. Also reads both plates of rectifier tubes. Bias voltage on D. C. sets with reversed filaments.

Model 566

### External Tests Available

Power transformer measurements up to 1000 volts A. C., A. C. line voltage. Heater and filament voltages at power pack. 3 ranges on A. C. meter. Plate current 3 ranges on D. C. milliammeter. "B" voltage at pack: 3 ranges on D. C. voltmeter. "A" "B" and "C" battery voltages: 6 ranges on D. C. voltmeter.

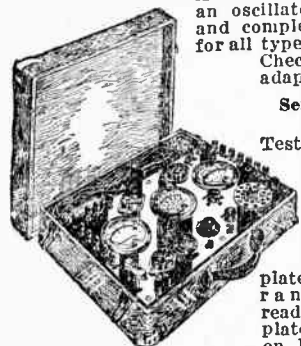
Continuity Tests — Resistance measurements: 0-10000 or 0-100000 ohms. Condenser measurements can be made from .001 to 2 microfarads.

Rectifier type output meter—Range: 100/5 volts.

**\$84.53**

Cat. No. 1212

## Radio Set Tester



A 3-Meter Test Set having an oscillator, a tube checker and complete radio set tester for all types of A. C.-D. C. sets. Checks pentodes with adapters.

**Servicing Scope of Model 565**

Tests with Tester Plug inserted in radio. Voltages: Filament, heater, cathode, four bias, two control grid, two plate. Current — Three plate, two screen-grid ranges. Convenient readings of both 230 plates. Bias voltages on D. C. sets with reversed filaments.

Model 565

### External Tests Available

Power transformer measurements up to 1000 volts A. C., A. C. line voltage, heater and filament. Voltage at pack—3 ranges on A. C. meters, plate current at "B" supply taps, 3 ranges on D. C. milliammeter. "B" supply at power pack, 4 ranges on D. C. voltmeter. "A," "B" and "C" battery voltages—6 ranges on D. C. voltmeter. Continuity tests, resistance measurements—0-10000 or -100000 ohms. Condenser measurements from .25 to 6 microfarads.

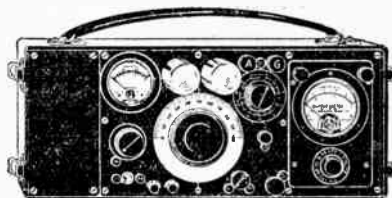
Tube Checker—for all heater and filament type tubes. Checker operates on any 50 to 60 cycle, 90 to 135 volt A. C. Filament or heater current of A. C. tubes or 4 amps. A. C. meter.

R. F. Oscillator—3 frequencies, for neutralizing, synchronizing and testing radio sets where no broadcast signal is available. (Grid dip meter.)

**\$137.82**

Cat. No. 1213

## I. F. and R. F. Oscillator



Model 590

A new Weston Instrument for allgning I. F. Stages and Gang Condensers, determining sensitivity of receivers, checking R. F. Transformers and Condensers, making selectivity tests, and checking the oscillator stage of Radio Receivers. The new Weston Model 590 Oscillator is a very complete and practical signal generator. It has an intermediate frequency range of approximately 110 to 200 kilocycles and a broadcast range of 550-1500 kilocycles. Frequencies between 200 and 550, and above 1500 kilocycles may be obtained by means of harmonics.

The oscillator is equipped with an instrument which is mounted on the panel and which serves as a Grid Dip Milliammeter, Filament Voltmeter and Plate Voltmeter. This instrument remains in the grid circuit at all times unless connected across the plate or filament circuits by means of push button switches. Two type '80 tubes are used in the oscillator, one for the R. F. and the other to modulate the R. F. to produce an audible note of 400 cycles with 30% modulation. The output of the oscillator is controlled by a specially designed attenuator.

Batteries are self-contained. One 22½ volt "B" and four 1½ volt dry cells are used. The complete instrument is shielded in an aluminum case. An output meter is a necessary accessory for this instrument and a compartment has been provided in the case for the West Model 571, which can be purchased with the oscillator. Dimensions: 16¼ x 7 x 5¾". Weight: 15 lbs. Less Output Meter. Cat. No. 1214

**\$77.18**

With Output Meter **\$99.23**

Cat. No. 1215

## Output Meter



Model 571

A rugged portable instrument especially useful in checking radio sets, public address systems, etc., to measure the voltage output and power output, to compare the gain of radio tubes, to measure comparative selectivity of R. F. tuners, to observe period and percent of fading.

The Model 571 consists of a five-range copper oxide rectifier type meter enclosed in a sturdy bakelite case. The ranges—150, 60, 15, 6 and 1.5 volts—are brought out to two binding posts through a dial range-selector switch which is mounted in front of the instrument.

**\$22.05**

Cat. No. 1216

## Thermo-Couple R. F. Ammeter

0-2 Amps.

An excellent radiation, or tank Ammeter. Mounted on large bakelite base, with double pole, high voltage switch.

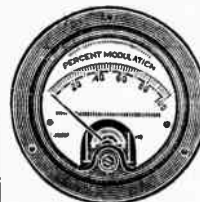
**\$8.50**

Cat. No. 1750



No. 425

## Modulation Meter

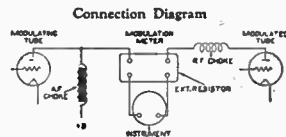


Model 588

**FOR THE CONTINUOUS INDICATION OF THE PERCENTAGE MODULATION IN RADIO FREQUENCY**

The Model 588 has the same operating characteristics of responsiveness, damping and ballistic properties as the volume level indicators standardized by the Western Electric Co. for indicating speech level input to the amplifier.

Since the instrument actually measures the A. F. envelope of the R. F. carrier wave, the scale in per cent of modulation cannot be more nearly correct than the assumed value of the amplitude of the carrier wave. This value must be supplied by the customer from his knowledge of the operating condition.



In the absence of this knowledge, we must be given the value of the D. C. plate current of the tube being modulated and can assume this is the amplitude of the carrier wave.

**\$37.50**

Cat. No. 4190

## Rotary Bi-Polar Switches

23 Active Positions This Weston Bi-Polar Switch consists of two single pole, multiple point switches mounted on same shaft, so that they may turn together, but electrically insulated from each other.

**\$6.37**

The switch is equipped with a bakelite dial and knob. For single hole mounting.

Cat. No. 0-1058

**WESTON BI-POLAR SWITCH (Similar to above, but with 9 Active Positions).**

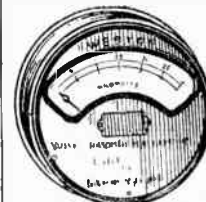
**\$2.70**

Cat. No. 0-1059

All the above Bi-Polar Switches are excellent for use with test equipment, voltmeters and hundreds of other uses.

## Switchboard Meters

7" Diameter

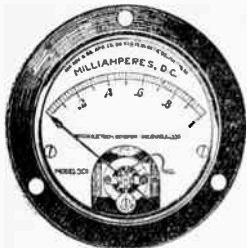


0-150 D. C. Voltmeter..... **\$13.75**  
Cat. No. 1742

0-15 D. C. Ammeter ..... **\$13.75**  
Cat. No. 1743

0-750 Wattmeter, operates on A. C. or D. C. .... **\$19.50**  
Cat. No. 1744

0-750 Wattmeter, operates on A. C. or D. C. .... **\$19.50**  
Cat. No. 1745



MODEL 301

**D. C. Filament or Plate Voltmeters—Model 301—3 1/4" meters**

Voltmeters—1, 1.5, 2, 3, 5, 7, 8, 10, 15, 20, 25, 30 volts (Resistance 62 ohms per volt)	\$5.88
50 or 100 volts (Resistance 200 ohms per volt)	5.88
150 volts (Resistance 200 ohms per volt)	7.35
200 volts (Resistance 250 ohms p5r volt)	7.71
300 volts (Resistance 666 ohms per volt)	10.28
50 volts (Resistance 666 ohms per volt)	11.76
10, 15, 50, 75 or 100 volts (1000 ohms per volt)	8.82
150, 200 or 250 volts (1000 ohms per volt)	10.65
300 volts (1000 ohms per volt)	11.76
500 volts (1000 ohms per volt)	12.86
750/250/100/50/10/5 volts (1000 ohms per volt)	12.50
Instrument Stand	2.02

**D. C. Plate Milliammeters—Model 301—3 1/4" meters**

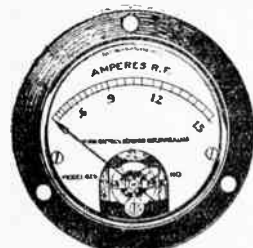
Milliammeters—1, 1.5, 2 or 3 milliamperes	\$7.35
5, 10, 15, 20, 25, 30, 50, 100, 150, 200, 250, 300, 500 or 800 milliamperes	5.88

**D. C. Microammeters—Model 301—3 1/4" meters**

Microammeters—200 microamperes	\$9.92
500 microamperes	8.82

**Volt-Ohmmeter—Model 301—3 1/4" meters**

Volt-Ohmmeters—4.5 volts, 100000 ohms or 15 volts, 500000 ohms	\$8.82
Resistance, volt ranges, 1000 ohms per volt.	



MODEL 425

**A. C. Rectifier—Type—Model 301**

Voltmeters—3, 5 or 15 volts (1000 ohms per volt)	\$10.28
50, 100 or 150 volts (1000 ohms per volt)	11.03
1, 1.5, 3, 5 or 15 volts (2000 ohms per volt)	12.13
50 volts (2000 ohms per volt)	12.86
100 volts (2000 ohms per volt)	13.60
300 volts (1000 ohms per volt)	12.12
2000 ohms per volt instruments should be used in the horizontal or 45° positions.	
Milliammeters—1, 2 or 5 MA.	9.37
State position in which instrument is to be used.	
Microammeters—500 microamperes	10.65
Should be used in horizontal or 45° positions.	

**A. C. Voltmeters, Ammeters and Milliammeters—Model 476—3 1/4" meters**

Voltmeters—1.5, 2, 3, 5, 8, 10, 15, 25, 50 or 100 volts	\$5.88
150 volts	7.35
250 or 300 volts	8.82
500 volts	11.76
750 volts	13.23
1000 volts	24.50
150/S/4 volts	11.03
Ammeters—1, 2, 3, 5, 10, 15 or 20 amperes	\$5.88
30 or 50 amperes	7.35
Milliammeters	
15, 25, 50, 100, 250 or 500 milliamperes	5.88

**Thermo-Ammeters—Model 425—3 1/4" meters**

Ammeters—1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10, 15 or 20 amperes	\$9.92
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**Thermo-Milliameters—Model 425—3 1/4" meters**

Milliammeters—120, 250 or 500 milliamperes	\$11.03
Cannot be used on Direct Current.	

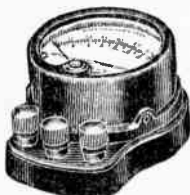
**Wavemeter Thermo-Galvanometer—Model 425—3 1/4" meters**

Galvanometers—115 milliamperes (Resistance 5.2 ohms)	\$11.03
Cannot be used on Direct Current.	

**D. C. Portable Instruments—Model 489**

Portable ammeters and voltmeters which can also be mounted on a panel if desired. Instruments are furnished with black Bakelite cases and have scales of silver gray with black markings. Each voltmeter supplied with a pair of 30" cables.

Voltmeters—150/7.5 or 200/8 volts. Resistance 125 ohms per volt	\$9.92
*200/8 or *250/50 volts. (Resistance 1000 ohms per volt)	16.54
750/250/10 volts. (Resistance 1000 ohms per volt)	20.58
Ammeters—1, 10 or 30 amperes	9.92
10/1, 15/3 or 30/3 amperes	11.40
Milliammeters—150/15 or 150/30 milliamperes	\$9.92
Volt-Milliammeter—200/8 volts, 2 milliamperes (Resistance of voltmeter, 125 ohms per volt)	15.45
*Multiplier for increasing range to 500 volts	9.37
Leather Case for Model 489	1.66



MODEL 528

**A. C. Portable Instruments—Model 528**

Model 528 Ammeters and Voltmeters have been developed especially for testing A. C. operated radio sets. These instruments represent a distinct achievement in high-grade small A. C. meter design and construction. Model 528 is alike in size and shape to its companion D. C. instrument (Model 489) but is supplied in a mottled red and black Bakelite case to distinguish it from Model 489. Scales are silver gray with black markings. Pair of 30" cables supplied with voltmeters.

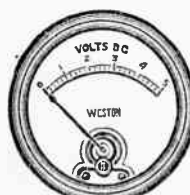
Voltmeters—150/15 volts, \$13.50	300/150 volts, \$15.50	600/300 volts	13.60
*150/8/4 volts			16.50
Ammeters—1, 3, 5, 10, 15 or 20 amperes			9.92
30 or 50 amperes			11.40
Milliammeters—15, 25, 50, 100, 250 or 500 milliamperes			9.92
*Supplied with pin tipped 30" flexible cables for plugging into connection jacks on instrument.			
Leather Case for Model 528			1.66

Unless otherwise specified, bakelite cases will be supplied.

**D. C. Portable Volt-Ohmmeter—Model 564**

Four voltage ranges—600/300/30/3; resistance ranges—0-10000/0-100000 ohms. All voltage ranges have a resistance of 1000 ohms per volt. Supplied with 30" cables, with test prods.

\$28.12



MODEL 506

**D. C.—Model 506—2" meters**

<b>Voltmeters</b>		<b>Milliammeters</b>	
0-3 volts	\$4.46	0-1 milliamperes	5.74
0-5 volts	4.46	0-1.5 milliamperes	5.74
0-7 volts	4.46	0-2 milliamperes	5.74
0-8 volts	4.46	0-3 milliamperes	4.46
0-10 volts	4.46	0-5 milliamperes	4.46
0-15 volts	4.46	0-10 milliamperes	4.46
0-50 volts	4.46	0-15 milliamperes	4.46
0-100 volts	4.46	0-25 milliamperes	4.46
0-150 volts	4.46	0-50 milliamperes	4.46
0-200 volts	4.46	0-100 milliamperes	4.46
0-50-10 volts	5.25	0-150 milliamperes	4.46
0-150-7.5 volts	5.25	0-200 milliamperes	4.46
0-200-8 volts	\$5.25		

**A. C. Model 517—2" meters**

Obtainable in the following ranges:

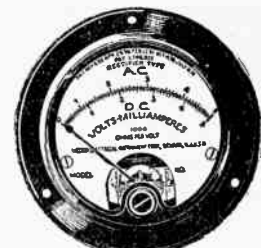
A. C. Voltmeter—0-1.5; 0 to 2; 0 to 5; 0 to 10; 0 to 15; 0 to 25; 0 to 50	\$5.88
0 to 130, or 0 to 150 volts	7.35
0 to 250, or 0 to 300 volts	8.82
A. C. Ammeters—Choice of following: 0-1, 2, 3, 5, 10, 20 amps.	5.88
0-30 or 50 amps	7.35
A. C. Milliamperes—Choice of: 0-15, 25, 50, 100, 250 or 500.	5.88

**RF Model 507—2" meters**

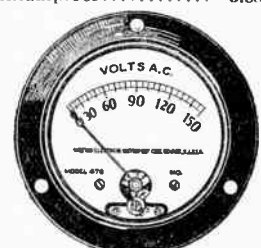
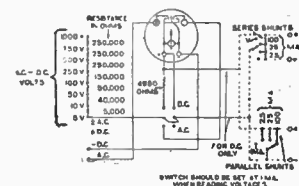
Thermocouple Ammeters and Milliammeters

Available in the following ranges:

0 to 1 amp. 0 to 1 1/2, 0 to 2, 0 to 3, 0 to 5, 0 to 10, 0 to 15 and 0 to 20 amperes radio frequency	\$9.19
Radio Milliamperes, 120, 250 or 500	10.30



A. C. Rectifier—TYPE 301



MODEL 476



MODEL 564



# New Radio Set Analyzer



Pattern 444

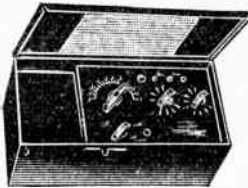
Just out, this New Set Tester and Analyzer tests all types of tubes including triodes, pentodes and tetrodes and both plates of a 280 rectifier tube without the use of adapter.

A. C. Meter ranges: 0-4-8 amperes, 0-20-100 milliamperes and 0-4-8-160-800 volts. D. C. Meter ranges: 0-12-60-120 milliamperes, 0-6-12-30-60-120-300-600 volts, 0-100-1000-100000 ohms, low-medium and high output ranges. Two master control switches, one for A. C. and the other for D. C., select all readings including resistance, continuity and output.

Both meters are equipped with knife-edge pointers and non-splatterable glass. Many features not found in any other radio test sets are incorporated in this newest Jewell analyzer.

**\$82.32**  
Cat. No. O-1240

# New Oscillator



Pattern 563

No longer need servicemen be handicapped by the lack of an adequate and dependable test oscillator. Output adjustable to any frequency in the broadcast band from 550 to 1500 k. c., and in two intermediate bands of 125 to 185 k. c. and 175 to 450 k. c.

Completely shielded. Metal carrying case. The R. F. coils are separately shielded. Operates from self-contained batteries carried within the case. Output continuously variable from maximum to zero. Completely equipped with shielded output lead, calibration curves, instruction chart. '30 type tube and all necessary batteries.

less Output Meter

**\$35.63**

Cat. No. O-1237,

OUTPUT METER complete with leads and adapter.

**\$15.00**

Cat. No. O-1238



Output Meter

# Professional Service Combination

This professional service combination includes a pattern 444 set analyzer, a pattern 563 test oscillator, and a power unit to test all tubes from set analyzer. No output meter is necessary as receiver output measuring ranges are available in set analyzer.

Complete with case cover, leads, batteries, '30 type tube and test accessories.

**\$139.50**



Pattern 531



# JEWELL METERS

The Jewell Trio of radio instruments are popular for building special test panels and service instruments; for use on experimental laboratory apparatus and in amateur transmitting. Patterns 68, 78, and 88 comprise a new series of instruments available in flush type BAKELITE cases that duplicate the old patterns 54, 64 and 74 in METAL cases. Either type may be obtained in three and one-half inch instruments only. Two inch instruments supplied in metal cases.



### 3 1/2" Instruments

Patterns 54 (Metal Case) and 88 (Bakelite Case) D. C. Instruments

0-8, 0-10, 0-15, 0-30, 0-50 Volts.....	\$ 5.51
0-150 .....	\$ 6.98
0-300 .....	8.82
0-500 .....	11.40
0-750 .....	13.97
0-5, 0-10, 0-15, 0-25, 0-50, 0-100, 0-150, 0-200, 0-250, 0-300, 0-500 Milliamperes.....	5.51
0-1, 0-1.5, 0-2, 0-3 Milliamperes.....	6.62
0-1, 0-1.5, 0-2, 0-3, 0-5, 0-10, 0-15 Amperes..	5.51
50-0-50 Galvanometer.....	6.62
0-200 Microamperes.....	9.55
0-300 Microamperes.....	8.46
0-500 Microamperes.....	8.46

Patterns 64 (Metal Case) and 68 (Bakelite Case) Radio Frequency Instruments

0-5, 0-1, 0-1.5, 0-2, 0-2.5, 0.3, 0-5, 0-10, 0-15 Amperes .....	\$ 9.81
0-100 Galvanometer .....	11.03

Pattern 68 (Vacuum Thermocouple)

0-10 Milliamperes.....	\$29.40
0-25 Milliamperes.....	27.56
0-50 Milliamperes.....	25.73
0-100 Milliamperes.....	23.88

Patterns 74 (Metal Case) and 78 (Bakelite Case) A. C. Instruments

0-3, 0-5, 0-10, 0-15, 0-20, 0-30 Volts.....	\$ 5.51
0-150 Volts.....	\$6.98
0-3-15-150 Triple Range Volts.....	9.93
0-25, 0-50, 0-100, 0-200, 0-300, 0-500 Milliamperes.....	5.51
0-1, 0-2, 0-3, 0-5, 0-10, 0-15 Amperes.....	5.51

Pattern 88—Rectifier Type A. C. Meter

0-0.2, 0-5 milliamperes.....	\$ 9.18
0-500 microamperes.....	10.64
0-1, 0-1.5, 0-3, 0-5, 0-15 voltmeter, 1000 ohms per volt.....	10.29
0-25 voltmeter, 1000 ohms per volt.....	11.03
0-1, 0-1.5, 0-3, 0-5, 0-15 voltmeters, 2000 ohms per volt.....	12.12
0-25 voltmeter, 2000 ohms per volt.....	12.86

Pattern 88—Ohmmeter

0-1000 ohms ( 1.5 volt battery) .....	\$ 7.35
0-3000 " ( 1.5 " " ) .....	7.35
0-10000 " ( 4.5 " " ) .....	7.35
0-30000 " ( 4.5 " " ) .....	8.09
0-100000 " ( 4.5 " " ) .....	8.82
0-500000 " (15.0 " " ) .....	8.82

# Tube Tester

Increases Tube Sales



Pattern 533

For operation from 110 volt, 60 cycle A. C. line.

**\$69.75**  
Cat. No. O-1235

For 25 cycle Model

**\$81.00**  
Cat. No. O-1236

This new type Tube Tester equipped with "direct reading" indicator. Your customer can now read whether a tube is Satisfactory, Doubtful or Unsatisfactory.

Equipped to test all tubes without adapters. "Short" indicator on meter panel. Line voltage indicating meter and compensating adjustment allow accurate test readings over a wide range of line fluctuations.

### 2" Instruments

Pattern 135 D. C.

0-5, 8, 10 volts.....	\$4.46
0-100, 0-150 volts.....	4.77
Double reading, 0-8-200 volts.....	5.42
0-10, 15, 25, 50, 80, 100, 300 or 500 milliams.	4.46
0-3, 0-5 amperes.....	4.46

Pattern 190 A. C.

0-1.5, 0-3, 0-5, 0-8, 0-10, 0-15, 0-20 volts....	\$5.51
0-150 volts.....	6.98
0-1, 0-3, 0-5, 0-10, 0-15 amperes.....	5.51
0-20, 0-30, 0-50, 0-100, 0-300, 0-500 milliams.	5.51

Pattern 135 Ohmmeter

0-10000 ohms (3 volt battery) .....	\$4.46
0-15000 " (4.5 " " ) .....	4.46
0-100000 " (4.5 " " ) .....	6.37

# Ohmmeter



Mounted in molded bakelite case, with 1 1/2 volt battery mounted inside. Provided with zero adjustment to compensate for drop in battery voltage.

0-1000, 0-3000, 0-10000 or 0-30000 ohm ranges, including battery and test leads.....

12.36

0-10-1000 ohms .... 18.75

0-100000 ohms ..... 14.62

Pattern 89

0-5000-500000 ohms 14.62

# Volt-Ohmmeter

A combined high grade voltmeter and ohmmeter that is unequaled. Consists of a pattern 88 meter mounted in a bakelite case which carries jacks, push-buttons, and a 4 1/2 volt battery. The battery is used for continuity and resistance tests. Zero adjustment is provided for change of battery voltage. The meter has a double scale; the upper scale reading 0-100000 ohms; the lower scale reading 0 to 300 volts. The resistance range can be decreased to 1/10 its value. The voltage range can be reduced to 3 or 30 volts and increased to 600 volts. Meter resistance: 1000 ohms per volt.



Pattern 574

**\$26.25**

Cat. No. O-1232

# Tube Tester

Portable



Pattern 540

For operation on 110 volts, 60 cycle A. C.

**\$56.25**  
Cat. No. O-1233

For 25 cycle operation.

**\$67.50**  
Cat. No. O-1234

Now the serviceman can be equipped with the latest "direct reading" Tube Tester for portable work. It indicates condition of tubes as Satisfactory, Doubtful, or Unsatisfactory.

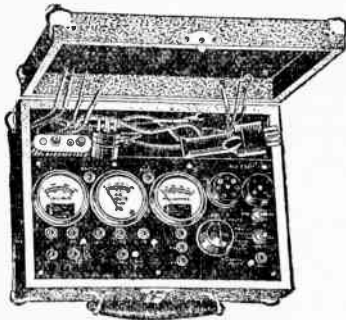
Equipped with line voltage indicating meter and voltage compensator, compensate for line fluctuation over a wide range. From 105 to 125 volts. Tests all tubes. "Short" indicator on meter panel.





# SERVICING *Readrite* INSTRUMENTS

## Tube and Set Tester No. 700



These three meter testers are equipped with a practical selector switch for checking all parts of the tube circuits by connecting to the set sockets. Selection for testing voltages of plate, grid, cathode and screen-grid is done quickly and accurately. Plate current, filament volts, also line and power supply volts are measured. The grid swing test for tubes is used. Just push one button for screen-grid and another button for other tubes. Makes testing of all type tubes simple and thorough. A 4½ volt grid battery is furnished. The battery is used for the grid test and also continuity testing of transformers, chokes, etc. Capacity and resistance charts are furnished showing use of instruments for testing condensers, also measuring resistances up to 100,000 ohms. The eight scale readings of the meters may be used separately with the jack terminals provided. The scale readings are 0-20-60-300-660 D. C. volts, 0-10-140-700 A. C. volts and 0-20-100 milliamperes. Both A. C. and D. C. filament voltages are accurately measured on the one meter.

Housed in a strong case with leatherette covering. Attractive. Compact. Complete. Fills every need for the expert serviceman or the beginner for radio set testing. Size: 10½ x 3½ x 8".  
**\$14.70**  
Cover is removable.

## Capacity Testers ELECTROLYTIC—PAPER TYPE



No. 850 Capacity Tester contains one d. c. and one a. c. meters. Reads directly the capacity of condensers. The A. C. meter connects to a. c. supply line and adjusts to 100 volts. Test paper type condensers .008 to 10 mfd. The D. C. voltmeter connects to rectifier tube and adjusts to 300 volts. Selector switch provides for measuring voltage, also forming and testing milliamper capacity of electrolytic condensers. The maximum reading for a good electrolytic condense is 2 m. a. per mfd. In a seamless metal case, with or without cover. A very practical and convenient instrument.

No Cover  
**\$8.82**  
Cat. No. 3543

With Cover  
**\$10.00**  
Cat. No. 3544

No. 800, same as No. 850 in part for testing paper type condensers only. In a seamless metal case, 4¼ in. diameter, baked enamel finish.

**\$4.70**

Cat. No. 3545

Full instructions and charts are furnished with No. 850 and No. 800 for testing 10 to 400 henries. Also measuring resistances from 40 to 100,000 ohms.

## The De Luxe Tester



No.  
**600**

The No. 600 contains the same equipment as No. 700. The carrying case is larger with lock. Space:

8¼ x 13¾ x 14¼" deep for carrying tubes, tools, etc. The test equipment and panel are in a removable tray in the top of the case. The tray equipment may be used separately as a complete test panel for shop purposes.

**\$17.64**

## Counter Tube Testers



No. 405—No. 406  
No. 407

Dealers and servicemen use the No. 406 Tester for checking all new and old tubes used in receiving sets. Test card attached to panel gives simple instructions. Anyone can operate. A single push button provides two plate current readings for determining the conductance and worth of a tube. A new and outstanding feature applies the same test to rectifier as all other types of tubes. A separate push button provides for testing both plates of '50 type tubes.

The simplified single scale meter is made possible by the wide change in readings. The meter is connected in tip jacks. Attached to the meter is a small protecting fuse. A pilot light is also directly underneath the meter for illuminating the dial.

**\$14.70**

## TUBE AND SHORT TESTER COMBINED

The No. 407 tube tester combines with the No. 406 described above, a complete short test of the tube. All shorts, gas and leakage tests are made with the tube heated under operating conditions. Tube is tested for its worth in the same socket used for short testing. The pilot light for illuminating the dial is also used to indicate the shorts, gas and leakage condition.

**\$17.64**

No. 405 Tube Tester is similar to No. 406, but has a two scale meter and 4½ volt grid battery.

**\$14.70**

## Output A. C. Voltmeters



A reliable instrument for indicating output voltage of a radio set. Used for lining up r. f. and i. f. stages by determining maximum gain. Also comparing gain of tubes, r. f. tuner selectivity, hum, and fading. A practical, low priced d. c. voltmeter with copper-oxide rectifier of the full wave type. Model No. 555 is same assembly as used on No. 550 oscillator. For convenience the portable instrument Model No. 575 has been designed. Test leads are furnished with Model No. 575. Case is baked enamel over seamless steel 4¼" dia. The assembly includes voltmeter, rectifier, jacks and condenser. Connect low voltage (0-5) jacks to dynamic speaker voice coil, and high voltage (0-50) jacks to magnetic speaker terminals.

CASE TYPE No. 575 PANEL TYPE No. 555

**\$3.53**

**\$2.94**

## Test Oscillator



No.  
**550**

A completely shielded oscillator covering the entire broadcasting band 550 to 1500 k. c. The intermediate band is also read directly from 120 to 185 k. c. For sets using i. f.'s more than 185 k. c. ample signal response is obtained by use of harmonics as designated in instructions. This includes recent sets employing 230, 262, 475 k. c. i. f. Furnished with 22½ v. and 3 v. batteries and one '30 tube. Self modulated. Extremely compact and accurate. Shielded antenna lead wire furnished. Test lead wires and break-in adapter furnished where equipped with output meter. Full operating instructions in case cover. In attractive leatherette case with removable cover. Weighs but 8 pounds. Size: 6 x 12 x 5". One of the serviceman's most important instruments. Used to align r. f. gang condensers, locate defective r. f. transformers, adjust i. f. transformers, check oscillator stage, compare gain in tubes and determine sensitivity of a receiver. Furnished with or without output meter built in the panel.

With Output Meter

**\$20.58**

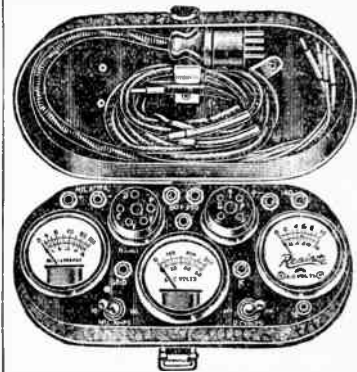
Cat. No. 3538

Without Output Meter

**\$17.64**

Cat. No. 3539

## Tube and Set Tester



No.  
**245-A**

Tests Screen-Grid, Pentode, Rectifier, All Tubes and Set Circuits.

Particularly designed for sets using the 245 and 247 power tubes. Accurate servicing testing can be done with this handy tester. Plugs into the set socket. Meters may be used separately for continuity and general testing. The three (3) double reading meters are: Filament and line voltage A. C.—D. C. voltmeter 0-10-140, plate and grid voltmeter 0-60-300 (resistance 300 ohms per volt), plate Milliammeter 0-20-100. Tests A. B. C, S-G, and Cathode Volts, normal plate current and Grid Test change. Also line voltage. Both plates of full wave rectifier tube tested without use of adapter.

A unique feature of this tester is the accessibility to every part of the circuit and simplicity of using. All the cables, cords, plugs and adapter are securely held in the seamless metal cover. Beautifully baked enamel finished case with leather handle. A compact, complete tester every serviceman should have. Fills every servicing need in field work. Carried in or separate from your regular tool kit. Illustrated complete instructions furnished. Also charts showing analysis of receiving set circuits, the measurement of resistances up to 100000 ohms and capacity tests.

**\$11.76**

No. 406-700 Combines No. 406 tube tester with No. 700 set tester in case 7½ x 21 x 14", same style as No. 700, all one panel. A complete test outfit  
**\$29.40**

### Supreme Diagonometer

THE MOST COMPLETE CHECKER MADE

MODEL AAA-1



5 Instruments in One

Special brackets may be obtained with the DIAGNOMETER for wall mounting, which accommodate the slip hinges and snap lock on the DIAGNOMETER case. In this manner the AAA-1 is instantly convertible from a portable laboratory to a complete test panel. The five major testing functions of this instrument are listed as follows:

1. Analyzer
  2. Tube Tester
  3. Shielded Oscillator
  4. Ohmmeter-Meg-ohmmeter
  5. Capacitor Tester
- Analyzer equipped with two meters. Current ranges of 0/2.5/10/25/100 and 250 mils. and 2½ amperes are available for external use, for either A. C. or D. C. current. External D. C. voltage range of 2500 volts is provided in addition to the external A. C. and D. C. ranges of 0/2.5/10/25/100/250 and 1000 volts. Two external 2500 ohms per volt, voltmeter ranges are provided. 0/40 and 0/200 volts. Tube Tester—Tests all types of tubes on the market with filament and plate voltages supplied from the 110 volt, 60 cycle lines. A selector switch selects proper voltage from 1½ to 7½ volts. Oscillator—Designed to operate from 90 to 1500 K. C. Frequencies higher than 1500 K. C. can be calibrated where desired. Oscillator 100% modulated. Equipped with attenuation control. Meter on Diagonometer is used for "output meter." Ohmmeter-Megohmmeter—Ohmmeter ranges 0 to 5,000 ohms and high range which covers approximately 0 to 500,000 ohms. With an external 45-volt battery with the ohmmeter circuit so as to have an indicating range from 0 to 5 megohms. Provisions are made for obtaining a potential of 250 volts D. C. from Diagonometer power pack which may be used to approximate resistance values up to 25 megohms. Zero adjust is included for compensating for battery or other power supply variations. Capacitor Tester—Will test capacities from .002 up to 10 mfd. Charts are provided for determining various sizes of condensers. Complete, all leads and adapters

Cat. No. 2128

**\$144.55**

### Preston Tube Checker

Operates from 110 volt, 60 cycle A. C.

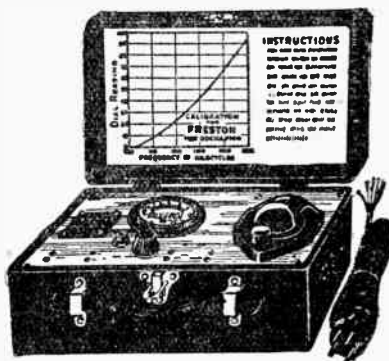


**\$11.75**

Cat. No. 2186

This A. C. operated tube checker tests all the new tubes, including Variable Mu, Pentode and auto tubes. Checks both plates of 250 rectifier. Uses new A. C. meter. Sockets are engraved, showing tubes to be used, also giving maximum to minimum "change" to indicate condition of tube being tested. Built into handsome case with Bakelite top.

### New Preston Dynatron Test Oscillator



Now the old excuse of price for not having a good oscillator is gone. Here is a real job at a price you can afford. Radio frequency circuits get out of alignment frequently and the proper method is to use an oscillator and output meter. The Preston test oscillator covers the broadcast band from 550 to 1500 K.C., and instructions are provided for testing superheterodynes with frequency range from 100 to 200 K.C. A calibrated chart is fastened in the cover of carrying case.

Two tubes are used, type 232. One acts as a R. F. oscillator and the other as a modulator of the R. F. current generated by the first tube. Dry cells supply the voltage and a 5-prong plug and cable are supplied. Simple, yet efficient.

**\$11.75**

less tubes Cat. No. 2184

Preston Output Meter Cat. No. 2185 \$4.40

### Preston A. C. Operated Ohmmeter



Uses 227 Tube

0-1,000,000 ohms

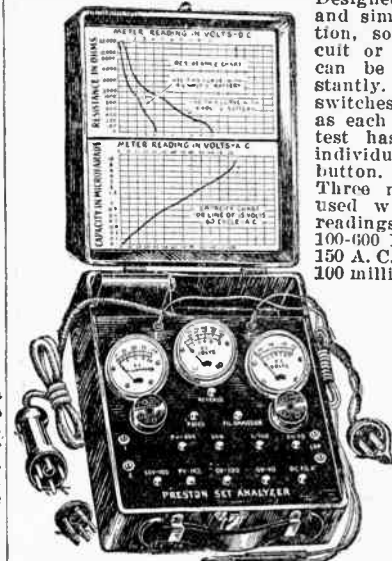
This new A. C. operated ohmmeter may be used to measure resistances or for continuity tests. Will accurately measure resistances from 8 to 1 megohm. 2 scales. 0 to 10,000 ohms, 10,000 to 100,000 ohms, 100,000 ohms to 1 megohm. Housed in a beautiful carrying case with cover. Panel is of genuine bakelite, properly engraved. A line voltage control is incorporated to compensate for line fluctuations giving an accurate reading at all times.

**\$8.82**

less tube

Cat. No. 2187

### New Preston Set Analyzer and Tube Tester



Designed for quick and simple operation, so that circuit or tube tests can be made instantly. No rotary switches are used, as each particular test has its own individual push-button. Three meters are used with scale readings of 0-10-100-600 D. C., 0-10-150 A. C., and 0-20-100 milliamperes.

Tests: voltages of plate, grid, screen-grid, cathode filament and line, as well as plate current. Equipped for general continuity testing. Resistance and capacity measurements can easily be taken. Complete charts are supplied with analyzer.

Panel is engraved bakelite. Case is leatherette covered and extremely sturdy. Complete with "C" battery, adapters, screen grid connectors, continuity leads with prods and complete instruction sheet.

**\$14.25**

Cat. No. 2188

### Meter Shunts



For Model 301, 1 mil., 27 ohms and 1 mil. A. C., D. C. (universal), 50 ohm Weston milliammeters. The accuracy of these shunts is slightly lessened when used with other than Weston meters. These shunts enable you to secure multi range readings with one meter.

#### D. C. SHUNTS

- Type 27—for D. C. 1 milliamper meter —5, 10, 15, 25, 30, 50, 60, 100, 500 mils. . . . . 89c
- Type 50—for Universal milliamper meter, 5, 10, 15, 25, 30, 50, 60, 100, 500 mils. . . . . 89c
- Type 27-S—Multi Range for D. C. 1 milliamper meter 10-100 mils., dual range. . \$1.50
- Type 50-S—Multi Range for Universal 1 milliamper meter 5, 25, 100 mils., triple range. . . . . \$1.75

#### A. C. SHUNTS

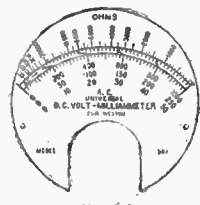
For 5-volt Universal meter, 100 to 500 mils, flat type, 2½ amperes, spring type. Either type. . . . . \$1.50

Accuracy of all shunts are within plus or minus 2 per cent. This accuracy is dependent upon the accuracy of the meter itself. We can supply a diagram of a one meter tester, using the A. C., D. C. (Universal) meter.

### RECALIBRATION SCALES

- Type No. D-1—0 to 100,000 ohms D. C. Using 4.5 volt battery. 0 to 50-250-1000 readings for volts, mils., etc.
- Type No. D-2—0 to 100,000 ohms D. C. Using 4.5 volt battery. 0 to 300-600 readings for volts, mils., etc.
- Type No. D-3—5000 to 1 Meg. ohms A. C. Using 115 volt A. C. light circuit. .004 to 7 Microfarads capacity. For 1 mil. A. C. rectified only.
- Type No. D-4—0 to 100,000 ohms D. C. Using 4.5 volt battery. 0 to 50-250-1000 readings for volts and mils. A. C. and D. C. For A. C.—D. C. Universal meter.

These dials are of heavy Bristol board and may be mounted on the meter independently or on the back of the original dial. **45c ea.**



No. 4 Dial

**TEST LEADS**

Makes it easy to get into difficult places for testing. Made of hard composition, unbreakable and thoroughly insulated.  
**WITH SOLDERLESS PLUGS** **34c**  
Cat. No. 3155



**WITH NEEDLE POINTS**

Using standard removable phonograph needles for tips for making contact through insulation and pitch. **38c**  
Cat. No. 3156  
Can be supplied with phone tip or spade terminals. Specify type desired.

**Laboratory Test Leads**

**With Pointed Contacts**

Same description as above leads, only these Test Leads have nicked brass tips for testing surface contacts and do not pierce insulation, etc., like above Leads. **65c**  
Cat. No. 2236



**With Spade Tips.**

**With Phone Tips.**

Six for \$3.60

**Laboratory Test Leads**

**With Phono Needle Chuck**

Permits the piercing of insulation on wire or transformers, or through rosin on soldered connections. Needle point makes a perfect contact. Any phonograph needle will fit in the chuck. Highly insulated, red and black handles. Approximately 5 1/4" long and 1/2" in diameter. **95c**  
Cat. No. 2234



**With Spade Tips.**

**With Phone Tips.**

Six for \$5.40

**Screw-Holding Screw Driver**

This patented screw driver is good for servicemen, automobile and aeroplane mechanics, electricians, carpenters, typewriter repair men and everybody who handles tools—gets into places where it is impossible to get with the fingers. Holds the screw head in a vise-like grip. Nickel-plated.



Cat. No.	Size	
1890	8"	\$ .85
1891	10"	1.15

**Insulated Handle Screw Drivers**

Twelve assorted size screw drivers made to sell at 10c, 15c, and 20c. Put a display card on your counter and watch them move.

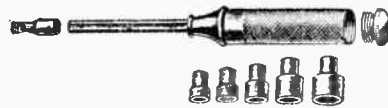


Card of 12

**85c**

Cat. No. 1965

**Handy Radio Wrench Set and Screw Driver**



This set is practically indestructible. Made entirely of high grade steel with case hardened sockets. Hollow handle holds screwdriver socket and 5 wrench sockets. Sizes: 1/4", 5/16", 3/8", 1/2", and 5/8". Handle heavily knurled, providing a good gripping surface. Finished in white metal. **69c**  
Cat. No. 1678

**Combination Set-Neutralizer, Screw Driver and Wrench**



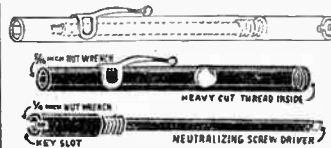
The handiest tool for the serviceman. Entirely insulated thereby eliminating the danger of short circuiting different parts of a receiver when used. Small screw driver point makes possible for use on receiver dials. Other end has teeth in V shape to be used as wrench. Slips into the tightest places easily. No serviceman should be without one. Made of bakelite. **63c**  
Cat. No. J-42

**Neutralizer-Compensator Screw Driver and Wrench Kit**

A Four-in-One instrument that can be clipped in your vest pocket, as it is no larger than a fountain pen, with all tools inserted. Contains 1/4" and 5/16" nut wrenches, neutralizing and compensating screwdriver, and a regular general purpose screwdriver. All of these tools are insulated. **\$1.25**  
Cat. No. 2233  
Six for \$6.60



**Improved Neutralizing and Alignment Tools Fountain Pen Type**



Makes it easier, quicker and more accurate to work with. Are constructed of the finest insulating materials. Has two socket wrenches—1/4" and 5/16"; a small screwdriver end. The screwdriver fits into the socket wrench, making it a four-in-one set. **59c**  
Cat. No. 2411

With special socket attachment for new Crosley sets. **89c**  
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With special socket attachment for old type Majestic sets. **89c**  
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**American Test Probe**

**With Bulb Indicator**

Fills a long-felt need for a fast and efficient testing device of pocket size. Eliminates the necessity of carrying around large and heavy testing instruments. Here are some of the things it will do without disturbing a single set connection.

1. Locates open or shorted by-pass and filter condensers, also resistors.
2. Checks presence of filament or heater voltages.
3. Tests continuity of all low resistance windings.
4. Checks correctness of tuning-coil polarity and breaks in tuning coil windings.
5. Checks shorts in variable condensers and gives visual resonance indication in aligning condensers.
6. Tests for high voltage and low current with neon tube.
7. Makes a very handy radio or automobile trouble light.

Made of insulated polished red and black dielectric material, and is very attractive and professional. Size: 1 1/2 x 7". Complete with 18" cord, test clip and bulb. **\$1.50**  
Cat. No. 2232



**Neon "Trouble" Finder**



Tells at a glance any current from 110 to 550 volts and will indicate type of current whether A. C. or D. C. Burns dim on 110, brighter on 220, etc. Will tell instantly whether A. C. or D. C. current—if A. C. current both electrodes will glow; if D. C. only one will glow. Will show how many cycles—the frequency of the flash vibration determines whether 60 or 25 cycles. Will detect the positive and ground wires on D. C.—by touching one lead only to either side of a circuit, the live wire will cause a faint glow in the Neon bulb. **98c**  
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Enclosed in unbreakable Bakelite Case

**Esico Soldering Irons**

These Soldering Irons are excellent for the service man. This high grade merchandise must not be confused with short-lived, low-priced irons being offered on the market. Manufacturers such as Atwater Kent, Philco, and many others, including the U. S. Navy, must depend upon an unbroken production line, therefore they have selected Esico Irons. Blue steel, Anti-Heat handle, replaceable forged copper Tip, Grade A nickel chrome element, wound on highest quality Mica insulation, Screw Tip.

16 oz. Jr. Model **\$1.95**  
85 Watts ..... Cat. No. B-64

Constant Duty 19 oz. Type 101 **\$4.25**  
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Constant Duty 30 oz. Type 201 **\$6.75**  
200 Watts ..... Cat. No. B-66



**American Soldering Irons**

- 50 Watt—Light Duty **70c** Cat. No. 3746
- 75 Watt—Heavy Duty **\$1.25** Cat. No. 3747
- 100 Watt—Heavy Duty **\$2.00** Cat. No. 3748

## Na-ald Lock Type Analyzer Plugs

These are the newest developments in Analyzer Plugs. They can be used to replace plugs on test equipment or for connecting bench testing equipment for service department or factory.

Insert the plug into the adapter. It locks itself automatically and securely. By snapping the release in the handle of the plug, the adapter comes off. The latch is not alive. The center post in the adapter is simply a locking stud over which the latch slips. Available in the U. X. and U. Y. types, both with and without test cables. Cable for the U. X. type comprises six wires, four wires connected to prongs, one to screen-grid cap, and the sixth to center latch. The cable for U. Y. type comprises six wires also, five going directly to the prongs, and the sixth to screen-grid cap.

The handles have screen-grid caps.  
**Plug U. Y. Type. Cat. No. 3277..... \$1.80**

**With 5 ft. Cable. Cat. No. 3278..... \$3.00**

**Adapter. Cat. No. 3279..... \$ .72**

**Plug U. X. Type. Cat. No. 3280..... \$1.80**

**With 5 ft. Cable. Cat. No. 3281..... \$3.00**

**Adapter. Cat. No. 3282..... \$ .72**

(The plug latches on the center stud in this Adapter so that it is always removed with the analyzer plug.)

An extra wire can be had in any cable or any plug leading to connecting bolt inside for testing pentode tubes. **60c**  
**Cat. No. 3809**

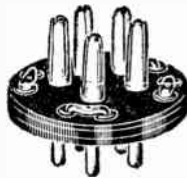
For testing Kellogg, McCullough and other top heater tubes, either of the analyzer plug handles can be fitted with a Kellogg cap with an extra wire in the cable. **60c**  
**Cat. No. 3810**

## Adapter & Trouble Finder

Adapted for Trouble Finding and making circuit connections to a 4 or 5 prong tube base; by simply removing the tube and inserting adaptor in the socket, and replacing the tube. Means are immediately provided for making connections to any part of tube or associated circuits.

Plate, grid, cathode or heater circuits can be opened readily for meter or test equipment connection.

Used for connecting electrical phonograph pick-up, microphone, additional speakers, an output meter to audio circuit, or an electrical home recorder to a radio set or amplifier.



**5-prong adapter; 95c**

**Cat. No. 2318**

**4-prong adapter; 95c**

**Cat. No. 2319**

## Adapters for Tube Testers and Analyzers

**4 and 5 prong**

Adapter for putting a 5 prong (U. Y.) tube into a 4 prong socket.

**Cat. No. 3252**

Adapter for putting a 4 prong (U. X.) tube into a 5 prong socket.

**Cat. No. 3253**

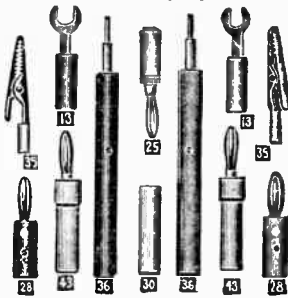
**59c ea.**

**either type**



## New, Improved Multi-Use Test Prods

**14 PIECES**

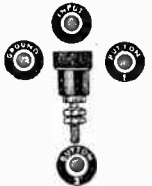


Here are fourteen pieces from which many uses and helpful combinations can be secured quickly and easily, making your present testing equipment more modern and faster-operating than ever before. Illustration shows only 12 pieces. The two additional pieces are to adapt this kit to any tester on the market.

This kit permits quick diagnosis of heretofore inaccessible contacts in present and other receivers. These prods are unbreakable and shock-proof. Complete, except for the wire which can be easily connected in whatever length you desire. It is a very handy kit to have around a service shack. Only two wires are necessary. **\$1.50**

**Cat. No. J-20**

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Cat. No.	Marking	Color	each
1281	Button No. 1	Green	\$.07
1282	Button No. 2	Blue	.07
1283	Ground	Red	.07
1284	Input	Black	.07
1285	Output	Yellow	.07
1286	Pick-up	Violet	.07

Above binding posts can be supplied without markings in the seven colors mentioned, at 7c each

## Jacks and Plug-in Plugs

For the amateur needs for plug-in coils. These are General Radio type.

**JACKS**

**7c**

**each**  
**Cat. No. 1570**

**PLUGS**

**7c**

**each**  
**Cat. No. 1287**



## Easy

## Soldering Phone Tips



These new Phone Tips are very easily soldered as may be noted by the illustration, merely insert wire and drop solder in the side hole. Now these tips can be placed on Battery Cables just as easily as soldering terminal lugs. They

are strong and durable and are manufactured of brass neatly nickel plated. There are no difficulties attached in soldering these phone tips.

**9c**

**an envelope**  
**Cat. No. 3837**

**10 to an envelope**  
**Box of 100—80c**

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A very thin nose, 7" insulated Pliers. Handle insulated for 5000 volts. Excellent quality steel.

**29c**

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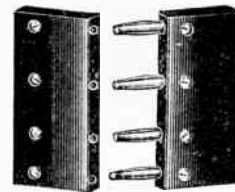
## Pliers



**Rubber covered handles**

**\$3.00 a dozen**

## Multi Plugs and Connectors



**Connector**

**Plug**

These plugs and connectors have many uses, such as radio chassis to power pack, microphone and amplifier public address work.

### PLUGS ONLY

Cat. No.	No. Connections	
1262	2	\$.35
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1264	4	.45
1265	5	.52
1266	6	.60
1267	7	.68
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### CONNECTORS ONLY

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1269	2	\$.35
1270	3	.40
1271	4	.45
1272	5	.52
1273	6	.60
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**Colors Red and Black**



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**11c ea.**

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**With Chuck for Wire**

**15c ea.**

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## Hook Terminals

**Colors Red and Black**



**With Chuck for Wire**

**15c ea.**

**Cat. No. 1279**

**With Set Screw for Wire**

**11c ea.**

**Cat. No. 1280**

## Plugs and Jacks

**With Set Screw for Wire**

**11c ea.**

**Cat. No. 1296**



**SEVEN COLORS**

**Red, Black, Blue, Green, Violet, White, Yellow**



**Jacks**

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**Colors same as plugs**

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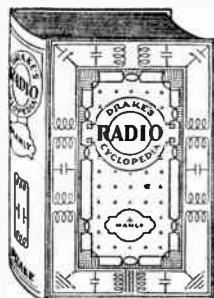
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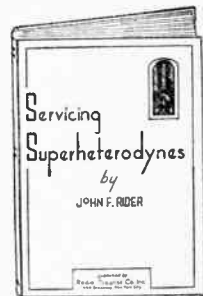
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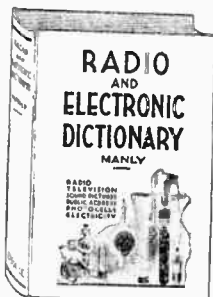
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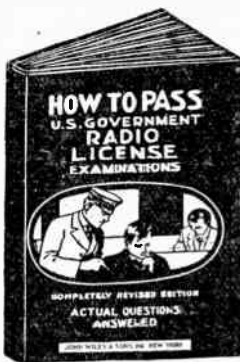
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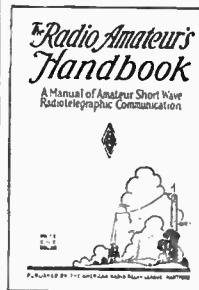
Pub. by American Radio Relay League (Q.S.T.) More than 100,000 copies sold. This book is referred to as the "Amateur's Bible."

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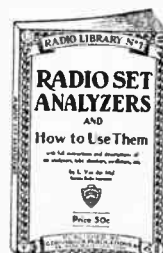
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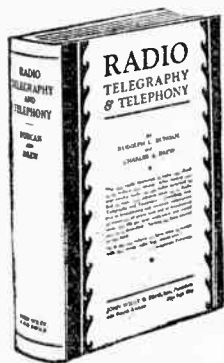
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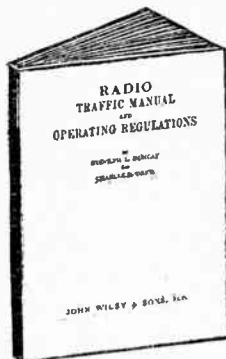
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By JOHN H. MORECROFT

Prof. of Electrical Engineering, Columbia University

Indispensable for the Student and Experimentist. As one would expect from such an experienced teacher as Professor Morecroft, his scholarly style and workmanlike presentation have been skillfully applied with the requirements of instruction purposes in mind. . . . The work is a needed contribution to radio literature, successful in bridging the gap between the more comprehensive studies of the subject, of which there is no better example than the same author's "Principles of Radio Communication," and the "popular" work on the subject which confine themselves to generalities. It is suited to the needs of the embryo commercial engineer and laboratory worker and is a text book for elementary college courses.

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**\$3.00**



# POLYMET POWER TRANSFORMERS

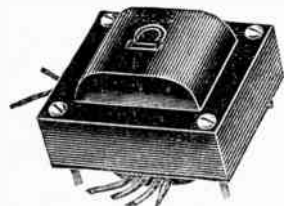


The Polymet Power Transformers listed below offer a very complete line for use in servicing all types of sets and amplifiers. There are also several models listed herein which are used in 4 to 9 tube sets, enabling the up to date experimenter to select a transformer to meet his requirements.

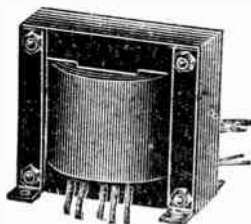
Polymet has complete facilities to make quality transformers. They manufacture their own wire, wind their own coils, punch and draw laminations and shells.

Only the finest grade of guaranteed silicon steel sheet is used. The coils are vacuum dried and the varnish impregnation is baked for 12 hours. Empire cloth is used between the various windings to give good insulation at high humidity. Each transformer is thoroughly tested and guaranteed against defect when used at or below its rating.

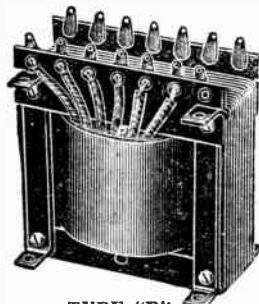
In the types supplied with leads an insulating sleeving is provided in colors according to the R. M. A. code. A wiring diagram is included with every transformer. Write for complete Polymet catalogue; free for the asking.



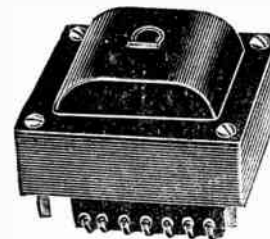
TYPE "A"  
Flat Bell with Leads



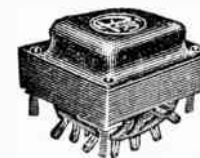
TYPE "B"  
Upright with Leads



TYPE "D"  
Upright Terminal Leads



TYPE "C"  
Flat Bell Terminal Leads



TYPE "E"  
Flat Bell with Lugs

Cat. No.	Type	Primary Voltage	Secondary Voltage	Secondary Current in mfs.	FIL No. 1		FIL No. 2			FIL No. 3			FIL No. 4			Lamination Size	Mounting hole Spacing	
					Volts	Amps.	Volts	Amps.	Center tap.	Volts	Amps.	Center tap.	Volts	Amps.	Center tap.			
1516	A	120	340-340	50	5	2	2.5	5.25	yes	—	—	—	—	—	—	2½ x 3	2 x 2½	\$2.00
1517	B	115	330-330	60	5	2	2.5	9	yes	—	—	—	—	—	—	3½ x 3¼	2⅝ x 2¾	2.25
1518	A	115	330-330	60	5	2	2.5	9	yes	—	—	—	—	—	—	3⅞ x 3¾	2⅞ x 3⅞	2.40
1519	B	115	350-350	60	5	2	2.5	9	yes	—	—	—	—	—	—	3½ x 3¼	2¼ x 2⅝	2.45
1520	A	115	330-330	75	5	2	2.5	14	yes	—	—	—	—	—	—	3⅞ x 3¾	2⅞ x 3⅞	2.65
1521	B	115	330-330	75	5	2	2.5	14	yes	—	—	—	—	—	—	3⅞ x 3¾	2 x 3⅞	2.65
1522	B	120*	300-300	50	5	2	2.5	7	no	2.5	2	yes	—	—	—	3¼ x 3½	2 x 3	3.00
1523	E	115	330-330	60	5	2	2.5	7	no	2.5	2	yes	—	—	—	3½ x 3¾	2½ x 3½	2.50
1524	E	115	330-330	75	5	2	2.5	12	no	2.5	2	yes	—	—	—	3⅞ x 4½	2¾ x 3⅞	3.15
1525	B	115	275-275	80	5	2	5	1	no	2.5	5.5	no	1.5	5	no	3½ x 3¾	3⅞ x 1⅞	3.00
1526	A	115	330-330	100	5	2	2.5	14	yes	—	—	—	—	—	—	3⅞ x 4½	2¾ x 3⅞	2.90
1527	B	115	330-330	100	5	2	2.5	14	yes	—	—	—	—	—	—	3⅞ x 4½	2¾ x 2¼	2.90
1528	D	120*	375-375	100	5	2	2.5	9	yes	2.5	3	no	—	—	—	4⅞ x 4½	5⅞ x 3⅞	4.00
1529	C	120*	375-375	100	5	2	2.5	9	yes	2.5	3	no	—	—	—	4⅞ x 4½	3⅞ x 3⅞	4.25
1530	D	115	650-650	180	—	—	7.5	2.5	yes	7.5	2.5	yes	2.5	14	yes	4½ x 4⅞	4½ x 3	6.00

\* Tapped primary at 105 volts.

All Transformers have Electrostatic Shields

Special low prices on 25 cycle types.

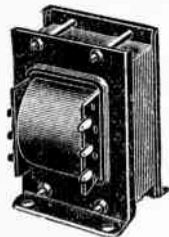




## THORDARSON High Power Transformer

Replacement for Sparton No. 99 Ensemble and No. 109

300 Watts



Type T-3202-C  
Size: 6 x 4 x 3 3/4"  
Weight: 12 lbs.  
List: \$35.00

For 2-UX-250's or 210's, 2-UX-281's and 8-2.5 volt tubes. This transformer furnishes A, B, and C current for every tube required in a present-day receiver. It is ideal for a large power amplifier using 250's in push-pull. It can be adapted to almost any receiver. Exceptionally fine for use in amateur transmitters. Tapped Primary 105-130 v., 50-60 cycles.

Delivers: 1300 v. at 150 mils. 7 1/2 v. for two 281's. 7 1/2 v. for two 250's or 210's. 2.5 v. at 14 amperes for use on 227, 224, 235, 247 and 245 tubes.

All windings are center-tapped Insulated at 2,000 volts.

\$5.75

Cat. No. A-55

Same Transformer as above for 25 cycle use, - -

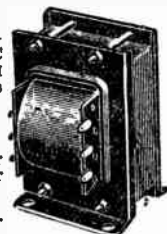
\$8.25

Cat. No. S-1068

## THORDARSON High Power Transformer

For 2-UX-250 or 210's and 2 2-UX-281 Tubes. Also 8-2.5 volt tubes.

375 Watts



Type T-3865-T  
Size: 6x4 1/2 x 3 3/4"  
Weight: 15 lbs.  
List: \$30.00

This Thordarson Power Transformer furnishes A, B, and C current for any high powered amplifier or power pack. It is exceptionally fine for use in amateur transmitters.

Delivers: 1300 v. at 200 mils. 7 1/2 v. for two 281's. 7 1/2 v. for 2-250's or 210's. 2 1/2 v. at 14 amps.

All windings are center-tapped. Tapped Primary, 105-130 v., 50-60 cycles A. C. current. Insulated at 2,000 volts.

\$6.95

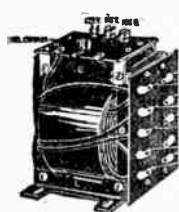
Cat. No. A-52

For 25 cycle, 110 V. A. C. operation, specifications same as above.

\$9.75

Cat. No. S-1069

## Radiart Replacement Power Transformer



Size: 4 1/2" long, 3 1/2" wide, 5 1/2" high

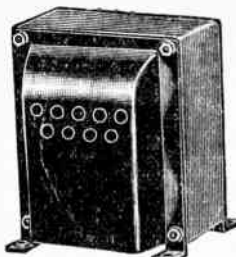
Primary adjustable, 105-120 volts, 60 cycle A. C.

\$2.90

Cat. No. 1681

## K O L S T E R

250 Watts



List: \$25.00

Size: 4 1/2 x 4 x 3 1/2"  
Weight: 7 1/2 lbs.

Study its specifications closely. It has a heavy core and was built with care.

Operates on 110 volts, 60 cycle A. C. current

## High Power Transformer

Used in the K-5 Reproducer and 6-11 and 6-M Receivers, Rep. No. A-5410

Delivers: 1,150 volts, center tapped at 125 M. A. 15 volts for two 216-13 or 281 tubes in series. 7 1/2 volts for a 210 or 250 tube, center tapped.

With a specially built case which permits air-cooling while the transformer is in operation.

\$6.50

Cat. No. A-40



## Stromberg-Carlson

## High Power Transformer

For Two UX-250's or 210's and Two 281's

Used in Stromberg-Carlson Power Unit No. 404RA in conjunction with the S. C. 734 and 744 receivers. Made by R. C. A.

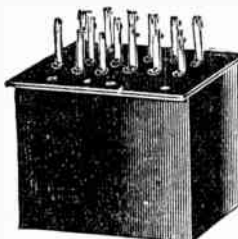
Delivers: 1200 volts, C. T. at 250 mils. 7 1/2 volts for two 250's or 210's, supplied with potentiometer to secure a C. T. on power tube filament winding; 7 1/2 volts for two 281's for full-wave rectification, 3 volts at 16 amperes. Using a small resistor, 2 1/2 volts can be secured to operate as many as nine 227 or 224 tubes.

Has a separate 150 volt winding that may be used to excite dynamic speaker field with the use of an additional filament transformer for a 280 rectifier. Operates on 110 volt, 60 cycle A. C. supply.

Voltage Regulator described on page 48 recommended with above Transformer for Primary voltage control.

Cat. No. B-6

250 Watts



Weight: 18 1/2 lbs.

List: \$30.00

\$4.75

Cat. No. A-59

## THORDARSON High Power Transformer

200 Watts



TYPE T-3773

Size: 5 x 4 x 4 1/4"  
Weight: 9 lbs.  
List: \$19.50

For 2-UX-250 or 210 and 2-UX-281 Tubes. Also 5-2.5 volt tubes.

This Thordarson Power Transformer is cased and shielded and furnishes A, B, C current to two UX-250 or 210 tubes and B current to a receiver. Delivers: 1100 v. at 150 mils., 7 1/2 v. for two 250's or 210's, 7 1/2 v. for two 281's, 2 1/2 v. at 7 amperes. All connections brought out to a shielded bakelite terminal strip at bottom.

All windings are center-tapped. Operates on 100-130 volts, 50-60 cycles A. C. current. Tested at 2500

\$3.90

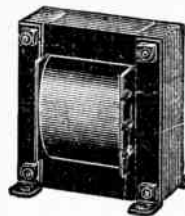
Cat. No. A-31

Replacement for Sparton 301 Receivers. Excellent for use in Amateur Transmitter.

## American High Voltage Power Transformer

For Use in a Transmitter or Power Amplifier

450 WATTS



1500 volts C. T. at 250 M. A.  
7 1/2 " at 3 amp. C. T.  
7 1/2 " at 3 " C. T.

3000 volts insulation.

Ruggedly built and conservatively rated.

Operates on 110 Volts, 60 cycle A. C.

\$7.95

Cat. No. S-3162

## THORDARSON High Power Transformer

Used in Sparton 89A Receivers. Rep. No. C-292.

For 1-UX-250 or 210 and 2-UX-281 Tubes. Also 6-3 volt tubes.

This Thordarson Power Transformer furnishes A, B, and C current to one UX-250 or 210 tubes and B current to a Receiver.

Delivers: 1150 v. at 125 mils., 7 1/2 v. for two 281's. 7 1/2 v. for one 250 or 210. 3 v. at 8 amperes. Resistor can be used for 2 1/2 v. tubes. Tapped Primary 110-130 v. Excellent for use in amateur transmitter.

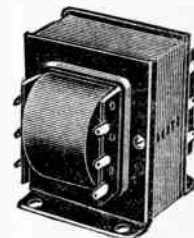
All windings are center-tapped.

Operates on 100-130 volts, 50-60 cycles A. C. current. Tested at 2500 volts.

\$3.75

Cat. No. A-39

Same transformer as above, but for 25 cycle use. Rep. No. C-296. Cat. No. A-45

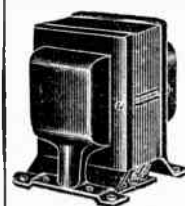


Type T-3321

Size: 4 1/2 x 4 x 3 3/4"  
Weight: 8 1/2 lbs.  
List: \$18.00

## Dongan (Sonora) Power Transformer

Replacement for Sonora Receivers Nos. A-30-32 40, 2 R.P., 3 R., 4 R.



An excellent transformer for use in high powered amplifiers and low powered transmitters.

Delivers: 600 v. C. T. at 100 mils.; 5 v. 2 amperes for 280; 2 1/2 v. C. T. for one 227; two 15 v. windings for Arceturus Tubes.

Primary, 90 v., 60 cycle A. C. Requires line ballast tube or resistance for operation on 110 v supply.

\$1.90

Cat. No. A-16

## Acme Power Transformer

MADE FOR PACENT AMPLIFIER

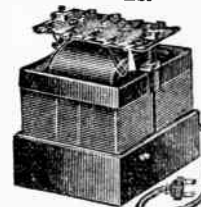
Delivers: 500 v. plate supply at 100 M. A. 7 1/2 v. center tapped for 250 or 210. 7 1/2 v. for 281 rectifying tube. 1 1/2 v. for 226 tube.

Fine for use in making up a power supply in a transmitter or a two stage amplifier.

\$1.50

Cat. No. A-17

Primary 110 v., 60 cycle A. C.



Size: 4 1/2 x 4 x 3 1/2"  
Weight: 7 lbs.

Let Us Quote on Your Special Requirements

### Radiola 44, 46 and 47 Power Transformers

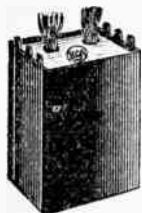
Replacement No. 8472

For 3-224, 1-245 and 1-280 Tubes

Although this Transformer is not a genuine G. E. transformer, made for R. C. A., it is built for use in Radiola 44 and 46 receivers and has the same specifications as required. Sturdily and well built.

**\$3.50**

Cat. No. A-10



List: \$12.90.

For 110 Volts, 60 Cycle A. C. Current

### Radiola 60 and 62 Power Transformers

Replacement No. 8344.

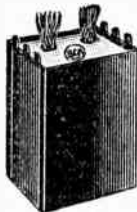
Also Graybar Model 60 and Brunswick

For 7-227, 1-171A and 1-280 Tubes

Although this Transformer is not a genuine G. E. transformer, made for R. C. A., it is built for use in Radiola 60 and 62 receivers and has the same specifications as required. Sturdily and well built.

**\$3.60**

Cat. No. A-11



List: \$12.00.

For 110 Volts, 60 Cycle A. C. Current

### Radiola 66 Power Transformer

Replacement Number 8484

Also Graybar Model 600 and Brunswick

For six 227, one 245 and one 280 tubes

Although this transformer is not a genuine G. E. transformer made for R.C.A., it is built for us for use in the Radiola 66 and has the same specifications as required.

**\$3.60**

Cat. No. A-62

For 110 volts, 60 cycle A. C. current.



### Genuine RCA and Victor Power Transformer

For Radiolas 42 and 48

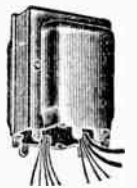
Also Victor R-14, 15; RE-17; Graybar; G. E. and Westinghouse W. R. 4

Rep. No. 8609

This genuine R. C. A. Power Transformer was made by G. E. and supplies 1-224, 1-280 and 2-245 tubes. It is shielded in a cast-metal case which is silvered.

**\$3.25**

Cat. No. A-30



List: \$10.00

For 25 cycle, 110 v. A. C.

**\$6.50**

Cat. No. A-37

### Genuine Victor Power Transformer



Used in Victor Receivers, R-32, R-52, RE-45, and RE-75.

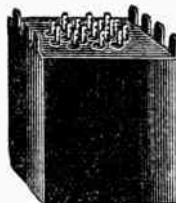
Delivers:

800 v. center-tapped at 150 mils. 5 v. center-tapped for 280. 2½ v. center-tapped for 2-245's, 2½ v. for 227. 1½ v. for 5-226's. 1½ v. for additional 226.

**\$1.95**

Cat. No. A-22

Rep. No. 10,415



Same Transformer as above for 25 cycles.

**\$4.25**

Cat. No. A-36.

### Genuine (Gen. Elec.) Power Transformer

For Radiolas 80, 82 and 86

Delivers:

700 Volts center-tapped, 2.5 Volts for 4-224's. 2-227, 2-245's, 1-280 and Pilot Light, 5 Volts for 280 Tube.



List: \$12.00

This genuine R. C. A. Radiola Power Transformer is for the Radiola 80, 82 and 86. Replacement No. 8556.

**\$3.25**

Cat. No. A-53

Same Transformer as above for 25 cycle, 110 v. A. C.

**\$6.50**

Cat. No. A-61

### Replacement Transformer for Radiola 64-67



These transformers are built for us to specifications of the original product. Will stand up under severe test.

For Radiola 64 Rep. No. 8373 Cat. No. 2791

For Radiola 67 Rep. No. 8501 Cat. No. 2792

**\$10.50** Either Type

### Genuine (Gen. Elec.) Power Transformer

Replacement No. 8474 For Radiolas 44, 46 and 47 For 220 Volts, 60 Cycle A. C. Operation.

This Genuine R. C. A. Power Transformer was made by G. E. for the Radiola 44, 46 and 47 for 220 volts A. C. Supplies voltages for three 224's, one 245 and one 280 tubes, in addition to the high voltage.

**\$4.85**

Cat. No. A-26



List: \$23.40

### Genuine (Gen. Elec.) Power Transformer



RCA Replacement Part No. 8335

For the Radiolas 33, 18, 17, 51; Victor 7-11, 7-26, 7-25, 17-8. Also Brunswick and Graybar 311

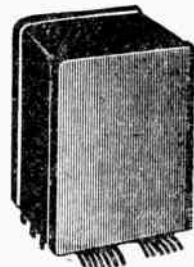
Type GW-140

This shielded Power Transformer was made by General Electric Company. Excellent power transformer for making up A. C. receivers, power packs or converting battery sets for A. C. operation.

Delivers: 600 v. c. t. at 100 mils. 5 v. at 2 amps. 5 v. at .5 amps. 2½ v. at 2 amps. 1½ v. at 4.5 amps.

Primary voltage, tapped, 110-120 volts, 50-60 cycle A. C. Rated to supply filament voltage for four 226, one 227 and one or two 171A. and one UX-280 tubes, also high plate voltage of 600 volts center-tapped for UX-280 tube.

100 Watts



Size: 5¾ x 4¼ x 2¼" Weight: 6½ lbs. List: \$12.00

This Power Transformer is very conservatively rated and is exceptionally well built.

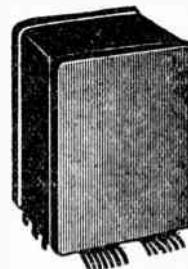
**\$1.90**

Cat. No. A-23

### Genuine (Gen. Elec.) Replacement Power Transformer



100 Watts



Type GW-380 Size: 5¾ x 4¼ x 3¼" Weight: 6½ lbs.

For use with UY-224, 226, 227, 235, 245, or 247 Tubes

This shielded Power Transformer was made by General Electric Company to be used in a new improved R. C. A. screen-grid Radiola 33 set. It is an excellent power transformer for making up A. C. receivers or converting battery sets for A. C. operation. Delivers: 600 v. c. t. at 100 mils. 5 v. at 2 amps. 2½ v. at 4 amps. 1½ v. at 4 amps. Primary voltage, tapped 110-120 volts, 50-60 cycles A. C. current, filament rating, 60 watts.

This Power Transformer is very conservatively rated and is exceptionally well built.

**\$1.50**

Cat. No. A-24



### Genuine Victor Power Transformer

Used in Victor R-34, 35, 39 and RE-57 Receivers

Replacement Part No. 10917

Westinghouse W. R. 5, 6, 7; Graybar 700, 770, 990; General Electric 31, 51, 71.

Delivers: 700 volts center-tapped. 2.5 volts for four 224's 2½" volts for two 227's, two 245's and Pilot Light. 5 volts for 280 tube.

By connecting the two 2½ volt windings in parallel, this transformer can be used in Radiolas 80, 82, and 86 since it is similar in all other respects.



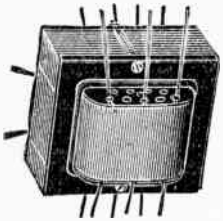
**\$3.25**

Cat. No. A-15

List: \$12.00

**Thordarson-Sparton  
Power Transformer**

100 WATTS



Type T-2907  
List: \$12.00

Delivers: 600 volts center-tapped, 7½ volts at 2 amps. center-tapped, 5 volts at 2 amps. center-tapped, 3 volts at 8 amps. center-tapped. This genuine Thordarson Power Transformer furnishes A, B, and C current for a complete A. C. receiver. By the use of a small resistor, the 3 volt winding can be reduced to 2½ volts for use on 224, 227, 245, 235, 551, and Pentode 247 tubes. Also, a 210 or 250 may be worked from the 7½ volt, winding. Tapped Primary, 100-130 v., 60 cycle A. C.

For replacement in Sparton 69, 79, 79A and 89 Receivers. Rep. No. B-1871-1938.

**\$2.75**

Cat. No. A-47

Same transformer as above but for 25 cycle use. Rep. No. B-2021-2022.

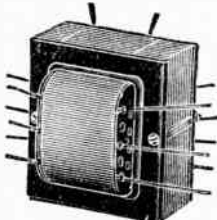
**\$3.50**

Cat. No. A-46.

**Thordarson-Sparton  
Power Transformer**

Delivers: 600 Volts center-tapped; 5 volts at 2 amps. center-tapped, 5 volts at 1 amp. center-tapped, and 3 volts at 8 amps. center-tapped.

100 WATTS



Type T-3487  
List: \$12.00

This genuine Thordarson Power Transformer furnishes A, B, and C current for a complete A. C. receiver. By the use of a small resistor, the 3 volt winding can be decreased to 2½ volts for use on 224, 227, 245, 235, 551 and Pentode 247 tubes. Tapped Primary, 100-130 v., 60 cycle A. C.

For replacement in Sparton 930 Receivers. Replacement No. B-2204, B-2249.

**\$1.90**

Cat. No. A-43

Same transformer as above but for 25 cycle use. Rep. No. 2255.

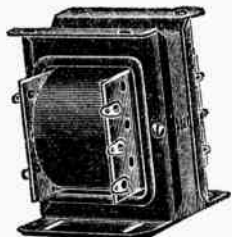
**\$3.25**

Cat. No. A-42.

Tapped Primary, 100-130 v., 60 cycle A. C.

**THORDARSON-ZENITH  
Power Transformer**

100 Watts



Type T-2858-B

Size: 4¼ x 4¼ x 3¾"  
Weight: 6¼ lbs.  
List: \$18.00

For use with 227, 224, 280, and 171A tubes  
Delivers:  
500 v. c. t. at 50 m. a.;  
2½ v. at 9 amp.; 5 v. at  
2 amps. c. t.; 5 v. at ½  
amp. c. t.

Operates on 100-130 volts, 50-60 cycle A. C. current. Genuine replacement power transformer for Zenith receiver models 33, 33X, 34, 35, and 35-A, 342, 352, 352A, 362, and 362X, and can be used with any type receiver calling for above specifications.

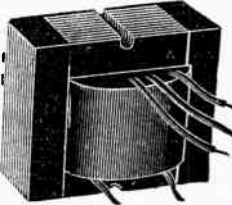
**\$3.50**

Cat. No. A-9

**Thordarson-Sonora  
Power Transformer**

SONORA REPLACEMENT TRANSFORMER  
FOR MODELS A-31, B-31, B-33, and B-35

100 Watts



Model T-3952  
Size: 6 x 5 x 3"  
Weight: 6¼ lbs.  
List: \$15.00

Delivers 770 v. at 100 mils. center-tapped; 5 v. for 250 rectifying tube; 2½ v. at 11.75 amps.

Has an electrostatic shield which goes to ground.

60 cycle A. C. current. Tapped Primary, 110-125 volts. Can be used with all the latest type 2½ tubes.

**\$2.25**

Cat. No. A-27

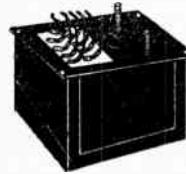
**THORDARSON  
Sonora  
Power Transformer**

REPLACEMENT FOR SONORA A31, B31, B33, B35

Delivers 700 v. at 100 mils. C. T.; 5 v. filament for 280, and 2½ v. filament for four 224's, one 227 and two 245's. Will also take care of any combination of seven 235, 224, 227 or 247 tubes.

Variable primary: 105-130 volt, 60 cycle A. C.

100 Watts



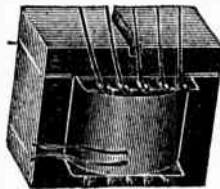
Size: 6¼ x 6¼ x 4"

**\$3.50**

Cat. No. S-2572

**Peerless Power Transformer**

For Models 21, 22, 22A, 23, 651, 652 and 653



Size: 3¾ x 3¾ x 3¾"  
Weight: 6 lb.

For all Peerless Courier sets with Kyletron speakers. Has a 2½ volt filament winding for 224, 227 and 245 tubes. Also a 3 volt winding for the 199 tube used in speaker. Delivers: 680 volt center-tapped and 5 volt for 250-tube.

Operates on 110 volts, 50-60 cycles A. C. current.

**\$2.75**

Cat. No. 2401

With Mounting Brackets. Cat. No. 2402 **\$3.25**

**General Electric  
Power Transformer**

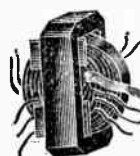
For use with 224, 227, 245, 235, 247, 551 and 280 Tubes.

Delivers: 700 v. at 100 mils., center-tapped, 5 v. for 280 filament, 2½ v. at 11.75 amperes. Tapped primary: 110-125 60 cycle A. C. current. Has electrostatic shield.

**\$2.25**

Cat. No. A-6

100 Watts



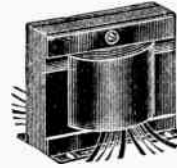
Same transformer as above for 25 cycle use

**\$2.75**

Cat. No. A-8

**American**

**Midget Power Transformer**



3¾ x 2½ x 3¼"  
Weight: 2¼ lbs

The size of this transformer has been planned so that it can fit into any five or six tube Midget Receiver. It supplies current to 3-224's or Variable Mu's, 1-227, 2-245's or 247's, and 1-280 tubes.

Delivers: 700 v. center-tapped at .05 amps., 5 v. center-tapped at 2 amps., 2.5 v. center-tapped at 1.5 amps., and 2.5

**\$2.50**

v. center-tapped at 7 amps. 1.500 v. Insulation. Primary 110 volt, 60 cycle A. C.

Cat. No. A-35

**Stromberg-Carlson  
Replacement  
Power Transformers**

All these Transformers are for use on 110 v., 60 cycle A. C. Model 635 is genuine, others made to exact original specifications.

Models 10 and 11  
1-224's, 2-245's, 1-280

**\$6.50**

Cat. No. 1902

Models 635-636  
For 3-227's, 1-171A and 1-280

**\$4.50**

Cat. No. 1903

Models 641, 642, 652, 654

For 3-224's, 1-227, 1-245 and 1-280

**\$4.50**

Cat. No. 1904

Model 846

For three 224's, three 227's two 245's, and one 280

**\$6.50**

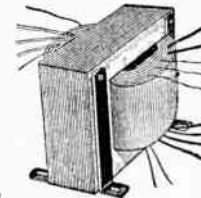
Cat. No. 1905

**Steinite**

**Power Transformer**

For five 226, one 227, two 171A and one 280 tubes

A fine general replacement Power Transformer. Has 1½, 2½ and two 5 volt windings. Delivers 600 volts, C. T., at 85 mils. Tapped Primary 105-120 volt, 60 cycle A. C.



**\$1.95**

Cat. No. 2556

**Steinite**

**Power Transformers**

For Models 261-262

For four 226, one 227, one 171-A and one 280 tubes

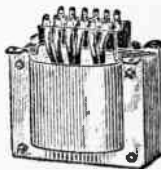
**\$3.50**

Cat. No. 2989

For Models 50 and 102  
For five 227, two 250, two 281 tubes

**\$7.95**

Cat. No. 2990



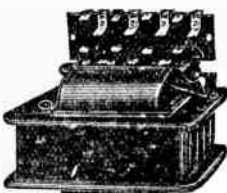
For Models 70, 80, 95  
For three 224, one 227, two 245, one 280 tubes

**\$5.90**

Cat. No. 2991

All above for 110 volt, 60 cycle A. C. current

### Earl and Freed-Eismann Power Transformers



For Models 21 and 22 Earls and Models 55 and 56 Freed. Furnishes two 227, three 226, two 171A, one 280 tubes. Completely assembled with terminal bracket and lugs.

**\$3.00**

110 v., 60 cycle A. C. Cat. No. 3322

For Models 78, 78S, 79, 79S, 90, 95, 65, Freed, and Models 31, 31S, 32, 32S, 33, 33S, 24, 41, Earl. Furnishes five 227, two 245, one 280 tubes. Completely assembled with terminal bracket and lugs.

**\$4.50**

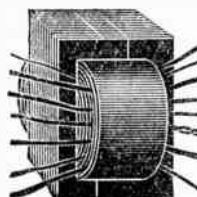
Cat. No. 3323

### Earl and Freed-Eismann Power Transformers

For 21-22 Earl and 55-56 Freed. Furnishes two 227, three 226, two 171A, one 280 tubes. Unmounted, coil and core assembly.

**\$1.70**

Cat. No. A-58



For 21-22 Earl and 55-56 Freed. Furnishes two 227, three 226, two 171A, one 280 tubes. An excellent general replacement transformer. Without terminal panel, but with mounting brackets.

**\$2.50**

Cat. No. 3321



### Colonial Power Transformers

For Model 32 A. C. Uses 4-224, 1-227, 2-245, 1-280 tubes.

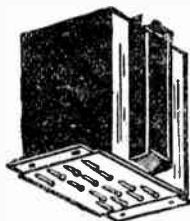
**\$3.75**

Cat. No. 2218

For Model 33 A. C. Uses 3-224, 1-227, 2-245, 1-280 tubes.

**\$4.50**

Cat. No. 2219



For Model 31 A. C. Uses 2-227, 2-226, 2-171A, 1-280 tubes.

**\$4.25**

Cat. No. 2220

### Silver-Marshall Power Transformer

Type 336U

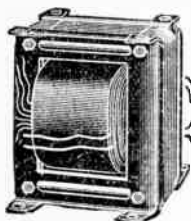
Supplies voltages for four 226, four 227 or 224 or 235, two 245 or 247 and one 280 tubes.

Has two 2 1/2 volt windings, one 1 1/2 volt winding, one 280 winding. C. T. and plate voltage of 600 volts C. T., at 85 M. A.

An excellent general replacement power transformer. Operates on 110 volt, 60 cycle, A. C.

**\$2.65**

Cat. No. 2477



### THORDARSON Filament Transformer

2 1/2 Volts at 11 amps.  
2 1/2 Volts at 3 amps.

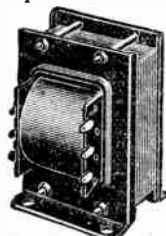
7000 Volt Insulation

Delivers 2 1/2 volts in two windings. One winding gives 2 1/2 volts at 11 amperes, and the other 2 1/2 volts at 3 amperes. Can be used in any receiver or amplifier where separate 2 1/2 volt filament windings are needed. Windings are center-tapped.

Primary 110 v., 60 cycles. With Mounting Brackets

**\$3.95**

Cat. No. A-25



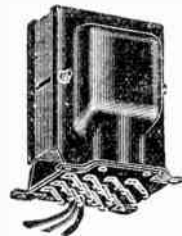
Can be used with 866 tubes.

### Zenith Replacement Power Transformers

For the ZE-50 pack used with receiver models 52, 53, 54, 55, 60 and 70 series.

**\$5.50**

Cat. No. 2924



For Models ZE-9, 11-E, 14-E

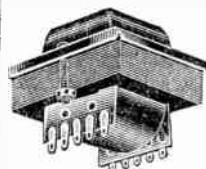
**\$3.75**

Cat. No. 3701

### THORDARSON

### Replacement Power Transformers

Side Mounting



For 224, 227, 235, 551, 245 or Pentode 247 Tubes

These Genuine Thordarson "Pentran" Power Transformers can be used for replacement in most any type of Midget or Console Receiver.

For use on 110 volt, 60 cycle A. C.

**\$3.25**

Cat. No. A-34

TYPE T-4900

Delivers 675 volts C. T. at 70 m. a. 5 volts at 2 amps. 2 1/2 volts at 7 amps.

Type T-5003

Delivers: 700 volts C. T. at 80 m. a., 5 volts at 2 amps, 2 1/2 volts c. t. at 12 amps.

**\$3.75**

Cat. No. 2085

Type T-5002

Delivers: 650 volts c. t. at 40 m. a., 5 volts at 2 amps. 2 1/2 volts c. t. at 5 amps.

**\$2.75**

Cat. No. 2086

### Freshman Power Transformers

For Q and QD Series  
For Models Q15, 3Q15 and 3Q16

Supplies voltages for 222, 226, 227, 171A and 280 tubes.

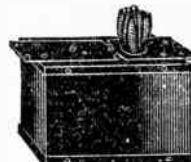
**\$3.50**

Cat. No. 3312

For QD Receivers

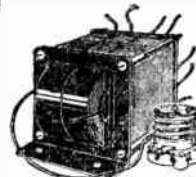
**\$4.25**

Cat. No. 3313



### RCA Power Transformer

Replacement for 104 Radiola Speaker  
R. C. A. Part No. 8229



List: \$34.15

This Transformer has a primary winding for 65 volts input and is designed to be operated in series with an UV-876 ballast tube to step voltage down from 110 v., 60 cycle A. C.

Furnishes plate and filament voltage for two 216B (or 281) C. T., one 210 (or 250), and seven 199 tubes in series. Also delivers 110 volts plate C. T.

Operates on 110 v., 60 cycle A. C. Less Mogul socket for 876 ballast tube.

**\$4.50**

Cat. No. 2575

With Mogul socket.

**\$4.85**

Cat. No. 2576

### RCA Power Transformer

Replacement for Uni-Rectron Power Amplifier Model A. P. 935 and Brunswick

Excellent for furnishing power for a transmitter or power amplifier.

Furnishes plate voltage of 600 volts and has two 7 1/2 volt filament windings C. T. for one 210 or 250 and one 216B or 231. Operates on 110 v., 60 cycle A. C.



**\$3.25**

Cat. No. 8-2574

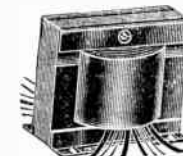
Part No. 5314  
List: \$22.20

### American Filament Transformers

Gives 2.5 volts at 11 amperes, and 2.5 volts at 3 amperes for 235, 247, 227, 245, and 224 tubes.

**\$2.95**

Cat. No. A-11



Size: 3 3/4 x 3 1/4 x 2 1/2"

Same Transformer with additional 5 volt winding at 2 amperes for 280, or 171A or 112A tubes.

**\$3.25**

Cat. No. A-10

Also transformer to supply 1 1/2 volts at 5 amps., 2 1/2 volts at 1.75 amps. 5 volts at 1 amp., and 5 volts at 2 amps. (for 280.)

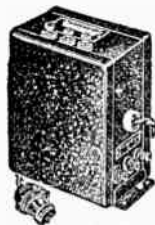
**\$3.25**

Cat. No. A-26

All the above Filament Transformers are insulated for 2000 volts. Operate on 110 volts, 60 cycle A. C. All windings are center-tapped.

# THORDARSON

## Power Compacts



6 1/4 x 5 3/8 x 3 3/8"

Here are three different types of Thordarson compacts which can be used in a transmitter or receiver circuit. Instead of binding posts as illustrated on cut, leads are used for easy connections.

Type 2115

Delivers 610 volts C. T. and has a 5-volt winding center tapped at 2 amperes for a 280 rectifying tube. This unit contains two 30 Henry 100 mill filter chokes, which are internally connected in series and 3 taps brought out for filter condenser connections.

**\$3.50**

Cat. No. 3266

Type 2124

Delivers 600 volts and has two 7 1/2-volt filament windings at 2 amperes. Center-tapped one of which is connected internally to one end of the 600-volt winding for convenience in wiring this unit to the 2S1 rectifying tube socket and condensers. This unit also contains two 30 Henry 100 mill chokes, which are internally connected in series and three taps brought out for filter condenser connections.

**\$3.95**

Cat. No. 3267

Type 2572

Same specifications as Type No. 2124, with exception that it contains only ONE filter choke rated at 30 henries, 100 mills.

**\$3.60**

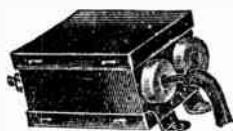
Cat. No. 3268

All above transformers operate on 110 volt, 60 cycle A. C. current.

## Jefferson Step-Down Transformer

Heavy Duty

Primary, 110-120 volts, 60 cycle A. C. current.



Weight: 3 1/4 lbs.  
List: \$5.00

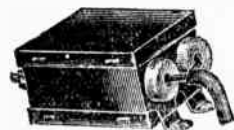
Output 12 volts A. C. at 2 1/2 amperes. Suitable for A eliminators, dynamic speakers, trickle charges, bell ringing and toy transformers.

**75c**

Cat. No. B-63

# THORDARSON

## Bell Ringing Transformer



Size: 3 3/4 x 2 1/2 x 1 3/4"  
Weight: 1 3/4 lb.  
List: \$1.50

WINNER BRAND  
110 Volts A. C. to  
8 Volts

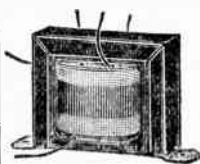
60 Cycle

**35c**

Cat. No. B-45

# THORDARSON Step-Down Transformer

1.5 Volts at 2 Amps. Center-tapped



Type T-3807A  
List: \$6.00

any amplifier to produce a small P-A system. "B" voltage may be secured from K-5 pack.

This Genuine Thordarson Step-Down Transformer is made to be used with one 2-226 type tubes. It is ideal for use where an additional stage or two of Audio Amplification is to be added. Used in the *Spartan Ensemble, Rep. No. A-3566*. This transformer may be used to build up a two-stage pre-amplifier to work with the K-5 Kolster or

**65c**

Cat. No. B-34

## Thordarson Step-Down Transformer

220 Volts A. C. to 110 Volts, 60 Cycle A. C.

This transformer allows the use of 110 volt radio receiving sets and accessories to be used on 220 volts. Capacity, 75 watts.

**\$2.95**

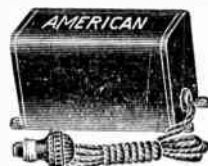
Cat. No. B-62



List: \$10.00

# American

## Step-Down Transformer



Input: 220-250 Volts, 50-60 Cycle  
Output: 110-125 Volts, 50-60 Cycle  
160 Watts.

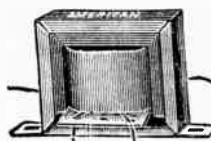
If your customers are located in an area which has 220 volts, 60 cycle current, they can easily adapt this current for use with the present day A. C. receivers by using

this transformer. Completely cased and easily installed.

**\$3.90**

Cat. No. A-2

# American "B" Eliminator Transformer



Filling the long-felt want for a transformer to take the place of defective ones in "B" Eliminators, this transformer supplies 500 volts center-tapped for the plates of a 2S0 tube. The filament of the 280 tube is supplied by a 5 v., 2 amp., C.T. winding. This transformer is exceptionally fine for use in any 180 volt "B" Eliminator. Can also be used with Raytheon tubes. 2,000 volt Insulation Primary 110 v., 60 cycles.

**\$1.75**

Cat. No. B-60

# G.-E. Step Down Transformer

275 Watt Capacity

Primary 200 to 220 volts, 50 to 60 Cycle, A. C.

Secondary 110 to 120 Volts, 50 to 60 Cycle, A. C.

Enclosed in Heavy Metal Case.

**\$2.75**

Cat. No. 2920



7 1/2 x 4 1/4 x 3 3/4"

# Radiart Step-Down Transformer

From 200-250 Volts A. C. to 110 Volts A. C. at 50-60 Cycle.



The primary can be varied between 200 and 250 volts.

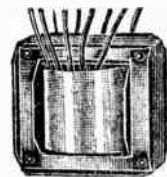
List: \$20.00

**\$3.95**

Cat. No. A-1

# AMRAD Power Transformer

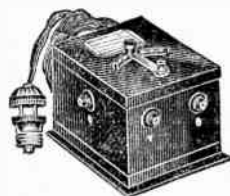
Bel Canto 81 Series  
For three 224, two 227, two 245, one 280 tubes  
For Sorenata, Aria, Symphony and Duet Models.  
110 volt, 60 cycle A. C.



**\$3.50**

Cat. No. 2092

# THORDARSON Stepdown Transformers (Variable Secondary)



Extra husky transformers that will stand a lot of abuse unconditionally guaranteed. Secondary winding is variable by taps in two volt steps from 2 to 25 volts. Excellent for experimental work, small motors, relays and low voltages for filament supply where different type tubes are being tested or compared. Will operate electric toys and trains. Primary is wound for 110 volts, 60 cycle A. C. single phase operation.

Cat. No. 1592—100 watt output: **\$3.53**

Cat. No. 1593—150 watt output: **4.41**

Cat. No. 1594—200 watt output: **5.88**

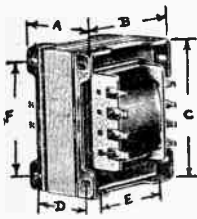
Same as above, only with steps of 2 1/2 volt, taps up to 25 volts, maximum output at 75 watts.

**\$2.06**

Cat. No. 1595

# DONGAN Replacement Power Transformers

We are offering 3 different types of replacement Power Transformers which can be used for practically all receivers. These Transformers are ruggedly built to exacting specifications and made of finest of materials. Latest design. Can be mounted in any position making installation simple. Wiring diagram furnished with each Transformer. If for convenience in installing it is found advisable to place the Transformer in a new position, use rubber-covered wires to connect the Transformer. Number 14 B/S gauge wire is recommended on the 2½ volt circuit. Where Transformer is to be mounted horizontal, the bottom bracket may be removed. All these Transformers operate from 110 volts, 60 cycles A. C. current. 25 cycles also listed.



**TYPE 2596**—Size A-3%, B-3½, C-3¾, D-1¾ to 2¾, E-2½ or 2¾, F-3¼ or 2¾, Shipping Weight: 7 lbs.

**Specifications:** A Universal replacement transformer for use with Midget Receivers using up to four 227's, 224's or 235 tubes, one 245 or 247 and one 280 tubes.

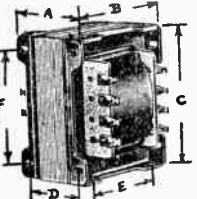
**Secondary voltages:**—630 (315-315) volts C. T. at 60 mils. 2½ volts at 8½ amps. C. T., 2½ volts at 1½ amps. C. T., 5 volts at 2 amps.

This Transformer is suitable for the following sets:

- Advance Electric Co. .... Falck 77, 88
- Atchison Radio Co. .... 12
- Automatic Radio Co. .... Tom Thumb
- Nathaniel Baldwin, Inc. .... Baldwinette
- Brown and Manhart. .... Ranger 44
- Cardinal Radio Co. .... 70, 80
- Carteret Radio Lab. .... AC-7, AC-8, DC-HW
- Champion Radio. .... 82
- Crosley Radio Co. .... Buddy
- Echophone Radio Mfg. Co. Echophone
- Elinore Lambing Co. .... Singer
- Federated Purchaser. .... Melorad Cathedral tone
- Flint Radio Co. ....
- Ford Radio Co. .... Model A
- J. French & Sons Piano Co. Junior
- Gilbert, R. W. .... 69
- Gray & Danielson. .... Remler Cameo
- Griffin-Smith Mfg. Ltd. .... Royale
- Hyatt Elec. Corp. .... AC-7
- Jackson Bell Co. .... 62
- Jewell Mfg. Co. .... M
- Keller-Puller. .... Radiette Model 14-F
- Kemper Radio Co. .... Kompack 80
- Master Radio Co. .... Master Model 424
- McCormick. .... Midget
- Mission Bell Radio. .... Mantle
- National Transformer Co. Balkitt
- Patterson Radio Corp. .... 5-69, 7-69
- Pierce Airo, Inc. .... Dewald 524
- Plymouth Radio Corp. .... 3
- Powell Mfg. .... Cathedral
- Premier Electric Co. .... Home-Pal
- Premier Radio Co. .... Midget
- Remler Division Gray and Danielson. .... Cameo Model 14
- Republic Radio Co. .... 31-M, 31-J
- Seeley Elec Co. .... 5, 6
- Simplex Radio Co. .... 11
- Fred Stein. .... 130 C
- Steinite Mfg. Co. .... 410
- Sterling Mfg. Co. .... F-1-60
- Transformer Corp. of Am. Clarion Jr.
- Travler Mfg. Co. .... 1
- U. S. Radio and Television Apex 27
- Waltham Radio Corp. .... 31
- Zaney Gill Corp. .... Clarion

**\$3.75** Cat. No. 2452 **\$7.00** 2 for

For 25 cycle 110 volts, A. C. **\$6.25 ea.** 2 for **\$12** Cat. No. 2453



**TYPE 6894**—Size A-3%, B-3½, C-3¾, D-1¾ to 2¾, E-2½ or 2¾, F-3¼ or 2¾, Shipping Weight: 7 lbs.

**Specifications:** This transformer is designed for replacement in radio sets or power packs using up to four 226's, one 227, two 171's or 112 tubes and one 280 tube.

**Secondary voltages**—570 (285-285) volts C. T. at 85 mils. 5 volts at 2 amps.; 1½ volts 4.2 amps.; 2½ volts at 1¾ amps. C. T. 5 volts 1½ amps. C. T.

This transformer is suitable for the following sets:

- A. C. Dayton—A. C. 63
- Acme Electric—A. C. 7
- Amrad—A. C. 7
- Arborphone—45, 55,
- Atwater Kent—36, 37, 38, 40, 42, 43, 44, 52
- Bremer Tully—BT6-40, 7-70, 7-71
- Brunswick—5KR, 5KRO, 2KRO, 3KRO, 5KR6, R-1
- Columbia—C1, C3, C2, C4, 930
- Crosley—60S, 704A, 704B, 706, 610, 609A.C., 41A, 42A.C.,
- Freshman—G
- General Motors—5077, 5080
- Grebe—Synchrophase 7A. C.
- Howard—8 Green Diamond
- King—J, H
- Kolster—6K, 7, K20, 22, 25, 27, 37, K42
- Pilot—K108
- Radiola—50, 51

**\$3.75** Cat. No. 2450 **\$7.00** 2 for

For 25 cycle 110 volts, A. C. **\$6.25 ea.** 2 for **\$12** Cat. No. 2451

## Westinghouse Filter Choke

15 Henrys, 50 Mils.

Impregnated in wax. Laminations best grade of high test silicon.

Ideal choke for "B" eliminators and A. C. packs.

D. C. resistance 400 ohms

**20c**

Cat. No. B-40

## Earl and Freed Double Filter Choke

For Models 21, 22, 31 and 32 Earl and 55, 56, 78, 79 and 95 Freed.

Contains 2—30 henry, 80 mil. chokes.

**\$1.05**

Cat. No. 3302

## RCA Filter Choke

30 Henrys—100 mils.

Used in the RCA Uni-Reetron 210 power amplifier. Replacement No. 5315.

**\$1.25**

Cat. No. B-24

Weight: 1½ lbs. Size: 3½ x 3 x 1¾" List: \$7.50

## Grebe Filter Choke

30 Henrys—125 Mils.

A husky job. D. C. resistance: 200 ohms. Used in Grebe receivers.

**\$1.15**

Cat. No. 3283

## Crosley Single Chokes

30 Henrys—80 Mils.

Part No. 4935—Size: 2½ x 2¼ x 1½" **79c**

Cat. No. 2214 Part No. 4935

Part No. 6591—Square Box Type Same rating as above. Size 2½ x 2¼ x 3". **59c**

Cat. No. 2215

## Crosley Double Chokes

Each choke rated 30 henries, 80 mils. All above chokes are metal shielded.

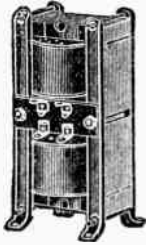
Part No. 6010. **\$1.15**

Size: 5 x 2½ x 2". Cat. No. 2216

**THORDARSON**

**Double Filter Choke**

Contains Two 30 Henry  
125 Mil. Chokes



D. C. resistance 250 ohms each coil  
This Genuine Thordarson Double Filter Choke is rigidly constructed and is suited for use in low-powered transmitters, large power amplifiers and eliminators. 30 henrys, 250 mils with windings in parallel; 60 henrys, 125 mils in series.

Used in the Spar-  
Weight: 4½ lbs. for 89A Receiver  
Size: 3x6x3" Rep. No. A-2115. Cat. No. A-32  
List: \$10.00 **\$1.75**

**Thordarson or Jefferson  
Filter Choke**

20 henrys, 100 mils.

D. C. Resistance; 250 ohms. Lug terminals on bottom.

**95c**

Cat. No. 3254



**Fansteel 2 and 4 Amp.  
Filter Chokes**

¼ Henry—D. C. resistance .05 ohm. Fine for "A" eliminators, D. C. sets, etc.



2 Amp. size **50c**

Cat. No. B-70

4 Amp. size **75c**

Cat. No. B-71

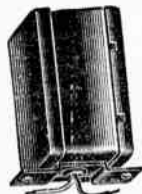
**THORDARSON  
Filter Choke**

3.5 Henrys—150 Mils.

This genuine Thordarson Filter Choke has many uses. It is beneficial when used directly between the first block of filter condensers and the rectifying tube or tubes. This eliminates any A. C. which may have filtered through. It has a D. C. resistance of 33 ohms and is fully shielded.

**\$1.25**

Cat. No. A-20



Type T-3956

**American Practice Key**



Excellent for the beginner for practicing or low power transmission. Metal contacts. Without switch.

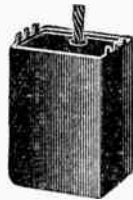
**98c**

Cat. No. 4185



**Genuine (Gen. Elec.)  
Double Filter Choke**

RCA Replacement Part No. 8336



Type GW-249  
Weight: 6 lbs.  
Size: 5¼ x 3¾ x 2¾"  
List: \$10.05

Contains Two 30 Henry  
100 Mil Chokes

This heavy duty, rugged, double Filter Choke is excellent for all types of filter circuits and experimental work in receiving sets, power amplifiers, eliminators, transmitters and various other purposes.

Made by General Electric Company for Radio Corporation of America, and is RCA Replacement No. 8336 for the Radiola 33, 18, 51, Victor 7-11, 7-26.

When connected in parallel these double Filter Chokes give 30 Henrys at 200 Mils. and when connected in series give 60 Henrys at 100 Mils. Each Choke has a 1000 volt insulation test and the D. C. resistance is 400 ohms.

Fully shielded in metal case with special insulating compound. Made of the best parts, including the highest grade of silicon steel. **58c**

Cat. No. A-33



**Victor  
Filter Choke**

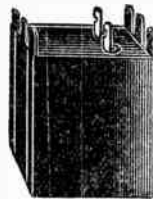
30 Henrys—100 Mils.

For Replacement in  
Victor R-32, 52, RE-45 and 75  
and Radiola receivers

D. C. Resistance—225 Ohms  
Size: 3 x 3 x 3½"

**65c**

Cat. No. A-21



**Kolster Filter Choke**

18 Henrys, 75 Mils.

Just the choke for use as replacement in all models of electric receivers. Its size permits use even in midgets. Well built and bears genuine Kolster name.

Used in the K-5 Reproducer and 6-H and 6-M Receivers, Rep. No. A-5305

List: \$10.00

**75c**

Cat. No. B-69

**Chicago Filter Choke**

30 Henrys—120 Mils.

Manufactured by the Chicago Transformer Corp.

These Filter Chokes have a D. C. resistance of 400 ohms.

Made of Armco extra special transformer steel. Extra size core. Tested at 1600 volts. With mounting brackets.

**85c**

Cat. No. A-19

**SIGNAL Learner's Buzzer**

For the beginner practicing the code. Square can, size: 2½ x 2¾", non adjustable.

**49c**

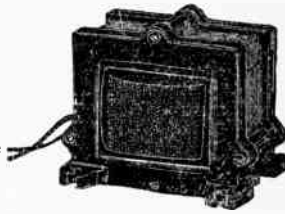
Cat. No. 4184

**American  
Heavy Duty Filter Chokes**

5000 V. Insulation

For use in  
TRANSMITTERS  
and  
POWER  
AMPLIFIERS

These Chokes contain the finest silicon laminations obtainable and are carefully wound. Mounted on a substantial cast iron frame.



30 Henry—300 Milliamperes

D. C. resistance: 285 ohms. **\$7.75**  
Cat. No. H-116

30 Henry—500 Milliamperes

D. C. resistance: 285 ohms. **\$8.95**  
Cat. No. H-117

50 Henry—300 Milliamperes

D. C. resistance: 285 ohms. **\$10.50**  
Cat. No. H-118

Send for descriptive literature and prices on Special New Pre-Filter Chokes for Automatic Voltage Regulation in Transmitter Power Packs.

**THORDARSON**

**Double Filter Choke**

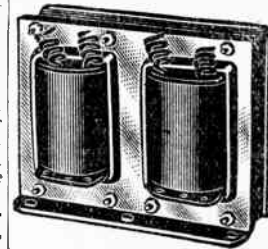
Contains  
Two 18 Henry  
250 Mil. Chokes

This heavy duty, rugged, Thordarson Double Filter Choke is ideal for filter circuit in transmitters, power amplifiers and "B" eliminators and various other purposes.

Each choke has a 2000 volt insulation, and the D. C. resistance of each is 108.5 ohms.

When connected in series this choke gives 36 henrys at 250 mils., and when connected in parallel, 18 henrys at 500 mils. **\$8.75**

Cat. No. A-60



Model T-2458  
Weight: 14 lbs.  
Size: 3 x 7 x 5½"

**THORDARSON**

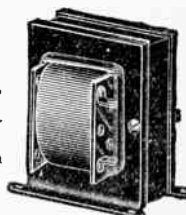
**Filter Choke**

30 Henrys—160 Mils.

D. C. resistance 125 ohms, insulated for 3000 volts. Excellent for use in any high power filter circuit.

**\$3.25**

Cat. No. A-18



Size: 3¼ x 4¼ x 4"  
List: \$10.00

# Genuine KOLSTER Replacement Parts Used in Kolster, Kolster-Columbia and Brandes Sets

## POWER TRANSFORMERS

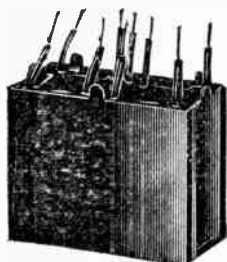
Cat. No.	Part No.	Used in	
A-29	A11010	K-20, 21, 22, 23, 42; 25; Col. C1, 2, 3, 4	\$5.50
A-28	A284010	K-43, 43A, 48A, 48B, Co. C11, 940; Brandes B15; 16	4.75
A-40	A5410	K-5, 6-II, 6-M	6.50
3471	Coll 4611	B-11	3.50
3472	Coll 4835	B-10	3.50
3473	A8410	Col. 300	5.23
3474	A9310	25 cycles Col. 300	6.85
3475	A016S010	Col. 950	4.75
3476	Coil 4204	K-24; Col. 961	5.75
3477	Coil 5722	K-45	9.50
3478	A28S010	K-44	6.85
3479	A202010 (Coil No. 4570)	K-38	5.85
3480	A157010 (Coil No. 4216)	Col. 931	6.85
3481	69029	Rectifier transformer and socket; K-23; Col. C1	3.95
3482	A91025	with socket; K-28; Col. C10	3.95
3483	8210	Col. 500	6.85
3484	A6410	A.B.C. power pack for 6-R, 6-J, 6-M, 6-K, 6-L, 6-F	9.85
3485		Power transformer only for 6-R, 6-J, 6-M, 6-K, 6-L, 6-F	7.50



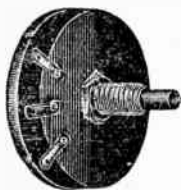
6D, 6H, 6M  
Audio Transformer



K20-22, 42, etc.  
Condenser Block



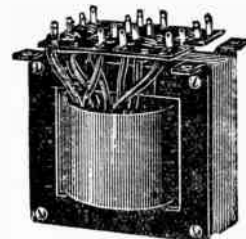
K20-22, 42, etc.  
Brandes B.10  
Double Audio Transformer



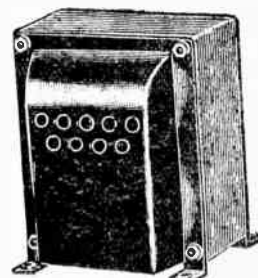
K20, 22, 42, etc.  
Volume Control



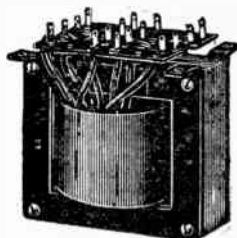
6R, 6J, 6L, 6M, 6K  
Condenser Block



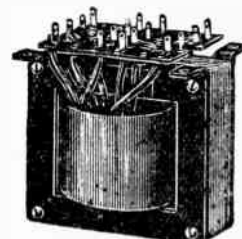
K20, 21, 22, 23, 42, etc.  
Power Transformer



K5, 6H, 6M  
Power Transformer



K45 Power Transformer



Brandes B 15, 16, 43, 48, etc.  
Power Transformer

## FILTER CONDENSER BLOCKS

Cat. No.	Part No.	Used in	
F-93	A3024	K-20, 22, 42, 48A, 48B; Mod. 25; Col. C1, 3	\$2.75
C-37	A2316	K-5, 6-H, 6-M; Col. 500, 901	1.95
C-30	A4849	Brandes B-11	.95
3486	4838	Brandes B-10	.95
3487	5038	Brandes B-15, 16, K-43, 48A, 48B, Col. C11, 940	2.50
		K-44, 4.1 mfd.	2.25
3488	3723	K-24	2.75
3489	3663	K-25, 27, 28; 25 cycles	1.95
3490	3844	K-30; D. C.	1.50
3491	5501-A	K-23 rectifier	1.95
3492		6-R, 6-J, 6-M, 6-K, 6-L, 6-F	4.50
3493		K-21, 23 (Not genuine, but meets exact specifications)	2.95
3951	7053	6-C-6 mfd. 6J, 6R, 6L, 6K (Buffer Condenser)	.30

## RESISTORS

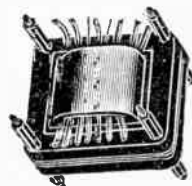
Cat. No.	Part No.	Used in	
H-94	A3540	K-20, 22, 23, 27; Mod. 25; Col. C1, 3	.60
H-86	A2130	K-5, 6-H, 6M (Power Unit)	.35
3494	A3851	K-30, 32	.35
3495	A3933	K-24, 7835 ohms	.75
3496		Brandes B-13, 16, 43, 48, Col. C11, 940 (2955 ohms)	.35
H-94		6L, 6J, 6M, 6K, 6L, 6F (7120 ohms)	.75
3952	169	Grid Resistor for 6 D & H (925 ohms)	.10

## AUDIO, OUTPUT TRANSFORMERS AND CHOKES

Cat. No.	Parts No.	Parts	Used in	
K-59	A9703	Double A. F. transformer	K-20, 22, 48A, 48B; Model 25; Col. C1, 3	\$1.95
B-69	A5305	Filter choke (in power pack)	K-5, 6-H, 6-M	.75
B-67	A5105	Audio trans. (in power pack)	K-5, 6-II, 6-M	.75
B-68	A5205	Output trans. (in power pack)	K-5, 6-H, 6-M	.75
B-54		Audio trans. (in receiver)	6-D, 6-II, 6-M, 3-1 ratio	1.75
3497	23000B	Double audio transformer	Brandes B-10	1.95
3501	A5S010	Double choke coil	6-R, 6-J, 6-M, 6-K, 6-L, 6-F	1.95

## MISCELLANEOUS

Cat. No.	Parts No.	Parts	Used in	
3502	A406	Volume control	K-20, 22, 25, 27, 42, 48A, 48B; Mod. 25; Col. C1, 3	\$ .45
F-63	A21015	Variometer assembly	K-20, 22, 25, 27, 30, 32; Mod. 25; Col. C1, 3	1.25
H-60	A22009	Grid resistor and condenser assembly	K-20, 22, 25, 27, 42; Mod. 25; Col. C1, 3	\$0.35
8-3498	A5513	Dynamic speaker chassis	K-5, 6-II, 6-M	4.50
8-3490	K-100	Adapter	K-20 or 24 to K-5 Speakers	1.00
3500		Kolster triple sequence relay	K-45	2.95
3598		Robbins & Meyers 21 volt A. C. reversible motor	K-45	3.95



6R, 6J, 6L, 6M, 6K  
Power Transformer





# GENUINE REPLACEMENT PARTS FOR

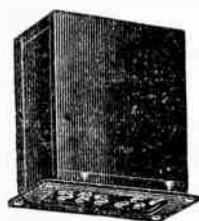
Power Transformer



Input Transformer



Receiver Model No.	Power Transformer	Push-Pull Output Transformer	Push-Pull Input Transformer	Filter Chokes
65	Part No. 3576 Cat. No. 2347 <b>\$3.25</b>	Part No. 2818 Cat. No. 2348 <b>\$1.50</b>	Part No. 3242 Cat. No. 2349 <b>\$1.35</b>	Part No. 4951 Cat. No. 2350 <b>\$1.15</b>
76 and 77	Part No. 3868 Cat. No. 2351 <b>\$3.95</b>	Part No. 2848 Cat. No. 2348 <b>\$1.50</b>	Part No. 3872 Cat. No. 2352 <b>\$1.80</b>	Part No. 3122 Cat. No. 2352 <b>\$1.75</b>
87 Straight Audio Part No. 3241 Cat. No. 2356 <b>\$1.75</b>	Part No. 3400 Cat. No. 2354 <b>\$3.25</b>	Part No. 2848 Cat. No. 2348 <b>\$1.50</b>	Part No. 3242 Cat. No. 2349 <b>\$1.35</b>	Part No. 3422 or 3472 Cat. No. 2355 <b>\$1.75</b>
70 and 270	Part No. 5117 Cat. No. 2357 <b>\$3.25</b>	Straight Output Part No. 2675 <b>\$1.35</b>		Part No. 4951 Cat. No. 2350 <b>\$1.15</b>
95, 95E, 96, 96E, 296, 296E, 92 Straight Audio <b>\$1.50</b> Cat. No. 2795	Part No. 3752 Cat. No. 2359 <b>\$3.95</b>	Part No. 2848 Cat. No. 2348 <b>\$1.50</b>	Part No. 3537 Cat. No. 2360 <b>\$1.95</b>	Part No. 3422 Cat. No. 2355 <b>\$1.75</b>
20 and 220	Part No. 4234 Cat. No. 2361 <b>\$3.75</b>	Part No. 2766 Cat. No. 2362 <b>\$1.45</b>	Part No. 4232 Cat. No. 2368 <b>\$1.50</b>	Part No. 4231 Cat. No. 2364 <b>\$1.45</b>
111-211 112-212	Part No. 4446 Cat. No. 2365 <b>\$3.95</b>	Part No. 2848 Cat. No. 2348 <b>\$1.50</b>	Part No. 3537 Cat. No. 2360 <b>\$1.95</b>	Part No. 3422 Cat. No. 2355 <b>\$1.75</b>
90 (Using one 245 Output)	Part No. 4938 Cat. No. 2366 <b>\$3.75</b>	Part No. 2848 Cat. No. 2348 <b>\$1.50</b>	Part No. 4952 Cat. No. 2367 <b>\$1.75</b>	Part No. 4951 Cat. No. 2350 <b>\$1.15</b>
90 (Using one 217 Pentode)	Part No. 5362 Cat. No. 2868 <b>\$3.75</b>	Single Output Cat. No. 2369 <b>\$1.50</b>	Single Input Cat. No. 2370 <b>\$1.75</b>	Part No. 4951 Cat. No. 2350 <b>\$1.15</b>
500 SERIES	Part No. 3073 Cat. No. 2371 <b>\$3.75</b>	Straight Audio Cat. No. 2372 <b>\$1.75</b>		Part No. 4951 Cat. No. 2350 <b>\$1.15</b>
82 and 86	Part No. 3271 Cat. No. 2373 <b>\$3.25</b>	Straight Audio Cat. No. 2374 <b>\$1.75</b>		Part No. 4951 Cat. No. 2350 <b>\$1.15</b>



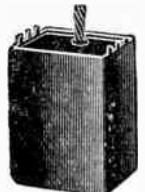
## FILTER CONDENSERS

Model	Part No.	Cat. No.	
65	3515	2375	<b>\$2.95</b> Each
87	3401	2376	
86	3246	2377	
82	3279	2378	
500 Series	Z-345	2379	
A & B Elim.	Z-405	2380	

## VOLTAGE DIVIDERS



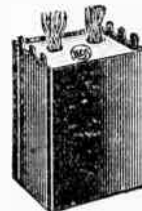
Model	Length Resistor	Resistance Ohms	Cat. No.	
76, 77, 77A	3 1/2"	4900	514-67	\$ .99
	1 1/2"	1050	514-68	.75
87	5 1/2"	4582	514-69	.81
96, 96A	5 1/2"	8300	514-70	.87
	1 1/2"	800	514-71	.90
20, 20A	5 1/2"	5102	514-72	1.20
41, 42 (1DC)	4 1/2"	6	514-73	.60
211, 211A	1 1/2"	800	514-74	.60
Series 5	5"	23965	514-75	2.25



18, 33, 51, etc.  
Double Filter  
Choke



## Genuine Replacement Parts



18, 33, 51, etc.  
Power Transformer

### POWER TRANSFORMERS

Rep. No.	For Models	Cat. No.	
8335	17, 18, 33, 51	A-23	\$1.90
*8399	41	3961	4.95
*8472	44, 46, 47	A-10	3.75
8474	44, 46, 47-220-60 cycle	A-26	4.85
8609	42, 48	A-30	3.25
*8344	60, 62	A-11	3.75
*8373	64	2791	10.90
*8483	66	A-62	3.85
*8501	67	2792	10.90
8556	80, 82, 86	A-53	3.25

\* Replacement numbers marked with asterisk (\*) are not genuine parts, but made to exact specifications. They are guaranteed to meet requirements.

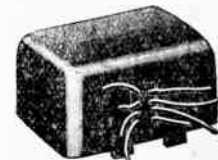
### FILTER CONDENSERS

Rep. No.	For Models	Cat. No.	
8289	17	C-14	\$2.25
8333	18, 33, 51 with choke	B-29	.49
*8397	41 with by-pass cond.	C-36	3.95
8476	44, 46, 47 with choke	C-23	2.95
*8346	60	F-92	2.95
*8382	62	F-92	2.95
*8368	64	8793	14.50
8487	66 with choke	C-35	1.65
*8504	67	8794	16.50
*8553	80, 82, 86	C-38	4.50
5320	(3 1/2 mfds) 30, Uni Rectron	C-14	.75
5345	(7 mfds.) 104 speaker	C-11	1.35
551	2 mfd. Uni-Rectron 104, 25, 28.	C-58	.35

### MISCELLANEOUS

Rep. No.	Description	For Models	Cat. No.	Rep. No.	Description	For Models	Cat. No.
5667	2 stage audio transf.	16, 17, 18, 33, 41, 50, 51	B-53	2242	Voltage divider	18, 33, 51	H-90 .30
5809	Output transf. & cond.	106 AC speaker	B-57		Catacombs	24, 25, 26	S-2230 3.35
5807	Neutralizing Cond.	33, 60, 62, 64	C-18		Catacombs	28-30, 32	S-2231 3.85
8463	R. F. Coil Assembly	18, 33	S-3470		Output Trans.	62	2118 2.50
5996	By-pass condenser	18, 33	H-67	6019	Output Trans.	46, 47, 66	2119 .60
8336	Double filter choke	18, 33, 51	A-33		In-Output Trans.	80, 82, 86	A-38 7.75
					Field Coil, 104 Speaker		B-23 1.50

RCA 42, 48  
Victor 14, 15  
Power  
Transformer



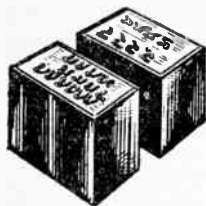
17, 18, 33 etc., Double  
Audio Transformer

# Majestic REPLACEMENT PARTS

ALL PARTS ARE GENUINE UNLESS OTHERWISE STATED

## Plate or Filament Transformers

For 7P6 (70-71-72) Receivers



Uses four 226's, one 227, two 171A, and one 280 tubes. Plate Transformer (also Filament for 280 tube). Part No. 67.

**\$2.25**

Cat. No. 3235

Filament Transformer. Part No. 61.

**\$2.25**

Cat. No. 3236

## Plate or Filament Transformers

For 8P6 (80-180) Receivers

Uses five 227's, two 250's, two 281 tubes. Plate Transformer (also Filament for two 281 tubes). Part No. 620.

**\$3.95**

Cat. No. 3237

Filament Transformer. Part No. 619.

**\$2.95**

Cat. No. 3238

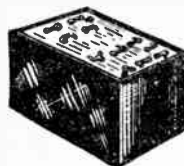
## Power Transformer

For 9P6 (90-91-92) Receivers

Power Transformers, Plate and Filament Transformer (combined) for Majestic 9P6 (90-91-92) receivers. Part No. 436. Uses five 227's, two 245's and one 280 tubes.

**\$2.90**

Cat. No. 3234



## Power Transformer

For 90B and 100B

Uses five 227's, two 245's and one 280 tubes. Not genuine, but made to original specifications.

**\$4.95**

Cat. No. 3239

## Replacement Condenser Blocks

Not genuine, but made to original specifications.

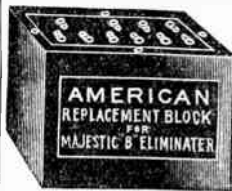


Series	Receivers	Tubes	Cat. No.
7P6	(70-71-72)	171A	3248
9P6	(90-91-92)	245 (with Chokes)	3249
8P6	(80-180)	250	3250
90B	(90B & 100)	245	3257

Any Type **\$2.75**

## "B" Eliminator Replacement Blocks

Not genuine, but made to original specifications.



For Super "B"  
" Master "B"  
" Special Master "B"  
Specify type desired.

**\$2.05**

Cat. No. 3247

## 8 Mfd. Electrolytic Condenser

CARD BOARD TYPE

**83c**

For 200 and 210 Series Cat. No. S-3942

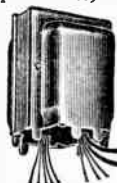
## Power Transformers

For 200 Series (8-Tube Super-Het.)

Primary—115 volts, 60 cycle, A.C.  
Secondary—2.5 volts, 12 amps.  
5.0 volts, 2 amps.  
700.0 volts C.T. 100 mils.

**\$3.25**

Cat. No. S-3943



For 210 Series (10-Tube Super-Het.)

Primary—115 volts, 60 cycle, A.C.  
Secondary—2.5 volts, 7.0 amps.  
2.5 volts, 8.25 amps.  
2.5 volts, 8.25 amps.  
700.0 volts, 125 mils.

**\$3.95**

Cat. No. S-3944

## Push-Pull Output Transformers

For 70-71-72 Part No. 64

**\$1.25**

Cat. No. 3223

For 90-91-92 Part No. 134

**\$1.25**

Cat. No. 3224



Not genuine but made to original specifications.

## Input Push-Pull Transformers

For 70-71 and 72 (70 Series)  
Also 90-91-92 (90 Series)

**\$1.25**

Not genuine, but made to original specifications.

Cat. No. 3225

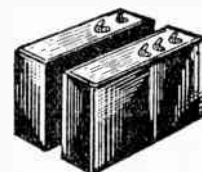
## 1st Stage Audio Transformer

For 70-71-72 (70 Series)  
Also 90-91-92 (90 Series)

**\$1.10**

Not genuine, but made to original specifications.

Cat. No. 3226



## Double Chokes

For 9P6 (90 Series)  
Part No. 281. 100 mils.

**\$1.50**

Cat. No. 3232

For 8P6 (80-180 Series)

Part No. 626. 250 mils.

**\$2.25**

Cat. No. 3233

## Single Chokes

For 7P6 (70 Series)

Single Choke, for 1928 Receivers.  
Part No. 60, 100 mils.

**\$1.50**

Cat. No. 3230

For 7BP6 (70 Series)

Single Choke, for 1929 Receivers.  
Part No. 630. 100 mils.

**\$1.50**

Cat. No. 3231

# ATWATER KENT REPLACEMENT PARTS

## A. C. Power Transformer

For Model 37

For four 226's, one 227, one 171A, and one 280. Made to original specifications.

**\$2.75**

Cat. No. 3243

Replacement A. C. Power Transformer for Atwater Kent Models 55, 55C

For two 224's, two 227's, two 245's, and one 280. Made to original specifications.

**\$4.75**

Cat. No. 3244



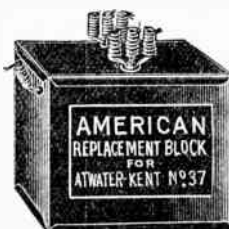
## Condenser Block and Chokes

For Models 37, 38

This unit contains all the necessary chokes and condenser blocks. Made to original specifications as to size, color leads, capacity and working voltage.

**\$2.60**

Cat. No. 3246



## "A. B. C." Power Pack

For Models 40, 42, and 44

For sets using four 226's, 1-227, one 171A, and one 280 tubes. Made to original specifications. This is the complete power pack for above sets, containing power transformer, filter condenser block, chokes

(less resistance strip and socket). Size and color leads conform to original.

**\$6.50**

Cat. No. 3241

Power Pack for A.K. 46, 47, 52 and 43

**\$9.50**

Cat. No. 3242



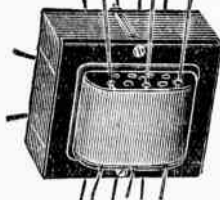
Big Savings on Replacement Power Transformers and Condenser Blocks

Fully guaranteed. Designed and built for us by prominent manufacturers. Electrical characteristics, dimensions and leads correspond to original equipment.

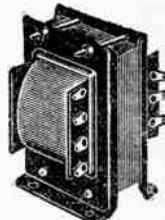
Table with columns: Receiver, Condenser (Cat. No.), Transformer (Cat. No.), and prices. Includes entries for A. C. Dayton Co., Acme Electric, All American Mohawk, American Bosch, Amrad, Apex, Atwater Kent, Brandes, Bremer Tully, Brunswick, Colonial, Crosley, Day Fan, Earl, Edison, Eveready, Fada, Federal, etc.

Table with columns: Receiver, Condenser (Cat. No.), Transformer (Cat. No.), and prices. Includes entries for Farrand B Elim., Freed-Eiseman, General Motors, Grebe, Green Brown, Kennedy-Colin B, Knight Trans., Kolster, Majestic, Peerless Courier, Philco, R. C. A. Victor, Sentinel, Silver-Marshall, Sonora, Sparton, Splitdorf, Steinite, Stewart Warner, Stromberg-Carlson, Victor (R. C. A.), Willard B Elim., Zenith, etc.

We can also supply Power Transformers and Condenser Blocks not listed herein to exactly meet any specifications. Just send us defective parts together with detailed information and you will obtain lowest prices.



B-1871-2204 Sparton Rep. No.



C-292 List

THORDARSON — SPARTON High Voltage Power Transformers

These GENUINE Thordarson Power Transformers were made for use in SPARTON RECEIVERS, but may be used in the construction of high voltage power packs, receivers, and also for replacement in other receivers.

Table with columns: Cat. No., Rep. No., DESCRIPTION, and List prices. Includes entries for A-50, A-49, A-47, A-46, A-44, A-39, A-45, A-43, A-42, A-31, etc.

NOTE: by use of a small resistor, the voltage of the 3 volt windings in the above transformers can be reduced for use on 2.5 volt tubes. In addition to being used in Sparton Receivers, these parts may also be used in Kellogg, McMillan, Mohawk, Day-Fan, Marti, Sets, Cleartone, Bell, Wubert., Wurlitzer, Pathe, Shamrock, Bush & Lane, Minerva, Crusader, Liberty, Metro, Supervox and Case. All of these parts can be used in building up A. C. receivers, converting battery sets, making public address equipments etc. They are ideal for low-power transmitting purposes.

We Do Not Sacrifice Quality for Price

# American GENERAL PURPOSE NON-INDUCTIVE CONDENSERS

While these units were specially designed for manufacturers' use, the demand for them among experimenters and professional set builders has been so great that they have been made available for general use. They are ideal for all by-passing requirements in R. F. and A. F. circuits. The sections are hermetically sealed in the stamped metal containers. Terminals are brought out through insulating strips and centered in large holes in the sides of the units, to prevent leakage and short circuit to the can. All condensers are conservatively rated to insure long life performance and maximum results.

## High Quality, Guaranteed By-Pass and Buffer Condensers



Because of their compactness, high quality, efficiency and ease with which they can be adapted for easy assembly into any chassis layout

the condensers in the series shown are very popular with radio manufacturers, set builders and servicemen.

### By-Pass

Cat. No.	Cap. Mfd.	Voltage	
M-95	.1	200	20c
M-96	.25	200	22c
M-97	.5	200	25c
M-98	.1	300	21c
M-99	.25	300	22c
M-100	.5	300	30c
M-101	.05	400	19c
M-102	.1	400	21c

### Buffer

Cat. No.	Cap. Mfd.	Voltage	
M-103	1-1-1	200	49c
M-104	1-1	200	29c
M-105	.25-.25	200	33c
M-79	.25-.25-.25	200	49c
M-80	.5-.5	200	45c
M-106	1-1	300	31c
M-83	1-1	400	33c



All of these condensers are non-inductively wound and the elements are of high grade quality. They are designed for use in all radio and audio frequency by-pass circuits, for power amplifier output circuits and for all other purposes within specs.

### By-Pass

Cat. No.	Cap. Mfd.	Voltage	
M-84	1.0	200	30c
M-85	2.0	200	54c
M-86	1.0	300	45c
M-87	1.0	400	54c
M-88	.25	400	29c
M-89	.5	400	35c
M-81	.1	600	29c
M-82	.25	600	32c

### Buffer

Cat. No.	Cap. Mfd.	Voltage	
M-90	.25-.25	300	40c
M-91	.5-.5	300	54c
M-92	1-1-1	400	49c
M-93	.25-.25	400	44c
	.5-.5	400	59c

We can supply 600 Volt 1-1-1 Mfd. Buffer Condensers for Raytheon "B" Eliminators at 39c. Cat. No. 3179

## Victor By-Pass Condensers

1/10-1/10-.125 Mfd.  
200 D. C.  
Part No. 10404  
Block No. A201  
Size: 2 1/4 x 1 1/8 x 1 1/4"

**.35**

Cat. No. M-59

Both of these condensers are used in Victor R-32, 52, and RE-45, 75.

.25-.25-.25 Mfd.  
200 V. D. C.  
Part No. 10993  
2 1/4 x 1 1/8 x 1 1/8"

**40c**

Cat. No. M-60

List: \$2.90

List: \$1.75



## Dual By-Pass Condenser

.25-.25 Mfds.

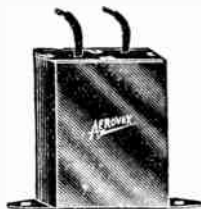
D. C. Working Voltage, 400

Case is common. Size: 2 x 1 1/4 x 5/8". Flexible leads: 6" long.

**30c ea.**

\$3.00 for 12

Cat. No. 2868



## Tungsol By-Pass Condenser

Contains Four .25 Mfd. Condensers. 300 Volts, D. C.

Can is common. Condenser has 4 individual leads which, when paralleled, will give you ratings of 1/2 or 3/4 or 1 mfd.

**38c**

Cat. No. 2217  
\$3.75 a dozen



## Speaker Coupling Condenser



For Atwater Kent Models 37, 38, 40, 42, 44, 45, 46 and 52

Used to isolate D. C. plate current from speaker.

**65c**

Cat. No. 2843

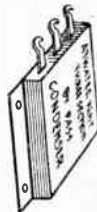
## R. F. By-Pass Condenser

For Atwater Kent Models 37, 38, 40, 42, 45, 46 and 52

Three sections of .25 each and can is common.

**75c**

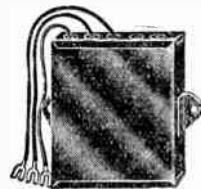
Cat. No. 2844



## Filter and By-Pass Condenser

RCA Part No. 6082

Comprises Filter and By-Pass Condensers for 25 cycle, 46 A. C. receiver. One 2 mfd. and one 1 mfd. condensers, in metal container with 12 inch leads.



**\$1.25**

List: \$5.25

Cat. No. 2581



## R. C. A. Filter Condenser

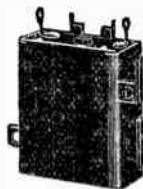
1 Mfd. 300 v. D. C.

Used with R. C. A. Receivers. Part No. 80.

**45c ea.**

\$4.50 doz.

Cat. No. 2563

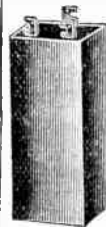


## 10B Transmitting Condenser

1/2 mfd.—1000 volts D. C.

**75c**

Cat. No. C-31



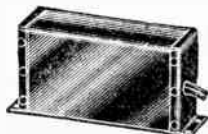
## G.E. Filter Condenser

Replacement No. 7079 Victor 57, Radiola 86.

4 1/2 Mfd., 600 Volt D. C. Used in Victor sets. Insulated, flexible leads, and mounting brackets.

**75c**

Cat. No. 2577



## Pacent Balancing Condenser

For use on T. R. F. circuits as neutralizers.

**10c**

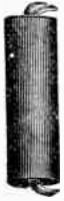
Cat. No. H-57

Dozen \$1.00



List: \$1.00

## By-Pass and Buffer Condensers



These By-Pass and Buffer Condensers are used in various places in the "Sparton" Equasonne, Ensemble, A.C.-5, 69, 79, 79A, and 89 and others. In some cases, the same condensers have different replacement numbers. They can be substituted where values are known.



Cat. No.	Replace No.	Description	List
H-58	A-1841	Tubular, .1 and .1 mfd.	\$.75
H-59	A-3529	Uncased, .1 and .1 mfd.	1.25
H-61	A-3494	Uncased, .1 and .1 mfd.	1.25

35c. each



## Dubilier

### By-Pass Condensers

Type 907—200 v. D. C.

Cat.-No.	Capacity	List
H-65...	.1	\$.85
H-63...	.25	.95
H-64...	.5	1.00
H-62...	1.0	1.25



## Dubilier

### By-Pass Condenser



.5 Mfd.—200 volts  
Designed to serve as a by-pass condenser in any type of set. Has wire leads coming from bottom.

18c

Used, but Guaranteed

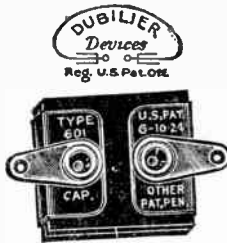
Cat. No. H-66

## Dubilier Fixed Mica Condensers

K-55.....	.0001
K-52.....	.00015
K-53.....	.00025
K-65.....	.0005
K-54.....	.001
K-66.....	.002
K-67.....	.0025
K-68.....	.003
K-69.....	.004
K-56.....	.005
K-70.....	.006

\$1.00

PER DOZEN



Type 601

## By-Pass Condenser

Mfd. by John F. Fast Co.



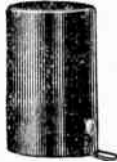
Capacity: .01-.01, 300 volt D. C.

May be used for by-passing cathode bias resistors, R. F. chokes, etc.

25c ea.

Cat. No. 3219

## Sparton Replacement Tubular By-Pass Condensers



List: \$1.50

A replacement for Sparton Receivers .25 or .5 or 1 mfd. They will safely stand a voltage of 400 v.

Cat. No.	Capacity
J-52.....	0.25 mfd.
J-53.....	0.5 mfd.
J-54.....	1.0 mfd.

35c Any size.



## Polymet Hi-Volt Condensers

1 mfd.—300 V.

35c

each

\$3.60

dozen

Cat. No. C-28

3 mfd.—300 V.

65c

each

\$6.50

dozen

Cat. No. S-2725



## Crosley-Potter 1/2 Mfd. By-Pass Condenser

Crosley Replacement Part No. W-4968  
200 volts D. C.



Compact. Distance between mounting holes: 2 3/4 in. Soldering lugs insulated from metal case.

Can also be used in most all receivers where this capacity is desired. There are plenty of uses for this Condenser.

12 for \$2.75

25c

50 for \$10.25

Cat. No. 2846

## Crosley 1/2 Mfd. By-Pass Condenser

Crosley Replacement Part No. W-4919  
400 volts D. C.



Compact. Distance between mounting holes: 2 3/4 in.

This Condenser can be used in hundreds of circuits and receivers.

12 for \$3.25

30c

50 for \$11.95

Cat. No. 2847

Can also supply Crosley Replacement Condensers manufactured by Aerovox Wireless Corporation, as follows:

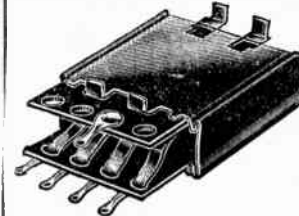
Crosley Part	Cat. No.	Mfd. Capacity	Voltage	
W. 4012.....	2848.....	1.	200 V.....	\$ .51
W. 4381.....	2849.....	.06-.06	500 V.....	.80
W. 5862.....	2850.....	1.-1.	200 V.....	.90
W. 5865.....	2851.....	.5-.5	200 V.....	.75
W. 7753.....	2852.....	1.-5-1	300 V.....	.90
W. 20449.....	2853.....	.5-1	200 V.....	.60
W. 5943.....	3937.....	.1	200 V.....	.30



## Genuine (Gen. Elec.) By-Pass Condenser

RCA Replacement Part No. 5996

Contains three .1 mfd. sections and one .5 mfd. section. Every set user can find work for this Condenser in some part of the circuit. Very compact and sealed in metal container.



Tested at 450 volts.

R. C. A. replacement part No. 5,996 for Radiolas 33.

25c

Size: 3 1/8 x 2 7/8 x 3 1/4"  
List: \$3.00

\$2.50 per doz.

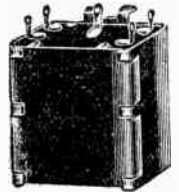
Cat. No. H-67



## R. C. A. Victor By-Pass Condensers

RCA Part No. 2241  
Contains Four 1/2 mfd. sections.

Used in Radiolas 18, 51, Victor, Victrola and Electrola Models VV 7-11, VE 7-11X, VE 7-26, VE 9-16X, D. C. Working Voltage 300 V.



40c each

Cat. No. 2566

\$1.50 doz.

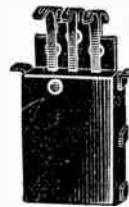


## By-Pass and Buffer Condensers

Also used in G. E., Westinghouse, Graybar and Victor Receivers



No. 7058



No. 7108



No. 7059

Cat. Replacement No. Used in Radiolas and Victor  
H-72—No. 7108  
H-74—No. 7059  
H-75—No. 7106  
H-71—No. 7058  
H-73—No. 7107  
H-74—No. 61825

R14, 15, 42, 48, RE17  
80, 82, 86  
R14, 15, 42, 48, RE17  
80, 82, 86  
48  
.....

Capacity  
.1-1-1  
1 mfd. 600 v.  
.75-.25  
.1-5-1-1-1  
.1-1  
.1-1-25

20c each

## R. C. A.-Victor By-Pass Condensers



1/10 mfd. Victor Part No. 60833  
Used in all 1929 Victor sets.  
D. C. working voltage 300 V.

15c ea.

\$1.60 doz.

Cat. No. 2564

No Order too Large None too Small for Us to Ship

**RCA 2 Mfd. Condenser**



300 Volt D.C.  
Used, but guaranteed. Replacement Part No. 551 for Radiolas 20, 25, 28, 30, Uni-Rectron, Duo-Rectron, and 104 speakers.

**35c**

Cat. No. C-58

WESTINGHOUSE, same as above, used but guaranteed.

**30c**

Cat. No. C-70

**Stromberg-Carlson**

**3 1/2 Mfd. Condenser**

Replacement No. 5320  
600 Volts D.C.  
Replacement for R.C.A. Uni-Rectron Power Amplifiers

**75c**

Cat. No. C-14



Same as above, used but guaranteed.

**60c**

Cat. No. C-5

**RCA 7 Mfd. Condenser**



Replacement No. 5345  
600 Volt D.C.  
Replacement for Radiola 104 Speakers

**\$1.35**

Cat. No. C-11

Dubilier, same as above

**\$1.25**

Cat. No. C-59

Dubilier—4 Mfd. 600 Volts D.C. Used but guaranteed

**95c**

Cat. No. C-25

**RCA 20 Mfd. Condenser**

250 Volts D.C.  
**75c**  
Cat. No. C-2



WESTINGHOUSE Same as above.

**75c**

Cat. No. C-2

RCA 20 mfd.

**RCA Buffer Condensers**



.002—.002 mfd.

For replacement in all Raytheon Type "B" Eliminators and for sundry purposes. Rated at 600 volts D.C.

60c per doz.

**8c each**

Cat. No. H-56

**Acme Parvolt Condensers**



By-Pass



Filter

brought to binding posts on top of the case.

Long life. Liberal voltage rating. Uniform quality. Rugged construction. The By-Pass Condensers are eased and the Filter Condensers have leads

Cat. No.	By-Pass		
	Cap. Mfd.	Voltage	
1805	.1	200	\$ .51
1806	.25	200	.54
1807	.5	200	.57
1808	1.0	200	.66
1809	2.0	200	1.02
1810	4.0	200	1.68
<b>Filter</b>			
1811	1.0	200	\$ .99
1812	2.0	200	1.14
1813	4.0	200	1.38
1814	.5	400	1.08
1815	1.0	400	1.17
1816	2.0	400	1.47
1817	4.0	400	2.04
1818	1.0	600	1.35
1819	2.0	600	1.74
1820	4.0	600	3.06
1821	1.0	1000	1.74
1822	2.0	1000	2.85
1823	4.0	1000	5.28

**Acme Parvolt Filter Condenser**



2 Mfd. at 400 Volts

This excellently built Acme Parvolt Condenser is conservatively rated at 400 D.C. Working Voltage and is rated at 2 mfd. It's uses are varied. Cat. No. C-21

**50c**

**General Electric Filter Condenser**

Replacement for Victor RE-45—RE-75  
3 Mfd. at 600 Volts D.C.

This G.E. Filter Condenser is tested from 3 to 5 times its rated value. Encased in a sturdy metal container with 8" flexible insulated wire leads. Equipped with handy mounting brackets. Victor No. D. L. 2961390.

**49c**

Cat. No. C-20



Size: 5 x 2 3/4 x 1 1/2"

**Freed-Eismann N. R. 80 Condenser Blocks**



No. 24, 41  
10.1 mfd.

**\$1.50**

Cat. No. 3308

No. 24, 39  
9.6 mfd.

**95c**

Cat. No. 3309

**Dubilier High Voltage Filter Condensers**



Latest Types in Containers

These Dubilier Filter Condensers are tested from 3 to 5 times their rated value, thus assuring a sturdy, scientifically designed product, far excelling the average Filter Condensers now being used.

Rated D.C. Working Voltage 200

Capacity: 1 mfd.	Cat. No. 3724	\$ .44 each
Capacity: 2 mfd.	Cat. No. 3725	.65 "
Capacity: 4 mfd.	Cat. No. 3726	.94 "

Rated D.C. Working Voltage 400

Capacity: 1 mfd.	Cat. No. 3727	\$ .59 each
Capacity: 2 mfd.	Cat. No. 3728	.93 "
Capacity: 4 mfd.	Cat. No. 3729	1.41 "
Capacity: 6 mfd.	Cat. No. 3730	1.94 "

Rated D.C. Working Voltage 600

Capacity: 1 mfd.	Cat. No. 3731	\$ .79 each
Capacity: 2 mfd.	Cat. No. 3732	1.18 "
Capacity: 4 mfd.	Cat. No. 3733	2.06 "
Capacity: 6 mfd.	Cat. No. 3734	2.94 "

Rated D.C. Working Voltage 800

Capacity: 1 mfd.	Cat. No. 3735	\$ .91 each
Capacity: 2 mfd.	Cat. No. 3736	1.56 "
Capacity: 4 mfd.	Cat. No. 3737	2.47 "
Capacity: 6 mfd.	Cat. No. 3738	3.67 "

Rated D.C. Working Voltage 1000

Capacity: 1 mfd.	Cat. No. 3721	\$1.29 each
Capacity: 2 mfd.	Cat. No. 3722	2.26 "
Capacity: 4 mfd.	Cat. No. 3723	4.06 "

**Flechthelm High Voltage Condensers**



These Condensers are non inductively wound and, by means of special process, are oil impregnated. Flash break down over 3000 volts D.C. capacity within 5% of rating. Small physical size. Very low power factor. Over 1000 megohms per microfarad.

**FLECHTHELM SUPERIOR CONDENSERS**

Type HSM, 1000 Volts D.C., 660 Rectified A.C.

HSM	Cat. No. 2469	.05 Mfd.	\$ .79
USM 10	Cat. No. 2470	.1	.82
HSM 25	Cat. No. 2471	.25	.85
HSM 50	Cat. No. 2472	.5	.89
HSM 100	Cat. No. 2473	1.0	.95
HSM 200	Cat. No. 2474	2.0	1.65
HSM 400	Cat. No. 2475	4.0	3.25

**Faradon or Polymer**

**5 Mfd. High Voltage Filter Condenser Blocks**



This Condenser Block is ideal for use in "B" Eliminators. Power Amplifiers and experimental work.

Replacement Condenser Block for Stewart-Warner Receivers.

4 mfd. D.C. working voltage, 400 V.  
1 mfd. D.C. working voltage, 600 V.

**40c**

Cat. No. C-67



# SURE SERVICE ORDER BLANK

## M & H SPORTING GOODS CO.

**Our Camera Department is Equipped to Supply the Professional and Amateur Photographer**

**512 MARKET STREET, PHILADELPHIA**

Gentlemen:

Date.....

Enclosed find \$..... for which ship the following merchandise via way checked below.

SHIP TO .....

ADDRESS .....

NOTE—Any excessive amount sent us for postage is immediately refunded.

EXPRESS

PARCEL POST

FREIGHT

Quantity	Cat. No. or Size	Cat. Page No.	DESCRIPTION OF ITEMS	PRICE

*Radio Supplies for Amateurs, Broadcasting Stations, Schools, Laboratories and Service Men*

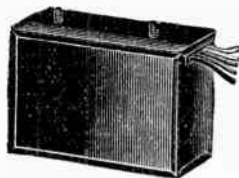
**DON'T FORGET YOUR SIGNATURE**

Signed.....

Call Letters.....

**C. O. D. SHIPMENTS**—If this is your first C. O. D. order, it is necessary to mail a 20% deposit remittance of good faith (as guarantee of payment of transportation charges). No C. O. D. Shipments Are Made for Less Than \$2.00 Worth of Merchandise. C. O. D. Fees Are Paid by the Purchaser.





**B-2003, B-2113**

# Brown & Caine High Voltage Condenser Blocks

These filter blocks have been made for use in SPARTON RECEIVERS but may be used as replacements in almost any other receivers. They are excellent for building up high voltage power packs due to their high voltage rating of 800 and 1000 D.C. Working Volts.

Cat. No.	Sparton Rep. No.	DESCRIPTION	D. C. Voltage	List	
C-53	B-1181	For AC-5: for 25 and 60 Cycle. Total 10 mfd., tapped at 2, 2, 2 and 4 mfd.....	800	\$12.00	\$2.75
C-50	B-1870	For 69, 79, 79A, 89: 60 Cycle. Total 6 mfd., tapped at 1, 1, 1, 1, and 2 mfd.....	800	15.00	2.75
C-51	B-2073	Same as above but for 25 Cycle use.....	800	17.50	3.75
C-64	B-2113	For 89A: 60 Cycle. Total 8 mfd., tapped at 1, 1, 2, 2 and 2 mfd.....	1000	25.00	2.95
C-49	B-2158	Same as above but for 25 Cycle use.....	1000	25.00	3.50
C-75	B-2003	For 99 Ensemble, 109: 60 Cycle. Total 9 mfd., tapped at 1, 1, 1, 1 and 5 mfd.....	800	25.00	2.50
C-48	B-2114	Same as above but for 25 Cycle use.....	800	30.00	3.50
C-47	B-2203	For 930: 60 Cycle. Total 6 mfd., tapped at 1, 1, 1, 1 and 2 mfd.....	800	15.00	2.50
C-46	B-2227	Same as above but for 25 Cycle use.....	800	15.00	3.00

In addition to being used in Sparton Receivers, these parts may also be used in Kellogg, McMillan, Mohawk, Day-Fan, Marti Sets, Clearstone, Bell, Walbert, Wurlitzer, Pathe, Shamrock, Bush & Lane, Minerva, Crusader, Liberty, Metro, Suprvox and Case. All of these parts can be used in building up A. C. receivers, converting battery sets, making public address equipment, etc. They are ideal for low-power transmitting purposes.

## AEROVOX

or

## Dubilier

### 7 Mfd. High Voltage Filter Condenser Block

Capacity	Rated D. C. W'k'g Voltage
2. mfd. ....	1000 V
1. " .....	800
1. " .....	800
3. " .....	400

Finest non-inductive High Voltage Filter Block. Made to be used with UX-250 power tubes, but can be used safely in filter circuits of eliminators or high power amplifiers in any combination of capacities desired.

The insulation resistance of these Condenser Blocks is in excess of R.M.A. and N.E.M.A. standard requirements.

Replacement Condenser for Splugdorf Receivers, Model 250.

**\$1.50**

Cat. No. C-35



Size: 6x5x3 1/4"  
Wgt.: 5 1/2 lbs.

## Dubilier High Voltage Filter Condenser Block

TOTAL CAPACITY: 11 1/4 MFD.



Type PL-455  
Weight: 6 1/2 lbs.  
List: \$20.00

Capacity	Rated D. C. Working V.
3 mfd. ....	1000 V.
4 " .....	600 "
4 " .....	160 "
.5 " .....	160 "
.25 " .....	160 "

This large heavy duty 11 1/4 Mfd. Filter Condenser Block is one of the highest grade of condenser blocks made and can be used safely in filter circuits, amplifiers and many other places.

Replacement Condenser Block No. 2316 for Kolster 6-H receiver and K-5 dynamic speaker, also Columbia receiver No. 500 and 901 amplifiers.

**\$1.95**

Cat. No. C-37

## Dubilier 10 1/4 Mfd. Filter Condenser Block



Type PL-1145  
Size: 10 x 5 x 3"  
Weight: 7 lbs.  
List: \$14.50

An excellent filter condenser block for use in all high voltage filter circuits.

Capacity	Rated D. C. Voltage
2 mfd. ....	800 V
1 " .....	800
3 " .....	600
3 " .....	400
1 " .....	200
1/4 " .....	400

**\$1.30**

Cat. No. C-16

Genuine replacement Block PL-1145 for Zenith Receivers, Models ZE-11, 12, 14 and 18.

## Peerless (Sprague) Filter Condenser Block



Used in Peerless Courier Sets  
Total capacity: 7 mfd., 5 1/2" high, 2 3/4" wide, and 2 1/4" deep. Color code: Red—2 mfd., 600 v.; Blue—1 mfd., 400 v.; White—Common for Red and Blue; Green—1 mfd., 300 v.; Brown—1 mfd., 300 v.; Yellow—1/2 mfd., 200 v.; Orange—1/2 mfd., 200 v.; Black—Common.

**95c**

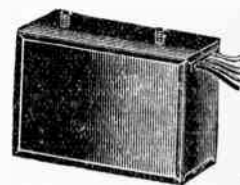
Cat. No. C-22

## Brown & Caine High Voltage Filter Condenser Block

Total 8 Mfd.  
1000 Volts D. C.

This genuine Brown & Caine High Voltage Filter Condenser is conservatively rated at 1000 D. C. Working Voltage. It is tapped at 1, 1, 2, 2 and 2 mfd. with the case as the common negative.

This condenser is excellent for use in high powered amplifiers, public address equipment and for amateur transmitters due to its sturdy construction and high voltage rating.



List: \$25.00

For replacement in Sparton 89A Receivers. Replacement No. B-2113.

**\$2.95**

Cat. No. C-64

Same condenser as above but for 25 Cycle use. Rep. No. 2158.

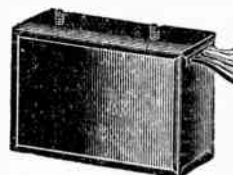
**\$3.50**

Cat. No. C-49

## Brown & Caine High Voltage Filter Condenser Block

Total 9 mfd.  
800 Volts D. C.

This genuine Brown & Caine High Voltage Filter Condenser is conservatively rated at 800 D. C. Working Voltage. It is tapped at 1, 1, 1, 1 and 5 mfd. with the case as the common negative.



List: \$25.00

This condenser is excellent for use in high powered amplifiers, public address equipment and for amateur transmitters due to its sturdy construction and high voltage rating.

For replacement in Sparton 99 Ensemble, 109 Receivers. Replacement No. B-2003.

**\$2.50**

Cat. No. C-75

Same Condenser as above but for 25 Cycle use.

**\$3.50**

Rep. No. B-2114.

Cat. No. C-48

**We Do Not Sacrifice Quality for Price**

### Potter High Voltage Filter Condenser Block



Type 1608A  
Size:  
6 1/2 x 4 1/2 x 4"  
List: \$20.00

### 13 MFD. RATED D.C. WORKING VOLTAGE 800 V.

TAPPED AT 4.—4.—4.—1. MFD.

An excellent Filter Condenser for use in Receivers, Power Amplifiers, etc.

**\$1.95**

Cat. No. C-32

Replacement Condenser for Howard Receivers

### Thomas Filter Condenser Blocks

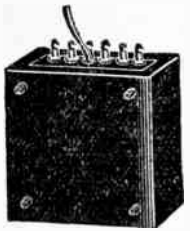
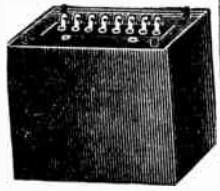
13 MFD.

Contains 2 mfd. at 600 volts; 2 and 2 at 500; 4, 1, 1 and 1 at 200 volts.

Used in Metrodyne Receivers

**\$1.25**

Cat. No. C-17



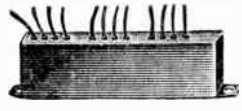
Nine—1/10 MFD. BLOCKS

Contains nine 1/10 mfd. sections at 300 volts with three common leads. Electrostatic shielding. Excellent for By-Pass work.

Used in Sentinel Receivers

Dozen \$3.50 **39c** each

Cat. No. C-18



### Earl and Freed Condenser Blocks

For 21-22 Earl and 55-56 Freed 60 cycle

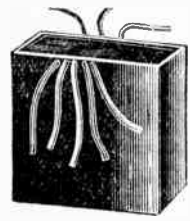
**\$2.75**

Cat. No. 3314

25 cycle

**\$3.15**

Cat. No. 3315



For 78, 78S, 79, 79S, 90, 95, 65 Freed and 31, 31S, 32, 32S, 33, 33S, 24, 41 Earl

Cat. No. 3316—60 cycle ..... **\$2.75**

Cat. No. 3317—25 cycle ..... **3.15**

For 41 and 95 Earl and Freed

Cat. No. 3318—60 cycle ..... **\$2.75**

Cat. No. 3319—25 cycle ..... **3.15**

For Freshman G-60S

Cat. No. 3320—60 cycle ..... **\$2.40**

Cat. No. 3310—Fresman "Q," 60 cycle..... **1.50**

### Genuine Victor Replacement Condenser Block



### Genuine (Gen. Elec.) Filter Condensers



### For Radiola 17—50

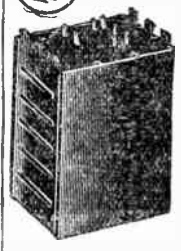
Victor 7-25, Brunswick PR17-8

Replacement Part No. 8289

This is a 15 Mfd. Condenser, D. C. Working Voltage 400. Can be used with any set.

**\$2.25**

Cat. No. C-44



List: \$19.20

For Radiolas 44, 46, and 47

Replacement Part No. 8476

Condenser and choke assembly, comprising filter condensers, by-pass condensers, output coupling condenser and choke. In metal container.

**\$2.95**

Cat. No. C-19

For Radiola 60 or 62

Replacement Part No. 8346-60  
Replacement Part No. 8382-62

**\$2.95**

Cat. No. 2919

These two parts are not genuine but made to exact specifications.

### Genuine (Gen. Elec.) Condenser Block and Output Choke



RCA Replacement Part No. 8833 for Radiolas 33, 18 and 51 Victor 7-11, 7-26

Contains two 1 Mfd. filter condensers and one 1/2 Mfd. Output condenser and choke coil. Tested at 450 volts.

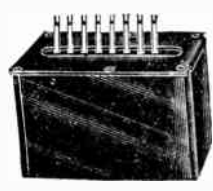
**49c**

Cat. No. B-29



Size: 3 3/4 x 2 7/8 x 3 1/4"  
List: \$7.40

### Replacement Condenser Blocks for Radiola 64-67



For Radiola 64

**\$14.50**

Replacement No. 8368  
Cat. No. 2793

For Radiola 67  
Replacement No. 8504

**\$16.50**

Cat. No. 2794

These condensers are not genuine, but are made exactly to original specification. You may be assured of utmost satisfaction.

### Brunswick and Bremer-Tully Condenser Blocks



Replacement for Models S-81, S-82, 14, 31 and 32

Red-Spot  
Yellow Spot

Capacity 5 3/4 Mfd.

Compact, size 4 x 5 1/2 x 1 5/8".  
D. C. working voltage 400.

Specify color spot desired

**\$1.00** ea. any type

Cat. No. 3860



### Genuine (Gen. Elec.) Filter Condenser and Choke



List: \$14.25

### FOR RADIOLA 66

R.C.A. Replacement Part No. 8487 for Radiola 66 receivers. Contains blocks of 2, 2, 1 and .5 mfd. and a choke coil that is rated at 5.5 ohms, 400 volts D.C. working voltage.

**\$1.65**

Cat. No. C-55



Polymet paper condensers are all built to a single standard of the highest quality. Only the finest paper and foil is used. They are fabricated according to the latest technique which includes vacuum drying, vacuum impregnation and other processes. Each section is tested for insulation, resistance, breakdown and

electrical losses. The working voltage ratings listed below, are in strict accordance with the standards of the Radio Manufacturers Association and the National Electrical Manufacturers Association.

*Polymet paper condensers are all non-inductively wound.*

### Waxtite Pigtail Condensers

These condensers find universal application for by-passing both radio and audio frequency circuits. The sealing wax used has a high melting point so that the heat of soldering does not cause it to run. In the smaller sizes they are of the so-called cartridge type, although in the larger values such as the .5 and 1 mfd. they are oval in cross section. The leads are firmly soldered directly to the condenser's foil and will not pull out.



200 V. D. C. WORKING		Lots of 12
Cat. No.	Capacity	
1429	.05	\$1.08
1430	.1	1.08
1431	.25	1.32
1432	.5	1.80
1433	1.	2.15

400 V. D. C. WORKING		Lots of 12
Cat. No.	Capacity	
1434	.002	\$1.08
1435	.005	1.08
1436	.01	1.20
1437	.025	1.20
1438	.05	1.20
1439	.1	1.32
1440	.25	1.95

600 V. D. C. WORKING		Lots of 12
Cat. No.	Capacity	
1441	.01	\$1.44
1442	.05	1.44
1443	.1	1.65
1444	.25	2.65

### Uncased Condenser Kit

Most of the Uncased Condenser sections offered to servicemen are salvaged from defective condenser banks. Polymet offers a kit of high quality condensers that the reputable serviceman can depend upon for long life. You will notice that the sections are offered in various standard shapes to facilitate the repair of defective condenser blocks. This kit offers, not only a great convenience, but a substantial saving underbuying the sections separately. For sizes refer to Uncased Condensers listed on this page.



Qty.	Cap.	W. Voltage	Qty.	Cap.	D. C. W. Voltage
2	.5	200	1	.5	400
2	1	200	1	1	400
2	1	200	2	1	400
2	1	200	1	2	400
1	2	200	1	.5	600
1	2	200	2	1	600
1	5	300	2	1	600
1	1	300	1	2	600
1	1	300	1	2	600

Cat. No. 1460.....For 25 sections..... **\$9.85**

### By-Passes in Drawn Cans

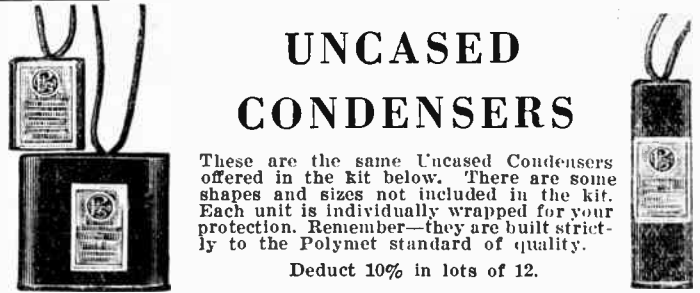
The Condensers listed are in the standard sizes of drawn shell cans used by the leading set manufacturers. The Condensers are very carefully protected from the cans to prevent electrical leakage and breakdown from local heat. In the combinations a common lug terminal to all sections is provided.



Cat. No.	Capacity	D. C. W. Voltage	Dozen Lots
1445	.1	200 V.	\$ .20 \$2.10
1446	.25	200 V.	.22 2.30
1447	.5	200 V.	.27 2.85
1448	1.	200 V.	.33 3.45
1449	.1	400 V.	.22 2.30
1450	.25	400 V.	.26 2.80
1451	.5	400 V.	.35 3.65
1452	.1	600 V.	.25 2.70
1453	.25	600 V.	.37 3.90
1454	.1-1	200 V.	.28 2.85
1455	.1-1	200 V.	.39 3.95
1456	.25-25	200 V.	.37 3.15
1457	.25-25	200 V.	.47 4.75
1458	.5-5	200 V.	.42 4.25
1459	.1-1	600 V.	.39 3.95

## UNCASED CONDENSERS

These are the same Uncased Condensers offered in the kit below. There are some shapes and sizes not included in the kit. Each unit is individually wrapped for your protection. Remember—they are built strictly to the Polymet standard of quality.



Deduct 10% in lots of 12.

Cat. No.	Capacity	Size	D. C. Voltage	Price
1468	.25	1 3/8" x 7/8" x 1/2"	200 V.	\$.15
1469	.5	1 1/2" x 7/8" x 1/2"	200 V.	.18
1470	1.0	1 7/8" x 1 3/8" x 1/2"	200 V.	.25
1471	1.0	2 1/2" x 1 1/2" x 1/2"	200 V.	.25
1472	1.0	1 1/2" x 1 3/8" x 1/2"	200 V.	.25
1473	2.0	4" x 1 7/8" x 1/2"	200 V.	.44
1474	2.0	2 5/8" x 2" x 5/8"	200 V.	.44
1475	.25	1 3/4" x 1 1/2" x 3/4"	300 V.	.18
1476	.5	1 5/8" x 1 3/8" x 3/4"	300 V.	.23
1477	1.0	4" x 1 5/8" x 3/4"	300 V.	.35
1478	1.0	2 5/8" x 2 1/4" x 5/8"	300 V.	.35
1479	2.0	4" x 1 7/8" x 1 1/8"	300 V.	.63
1480	2.0	2 5/8" x 2" x 1 1/4"	300 V.	.63
1481	.25	1 3/8" x 1 1/8" x 7/8"	400 V.	.20
1482	.5	1 5/8" x 1 3/8" x 5/8"	400 V.	.27
1483	1.0	4" x 2" x 1 1/2"	400 V.	.42
1484	1.0	2 5/8" x 2 1/4" x 5/8"	400 V.	.42
1485	2.0	4" x 1 1/8" x 7/8"	400 V.	.83
1486	2.0	2 5/8" x 2" x 1 1/4"	400 V.	.83
1487	.5	2 5/8" x 1 1/8" x 3/4"	600 V.	.37
1488	1.0	4" x 2" x 7/8"	600 V.	.63
1489	1.0	2 5/8" x 3" x 5/8"	600 V.	.63
1490	2.0	4" x 2 3/4" x 1 1/4"	600 V.	1.15
1491	2.0	2 5/8" x 3 3/8" x 1 1/4"	600 V.	1.15
1492	1.0	4" x 2 1/4" x 1 3/8"	800 V.	.90
1493	1.0	2 5/8" x 2 3/4" x 1"	800 V.	.90
1494	1.0	4" x 3 3/8" x 7/8"	1000 V.	1.15

### Tubular Condensers

These Condensers have long been popular with manufacturers and servicemen. The mounting lugs are riveted to the fibre tube so that they are a positive method of mounting. The working voltage is 200 volts. As with all Polymet condensers, this is according to the standards of the Radio Manufacturers Association.



Cat. No.	Capacity	D. C. Voltage	Price
1461	.02	200 V.	\$.20
1462	.05	200 V.	.20
1463	.1	200 V.	.24
1464	.2	200 V.	.28
1465	.25	200 V.	.29
1466	.5	200 V.	.33
1467	1.0	200 V.	.44

### Hi-Volt Condensers

The Hi-Volt Condensers are assembled in a form that has long been popular with manufacturers and experimenters. Cans Nos. 1, 2 and 3 and cans Nos. 5 and 6 vary only in thickness. The mounting hole arrangement is uniform in each group. The sections are adequately protected mechanically and electrically from the cans.



Deduct 10% in lots of 12.

Cans 1-2-3			Cans 5-6		
Cat. No.	Capacity	D. C. Voltage	Cat. No.	Capacity	D. C. Voltage
1495	.1	200 V.	1506	4.0	400 V.
1496	.25	200 V.	1507	1	600 V.
1497	.5	200 V.	1508	.25	600 V.
1498	1.0	200 V.	1509	.5	600 V.
1499	2.0	200 V.	1510	1.0	600 V.
1500	4.0	200 V.	1511	2.0	600 V.
1501	.1	400 V.	1512	.1	1000 V.
1502	.25	400 V.	1513	.25	1000 V.
1503	.5	400 V.	1514	.5	1000 V.
1504	1.0	400 V.	1515	1.0	1000 V.
1505	2.0	400 V.			

# AEROVOX

## Dry Electrolytic Condensers



These Aerovox Hi-Farad DRY Electrolytic Condensers are the latest development in the field. The dry characteristics of these units make it possible to mount them in any position, upright, inverted or horizontal without danger of spilling or leakage. For all practical purposes they can be handled and mounted in the same manner as paper condensers. The high voltage characteristics permit their use in most of the standard comparatively high voltage power supply units. Self heating and surge proof characteristics prevent damage to the condenser from high voltage surges and increase the life of the condenser indefinitely.

They are much more compact than wax paper condensers of equivalent capacity. Can be mounted in any position.

The single anode units can be supplied in either "insulated" or "grounded to chassis" types. Specify type desired. The multi anode units are supplied with mounting rings for inverting and can be grounded to chassis.

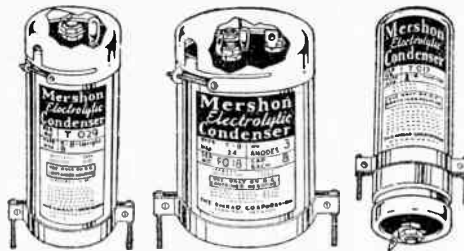
(500 Volts) Capacity Mfd.		
E-1	1	\$.60
E-2	2	.72
3903	2-2	1.44
3901	2-2-2	1.95
3905	2-2-2-2	2.79
E-4	4	.84
E-5	4-4	1.59
E-6	4-4-4	2.25
E-7	4-4-4-4	2.85
3906	5	.90
3907	5-5	1.65
3908	5-5-5	2.34
3909	5-5-5-5	3.15
E-7	6	.96
3910	6-6	1.80
3911	6-6-6	2.49
3912	6-6-6-6	3.30
E-8	8	1.02
E-11	8-8	1.95
E-12	8-8-8	2.70
E-13	8-8-8-8	3.60
E-14	2-4-8	2.40
3913	2-8-8	2.85
3914	2-8-16	3.00
3915	8-12	2.40
3916	8-8-16	3.60
3917	8-16	2.28
3963	12	1.35
3964	16	1.56
3965	20	2.10
3966	30	3.00

(100 Volts) Especially recommended for by-passing "C" bias for Pentode Tubes		
3931	5	.63
3932	10	.69
3933	15	.72
3934	25	.81
3935	50	1.11
3936	100	1.68

(25 Volts)		
E-15	10	.60
E-16	25	.63
E-17	50	.69
3918	100	.84

# Electrolytic MERSHON Condenser



## LOOK AT THESE PRICES! 450 D. C. Peak Voltage

Self-heating. Voltage surges have no effect on them. They add protection to the power pack by absorbing voltage surges. Mounting rings and covers furnished with each condenser (except inverted types which do not use covers).

INVERTED TYPES			
Type	Anodes	Capacity	Cat. No.
S-4.....	1	.4 mfd.	2870.. \$ .58
S-6.....	1	.6 " "	2871.. .63
S-8.....	1	.8 " "	2872.. .68
S-10.....	1	1.0 " "	2873.. .75
S-18.....	1	1.8 " "	2874.. .85

UPRIGHT TYPES			
S. S.	( 8 mfd.)	8 mfd.	
D-8 .....	1 (2-8-8)	16 "	2875 \$ .68
T-8 .....	3 (8-8-8)	24 "	2876 1.10
D-20* .....	2 (15-5)	20 "	2877 1.65
Q-32 .....	4 (8-8-8-8)	32 "	2881 2.95
T-36† .....	3 (9-9-18)	36 "	2878 3.50
Q-52‡ .....	4 (18-18-8-8)	52 "	2879 2.95
			2880 4.50

\* Used in Sparton sets.  
† Used with Zenith No. 52.  
‡ Used in Crosley sets.

# Tung-Sol Electrolytic Condenser

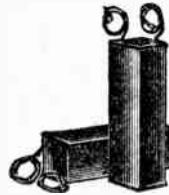


8 mfd.  
430 peak voltage and 410 working voltage. Puncture-proof, self-heating. Complete with spring type socket and connection shield cap.

**49c**  
Cat. No. E-19

# Elkon "A" Condensers

2000 Mfd.  
The Elkon filter condenser as listed here is the final word in condensers for use in "A" Eliminators and Dynamic Speakers. Contains enough in microfarads to smooth out any A. C. ripple. Type D, for: Elkon, Knapp, Fada, Webster and Sentinel "A" Eliminators, and for Peerless, Fada, Stevens and Sonora Dynamic Speakers.



Genuine  
**\$2.35**  
Cat. No. C-56

# Aerovox "A" Condensers

For use in "A" Eliminators and across field winding of Dynamic Speakers for filtering hum. Maximum of 12 volts D. C. must not be exceeded.



Cat. No.	Cap. Mfd.	
C-6 .....	1500	\$2.10
2024 .....	2000	2.40
2025 .....	4000	4.50

# AEROVOX

## Cardboard Box Type Dry Electrolytic Condensers



These Condensers stand a maximum D. C. peak voltage of 500. D. C. working voltage, 450.

They are ideally suited for service work in repairing broken down sections of condenser blocks used in radio receivers and power supply units. Quick replacements can easily be made without even removing the inoperative condenser from the set. All that is necessary is to clip the connections of the particular section which failed in operation and attach the leads to the terminal lugs of the new Hi-Farad condenser.

is necessary is to clip the connections of the particular section which failed in operation and attach the leads to the terminal lugs of the new Hi-Farad condenser.

Cat. No.	Type	Cap. Sections	Total Cap. Mfd.	Box Length	Width	Depth	
1699	P5-1	1	1	2 1/2"	1 1/4"	7/8"	\$ .48
1700	P5-2	2	2	2 3/4"	1 3/8"	1"	.57
1701	P5-4	4	4	4 1/8"	1 3/8"	7/8"	.66
1702	P5-5	5	5	4 1/8"	1 3/8"	1"	.72
1703	P5-6	6	6	4 1/8"	1 3/8"	1 1/8"	.78
1704	P5-8	8	8	4 1/8"	1 3/8"	1 1/4"	.87
1705	P5-22	2-2	4	2 1/2"	2 3/8"	1"	.90
1706	P5-24	2-4	6	4 1/8"	2 1/8"	7/8"	.99
1707	P5-26	2-6	8	4 1/8"	2 1/8"	1 1/8"	1.08
1708	P5-28	2-8	10	4 1/8"	2 1/8"	1 1/4"	1.17
1709	P5-44	4-4	8	4 1/8"	2 3/8"	7/8"	1.08
1710	P5-46	4-6	10	4 1/8"	2 3/8"	1 1/8"	1.17
1711	P5-48	4-8	12	4 1/8"	2 1/8"	1 5/8"	1.26
1712	P5-66	6-6	12	4 1/8"	2 3/8"	1 5/8"	1.26
1713	P5-68	6-8	14	4 1/8"	2 3/8"	1 5/8"	1.35
1714	P5-88	8-8	16	4 1/8"	3"	1 3/4"	1.47

# Sprague Electrolytic Condenser

8 mfd.  
430 peak voltage and 410 working voltage. Puncture proof—self-heating. Screw type socket.

**59c**  
Cat. No. E-18



# Majestic 6000 Mfd. "A" Replacement-Condenser



For replacement in Majestic "A" and other "A" Eliminators  
Made to original specifications  
Tapped at 4000 and 2000 mfd.

**\$2.15**  
Cat. No. S-1955

## 2000 mfd. "A" Condenser

For use with dynamic speaker and "A" eliminator for hum elimination.

**\$1.95**  
Cat. No. S-1125



# Polymet Electrolytic Condensers

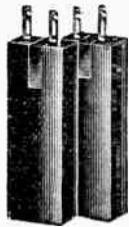
The name of "POLYMET" is synonymous for quality. Polymet products have been tried and tested by the majority of radio engineers throughout the world. If these products can successfully pass such rigorous tests, they should be ideal for your use. Satisfy your customers with certified Polymet products. A peak voltage rating of 435 volts for liquid electrolytics should

not be operated over 340 volts A. C. from each half of power transformer. For the 500 volt Dry Electrolytic Type, the power transformer voltage should not exceed 385 volts A. C. each half. The electrolytic condenser has a polarity and must be connected accordingly.

## New Dry Electrolytics

### SINGLES IN BOARD CONTAINERS

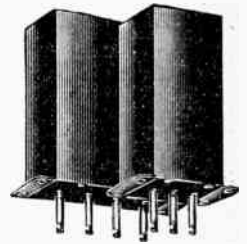
These Condensers are in a treated cardboard container. The section is protected electrically against any leakage to a metal chassis. The units may be strapped and will operate in any position. In many instances these condensers will be more desirable for repair work than uncaseed paper condensers. The fact that a high capacity can be had in a very small container makes them ideal for curing the hum in receivers having insufficient filter. They may be employed in high voltage circuits by using two or more sections in series. In series, approximately 350 volts should be allowed across each section. The peak voltage rating is 500 volts, and must not be exceeded.



Cat. No.	Capacity	Size	
1415.....	4 mfd.	1 1/8 x 3 1/2 x 4 7/8"	\$.64
1416.....	6 "	1 1/8 x 3/4 x 4 7/8"	.70
1417.....	8 "	1 1/8 x 7/8 x 4 7/8"	.76

### COMBINATIONS IN ALUMINUM FINISHED METAL CONTAINERS

These combinations of Dry Electrolytics are made in attractively finished metal cans and are primarily intended for above-the-deck mounting; however, they may be operated in any position. The individual condensers are highly insulated from each other and from the can to prevent electrical leakage. A common terminal is provided so that they may be used on metal chassis where the negative of the filter is not at ground potential. These combination units are proving very popular for the replacement of defective paper condensers where their high capacity and small size makes them almost universally applicable.



Cat. No.	Capacity	Size	
1418.....	4-4 mfd.	1 7/8 x 1 3/4 x 4 1/2"	\$1.48
1419.....	6-6 "	1 7/8 x 1 3/4 x 4 1/2"	1.60
1420.....	8-8 "	1 7/8 x 1 3/4 x 4 1/2"	1.80
1421.....	4-4 mfd.	2 1/8 x 1 3/4 x 4 1/2"	2.20
1422.....	6-6 "	3 3/8 x 1 3/4 x 4 1/2"	2.40
1423.....	8-8 "	3 3/8 x 1 3/4 x 4 1/2"	2.60



## Liquid Electrolytics

### INVERTED 8 MFD.



The 8 mfd. Inverted Electrolytic Condenser of the liquid type is the unit so widely used by the manufacturers of midget sets. Polymet has sold over two million of these units to radio manufacturers. Fibre washers and lug are provided so that the unit may be used insulated from a metal chassis. The peak voltage rating is 435 volts.

Lots of 12: \$9.00

**90c**

Cat. No. 1424

### UPRIGHT 8 MFD.



The upright type of Electrolytic Condenser (liquid type) is used mainly by amateurs and experimenters in the so-called breadboard layouts. A bayonet receptacle is provided in which the condenser is mounted. The positive terminal is located on top. The peak voltage rating is 435 volts.

Lots of 12: \$9.00

**90c**

Cat. No. 1425

### COMBINATIONS



The Polymet Multiple Anode liquid electrolytics are in the standard 3 in. diameter copper cans. They are just as effective in filters as the use of several separate 8 mfd. units. Each condenser is provided with a ring bracket for mounting. The peak voltage rating is 435 volts.

Cat. No.	Combination	
1426..	8-8 mfd.	\$1.65
1427..	8-8-8 "	2.35
1428..	8-8-8-8 "	2.65



## R. C. A. Uncased Condensers

1000 D. C. Working Voltage



Compact and moisture proof. Impregnated in a special heat resistance compound.

Mfd.	Cat. No.	
One half.....	C-40	\$.25
One.....	C-41	.35
Two.....	C-42	.50
Four.....	C-43	.85



## Tubular Grid and Plate Condensers

Model UC-567-580

A compact tubular condenser used in circuits where small capacities are required for By-pass work. Not affected by moisture.

Cat. No.	Capacity
E-55.....	.00025
E-56.....	.0025
E-57.....	.0005
E-58.....	.001

ANY SIZE \$1 PER DOZEN



## Uncased Condensers

Dipped in Pitch, Wrapped in Cellophane, High Melting Point  
Excellent for General Replacements

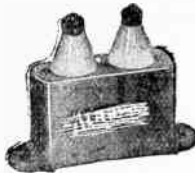


Cat. No.	Type	Capacity	Wkg. volt.	Size	
3001.....	short	.1 mfd.	200.	1 1/8 x 5/8 x 1 1/2"	\$.15
3002.....	"	.25 "	200.	1 1/8 x 5/8 x 3/4"	.21
3003.....	"	.5 "	200.	1 1/8 x 1 1/2 x 3/8"	.24
3004.....	"	1. "	200.	1 1/8 x 1 1/2 x 5/8"	.36
3005.....	"	2. "	200.	1 1/8 x 1 1/2 x 1 1/8"	.60
3006.....	long	1. "	200.	4 1/2 x 1 1/4 x 3/8"	.36
3007.....	"	2. "	200.	4 1/2 x 1 1/4 x 1/2"	.60
3008.....	short	.1 "	400.	1 1/8 x 5/8 x 3/8"	.18
3009.....	"	.25 "	400.	1 1/8 x 5/8 x 1/2"	.24
3010.....	"	.5 "	400.	1 1/8 x 1 1/2 x 5/8"	.36
3011.....	short	1. mfd.	400.	1 1/8 x 2 1/8 x 5/8"	.57
3012.....	long	1. "	400.	4 1/2 x 1 1/4 x 3/8"	.57
3013.....	short	.1 "	600.	1 1/8 x 5/8 x 1 1/8"	.21
3929.....	long	2. "	400.	4 1/2 x 1 1/4 x 1 1/8"	.99
3929.....	short	2. "	400.	1 1/8 x 2 1/8 x 1 1/8"	.99
3014.....	"	.25 "	600.	1 1/8 x 1 1/2 x 5/8"	.39
3015.....	long	.5 "	600.	4 1/2 x 1 1/4 x 3/8"	.51
3016.....	"	1. "	600.	4 1/2 x 1 1/4 x 1/2"	.78
3017.....	short	.1 "	1000.	1 1/8 x 1 1/2 x 1 1/8"	.33
3018.....	long	.5 "	1000.	4 1/2 x 3 3/8 x 1 1/8"	.90
3019.....	"	1. "	1000.	4 1/2 x 3 3/8 x 5/8"	1.59

We Do Not Sacrifice Quality for Price



# Dubilier Laboratory Type Mica Transmitting Condensers



These Condensers are supplied in a high quality molded case and are equipped with Petticoat Insulators. The maximum current rating at 100 k. e. is 5 amperes.

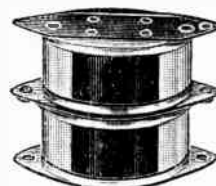
Cat. No.	Capacity	D. C. Test	A. C. Test
2939	.00005	8000	5000 V.
2940	.0001	8000	5000 V.
2941	.0002	8000	5000 V.
2942	.00025	8000	5000 V.
2943	.0005	8000	5000 V.
2944	.001	8000	5000 V.
2945	.0015	8000	5000 V.
2946	.002	8000	5000 V.
2947	.0025	8000	5000 V.
2948	.003	5000	3000 V.
2949	.004	5000	3000 V.
2950	.005	5000	3000 V.
2951	.006	5000	3000 V.
2952	.007	3500	2000 V.
2953	.008	3500	2000 V.
2954	.009	3500	2000 V.
2955	.01	3500	2000 V.
2956	.02	3500	2000 V.
2957	.03	1500	1000 V.
2958	.04	1500	1000 V.
2959	.05	1500	1000 V.
2960	.06	1500	1000 V.
2961	.07	1500	1000 V.
2962	.08	1500	1000 V.
2963	.09	1500	1000 V.
2964	.1	1500	1000 V.

Any of the above sizes: **\$3.95**

All condensers accurate within 10% plus or minus.  
If 5% accuracy is desired, add 25c.  
If 1% accuracy is desired, add 50c.  
Operating voltage should not exceed 75% of test voltages.

# Dubilier Condensers for Ultra Short Wave Transmitters

Short wave problems have led to the development of a unit type capacitor which is small, extremely low in losses and has the advantage of stacking, i. e., bolting together in series parallel combinations to obtain various multiples of capacity, voltage and current requirements.



This capacitor is approximately 2 1/2" in diameter, 1" high with mounting holes 3/8" on center lines. It is built with ratings as shown in the following table.

Capacitor units of this type are successfully employed for grid or plate blocking use. Also for the tank circuit or as a booster in parallel with the variable air capacitor in the tank circuit, especially where several frequency bands are to be covered.

Type	Peak Capacity Mmf.	Peak Volts	60 MC	20 MC	Cat No.	Price
PL 370-54	20 Mmf.	3000	10 Amps.	6 Amps.	1588	Any
PL 388-54	15 Mmf.	4000	9 Amps.	5 Amps.	1587	Type
PL 388-54	10 Mmf.	5000	7 Amps.	3.5 Amps.	1586	Type

# Dubilier Buffer Condenser



.1-.1 mfd.  
Rated at 600 volts, this condenser contains two .1 sections. Excellent for by-pass work.  
**\$3.60 doz.**  
Cat. No. 2026

# Sangamo Mica Condensers



These fixed condensers are considered to be the finest for all-around work. They are guaranteed to be within 10% of rated capacity.

### 1000 Volt Test

Capacity	Price	Capacity	Price
.00004	.00012	.00034	
.00005	.00015	.0004	
.00006	.000175	.0005	
.00007	.0002	.0006	
.00008	.00025	.0007	
.0001	.0003	.0008	

### Any Above Size 24c each

Capacity	Price	Any Size	Price
.001	.00175	Any Size	30c Each
.0012	.002		
.0015	.0025		

.003	.0035	.004	\$ .36 each
.005			.42 "
.006			.51 "
.007			.54 "
.0075			.57 "
.008			.60 "
.01			.69 "
.012			.72 "

### 2500 Volt Test

.004	.008	.006	.005	.01	.003	\$1.05 ea.
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### 5000 Volt Test

.00005	.0001	.00025			\$1.20 ea.
.00015	.0005	.002	.001		

### Resistor Clips 10c extra

# Aerovox Mica Transmitting Condensers

These Mica transmitting condensers are available in a wide variety of capacities to suit all requirements of the average low and high power amateur transmitter. Also valuable in high power amplifier work.



They are moulded in bakelite, which seals and protects them against extreme temperature, moisture or chemical action. These transmitting condensers are designed for use in circuits employing 210, 203-A, 852 and transmitting tubes of similar wattage ratings.

Cat. No.	Cap. Mfd.	2500 D. C. Test Voltage	Price
3877	.00005		\$ .30
3878	.0001		.30
3879	.00015		.30
3880	.0002		.30
3881	.00025		.30
3882	.0005		.30
3883	.001		.39
3884	.0015		.48
3885	.002		.57
3886	.003		.66
3887	.004		.71
3888	.005		.75
3889	.006		.82
3890	.01		.96

### 5000 D. C. Test Voltage

3821	.00005	\$ .39
3892	.0001	.39
3893	.00015	.39
3894	.0002	.45
3895	.00025	.45
3896	.0005	.54
3897	.001	.62
3898	.0015	.64
3899	.002	.66



# MICA CONDENSERS

These Mica Condensers are moulded in genuine bakelite which protects the condenser against extreme temperature, moisture or chemical action. Compact in size with special lugs which allow for screw, eyelet or soldering assembly.



### 600 D. C. Working Voltage

Cat. No.	Cap. Mfd.	Cat. No.	Cap. Mfd.	Cat. No.	Cap. Mfd.
M-1	.00005	M-5	.0001	M-8	.00025
M-2	.00005	M-6	.00015	M-9	.00037
M-3	.00007	M-7	.0002	M-10	.0005
M-4	.000075			M-11	.001

**12c each**

**\$1.00 for 10 assorted**

Cat. No.	Cap. Mfd.	Price	Cat. No.	Cap. Mfd.	Price
M-12	.0015	\$ .14	M-125	.004	\$ .20
M-13	.002	.15	M-126	.005	.22
M-14	.0025	.18	M-16	.006	.24
M-15	.003	.18			



### 1000 D. C. Working Voltage

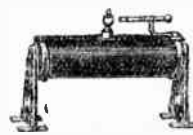
Cat. No.	Cap. Mfd.	Cat. No.	Cap. Mfd.	Cat. No.	Cap. Mfd.
M-17	.00004	M-21	.0001	M-25	.00037
M-18	.00005	M-22	.00015	M-26	.0005
M-19	.00007	M-23	.0002	M-27	.001
M-20	.000075	M-24	.00025	M-28	.0015

**20c each**

**\$1.80 for 10 assorted**

Cat. No.	Cap. Mfd.	Price	Cat. No.	Cap. Mfd.	Price
29	.002	\$ .22	35	.0075	\$ .42
20	.0025	.22	36	.01	.45
31	.003	.27	37	.015	.60
32	.004	.27	38	.02	.75
33	.005	.30	39	.03	1.20
34	.006	.30			

# Dubilier Mica Transmitting Condenser



.0006 mfd. 25000 volts D. C. working voltage. With Safety Gap.

**\$14.50**

Type C-1491

Cat. No. 1687

## Dubilier Mica Transmitting Condensers

.004 mfd. D. C. Working Voltage: 12500 v.



These Mica Condensers are excellent for use in a transmitter as a plate blocking, grid, by-pass, etc., condenser.

The cases are of heavy ribbed aluminum. By connecting two in series you get a rating of .002 mfd. at 25000 volts, D. C. working voltage. Will carry 12½ amperes.

**\$17.50**  
NEW  
Cat. No. 1692

Used, but guaranteed  
**\$15.00**  
Cat. No. 1693

Can also furnish these exact Mica Condensers manufactured by Wireless Specialty Co.

**\$15.00**  
NEW  
Cat. No. 1694

Used, but guaranteed.  
**\$12.50**  
Cat. No. 1695

## Dubilier MICA CONDENSERS

Same Type Can as Illustrated Above  
.0012—.001—.0008 or .003 mfd. capacity. All in one can.  
40,000 volts D. C. working voltage.

**\$35.00**  
NEW  
Cat. No. 1696

.004 mfd. 8500 volts D. C. working voltage. Two in series give you a rating of .002 mfd. at 17000 volts, D. C. working voltage.

**\$9.75**  
NEW  
Cat. No. 1697

.0004 mfd., 8500 volts. D. C. working voltage

**\$7.50**  
NEW  
Cat. No. 1698



## Dubilier High Voltage Condensers



For Transmitters and Power Amplifiers

These units are housed in attractive metal containers provided with "Petty Coat" high voltage insulators and heavy terminals.

D. C. Work.

Type	Cat. No.	Capacity	Voltage	
686A	2925	1 Mfd.	1000	\$2.74
686A	2926	2 "	1000	4.70
686A	2927	4 "	1000	8.23
689A	2928	1 "	1500	3.33
689A	2929	2 "	1500	6.27
689A	2930	4 "	1500	10.19
688A	2931	1 "	2000	5.83
688A	2932	2 "	2000	10.19
688A	2933	4 "	2000	17.61
690A	2934	1 "	3000	15.68
690A	2935	2 "	3000	25.48
690A	2936	4 "	3000	47.94
691A	2937	1 "	5000	23.52
691A	2938	2 "	5000	38.02

Upon request we can quote attractive prices on Dubilier "Oil Immersed" extremely High Voltage Condensers.



## POLYMET Oil Immersed Transmitting Condensers



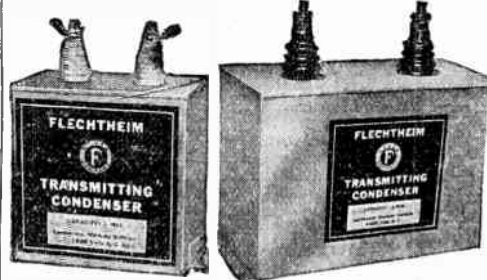
The Polymet high-voltage condensers of this series are a product distinctly superior to the ordinary wax-filled "transmitting" condensers on the market. The condensers are not only oil impregnated, but are also "oil-filled"; the sections are constantly immersed in a bath of the highest grade condenser oil—a form of construction generally used only for exceedingly high-priced power condensers. These oil condensers accordingly furnish a degree of reliability far beyond comparison with the usual "transmitting" types. The heavy metal cans are securely sealed at all points

and after assembly are given thorough tests which assure permanent leak-proof qualities. Heavy terminals are amply protected with stand-off insulators.

Cat. No.	Capacity	A. C. Wkg. Voltage	D. C. Wkg. Voltage	
1726	1	700	1000	\$2.70
1727	2	700	1000	4.85
1728	4	700	1000	8.50
1729	1	1000	1500	3.75
1730	2	1000	1500	6.45
1731	1	1400	2000	5.40
1732	1	2000	3000	7.95

## FLECHTHEIM SUPERIOR CONDENSERS

FOR TRANSMITTERS AND AMPLIFIERS



Type T200—2 mfd.		Type VM200—2 mfd.	
These units are housed in attractive metal containers, provided with "Petty Coat" High Voltage Insulators and Heavy Terminals.			
Type TC: 1000 Volts D. C., 750 Volts Rectified A. C.			
TC100	No. 1968	1 mfd.	\$2.14
TC200	No. 1966	2 mfd.	3.51
TC400	No. 1967	4 mfd.	6.27
Type T: 1500 Volts D. C., 1000 Volts Rectified A. C.			
T100	No. 1969	1 mfd.	\$2.56
T200	No. 1970	2 mfd.	4.32
T400	No. 1971	4 mfd.	7.98
Type TH: 2000 Volts D. C., 1600 Volts Rectified A. C.			
TH100	No. 1972	1 mfd.	\$3.88
TH200	No. 1973	2 mfd.	8.82
TH400	No. 1974	4 mfd.	14.70
Type HP: 3000 Volts D. C., 2200 Volts Rectified A. C.			
HP100	No. 1975	1 mfd.	\$11.76
HP200	No. 1976	2 mfd.	19.11
HP400	No. 1977	4 mfd.	35.28
Type VM: 5600 Volts D. C., 3300 Volts Rectified A. C.			
VM100	No. 1978	1 mfd.	\$17.64
VM200	No. 1979	2 mfd.	32.84
VM400	No. 1980	4 mfd.	58.80
Type ZX: 7060 Volts D. C., 5000 Volts Rectified A. C.			
ZX100	No. 1981	1 mfd.	\$50.00
ZX200	No. 1982	2 mfd.	95.00
ZX400	No. 1983	4 mfd.	175.00

## Dubilier High Voltage Condenser



4 MFDS.,  
1000 VOLTS  
D. C. Work. Voltage  
These Filter Condensers are designed for use in filter circuits in transmitters, and all high voltage socket power devices and power packs.  
**\$1.95**  
Cat. No. C-03



## Transmitting Filter Condensers

### PAPER AND ELECTROLYTIC TYPES

These Transmitting Condensers are non-inductive, and designed to fill the filter circuit requirements of heavy duty power supply units in transmitters and power amplifiers. They are ideal for use in all D. C. generator or rectified A. C. output circuits. They are conservatively rated to afford maximum safety under the no load and keying conditions met with in transmitting circuits. Both the Electrolytic and Paper types are provided with the best quality of porcelain insulators designed to eliminate leakage and breakdown. The Electrolytic Condensers are self-healing and can be mounted in any position.



### ELECTROLYTIC TYPES (Dry)

Cat. No.	Capacity	D. C. Peak Voltage	
3976	1 mfd.	1000	\$2.10
3977	2 "	1000	2.55
3978	4 "	1000	3.00
3979	1 "	1500	3.30
3980	2 "	1500	3.90
3981	4 "	1500	7.20
3982	1 "	2000	4.35
3983	2 "	2000	5.25
3984	4 "	2000	9.60
3985	1 "	2500	5.70
3986	2 "	2500	10.35
3987	4 "	2500	23.10
3988	1 "	3000	6.90
3989	2 "	3000	12.90
3990	4 "	3000	24.00
3991	1 "	3500	8.25
3992	2 "	3500	15.60
3993	4 "	3500	30.60

### PAPER TYPES

Cat. No.	Capacity	D. C. Wkg. Voltage	
3967	1 mfd.	1000	\$2.25
3968	2 "	1000	3.90
3969	1 "	1500	3.75
3970	2 "	1500	6.45
3971	1 "	2000	6.30
3972	2 "	2000	11.70
3973	1 "	2500	7.50
3974	1 "	3000	9.60
3975	1 "	3500	9.30





# Pig Tail Resistors R. M. A. Color-Coded

There is more to a resistor than color-coding and resistance measurements on a direct reading ohmmeter. To be noiseless and maintain voltages, resistances must have the proper heat coefficient. Control of this very important factor has been established in American pig tail resistors, which are manufactured by one of the largest resistor manufacturers in the country.

### RESISTORS AVAILABLE IN THE FOLLOWING VALUES

100	750	4,000	30,000	500,000
150	850	5,000	50,000	750,000
200	900	6,000	60,000	1 megohm
250	1,000	7,500	75,000	1½ megohms
350	1,500	8,000	100,000	2 megohms
450	2,000	10,000	150,000	3 megohms
500	2,500	15,000	200,000	
600	3,000	20,000	250,000	

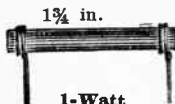


1/2-Watt—Available in any of the above values

**\$.12 ea.**

**\$1.36 per dozen**

1/2-Watt

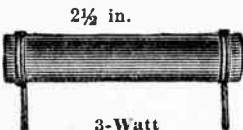


1-WATT—Available in any of the above values.

**\$.13 ea.**

**\$1.45 per dozen**

1-Watt

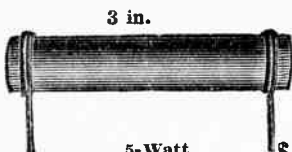


3-WATT—Available in any of the above values up to 100,000 ohms.

**\$.22 ea.**

**\$2.50 per dozen**

3-Watt



5-WATT—Available in any of the above values up to 100,000 ohms.

**\$.29 ea.**

**\$3.00 per dozen**

5-Watt

### 1-WATT PIG-TAIL RESISTORS NOT R. M. A. COLOR-CODED

Available in all above values

**Special \$ .50 per dozen**



## Grid Leaks and Resistors



Models U. P. 509-527

List: 75c each

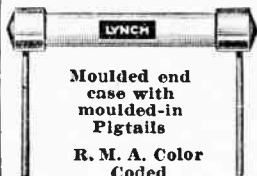
Specially impregnated, sealed air-tight. Impervious to weather conditions. Each size is guaranteed accurate and absolutely noiseless.

.05, .1, .15, .25, .6, .75, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 4 meg.

**\$1.00 dozen**

Cat. No. 8-2038

# LYNCH RESISTORS



Moulded end case with moulded-in Pigtaills  
R. M. A. Color Coded

## Lynch Metallized Resistors

are available in the following values:

Ohms.	Ohms.	Ohms.	Ohms.	Ohms.
500	8,000	60,000	500,000	5,000,000
750	9,000	75,000	750,000	6,000,000
1,000	10,000	90,000	1,000,000	7,000,000
2,000	12,000	100,000	1,500,000	8,000,000
3,000	15,000	125,000	2,000,000	9,000,000
4,000	25,000	150,000	2,500,000	10,000,000
5,000	30,000	200,000	3,000,000	
6,000	40,000	250,000	3,500,000	
7,000	50,000	300,000	4,000,000	

1/2 Watt—Type LF4½—500 ohms to 5. meg. **18c ea.**

1 Watt—Type LF4—500 ohms to 10. meg. **18c ea.**

2 Watt—Type LR4—500 to 250,000 ohms **24c ea.**

3 Watt—Type LM3—500 to 250,000 ohms **30c ea.**

Servicemen: Lynch Serviceman's Resistor Manual Free with every ten Resistors ordered. 64 pages, over 200 circuits covered. Makes servicing simple. Saves time. Complete RMA Color Code Schedule included in each Manual. Also Meter Constructional data.

## RESISTANCES

Used in Sparton Receivers



ONE WATT (Carbon)

Cat. No.	Sparton Rep. No.	Ohms
8-2050	A-3325	1,700
8-2051	A-3232	2,800
8-2052	A-4122	3,000
8-2053	A-3564	10,000
8-2054	A-3811	30,000

**\$1.25 per dozen**

THREE WATTS (Carbon)

8-2055	A-3750	1,250
8-2056	A-3422	20,000
8-2057	A-3423	50,000

**\$1.50 per dozen**

FIVE WATTS (Carbon)

8-2058	A-3639	1,850
8-2059	A-3735	10,000

**\$1.75 per dozen**

TEN WATTS (Wire Wound)

8-2061	A-3383	3,000
8-2060	A-2043	10,000

**\$1.95 per dozen**

Cat. No. S-2062—Sparton Rep. No. A-5861  
57 ohms, 25 watts wire wound: 25c

# American Wire Wound Resistors

GRID RESISTORS



These resistor units are wound on flat non-warping strips. The extremely low inductance and distributed capacity makes them ideally suited for grid suppressors, or "c", bias work.

Cat. No.	Ohms	Cat. No.	Ohms
K-17	100	K-25	1400
K-18	200	K-26	1500
K-19	250	K-27	1700
K-20	500	K-28	2000
K-21	550	K-29	2300
K-22	750	K-30	2500
K-23	1000	K-31	2600
K-24	1250		

**12c each**

**\$1.25 per dozen, assorted**

CENTER-TAPPED RESISTORS

These resistor units are specially designed for use in A. C. filament circuits to obtain center-taps. Wound on non-warping substance.



Cat. No.	Ohms	Cat. No.	Ohms
K-9	6	K-13	13
K-10	8	K-14	25
K-11	10	K-15	30
K-12	15	K-16	40

**15c each**

**\$1.25 per dozen, assorted**

## Flexible, Wire-Wound Grid Resistors



In any of the following resistances: 5, 10, 15, 25, 50, 75, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 900, 1000, 1100, 1200, 1250, 1300, 1400, 1500, 1600, 1700, 1750, 1800, 1900, 2000, 2500, 3000 and 5000 ohms.

**19c each**

**\$1.95 per doz.**

Cat. No. 8-3744

## Yaxley C. T. Resistor

30 Ohms



Wire-wound resistor with tap at 15 ohms. Can be used to obtain a center-tap on transformers and A. C. tubes and various other purposes.

**50c doz.**

Cat. No. H-87



## General Electric Resistor

5000 Ohms—50 Watts

This high grade "G. E." Resistor may be used as a transmitting grid-leak, by using two in series, making it a 10000 ohm center-tapped resistor. Makes an excellent voltage divider, due to its heavy capacity.



**45c**

Cat. No. H-27

### Super Akra-Ohm Resistors

Wire-Wound



The radio, audio and vision applications of the electron tube and photoelectric cells require the use of high grade accurate wire-wound resistors to properly control the complex circuits. It is for this purpose that Super-Akra-Ohm Resistors are built to the degree of accuracy + or - one per cent. They are particularly recommended for use in electrical instruments in such cases where milliammeters are to be made into high voltage voltmeters. Super-Akra-Ohms are capable of carrying a load of 1 watt continuously and from 1.5 to 5 watts when employed intermittently.

Cat. No.	Ohmage	Current Mils	
1911	100	100.00	\$.94
1912	500	41.70	.94
1913	1,000	31.60	.94
1914	1,500	25.80	.94
1915	2,000	22.40	.94
1916	2,500	20.00	.94
1917	3,000	18.3	.94
1918	4,000	15.8	.94
1919	5,000	14.10	.94
1920	9,000	10.5	1.12
1921	10,000	10.00	1.12
1922	15,000	8.17	1.12
1923	20,000	7.07	1.12
1924	25,000	6.32	1.12
1925	30,000	5.78	1.12
1926	40,000	5.00	1.12
1927	50,000	4.47	1.12
1928	60,000	4.08	1.12
1929	75,000	3.65	1.12
1930	100,000	3.16	1.49
1931	125,000	2.83	1.50
1932	150,000	2.58	1.69
1933	200,000	2.24	1.88
1934	250,000	2.00	1.96
1935	300,000	1.83	2.24
1936	400,000	1.58	2.61
1937	500,000	1.41	2.98
1938	600,000	1.29	3.19
1939	750,000	1.15	3.38
3414	1,000,000	1.00	3.74
1940	1,500,000	.817	5.63
1941	2,000,000	.707	7.50
1942	2,500,000	.632	9.36
1943	3,000,000	.578	11.25
1944	4,000,000	.500	15.00
1945	5,000,000	.447	18.75

We can supply Shalleross Kits to make Wheatstone and Capacity Bridges.

**WHEATSTONE BRIDGE KIT**  
Cat. No. W-1070 \$18.75

**CAPACITY BRIDGE KIT**  
Cat. No. W-1071 \$9.75

### Automatic Filament Controls



Cat. No. 2854  
Amperite 6-30 (60 mils.) for 230 and 232 tubes.

Cat. No. 2855  
Amperite 6-31 (130 mils.) for 231 tubes.

Cat. No. 2856  
Amperite 6-33 (¼ amp.) for 233 tubes.

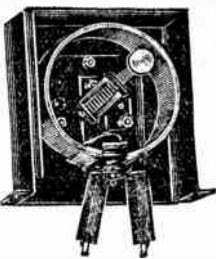
Cat. No. 2857  
Amperite 622 (60 mils.) For 3.3 (UX222) volt Screen Grid Tubes.

Any of the above Amperites, with mounting ..... Each **65c**

We can furnish any type of Amperite, with mounting, at.....Each **65c**

**DAVEN Automatic Filament Controls**  
Cat. No. E-59—¼ ampere size. **20c**  
Cat. No. E-60—1 ampere size. **either size**

### Stromberg-Carlson Line Voltage Control



Size: 5 x 5 x 2".

Heavy Duty

Has a resistance of 17 ohms. Used to regulate the A. C. input into transformers. Will decrease 125 volts to 85 when full resistance is used. This variable primary resistance is a caution against line surges or excessive amounts of current to pass the rectifier thereby reducing the danger of blown filter condensers.

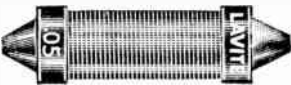
Used with the Stromberg-Carlson 404R.A Power Trans-

former, listed on page 25.

**95c**

Cat. No. B-28

### Aerovox Lavite Non-Inductive Resistors



Lavite Resistors should be used wherever non-inductive resistors capable of carrying heavy current are required. These units are particularly suited for use in resistance and impedance coupled amplifiers and are the ideal resistors for television receivers and amplifiers.

Maximum Rating: 3 Watts

Cat.No.	Ohmage	Cat. No.	Ohmage	Cat. No.	Ohmage
3863	1,000	3868	20,000	3872	75,000
3864	2,000	3869	25,000	3873	100,000
3865	5,000	3870	30,000	3874	200,000
3866	10,000	3871	50,000	3875	250,000
3867	15,000			3876	500,000

**58c each**

### Voltage Control Up-591



Constant Voltage Device

Voltage Control Unit for replacement in Brunswick RPA 1A and RPA 4 Pantrope receivers. Also to replace wherever the type 874 Tube is used (Kolster K-5 Amplifiers).

Can also be used as a voltage control between B minus and 90 volts by connecting F plus to B minus and G to 90 volts.

**75c**

Cat. No. 5097

### Ward Leonard and Mountford Resistors

6440 OHMS Total  
Tapped at 5000, 940 and 500 Ohms



940 — 5000 — 500  
Size: 4 x 1 1/2"  
List: \$1.50

20 Watts

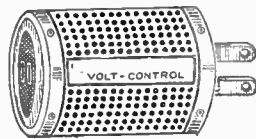
This resistor is used in the Kolster Type "A" power cone unit and in the Kolster 6-H receiver and K-5 Dynamic Speaker. Replacement part No. 2130.

**35c**

Cat. No. H-86

### Line Voltage Regulator

150 WATTS (HEAVY DUTY)



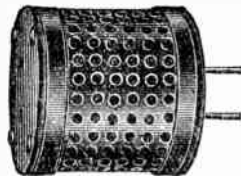
Resistance automatically keeps line voltage constant. Does not permit line surges which break down filter condensers. Air cooled and steel clad. Fireproof. Fits standard socket or outlet. Saves frequent tube replacement.

Dozen \$4.50

**40c**

Cat. No. F-61

### Automatic Line Voltage Regulator CLAROSTAT



Here is a device that may be applied to any 110-volt socket-power radio set. It automatically maintains the applied voltage correct irrespective of line voltage variations, fluctuations, and surges. It serves to increase tube life by hundreds of hours. Because of the special winding method

employed for the resistance element of the Automatic Line Voltage Regulator Clarostat, the device serves as a radio-frequency choke and reduces line noises to a minimum.

Cat. No.	Watts
F-55 (for midgets).....	60 to 100
F-56 .....	100 to 150
F-57 .....	200 to 250

**95c each**

### CLAROSTAT

### Line Voltage Ballasts

Used in Majestic, Silver-Marshall and other sets.



Real compensation for line voltage fluctuation is available for radio sets and amplifiers, designed for use with a line voltage ballast.

Where the transformer is wound for 85 volts instead of the usual 110 volts it is possible to get normal operation over a range of from 95 to 135 volts when this ballast is used. Below is a partial list of sets provided with sockets for this ballast:

MAKE OF RECEIVER

- |               |                   |
|---------------|-------------------|
| Belmont       | Majestic-90       |
| Bremser-Tully | Nathaniel Baldwin |
| Brunswick     | Peerless          |
| Clarion       | Pierson           |
| Grebe         | Scott             |
| H. F. L.      | Silver-Marshall   |
| Hi-Q30        | Sonora            |
| Hi-Q31        | Star-Raider       |
| Kennedy       | (uses 2 ballasts) |
| Ky-Lectron    | Starck Piano      |
| Majestic-70   | Stewart-Warner    |
| Majestic-72   | United Reproducer |
| Majestic-80   |                   |

**\$1.47**

Cat. No. 0-1093

When ordering state make of receiver together with Model Number



### Ward Leonard Vitrohm Resistors for General Purposes

All resistors are supplied with mounting clips



Mounting clips not shown.

**TYPE A—30 Watt**

Cat. No.	Resis. in Ohms	Current in m. a.	
507-142	0.5	4000	\$0.87
507-143	1.0	2750	.87
507-144	1.5	2300	.70
507-145	2.0	2000	.70
507-146	2.5	1750	.70
507-147	3.0	1600	.70
507-148	3.5	1500	.70
507-149	5.0	1200	.70
507-150	7.5	1000	.70
507-151	10	850	.70
507-152	15	700	.70
507-153	20	600	.70
507-154	25	550	.70
507-155	35	450	.70
507-156	50	400	.70
507-157	75	300	.70
507-158	100	275	.70
507-159	125	250	.70
507-160	150	225	.70
507-161	200	200	.70
507-162	300	150	.70
507-163	400	140	.75
507-164	500	125	.70
507-165	750	100	.70
507-166	1000	85	.70
507-167	1250	80	.70
507-168	1500	70	.70
507-169	2000	60	.70
507-170	2250	58	.70
507-171	2500	55	.70
507-172	3000	50	.70
507-173	3500	45	.70
507-174	4000	40	.70
507-175	5000	35	.70

Note: These units have 3/8" double notch terminals and an approximate shipping weight of 8 oz. Dimensions approximately 5/8" diameter; 2" long.

**TYPE B—60 Watt**

Cat. No.	Resis. in Ohms	Current in m. a.	
507-185	100	380	.77
507-186	125	350	.77
507-187	150	300	.77
507-188	200	275	.77
507-189	300	225	.77
507-190	400	200	.77
507-191	500	175	.77
507-192	750	140	.77
507-193	1000	120	.77
507-194	1500	100	.77
507-195	2000	85	.77
507-196	2500	80	.77
507-197	3000	70	.77
507-198	4000	60	.77
507-199	5000	55	.77
507-200	6000	50	.77
507-201	7500	45	.98
507-202	10000	40	1.05
507-203	12500	37	1.05
507-204	15000	35	1.05

Note: These units have 3/8" double notch terminals and an approximate shipping weight of 10 oz. Dimensions approximately 3/4" diameter; 3 1/2" long.

**TYPE C—100 Watt**

Cat. No.	Resis. in Ohms	Current in m. a.	
507-215	500	225	\$1.05
507-216	750	185	1.05
507-217	1000	160	1.05
507-218	1500	130	1.05
507-219	2000	110	1.05
507-220	3000	90	1.05
507-221	4000	75	1.05
507-222	5000	70	1.05
507-223	7500	60	1.22
507-224	10000	50	1.26
507-225	15000	35	1.57
507-226	20000	25	1.57
507-227	25000	20	1.75
507-228	30000	17	1.75
507-229	50000	10	1.92

Note: These units have 3/8" double notch terminals and an approximate shipping weight of 16 oz. Dimensions approximately 3/4" diameter; 6 1/2" long.

### Ward Leonard Vitrohm Resistors for Charging Storage Batteries

507-15 6.4 ohms for 32 volts D. C. line

Number of 2 volt cells to be charged:  
1 2 3 4 5 6 7

Number of resistor units to use:  
1 1 1 2 2 2 2

507-119 62 ohms for 110 volt D. C. line

Number of 2 volt cells to be charged:  
1 2 3 4 5 6 7 8 9 10

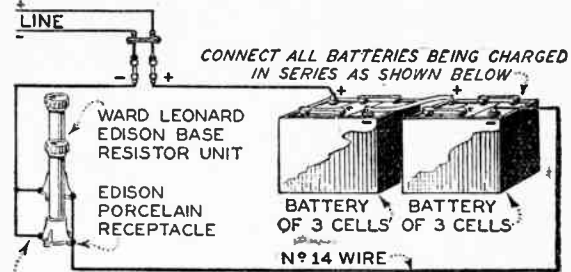
Number of resistor units to use:  
3 3 3 3 3 4 4 4 4 4

507-15, 6.4 ohms — 4  
amps. Per Unit **\$1.75**  
Cat. No. 1572

507-119, 62 ohms —  
1.8 amps. Per Unit **\$1.75**  
Cat. No. 1573

The above table is figured to give a 5 amp. charging rate. Wiring diagram furnished with each unit.

**STORAGE BATTERY CHARGING DIAGRAM**



### Ward-Leonard Resistor

Total Resistance: 13600 Ohms, with Brackets



Tapped at 6000, 6000 and 1600 ohms. For use as voltage divider, bleeder resistance. Wattage to 100 watts. Used in Westinghouse High Capacity B Eliminators.

**35c**

Cat. No. B-9

### Edison Base Resistors

With Screw Receptacle

Suitable for use as regulating resistances in battery chargers, D. C. Eliminators, A. C. to D. C. Conversions, etc. Can be connected by using a regulation screw base receptacle.

Capacity 60 Watts

Cat. No.	Resistance	
B-18	22 ohms	
B-17	25 "	
B-16	30 "	<b>90c</b>
B-15	40 "	
B-14	100 "	
B-13	350 "	each
B-12	400 "	

### G. E. & Ward Leonard Resistors

Heavy Duty

Fine for Eliminators and Amplifiers



Ohms	Tapped at	Cat. No.
5		S-2063
6		S-2064
10		S-2065
18		S-2066
137		S-2067
200		S-2068
1000		S-2069
1100	300 & 400	S-2070
1100	900	S-2071
1200		S-2072
1400		S-2073
1600		S-2074
2600		S-2075
3200		S-2076
4000		S-2077
4000	2600	S-2078
4000	3350	S-2079
5000		S-2080
7060		S-2081
8500	4250	S-2082
10000		S-2083

YOUR CHOICE EACH **25c**

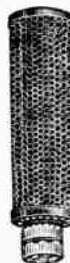
### Ward Leonard Resistor and Cage

300 watt—60 ohms

Ideal for converting A. C. receivers (using heater type of A. C. tubes) to D. C. Also can be used for charging storage batteries from a D. C. line. Equipped with porcelain base and metal cage.

**\$2.00**

Cat. No. 1577



### Additional 60 Watt Screw Base Resistors

3, 4, 5, 6, 7, 10, 15, 20, 50, 60, 75, 110, 125, 220, 250, 440, 600, 1,000 ohms.

Can be had in all sizes from .5 to 20,000 ohms. Write for quotations.

**90c**

each

Cat. No. O-1143

### CAPACITY 150 Watts

62, 75, 90, 110, 220, 330 ohms.

Can be had in all sizes from 1.5 to 60,000 ohms. Write for quotations.

**\$1.65**

each

Cat. No. O-1144

### Gen. Elec. Resistors, Voltage Dividers, etc.

25 Watts

The entire set of five resistors is used in the Stromberg-Carlson No. 404RA power plant. In conjunction with the Stromberg-Carlson 734 and 744 receivers.



**25c**

any size

Cat. No.	Ohmage
B-1	137
B-2	1000
B-3	1200
B-4	1400
B-5	4000

# THE ELECTRAD LINE COVERS EVERY RESISTOR AND VOLTAGE CONTROL NEED



ADJUSTABLE SLIDING CLIP

Adjustable Sliders  
4c each



## TRUVOLT Adjustable RESISTORS

TYPE B—25 Watts—2 in. Long

Type	Resistance in Ohms	Current Milli-amperes	Price	Type	Resistance in Ohms	Current Milli-amperes	Price
B-.01	1	5000	\$.50	B-20	2000	112	.50
B-.02	2	3500	.50	B-22.5	2250	105	.50
B-.025	2.5	3150	.50	B-25	2500	100	.50
B-.03	3	2800	.50	B-30	3000	91	.50
B-.05	5	2225	.50	B-35	3500	84	.50
B-.075	7.5	1800	.50	B-40	4000	79	.50
B-1	10	1500	.50	B-45	4500	75	.50
B-15	15	1250	.50	B-50	5000	71	.50
B-2	20	1100	.50	B-60	6000	64	.50
B-25	25	1000	.50	B-70	7000	60	.50
B-.5	50	700	.50	B-72	7200	59	.50
B-.75	75	575	.50	B-75	7500	58	.50
B-1	100	500	.50	B-80	8000	56	.54
B-2	200	353	.50	B-90	9000	53	.56
B-3	300	289	.50	B-100	10000	50	.58
B-4	400	250	.50	B-120	12000	45	.58
B-5	500	224	.50	B-150	15000	41	.58
B-7.5	750	182	.50	B-200	20000	35	.67
B-8	800	177	.50	B-250	25000	32	.67
B-8.5	850	165	.50	B-300	30000	29	.75
B-10	1000	158	.50	B-400	40000	25	.78
B-12.5	1250	141	.50	B-500	50000	22.5	.82
B-15	1500	129	.50				

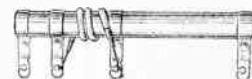
TYPE C—50 Watts—4 in. Long

Type	Resistance in Ohms	Current Milli-amperes	Price
C-1	100	700	\$.80
C-2	200	500	.80
C-3	300	406	.80
C-4	400	353	.80
C-5	500	316	.80
C-7.5	750	259	.80
C-8	800	252	.80
C-10	1000	224	.80
C-12.5	1250	200	.80
C-15	1500	182	.80
C-20	2000	158	.80
C-22.5	2250	149	.80
C-25	2500	141	.80
C-30	3000	129	.80
C-35	3500	119	.80
C-40	4000	112	.80
C-45	4500	105	.80
C-50	5000	100	.80
C-60	6000	91	.88
C-70	7000	84	.88
C-72	7200	83	.88
C-75	7500	82	.88
C-80	8000	79	.88
C-90	9000	74	.88
C-100	10000	71	.97
C-120	12000	65	.97
C-150	15000	58	.97
C-200	20000	50	1.08
C-250	25000	45	1.10
C-300	30000	41	1.12
C-400	40000	35	1.15
C-500	50000	32	1.18
C-600	60000	29	1.24
C-800	80000	25	1.33
C-1000	100000	22.5	1.62

TYPE D—75 Watts—6 in. Long

Type	Resistance in Ohms	Current Milli-amperes	Price
D-1	100	865	\$.109
D-2	200	610	1.09
D-3	300	500	1.09
D-4	400	432	1.09
D-5	500	387	1.09
D-7.5	750	316	1.09
D-8	800	306	1.09
D-10	1000	274	1.09
D-12.5	1250	245	1.09
D-15	1500	234	1.09
D-20	2000	194	1.09
D-22.5	2250	182	1.09
D-25	2500	173	1.09
D-30	3000	158	1.09
D-35	3500	146	1.09
D-40	4000	137	1.09
D-45	4500	129	1.09
D-50	5000	122	1.09
D-60	6000	112	1.14
D-70	7000	103	1.17
D-72	7200	102	1.17
D-75	7500	100	1.17
D-80	8000	97	1.17
D-90	9000	91	1.23
D-100	10000	87	1.32
D-120	12000	79	1.32
D-150	15000	71	1.47
D-200	20000	61	1.47
D-250	25000	55	1.56
D-300	30000	50	1.56
D-400	40000	43	1.56
D-500	40000	39	1.62
D-600	60000	35	1.65
D-800	80000	31	1.71
D-1000	100000	27	1.77

## TRUVOLT Flexible RESISTORS



Wire wound on flexible core and covered with impregnated fabric. Pigtail terminals at each end. The values of stock sizes will fill practically all replacements where a resistor of less than twelve thousand ohms may be used. They may be coiled or bent to almost any convenient shape. For repairing an open section in a divider unit the correct value of flexible resistor can be soldered to one tap of the open section. The flexible unit may then be wrapped around core of divider resistor and the other end soldered to other tap of open section (see illustration).

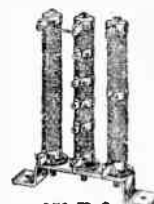
3 WATT RATING—6 in. Long with Pigtails

Type No	Ohms	Max. Current in Milli-amperes	Max. Potential across Resistor in Volts	Type No.	Ohms	Max. Current in Milli-amperes	Max. Potential across Resistor in Volts
2G25	25	346	8.5	2G2700	2700	33	90
2G50	50	245	12	2G2800	2800	32.5	91.8
2G75	75	200	15	2G3000	3000	31.5	95
2G100	100	175	17	2G3500	3500	29	102
2G150	150	141	21	2G4000	4000	27	109
2G200	200	122	24.5	2G4500	4500	25.5	116
2G225	225	115	26	2G5000	5000	24.5	122
2G250	250	109	27	2G5500	5500	23	128
2G300	300	100	30	2G6000	6000	22	134
2G350	350	92	32	All 3-Watt Sizes, 30c			
2G375	375	89	33.5	6 WATT RATING—12 in. Long with Pigtails			
2G400	400	86	34.5	Max. Potential Current to be used in across Milli- Resistor in Volts			
2G450	450	81	36.5	3G500	500	109	54.6
2G500	500	77	38.5	3G1000	1000	72.5	77.5
2G550	550	73	40.5	3G2000	2000	54.5	109
2G600	600	70	42.5	3G3000	3000	44.5	134
2G650	650	68	44.2	3G4000	4000	38.5	156
2G700	700	65	45.5	3G5000	5000	34.0	174
2G750	750	63	47.4	3G6000	6000	31.8	190
2G800	800	61	49	3G7000	7000	29.2	205
2G900	900	57	52	3G8000	8000	27	220
2G1000	1000	54	54.7	3G9000	9000	25.5	232
2G1100	1100	52	57.5	3G10000	10000	24.5	245
2G1200	1200	50	60	3G11000	11000	23	257
2G1300	1300	48	62.5	3G12000	12000	22	268
2G1400	1400	46	65	All 6-Watt Sizes, 59c			
2G1500	1500	44	67				
2G1600	1600	43	69.4				
2G1650	1650	42.5	70.4				
2G1700	1700	42	71.4				
2G1750	1750	41	72.5				
2G1800	1800	40	73.5				
2G2000	2000	38	77.5				
2G2250	2250	36	82				
2G2500	2500	34.5	86.5				
2G2600	2600	33.5	88.3				

## TRUVOLT Air-Cooled Resistor Banks



Type C245 B-2



Type 250 B-3

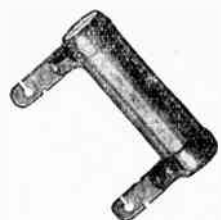
Two Truvolt Type C units on an insulated Bracket for use with any power supply for 245 type tubes. Total Resistance: 14700 ohms divided in 7 sections to give all voltages required by means of Truvolt Sliding Contacts. **\$2.06**

Three Truvolt Type C Units on an insulated Bracket for use as voltage divider with any 250 or 210 amplifier or plate supply device. Total Resistance: 21000 ohms divided in 8 sections to give all voltages required by means of Truvolt Sliding Contacts. **\$2.94**

Make your own voltage divider in a jiffy for any radio you may have in your shop for repair. Figure the total resistance of your voltage divider and the number of taps. Order a resistor having the proper total resistance and the number of sliders for each tap required, and presto, you have that hard-to-get voltage divider.

Pueden ustedes corresponder con nosotros en Espanol

# ELECTRAD VITREOUS ENAMELED RESISTORS



Electrad Vitreous Resistors have been carefully designed and offer advantages of long life and permanent resistance value.

The choice of Monel Metal for Contact Bands and Lugs, and the unique system of clamping the resistance wire to the contact bands are but two examples of the superiority of Vitreous Resistors. Monel metal has practically the same coefficient of expansion as the resistance wire—thus eliminating strains at the contact points which result in loose connections and cause high contact resistance which would greatly impair the performance of the unit. Also Monel Metal is rustless, strong as steel, highly resistant to acid fumes and does not lose its temper or crystallize when the unit is "fired." The improved method of clamping the wire to the contact bands insures permanent connections and presents a flat surface under the enamel. No protrusions which result in chipped enamel and corrosions at this critical point.

Resistance wire is wound on a Isolantite Tube. Electrad Enameled Wire Wound High Resistors are designed with an extra large factor of safety, so that they will maintain the highest standards of permanence and precision. They are made by winding best quality enameled Nichrome wire on refractory tubes, which are then completely insulated and sealed in a moisture and heat-resisting enamel of enduring quality. The method of baking the moisture-proof enamel on the resistor at rather low temperature results in prevention of undue stresses and insures long life. Furthermore, flaws due to crystallization are impossible in the low temperature process. Those having resistance values above 25000 ohms are layer wound with generous insulation between each layer of wire. The lugs are of Monel metal for good electrical contact and they are solder dipped for easy soldering. They are particularly suitable for use as divider resistors, multipliers for voltmeters and general laboratory work.

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### 7 1/2 Watt Rating

5/8" x 2" Isolantite Tube, Monel Metal Lugs

### 20 Watt Rating

1/2" x 2" Isolantite Tube, Monel Metal Lugs

### 50 Watt Rating

3/4" x 1" Isolantite Tube, Monel Metal Lugs

Cat. No.	Ohms	Current in Milliamperes	
3120	100	500	\$.45
3121	70	1000	.45
3122	50	2000	.46
3123	41	3000	.46
3124	31	5000	.53
3125	25	7500	.53
3126	22.5	10000	.67
3127	20	12500	.67
3128	18	15000	.67
3129	17	17500	.67
3130	16	20000	.67
3131	14	25000	.67
3132	13	30000	.79
3133	12	35000	.79
3134	11	40000	.79
3135	10	50000	.79
3136	9	60000	.79
3137	8	75000	.79
3138	8	80000	.79
3139	7.5	90000	.79
3140	7	100000	.79
3141	5.5	125000	1.06
3142	5	150000	1.20
3143	4.5	200000	1.32
3144	4	250000	1.46
3145	2.5	500000	1.85

Cat. No.	Current in Milliamperes	Ohms	
3081	2000	5	
3082	1430	10	
3083	895	25	
3084	633	50	
3085	517	75	
3086	447	100	
3087	375	150	
3088	316	200	
3089	282	250	
3090	258	300	
3091	238	350	
3092	224	400	
3093	200	500	
3094	169	700	
3095	163	750	
3096	158	800	
3097	141	1000	
3098	135	1100	
3099	129	1200	
3100	128	1250	
3101	115	1500	
3102	107	1750	
3103	104	1850	
3104	100	2000	
3105	94	2250	
3106	91	2400	
3107	89	2500	
3108	85	2750	
3109	81	3000	
3110	78	3250	
3111	75	3500	
3112	73	3750	
3113	71	4000	
3114	66	4500	
3115	63	5000	
3116	57	6000	
3117	53	7000	
3118	51	7500	
3119	50	8000	

Cat. No.	Current in Milliamperes	Ohms	
3058	2230	10	
3059	1581	20	
3060	1000	50	
3061	707	100	
3062	447	250	
3063	316	500	
3064	278	750	
3065	223	1000	
3066	182	1500	
3067	158	2000	
3068	141	2500	
3069	129	3000	
3070	111	4000	
3071	100	5000	
3072	91	6000	
3073	84	7000	
3074	81	7500	
3075	79	8000	
3076	74	9000	
3077	70	10000	
3078	63	12500	
3079	57	15000	
3080	44	25000	

Up to 5000 ohms..... **67c**  
From 6000 up to 25000 ohms..... **79c**

## Wire Wound Grid Leaks for Transmitters



### VITREOUS ENAMELED ISOLANTITE TUBE

TYPE TG—190 Watt—1 1/4" x 10"

Cat. No.	Total Resistance	Resistance of Sections	Max. Working Current in Milli-ampers	
3047	5000	2500-2500	195	\$.159
3048	10000	5000-5000	137	1.85
3049	15000	5000-5000-5000	112	2.38
3050	20000	10000-10000	97	2.25
3051	30000	15000-15000	79	2.65
3052	50000	25000-25000	61	2.91
3053	100000	50000-50000	43	3.18

TYPE TL—90 Watt—1" x 6"

Cat. No.	Total Resistance	Resistance of Sections	Max. Working Current in Milli-ampers	
3054	5000	2500-2500	134	\$.132
3055	10000	5000-5000	95	1.46

TYPE CF—40 Watt—1/2" x 4"

Cat. No.	Ohms	Sections	Max. Working Current	
3056	10	5-5	20	\$.79
3057	200	100-100	85	.79

## Non-Inductive High Resistors

For TRANSMITTING GRID LEAKS

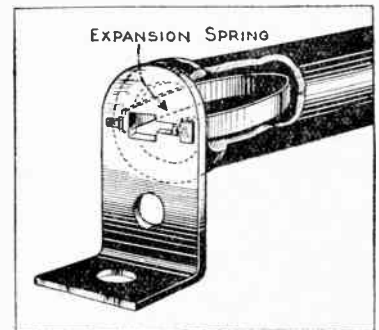
These resistors are non-inductively wound to an accuracy of + or - 2%. The same type wire and insulation is used as in the Enameled High Resistors. These resistors are ideally suited for voltmeter multipliers, and general laboratory work where non-inductive characteristics are essential.

Outside diameter 5/8", length 3"

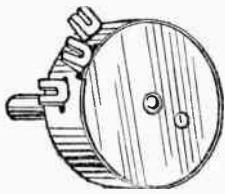
Cat. No.	Resistance in Ohms	Current in Milliamperes	
3811	25000	15	\$.88
3812	50000	11	1.03
3813	100000	7.5	1.03
3814	250000	4.5	1.76
3815	500000	3	2.20

All resistances are center-tapped

## Resistor Expansion Clamp and Mounting Brackets

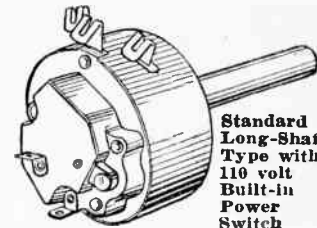


Just what you need for mounting your Resistors (any size). Will mount in any position. Expansion Clamp Spring allows for natural heat expansion of any Resistor, thereby protecting it from cracking. **29c pair** Mention inside and outside diameter of the Resistor when ordering. Cat. No. 2999



Standard Long-Shaft Volume Control Insulated Shaft

Just FIVE TYPES of ELECTRAD Replacement Volume Controls required in the service kit to service 343 standard receivers. Think of the convenience and saving in time and money that means. Think of the small stock it is necessary to carry. All sizes listed from 20 ohms to 5000 ohms inclusive are all wire units. In values greater than 5000 ohms they contain a specially treated graphite element wire contacts.



Standard Long-Shaft Type with 110 volt Built-in Power Switch Insulated Shaft.

## BASIC CIRCUITS

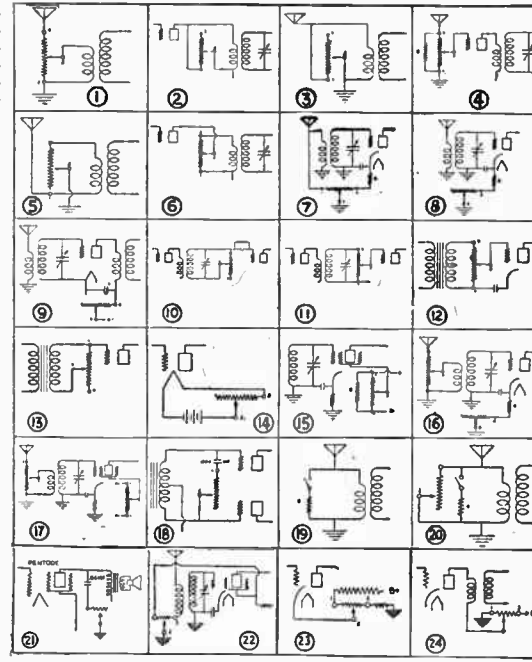
For Which Electrad Replacement Vol. Controls Are Designed

No.	Circuit No.	Ohms	Taper
RI-269	.....	20	Unif.
RI-270	.....	30	Unif.
RI-271	.....	50	Unif.
RI-172	.....	100	Unif.
RI-273	.....	200	Unif.
RI-274	8	400	Unif.
RI-282	.....	600	Unif.
RI-275	8	800	Unif.
RI-276	8	1,000	Unif.
RI-282	4, 8, 15	2,000	Unif.
RI-283	8, 15	3,000	Unif.
RI-277	.....	4,000	Unif.
RI-234	15	5,000	Unif.
RI-278	7	5,000	Rev.
RI-240	7	10,000	Rev.
RI-283	.....	10,000	Unif.
RI-201.1, 2, 3, 4, 5, 6, 7	.....	15,000	Rev.
RI-279	15	25,000	Unif.
RI-280	21	25,000	Rev.
RI-241	21	30,000	Rev.
RI-205	15	50,000	Unif.
RI-202	8, 9	75,000	Reg.
RI-242	12, 13, 18	100,000	Rev.
RI-281	13	200,000	Unif.
RI-208	11, 12, 13, 18	250,000	Rev.
RI-203	10, 11, 12, 13	500,000	Rev.
RI-206	18	1,000,000	Rev.
RI-204 Rheostat	.....	10	Unif.

All above controls are potentiometer type for convenience. Where rheostat is wanted use center and one outside terminal.

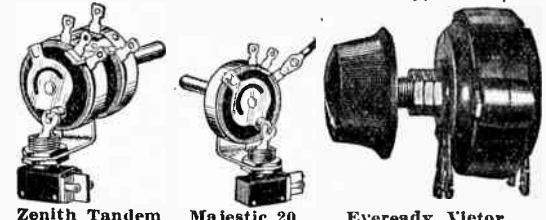
All RI units standard long shaft insulated.

All RI units standard long shaft insulated with 110 volt built-in switch.



## A FEW OF THE SPECIAL REPLACEMENT CONTROLS AVAILABLE

Spec. No.	Type Control	Used for	Victor R15	Price
FB-478T	Dual Supertonatrol	Victor R15	.....	1.95
FB-228T	Dual Supertonatrol	Zenith 70	.....	1.50
R-1434TP	Dual Royalty with Power Switch	Zenith 52	.....	.85
R-205P	Single Royalty with Power Switch	Majestic 20	.....	.80
R-1523PG	Single Royalty with Power Switch	Stromberg 642	.....	.65
RI-31	Set Sin. Insul. Long-Shaft Single Royalty	Stromberg 642	.....	.49
R-1436	Set Single Royalty	Stromberg 635	.....	.62
RI-32	Set Single Insul. Shaft Single Royalty	Stromberg 635	.....	.49
R-1437	Set Single Royalty	Fada	.....	.62
R-147	Long Shaft Royalty	Fada	.....	.62
R-60	Rear Shaft Royalty	Colonial, 32	.....	1.25
R-1651T	Dual Royalty	Edison, R, C	.....	.62
R-1675	Royalty	Jesse-French	.....	1.48
R-1610TP	Dual Royalty with Power Switch	Eveready, 1, 2, 3	.....	.62
-1671	Royalty	Victor, 35, 39, 57	.....	1.25
R-1670T	Dual Royalty with Power Switch	Temple, 8-61, 8-31, 8-91	.....	1.25
R-1618T	Dual Royalty with Power Switch	Eveready, Ser. 50	.....	\$1.93



Zenith Tandem Majestic 20 Eveready Victor

Receivers	Model No.	Circuit	Type	Receivers	Model No.	Circuit	Type	Receivers	Model No.	Circuit	Type
Aecme Mfg. Co.	AC 7	.....	12	Diamond Coil	Diamond	.....	8	Majestic	90, 91, 92, 100B	.....	8
Aero Coil Co.	Unit 6, Short Wave	.....	14	Edison	R-122	.....	6	McMillan	900	.....	3
Aero Prod. Co.	Aero 5	.....	9	Elect. Res. Lab.	R-1, R-2, C-1, C-2	.....	2	Metro	.....	.....	3
All-Amer. Mohawk	Aero 4, 6, 7, Short Wave	.....	14	Fada	R-1	.....	1	Montgomery Ward	Screen Grid	.....	17
Amrad	96, 90	.....	7	Fada	R-18C	.....	5	Ozarka	.....	.....	7
Apex	60, 61, 62, 65, 66, 80, 83, 84, 85, 86, 88, 10	.....	10	Peerless Courier	SF 4575 UA or CA, 10, 11, 30, 31, 50, 70, 71, 72	.....	10	Peerless	K-70	.....	7
Arborphone	81	.....	15	Philco	Type M	.....	10	Peerless	65	.....	8
Atwater Kent	70, 7100	.....	1	Philco	Type H, Type L	.....	11	Peerless	65	.....	8
Baldwin	81	.....	15	RCA	NR57, NR70	.....	5	Peerless	65	.....	8
Balkite	36	.....	1	RCA	NR80, DC470	.....	3	Peerless	65	.....	8
Belmont	80	.....	3	RCA	NR95	.....	8	Peerless	65	.....	8
Bosch	Battery Models	.....	9	RCA	F-10, NR7, 30, 32, 40, 48, 50	.....	14	Peerless	65	.....	8
Browning-Drake	45	.....	2	RCA	N-12, N-17	.....	3	Peerless	65	.....	8
Brunswick	37, 38	.....	3	RCA	L, L.S. G60S, H, M, K, K60S	.....	12	Peerless	65	.....	8
Bush & Lane	36	.....	2	RCA	Equaphase	.....	14	Peerless	65	.....	8
Canvac	40, 42, 44, 52	.....	5	RCA	E-A	.....	12	Peerless	65	.....	8
Clearstone	33 series filament	.....	12	RCA	10, 100	.....	7	Peerless	65	.....	8
Colonial	12, 20, 30, 32, 33, 35, 48, 49, 50	.....	14	RCA	AC-7, 428, AC-6	.....	2	Peerless	65	.....	8
Columbia	61, 61C, 66, Battery Tubes	.....	15	RCA	SK-4DC	.....	15	Peerless	65	.....	8
Crosley	30B, 7330	.....	15	RCA	Syncopephone, MU1	.....	3	Peerless	65	.....	8
Dayfan	7	.....	7	RCA	11IQ-29	.....	5	Peerless	65	.....	8
DeForest-Crosley	PC, C	.....	7	RCA	11IQ-30	.....	15	Peerless	65	.....	8
Eveready	Belmont	.....	15	RCA	AC-7 Control A	.....	12	Peerless	65	.....	8
Eveready	46, 66, 96, 107, 116, 126, 136, 146, 166, 10	.....	14	RCA	AC-7 Control B	.....	7	Peerless	65	.....	8
Eveready	25 Battery Set	.....	14	RCA	Mastertone, HFL Super	.....	15	Peerless	65	.....	8
Eveready	7-70, 7-71	.....	7	RCA	AC 8 Control A	.....	15	Peerless	65	.....	8
Eveready	4, 6, 8, 8-20A	.....	11	RCA	AC 8 Control B	.....	7	Peerless	65	.....	8
Eveready	14, 21, 31, 81, 82	.....	8	RCA	H	.....	7	Peerless	65	.....	8
Eveready	34, 36, 38	.....	4	RCA	K-24, 25, 27, 28	.....	7	Peerless	65	.....	8
Eveready	3, KRS, 2, 5, KRO	.....	4	RCA	523, 526 Control A	.....	5	Peerless	65	.....	8
Eveready	12	.....	15	RCA	523, 526 Control B	.....	12	Peerless	65	.....	8
Eveready	112	.....	10	RCA	Royal 80	.....	12	Peerless	65	.....	8
Eveready	26, DC31	.....	14	RCA	220	.....	14	Peerless	65	.....	8
Eveready	961, 902, C-11	.....	1	RCA	208W	.....	15	Peerless	65	.....	8
Eveready	SGS	.....	8	RCA	E-80, 81, FGH	.....	5	Peerless	65	.....	8
Eveready	42AC, 706, 609, 610	.....	5	RCA	82	.....	2	Peerless	65	.....	8
Eveready	804AC, 20, 21, 22	.....	8	RCA	J & H	.....	3	Peerless	65	.....	8
Eveready	3R3, 90, 401, 601	.....	14	RCA	979S, Monarch	.....	7	Peerless	65	.....	8
Eveready	30S, 31S, 33S, 34S	.....	15	RCA	K-20, 22, 23, 24, 25, 27, 28	.....	1	Peerless	65	.....	8
Eveready	5091-48	.....	3	RCA	RA	.....	14	Peerless	65	.....	8
Eveready	SAC early models	.....	5	RCA	Lincoln 40	.....	8	Peerless	65	.....	8
Eveready	SAC late models	.....	1	RCA	8-80	.....	15	Peerless	65	.....	8
Eveready	OEM154, 74	.....	14	RCA	90	.....	7	Peerless	65	.....	8
Eveready	X161	.....	9	RCA	Magnavox	.....	14	Peerless	65	.....	8
Eveready	AC-63, 65, 66	.....	10	RCA	Magnavox	.....	14	Peerless	65	.....	8
Eveready	605	.....	11	RCA	Magnavox	.....	14	Peerless	65	.....	8
Eveready	800, 810	.....	12	RCA	Magnavox	.....	14	Peerless	65	.....	8

Atwater Kent Volume Control Resistance Strip— for Models 36, 37, 38 and 40—Specify Model. 43c each.

WE ARE CENTRALAB DISTRIBUTORS

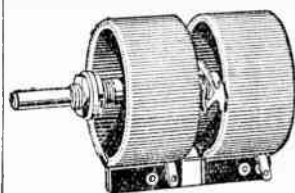
GIANT RHEOSTATS

Resistance strip 1 inch deep, doubling area for heat dissipation. All resistances furnished with three terminals. Rating 50 watts.



- Cat. No. 1314—Resistance 25 ohms.....\$1.18
- Cat. No. 1315—Resistance 60 ohms..... 1.18
- Cat. No. 1316—Resistance 150 ohms..... 1.18
- Cat. No. 1317—Resistance 500 ohms..... 1.18
- Cat. No. 1318—Resistance 1,000 ohms..... 1.47
- Cat. No. 1319—Resistance 5,000 ohms..... 1.62

TWIN GIANT RHEOSTAT



Two Giant Rheostats assembled on one frame to double power dissipation. May be used up to 100 watts when well ventilated. Resistances built to order.

**\$2.95**  
Cat. No. 1320

Centralab Vol. Controls

For volume control and various other purposes



- Cat. No.  
K-37—0-7,000 ohms Single.  
K-33—0-10,000 and 0-250,000 ohms (Twins).  
K-34—0-25,000 ohms Single.  
K-62—0-75,000 ohms Single.

**35c each**

Dozen \$3.50

The twins are used in Earl 21 and 22 receivers

“L” Pad

CONSTANT IMPEDANCE

- Cat. No. T-1325.....10,000 ohms
- Cat. No. T-1326..... 5,000 ohms

Bushing  $3/8" \times 1/2"$  long. Shaft  $1/4" \times 1/2"$  long. Bakelite case  $1 3/4" \times 3/8"$  deep. Shaft and bushing insulated from all terminals. Furnished with knob. Recommended for individual control of magnetic speakers

such as centralized school systems, hotels, hospitals, or where one or more speakers are added to the home receiving set. The two graphite resistances provide constant resistance to the line with smooth volume control of the individual speaker without changing the adjustment of other speakers on the same line. Safe energy dissipation 1 watt.

**\$2.40**

“T” Pad

CONSTANT IMPEDANCE

- Cat. No. T-1338.....5,000 ohms
- Cat. No. T-1339.....1,000 ohms
- Cat. No. T-1340..... 500 ohms
- Cat. No. T-1341..... 200 ohms
- Cat. No. T-1342..... 100 ohms
- Cat. No. T-1343..... 50 ohms
- Cat. No. T-1344..... 15 ohms



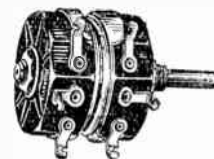
Bakelite case:  $3 1/2" \times 1 3/4"$  deep. Provides single or three hole mounting. Furnished with Bakelite knob.

A network of three resistances housed in a large dust and moisture tight case. Two wire wound sections offer constant resistance to the input and output circuits while a tapered graphite section provides smooth attenuation of volume level. All parts are extra large and strong for continuous commercial service.

**\$4.12**

CLAROSTAT

“L” and “T” Pad Wire Wound Constant Impedance Controls



“L” PAD

These “T” Pads (Triple Sections) and “L” Pads (Double Sections) are for use in the volume control or attenuation circuits of public address, broadcast transmission, sound recording and projection systems, etc. Quiet in operation. Electrostatic shields are provided between the elements to prevent undesirable coupling between the separate circuits.

Imped.	Cat. No.	“T” Pad	Cat. No.	“L” Pad
25 ohms	3755	\$2.10	3758	\$1.75
200	3756	2.10	3759	1.75
500	3757	2.10	3760	1.75

Combination “L” Pad

- Cat. No. T-1327.....10,000 ohms
- Cat. No. T-1328..... 5,000 ohms
- Cat. No. T-1329..... 500 ohms
- Cat. No. T-1330..... 200 ohms
- Cat. No. T-1331..... 50 ohms
- Cat. No. T-1332..... 10 ohms

Bushing  $3/8" \times 1/2"$  long. Shaft  $1/4" \times 1/2"$  long. Bakelite case  $2" \times 3/4"$  enclosed. Shaft grounded to series resistance. Furnished with knob. Provide same

service as Junior “L” Pad but has series resistance wire wound to give greater load dissipation required for dynamic speakers. Particularly suited to low impedance systems of moderate power not exceeding four (4) watts.

**\$2.40**

Fader

CONSTANT IMPEDANCE

- Cat. No. T-1345.....5,000 ohms
- Cat. No. T-1346.....3,000 ohms
- Cat. No. T-1347.....1,500 ohms
- Cat. No. T-1348..... 500 ohms
- Cat. No. T-1349..... 200 ohms
- Cat. No. T-1350..... 50 ohms



Bakelite case  $3 1/2" \times 1 3/4"$  deep. Provides single or three hole mounting. Furnished with Bakelite knob.

Housed in the same moisture tight case as the “T” Pad with all parts extra heavy for continuous commercial service. Made up of two groups of three resistances.

Used to fade from pickup to pickup, film to film, microphone to microphone, or line to line.

**\$5.88**

Commercial “L” Pad

- Cat. No. T-1333.....100 ohms
- Cat. No. T-1334..... 50 ohms
- Cat. No. T-1335..... 15 ohms

Bushing  $3/8" \times 1/2"$  long. Shaft  $1/4" \times 1/2"$  long. Bakelite case  $3 1/2" \times 1 3/8"$  deep. Single hole or three hole mounting. Furnished with knob. Employed in circuits where power output is

less than 10 watts. Commonly used as voice coil control of dynamic speakers in public address systems. Resistances are wire wound and enclosed air tight in a large Bakelite case insuring long, noiseless service.

**\$3.00**

Straight Resistance Fader

- Cat. No. T-1351.....100,000 ohms
- Cat. No. T-1352..... 50,000 ohms
- Cat. No. T-1353..... 25,000 ohms



Case  $2 1/4" \times 1 1/2"$ . Bushing  $3/8" \times 1/2"$  long. Shaft and bushing insulated from all terminals.

Made up as a straight potentiometer with center tap for simple pickup fader circuits that do not require constant impedance.

Resistances catalogued are the resistance of each half available to shunt each separate pickup.

**\$1.80**

25 Watt “L” Pad

- Cat. No. T-1336—Twin Giant.....50 ohms
- Cat. No. T-1337—Twin Giant.....15 ohms

Diameter  $2" \times 2 1/2"$  long. Single hole mounting. Bushing  $3/8" \times 1/2"$  long. Furnished with Bakelite knob.

Large public address or theatre installations frequently require a voice coil or output constant resistance control that will dissipate up to 25 watts. Centralab Twin Giant Rheostats are ideal for this service and are listed below in the two tapers most used.

**\$3.00**

NOTE

All resistances listed for constant impedance controls represent the actual value maintained constant in the circuit and are not necessarily the value of separate resistances in the net work. Order by specifying the line impedance.

Ward Leonard Vitrohm Adjustats



The Adjustat is a rheostat developed for use in all current supply units. The resistive element (wire) is permanently protected by a fused-on coating of vitreous enamel; the resistance value of any setting remains constant. This is not true of the ordinary “variable” rheostat where sections of the resistance wire are easily and frequently short-circuited. Each adjustat has 16 separate resistance settings, or steps. Three terminals are provided for potentiometer connection. The adjustat is rated at 20 watts with the entire resistance in circuit and is made only with equal values of resistance in each step. The diameter of these units is  $2 3/4"$ ; the back of panel depth is approximately  $1 1/4"$ ; shipping weight: 16 oz.

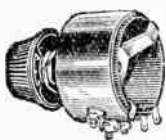
**Primary Filament Rheostat for one or two—50 or 75 watt transmitting tubes. \$1.95**  
Cat. No. 1574

**Primary Filament Rheostat for one—three, 210 transmitting tubes. \$1.95**  
Cat. No. 1575

Cat. No.	Ohms	Milli-amps
1578	1000	140
1579	4000	75
1580	7500	50
1581	10000	40
1582	25000	20

Any Size

**\$1.95**

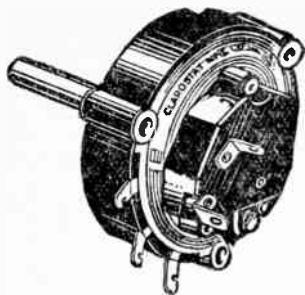


Heavy Duty Potentiometers

A compact potentiometer for power circuits, wire wound to dissipate up to 20 watts. Aluminum case  $1 3/4" \times 1"$  deep. Bushing  $3/8" \times 3/8"$ . Shaft  $1/4" \times 1/2"$  long.

- Cat. No. T-1321 Resistance 10,000 ohms
  - T-1322 Resistance 15,000 ohms
  - T-1323 Resistance 25,000 ohms
  - T-1324 Resistance 50,000 ohms
- \$1.50**





With A. C. Switch

**CLAROSTAT**  
TRADE MARK REG. U.S. PAT. OFF.

**GRAPHITE ELEMENT  
VOLUME CONTROLS AND  
POTENTIOMETERS**

**Insulated Shafts**

Cat. No.	Resist.	Suggested Use
3509	1,000	Taper Untuned Antenna
3510	1,000	Taper Standard Potentiometer
3511	2,000	Taper Antenna Untuned
3512	2,000	Taper Standard Potentiometer
3513	3,000	Taper Standard Potentiometer
3514	5,000	Taper Standard Potentiometer
3515	10,000	Taper Antenna or R. F. Coil
3516	10,000	Taper Antenna & C Bias comb.
3517	10,000	Taper Standard Potentiometer
3518	25,000	Taper Standard Potentiometer
3519	25,000	Taper Standard Phono. Pick-up
3520	50,000	Taper Screen-Grid Voltage
3521	50,000	Taper Standard Potentiometer
3522	75,000	Taper C Bias Rheo. R. F. Stages

Cat. No.	Resist.	Suggested Use
3523	75,000	Taper Standard Potentiometer
3524	100,000	Taper Ant. or R. F. Prim. Shunt
3525	100,000	Taper Tone Control
3526	100,000	Taper Standard Potentiometer
3527	200,000	Taper Screen-Grid Control
3528	200,000	Taper Standard Potentiometer
3529	200,000	Taper Pentode Tone Control
3530	250,000	Taper Standard Potentiometer
3531	350,000	Taper Standard Potentiometer
3532	500,000	Taper Standard Potentiometer
3533	1 meg	Taper Tuned R. F. Coil Shunt
3534	1 meg	Taper Tone Control
3535	1 meg	Taper Tone Control assembled with .006 Condenser

Knob supplied at 8c additional.

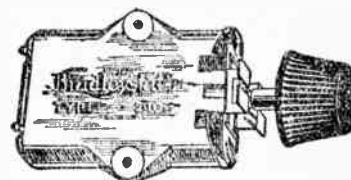
No mounting insulation washers required.

**Your Choice 70c ea. Less Switch**

Self-contained A. C. Switch supplied with any unit for 20c additional.



**NEWEST TYPE  
Bradleystat E-210  
FOR TRANSMITTERS**



E-210 Bradleystat is fine for controlling the A. C. input line voltage into A. C. sets, and for regulating output of power transformers.

**\$3.34**

Current capacity, 10 amperes. Resistance 4-150 ohms.

**RADIOLEAK: 2,000 to 30,000 ohms. Same design as above for 210 and other tubes.**

**10 Watts Capacity \$4.17**  
Cat. No. 1946



**Radiostat**

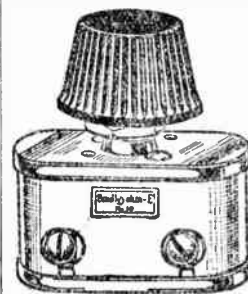
4 to 200 ohms. 30 amperes, for transformers up to 500 watts rating.

**\$5.42**  
Cat. No. 1947

**BRADLEY OHMS**

Type A-25 25000 to 250000 ohms  
Type E Capacity 3 Watts

**45c**  
Cat. No. F-50

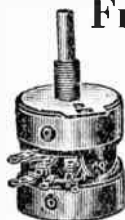


The Bradleyohm-E

- No. E 1-100 ohms Cat. No. 3824
- No. 1-E 100-5000 ohms Cat. No. 1948
- No. 5-E 1000-50000 ohms Cat. No. 1949
- No. 10-E 10000-500000 ohms Cat. No. F-51
- No. 25-E 25000-1500000 ohms Cat. No. 1950

**\$1.50**  
each

**Frost Dual Volume Control**



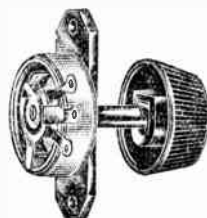
List: \$2.50

0-3000 and 0-3800 ohms  
Replacement No. 10450

Used in Victor Receivers R-32, R-52, RE-45 and RE-75.

**25c ea.**  
DOZEN \$2.75  
Cat. No. E-90

**2000 Ohm Volume Control**



List: \$1.95

**RCA REPLACEMENT PART No. 5901**  
For Radiolas 33 and 18 A. C. and D. C. Also 51 D. C.

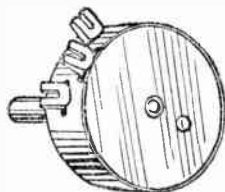
Can be used with any kind of receivers, for volume control, R. F., oscillation control, etc.

**55c each**  
Cat. No. K-36

**Frost Potentiometer and Volume Control**

0-500,000 ohms

Excellent as gain control or variable tone control.



**36c**

Cat. No. K-71

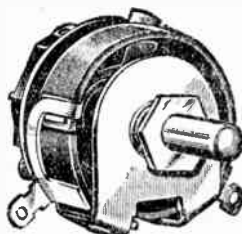
**Premier Combination  
Volume Controls and  
A. C. Switch**

Three terminals are provided permitting connection as potentiometer or rheostat.

This Volume Control and switch measures 1 1/2 in. in diameter and is 1 in. deep overall, including switch, 1/2 in. shaft, 1 in. long.

The metal parts are brass, nickel-plated. The action is smooth and positive. Approved by Underwriters.

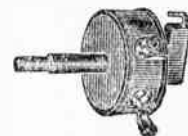
- Cat. No. 1738, 1000 ohms
- Cat. No. 1739, 3000 ohms
- Cat. No. 1740, 5000 ohms
- Cat. No. 1741, 10000 ohms



**55c EACH**

**Tone or Volume Control  
2 Megohms**

A variable resistance which has many varied uses in a receiver. Excellent for short wave and television purposes. Furnished with cam on extension shaft for controlling A. C. switch. Made by the Chicago Telephone Co. Used in Sparton Receiver. Replacement Number A-5503.



**21c**

Dozen \$1.95 Cat. No. K-38



List: \$1.50

**Pacent 30 Ohm  
Rheostat**

Type 851  
1/2 Ampere, with knob

**25c**

Cat. No. K-39

We can also supply a Six Ohm Rheostat without knob or shaft as used in Sparton receivers.

Cat. No. K-32 .....10c each



**Victor Tone Control**

1 Megohm. Victor Part No. 10408  
Used in RCA-Victor Receivers R-22, 52, R-E 45 and 75.

Made by Electrad for RCA-Victor.



List: \$2.00

**35c each**

Cat. No. 2569  
\$3.50 doz.

Super-Power Clarostats



250 Watts

Giant variable resistor of high-current handling capacity. Employed as a line voltage control; filament and plate control for transmitters; speed control for motors up to 1/4 h. p. and field rheostat for generators. Dissipates heat rapidly. Large bakelite knob.

Excellent for speed control for motors as used in television and talkie work.

Cat. No.	Model	Resist. Range
2039	... Fil. Control	1/4 to 10 ohms
2040	... Low Range	25 to 500 ohms
2041	... Universal	200 to 100000 ohms

**\$3.60**

Power Clarostats

80 Watts

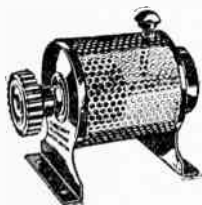
Heavy-duty variable resistor for radio power units, transmitter or general electrical applications. A favorite for line-voltage control. Dissipates heat rapidly and efficiently. Popular as C-bias control in auditorium amplifiers. Excellent for speed control for motors as used in television and talkie work.



**\$2.10**

Cat. No.	Model	Resist. Range
2035	... Fil. Control	1/4 to 10 ohms
2036	... Low Range	25 to 500 ohms
2037	... Universal	200 to 100000 ohms

Laboratory Models and Speed Control



Especially adapted to control of variable speed motor in television and other precise work. May also be used as heavy-duty variable resistor for laboratory work. Provided with heavy metal casing, protected screw binding posts, and short-circuiting button. Carrying capacity of 80 watts.

Model	Resistance Range	Carrying Capacity
Laboratory	1/4 — 10 ohms	80 watts
Laboratory	200 to 100,000 ohms	80 watts
Speed Control	25 to 500 ohms	80 watts

**\$2.94**

Cat. Nos. 3852, 3853, 3854

Clarostat Volume Control

0 to 500,000 ohms—7 Watts

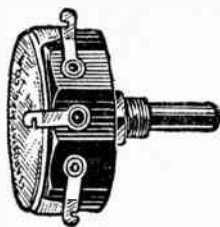
A compact, inexpensive variable resistor for applications in the radio receiver. For use as control of volume, tone, plate voltage, regeneration, stabilization, grid suppression, loud speaker circuits, etc. Bakelite knob.



**90c**

Cat. No. F-58

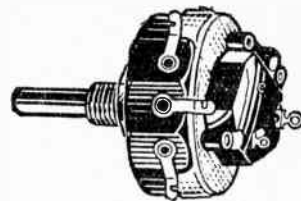
Ad-A-Switch Wire Wound Variable Resistors and Switch Coverplates



Type P185 Control Fitted with Standard Dust-Guard Coverplate



Type S185 Coverplate Used to Convert a Type P185 Control Into a Switch Type Unit



Type P185 Control Fitted with Switch Dust-Guard Coverplate

The Type P185 and P810 series of Clarostat Wire Wound Controls have been designed to fill the jobber's, dealer's and serviceman's demand for reliable wire wound single controls which can be used either with or without switches as required. They eliminate the necessity of keeping on hand duplicate sets of controls, one set with switches and the other without them. By stocking these units, all that is necessary is to keep some Type P185 and P810 switchless units and a few Type S185 switch coverplates on hand.

The plain dust-guard coverplate supplied with the Type P185 and P810 controls can be pried off and a Type S185 switch type dust-guard coverplate can be snapped in its place to convert the switchless unit into a switch unit. Supplied without knobs. Knobs 8c extra.

Equipped with Insulated Shaft and Bushing

Cat. No.	Resistance Ohms	Current Carrying Capacity	Characteristics of Resistance Element and Suggested Uses of Units	Less Switch Coverplate
3761	50	250	Standard potentiometer, no taper.	\$.54
3762	100	180	Standard potentiometer, no taper.	.54
3763	200	125	Standard potentiometer, no taper.	.54
3764	300	100	Standard potentiometer, no taper.	.54
3765	400	85	Standard potentiometer, no taper.	.54
3766	500	80	Standard potentiometer, no taper.	.54
3767	750	65	Standard potentiometer, no taper.	.56
3768	1,000	55	Standard potentiometer, no taper.	.56
3769	1,000	40	Tapered potentiometer for untuned antenna control.	.59
3770	2,000	40	Standard potentiometer, no taper.	.56
3771	2,000	25	Tapered potentiometer for untuned antenna control.	.59
3772	2,000	25	Tapered potentiometer for "C" bias control.	.59
3773	3,000	30	Standard potentiometer, no taper.	.56
3774	3,000	20	Tapered potentiometer for combined antenna and "C" bias control.	.59
3775	3,000	20	Tapered potentiometer for "C" bias control.	.59
3776	5,000	25	Standard potentiometer, no taper.	.56
3777	5,000	17	Tapered potentiometer for combined antenna and "C" bias control.	.59
3778	5,000	17	Tapered potentiometer for "C" bias control.	.59
3779	7,500	20	Standard potentiometer, no taper.	.56
3780	7,500	14	Tapered potentiometer for combined antenna and "C" bias control.	.59
3781	7,500	14	Tapered potentiometer for "C" bias control.	.59
3782	10,000	17	Standard potentiometer, no taper.	.59
3783	10,000	12	Tapered potentiometer for antenna or R. F. coil control.	.65
3784	10,000	12	Tapered potentiometer for combined antenna and "C" bias control.	.65
3785	10,000	12	Tapered potentiometer for "C" bias control.	.65
3786	10,000	12	Tapered potentiometer for screen-grid voltage control.	.65
3787	15,000	14	Standard potentiometer, no taper.	.59
3788	15,000	11	Tapered potentiometer for combined antenna and "C" bias control.	.65
3789	15,000	11	Tapered potentiometer for screen-grid voltage control.	.65
3790	20,000	12	Standard potentiometer, no taper.	.65
3791	20,000	10	Tapered potentiometer for "C" bias control.	.69
3792	25,000	11	Standard potentiometer, no taper.	.69
3793	30,000	11	Standard potentiometer, no taper.	.75
3794	40,000	10	Standard potentiometer, no taper.	.79
3795	50,000	9	Standard potentiometer, no taper.	.85

NOTE: All of the above units are potentiometers and are provided with three terminals. They may be used as rheostats by using the center contact arm terminal and one of the resistance element terminals.

Switch Coverplates—30c each, extra

Phono Pick-Up Control

A Clarostat Graphite Element Volume Control of the potentiometer type for handy connection between the phonograph pick-up unit and the radio receiver or amplifier.

Supplied with two tip jacks and cord with phone tips. A handsome bakelite case with knob to match.

May also be used for the control of headphones and magnetic speakers.



35,000 ohms

**\$1.15**

Cat. No. 3855

Tone Controls

The outstanding feature of the latest radio sets. Tone Control is now available to owners of any and all radio sets. Tone Control is a universal device easily connected by slipping the adapter discs under the power tube or tubes. Neat case with felt base. Flexible leads and adapters complete for simple application without tools or special knowledge. A turn of the knob gives control from "Bass" to "Treble."

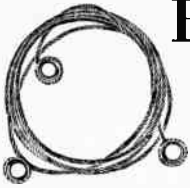


**99c**

Cat. No. F-69

For Panel Mounting. Cat. No. F-64 85c.

These Tone Controls can be used with any type of Power Tubes, including Pentodes. Always connect Tone Control to grid of output tubes.



# Replacement Drum Dial Cables, Bands and Belts

Do not fail to give make of set and model number when ordering.

Make of Set	Model	Type	Cat. No.	Price
Atwater Kent	30	Belts: Set of 2 L & R.	1825	\$0.25
Atwater Kent	55	Belts: Set of 2 L & R.	1826	.25
Atwater Kent	35, 37	Belts: Set of 2 L & R.	1827	.25
Atwater Kent	44	Belts: Set of 3 L & R.	1828	.45
Atwater Kent	60, 61	Belts: Set of 3 L & R.	1829	.45
Amrad	84	Drive Cable	1830	.25
Bosch	48a	Drive Cable	1831	.25
Bosch	5a	Drive Cable	1832	.25
Bosch	58, 60	Drive Cable	1833	.25
Bosch	28	Drive Cable	1834	.25
Balkelt	all Nos.	Drive Cable	1835	.40
Brunswick	14-21, 31	Cord and Lug	1836	.15
Bremer Tully	81, 82, S-81, S-82	Cord and Lug	1837	.15
Colonial	31, 32	Belt, Spring, Screw and Bolt.	1838	.35
Colonial	33, 34, 35, 37	Drive Cables: Set of 2	1839	.50
Columbia	all Nos.	2 Drive Cables and Spring.	1840	.50
Crosley	40s, 60s, 804	Drive Cables	1841	.30
Crosley	601, 602, 607	Belt, Spring, Screw and Bolt.	1842	.35
Edison	all Nos.	Drive Cable	3921	.30
Emerson	all Nos.	Drive Cables	1843	.40
Eveready	all Nos.	Drive Cables	1844	.25
First National	all Nos.	Drive Cables	1845	.40
Freed Eisman	NR60	Belt	1846	.30
Freshman	2	Drive Cables	1847	.40
General Motors	all Nos.	Drive Cable	3925	.30
Grebe	SK4	Cord and Beads on ends, Springs.	1848	.25
Kolster	K-45	Heavy Cord and Beads on End.	1849	.25
Kolster	43, 44	Drive Cable, Special Heavy.	1850	.50
Kellogg	all Nos.	Drive Cables: Set of 2 with Spring.	1851	.50
Majestic No. 1	70, 71, 72	Drive Cable	1852	.35
Majestic	52, 60	Linen Cord.	3926	.15
Peerless	all Nos.	Drive Cable	1853	.30
Philco	all Nos.	Drive Cables: Set of 2	1854	.60
R. C. A.	16, 17, 18	Drive Cable	1855	.80
R. C. A.	46, 47	Drive Cable	1856	.30
R. C. A.	16, 17, 18, 33	Linen Cord.	1857	.15
R. C. A.	64, 67	Complete with Connector.	3927	1.00
Sonora	all Nos.	Drive Cable	3928	.30
Sparton	all Nos.	Drive Cable	1858	.30
Steinle	all Nos.	Drive Cable	1859	.30
Temple	all Nos.	2 Drive Cables and Springs.	1860	.50

Phosphor Bronze 6 x 7 Standard Drum Drive Cable in Any Length  
6c per foot.



## KESTER FLUX-CORE SOLDER

Used by over 95% of the radio manufacturers. Absolutely needs no soldering paste or fluid of any kind. Its softness makes it the most desired solder for fine soldering work. Sells on sight.

Display Cartons: 10 cans to a carton, 25c size. 20 Pound Spool (3-32" in diameter) 1000 feet

**\$1.43 per Carton** **\$6.98 per Spool**

Cat. No. H-98

Cat. No. 3176

1 Pound Spool (3-32" in diameter) 50 feet

5 Pound Spool (3-32" in diameter) 250 feet

**43c per Spool**

Cat. No. H-96

**\$1.95 per Spool**

Cat. No. H-97

Kester Acid Core (for general work) furnished in same sizes and prices.

### Dusic Durable Battery Clips



No. 1—Battery Jaw  
Jaws open 1 1/2". 50 amps.  
Packed 10 to a carton.

**\$1.15**

for 10  
Cat. No. 3804

#### No. 2—Battery Jaw

Jaws open 1 inch. 25 amps. Packed 20 to a carton.

**\$1.50**

for 20  
Cat. No. 3805

#### No. 3—Alligator Jaw

Jaws open 3/4 of an inch. 15 amps. Packed 20 to a carton.

**75c**

for 20  
Cat. No. 3806

### Battery Clips



Lead-coated (with exception of 1 1/2" and 1 3/4" clip which are nickel-plated). Non-corrosive. Heavy Duty. Powerful springs, and sure gripping jaws.

Screw connections, no solder required.

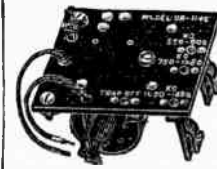
Cat. No.	Length	Lots of 10
3036	1 1/2"	\$ .30
3032	1 3/4"	.35
3033	2 3/4"	.75
3034	3 3/4"	.95
3035	4 1/4"	1.35



### Genuine R.C.A. Wave-Trap

UR-1146

MAKE YOUR SET MORE SELECTIVE



List: \$2.50

These wave-traps were made by the Radio Corp. of America for use in eliminating interference on Radiolas 17, 18, 33, and 51, but they can be used with Victor, Graybar, Westinghouse or practically any type or make of set. Goes from 200 to 550 meters.

By hooking it into the antenna circuit, it eliminates undesirable stations and brings in only one station at a time. Very easy to install and no re-wiring is necessary in the set.

**45c**

Packed in individual cartons with instructions.

Cat. No. F-85

\$4.00 for 10

### Rotary Radio Log



Something every radio set owner can use.

It is neat and compact, encased in metal, beautifully finished in walnut. Has rubber feet not to mar finish of cabinet.

Quickly gives call letters, kilocycle reading, and location of 635 stations in the United States, its possessions and Canada. Also has a blank column for the

radio fan to write his dial readings.

Up to the minute in every respect.

**98c**

Cat. No. 3039

Extra space provided for any new stations.

Should there be any real radical changes in wave-lengths of stations, we can furnish a new strip at 95c. same being easily inserted.



### Superior Friction Tape

3/4" Wide

Packed in individual cartons and attractive display containers which make sales easier. Display containers placed on your counter suggest the purchase of Tape for many purposes and are bound to increase sales.

This Tape is known all over the trade as being the acme of perfection. One year shelf life. Only fresh supply shipped.

Cat. No.	Description	Special
J-61	1 Ounce Rolls. Per carton of 32 rolls	70c
J-62	2 Ounce Rolls. Per carton of 16 rolls	70c
J-63	4 Ounce Rolls. Per carton of 8 rolls	48c
J-64	8 Ounce Rolls. Per carton of 6 rolls	95c

### Scranton Battery Cap Testers



The new way of testing any radio or automobile storage battery. These Testers tell instantly when water is required and charging is necessary.

Sold in sets of three (one for each battery cell) in attractive silent salesman carton.

**20c**

Per set

List: \$2.00 per set

Cat. No. E-61

### BATTERY HYDROMETERS

12" (Beaded Float), Rubber Nozzle.

Cat. No. 4160

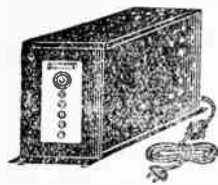
**33c**

No Order Too Small, None Too Large for Us to Ship

## Dumont 180 Volt "B" Eliminator

De Luxe Model

Operates on 110-120 volts, 50-60 cycle, A. C. current. Uses a 28 mfd. dry electrolytic condenser of the latest type. For rectification, a 280 tube is used in full wave. The various voltages are supplied for detector, R. F., audio and power stages. Housed in a handsome brown crystalline case which is 8 x 9 x 12" and is equipped with feed-thru switch, cord and plug. Less tube



**Bone Dry**  
Variable Detector Tap.

**\$8.95**  
Cat. No. 1953

For 25 cycle use..... **\$12.00**  
Cat. No. 1953A

## Dumont Bone Dry "A" & "B" Eliminator

A combination of the Dumont "A" and the Dumont "B" Eliminator described on this page. The "A" and "B" power combination offered here is of compact design, constructed of the finest materials only. It holds complete electrification at an unusually low cost. Operates on 110 volt, 60 cycle, A. C.



less tubes  
**\$14.75**  
Cat. No. 1954

For 25 cycle use..... **\$20.25**  
Cat. No. 1954A

## Dumont Bone Dry "A" Eliminator



Size: 12 x 8 x 8"  
List: \$28.50

An absolute dry "A" Eliminator which delivers 6 volts at 2 1/2 amperes, enough current for any radio set up to ten tubes. Made of the finest parts and is free from hum. Uses Benwood-Lenz dry rectifier and 6000 mfd. of "A" condensers. Operates on 110 volts, 50-60 cycles A. C. current.

Has outlet for "B" Eliminator, on and off switch and G-E Control Rheostat.

**\$8.95**  
Cat. No. 1951

For 25 cycle use..... **\$12.75**  
Cat. No. 1952

## A-Box Filter

To be used in conjunction with any bulb type charger, either 2, 5 or 6 ampere rate. Makes an efficient "A" eliminator out of any bulb charger and delivers 6 volts for 6 tube receivers. Absolutely humless. Full instructions with each filter. Eliminates storage battery.



**\$1.95**

List: \$19.50  
Cat. No. 8-8750

## Kolster Complete A. B. C. Power Pack



Designed for Kolster 6 R, 6J, 6M, 6K, 6L and 6F sets. Replacement Part No. A6410.

Supplies filament voltage of 1 1/2 volts for four 226; 2 1/2 volts C. T. for one 227; 5 volts C. T. for one 171A, and 5 volts for 280 rectifying tube.

Also supplies plate voltage of 600 volt C. T. and 6 and 45 volts for "C" bias.

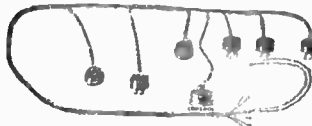
Contains speaker output choke and condenser.  
For 110 volt, 60 cycle A. C. less tube

**\$9.85**  
Cat. No. 3245



## A. C. Adapter Harness

With Volume Control



All adapters have Mid-Tap Resistances and can be used with A. C. Filament Transformers which are and are not center-tapped. The EBY A. C. Harness when used with any standard filament transformer will convert any J. C. set to A. C. operation. Designed for use with UX-226, UY-227 and UX-171 or 112A tubes.

Very simple to connect. No rewiring necessary on set. Installation can be made in 10 minutes.

**TWO UNIVERSAL MODELS**

For 5 tube set.  
List: \$9.00

For 6 tube set.  
List: \$10.00

**75c**

**95c**

Cat. No. E-92

Cat. No. E-91

## Genuine R.C.A. 30-A D.C. Power Pack

Used in conjunction with Radiola No. 30-A Receiver for Direct Current operation

Utilizes four 171-A power tubes in push-pull parallel, giving a 2 1/2 watt output. Supplies "B" voltage for detector 45 "B" and 90 "B" for radio frequency and 1st audio stages. Also supplies filament voltage for six 190 tubes in series. Most complete D. C. amplifier and power pack on the market. Housed in metal case with brackets for mounting permanently in cabinet. Operates on 110 volts, D. C.

**\$17.50**

Cat. No. 8-1123

## Sterling 180 Volt "B" Eliminator

R-81

Operates 3 to 8 tube sets (including power tubes). Uses BII type Rectifying tube. Has four terminals and "on and off" switch. All voltages are variable with perfect power regulation. Operates from 110-120 volt, 50-60 cycles A. C. current.

"Sterling" is known for the excellence of its products and its dependable performance. This one is admittedly one of the best procurable.

less tube

**\$6.95**

Cat. No. 1890



List: \$28.50

Size: 7 1/2 x 4 1/2 x 5 1/2"  
Weight: 10 1/2 lbs.

Electrify the filaments of your Battery Receiver with this

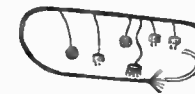
## Enterprise

## "A" and "C" Eliminator

And Eliminate the troublesome storage battery and battery charging



This kit consists of a filament transformer which supplies voltages for 4-226's, 1-227 and 1-112A; a six-tube harness adapter and a book of instructions. There is no hum when using this A. C. adapter since it contains an R. F. filter. It also does away with all tendency of the receiver to oscillate. A "B" and "C" eliminator may be used in conjunction with this.



With Six Tube Harness

**\$2.95**

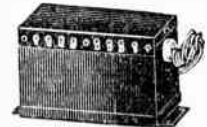
Cat. No. X-1

## Jefferson Power Pack

Contains: Power Transformer, and Filter Choke

Size: 7 1/4" long; 4 1/2" wide; 3 1/2" high

For use with receivers using four 226, one 227, two 171-A, one 280 tubes. Will deliver 575 volt C. T. at 80 mls., 1.5 volt at 4.25 amps., 2.25 volt at 1.75



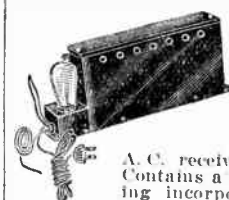
amps. C. T., 5 volts at .5 amps. C. T.; 5 volt at 2 amps. for 280.

**\$2.75**

Operates from 110 v. 60 cycle A. C. Cat. No. 2787

## U. S. Radio & Television A. B. C. Power Pack

For five 226, one 227, two 171A and one 280 tubes



A general replacement complete Power Pack for U. S. Radio and Television receivers and for any set employing above tubes, having separate power packs. Excellent for converting battery sets to modern

A. C. receivers.

Contains a complete Power Pack, having incorporated power transformer, choke, condensers, voltage dividers, resistors, etc.

Has 2 1/2, 1 1/2 and two 5-volt windings. The 2 1/2 volt winding is center-tapped. Has separate outlet of 110 volt A. C. for field of dynamic speaker. Also has high and low switch for variation in voltage.

Supplies 180 volts, and tapped for 45 and 90 volts. Compact. 15 1/4 x 6 3/4 x 2 3/4" deep. Weight: 20 lbs.

Operates on 110 volt, 60 cycle A. C. less tube

**\$7.35**  
Cat. No. 2557

## Genuine R. C. A. 41 A. C. Power Pack

Used in conjunction with the Radiola No. 41 Receiver

Supplies 1 1/2 volts for four 226, 2 1/2 volts for one 227, 7 1/2 volts for one 210, plate voltage for R. F. and 1st audio stages, detector and high plate voltage for 210 power amplifier.

Excellent pack for those sets using a 112-A or 171-A power tube, where higher output is desired. Just connect where present power pack is, and substitute 210 power tube.

Supplied in attractive metal case with terminal connections concealed. Operates on 110 volt, 60 cycle, A. C.

**\$16.50**

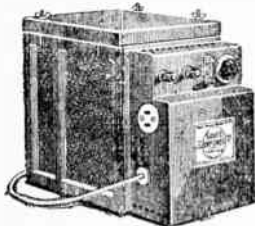
Cat. No. 8-1124

The New Gould Kathanode

# Unipower

GOULD PRODUCT

AUTOMATIC RADIO "A" POWER FROM LIGHT SOCKET (With Built-in Relay)

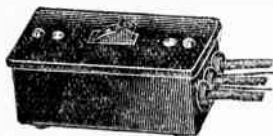


List: \$39.50 each

Model A. C. 6K (6-volt) Kathanode Unipower is the highest quality "A" power unit built. Furnishes rich, smooth, unflaring "A" current, without any trace of hum, which is automatically replenished from the light socket. Can be used with Kolster Model G-H. The Kathanode construction uses the glass mat retainer, which insures extra long life of the battery elements and when sold it will require no servicing. This exclusive patented feature (Kath-anode) is used and approved by the United States Government for its submarine batteries, which are furnished by Gould. Equipped with a new noiseless Balkite Charging Unit, which has four graduated charging rates, and in addition one booster rate (1 1/2 amperes) for an emergency charge, which enables it to properly take care of all sizes of sets and conditions of operation. Operates on 110-120 V., 50-60 cycle A. C. current. Complete—with extra fuse. **\$7.50**

Cat. No. S-3749

## Gould Master Control Switch



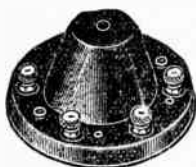
This switch will disconnect a trickle charger when the receiver is operating and connect the "B" battery eliminator, all in one operation and when the receiver is not in use it will dis-

connect the "B" battery eliminator and connect the trickle charger for charging operation.

**25c**

Cat. No. S-3743

## Reliable Automatic Relay



Manufactured by Reliable Parts Mfg. Co.

A reliable automatic power control switch for use with trickle chargers and "B" eliminators.

List: \$2.00

Automatically turns on or off either trickle charger or eliminator as required, from set switch on radio set. For 6 volt tubes with sets drawing not more than 2 amperes. **15c**

Cat. No. F-82

## Elkon Tapering Chargers



TYPE E

It employs the time-tried Elkon dry rectifying system. No water or acid to spill; no bulbs or moving parts to be replaced. Unit is guaranteed for 5,000 hours continuous service. Charges full wave, starting at 1 ampere when charge is low in battery and tapers to .3 amperes as battery reaches full charge. Very compact: 6 x 6 x 2 3/4". For 110 volt, 60 cycles A. C.

**\$3.65**

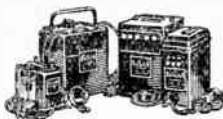
Cat. No. F-66

Three amperes, new type, all dry tapering charger

Complete **\$7.95**

Cat. No. 3172

## Balkite and Abox (Power Units and Parts)



These are genuine units and no doubt you realize there are thousands of them still in operation.

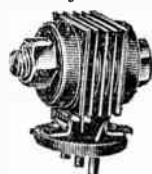
There is also quite a demand for replacement parts.

	Cat. No.	
80-volt Balkite B Eliminator	2755	\$ 8.95
135 " " " "	2756	7.95
180 " " " "	2757	9.95
A & B 6-135 volt comb. unit	2758	15.95
A & B 6-180 " " "	2759	16.50
Model KX-135 B Elim. & Trickle Charger (special)	2760	6.75
Model K 1/2 Amp. trickle charger	2761	3.35
Model N, 3 Amp. trickle charger	2762	5.50
Model H 2 1/2 Amp. trickle charger	2763	6.50
Abox A, Eliminator	2763	11.95
Electrolyte solution for Balkite 90 v. & 155 v. B Elim. & Trickle Charger	2764	.44
Electrolyte solution for Balkite H-J-N charger also 180 v. B Eliminator	2765	.59
KOH solution for Balkite & Abox A Eliminator	2766	.88
Electrode for Balkite & Abox A Eliminator	2767	1.26
Lead Electrode for Model K Trickle	2768	.36
Lead Electrode for Model J Trickle	2769	.59
Glass cell rectifier assembly for 180 volt B Eliminator	2770	5.88
Glass cell rectifier assembly for 90 & 135 volt B Eliminator	2771	4.71
Funnel for filling B cells	2772	.18

## Elkon XB-4 Dry Disc Rectifiers

For TRICKLE CHARGERS

All dry. Takes the place of wet jar rectifiers.



Replacement unit for any of the following: Elkon, Acme, Precision, National Battery Co., Bernard Power units. Former type V-4.

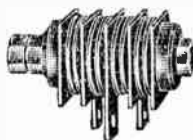
**\$2.40**

Set of Three Units  
Cat. No. F-54

Elkon Type XP-8—for Phileo A and AA and Elkon. for unit **\$2.40**

Cat. No. 1894

## New Type Benwood-Lenz (B-L) Dry Disc Rectifier Units



These Full Wave Rectifiers are used in various "A" eliminators, trickle chargers, and dynamic speakers.

Type B-12 delivers up to 2 1/2 amperes and guaranteed **\$2.50** for 1000 hours. Cat. F-52

Type B-16 delivers up to 3 amperes and guaranteed for 1500 hours. **\$2.75**

Cat. No. F-53

## Brach Controlit Relay

Model R-6



Enables you to operate A and B Power Units directly from your radio switch by automatically controlling flow of electric light-socket current to B battery substitutes and "A" trickle charger.

**60c**

Cat. No. S-1964

## Tungar Battery Chargers and Bulbs



These units charge all 2-4-6 volt radio "A" and 6-12 volt auto batteries. It will also charge 24 to 96 volt "B" storage batteries in series without attachments. It is quiet in operation and is particularly suitable for cabinet installation; it can be safely left connected to the battery without injuring

These chargers operate on 105-125 volts 60 cycle A.C. current.

Two ampere size, complete with bulb **\$10.50**

Cat. No. 3856

G. E. two ampere renewal bulb **\$3.20**

Cat. No. 3857

Five ampere size, complete with bulb **\$19.75**

Cat. No. 3858

G. E. Five ampere renewal bulb **\$6.50**

Cat. No. 3859

## New Type Elkon Dry Disc Rectifier



Type XB-16

This Elkon Rectifier is standard on the following "A" Eliminators—Majestic, Mayolian, Webster, Elkon, Bernard, Fada, Knapp, Sentinel, Metro, General Instrument, Phileo (Elkon equipped) and also on the following chargers—Elkon, 3 amp. and Briggs & Stratton.

Supersedes Old Type M-16

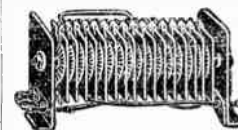
NEW TYPE WITH BASE

**\$3.45**

Cat. No. S-3174

## Kodel Kuprox Dry Disc Rectifier with Brackets

Gives output of 1.2 amperes. Contains 12 discs.

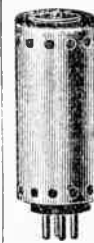


Suitable for all types of A.C. Dynamic Speakers and "A" Eliminators.

**\$1.50**

Cat. No. F-83

## Elkon EBH Rectifier

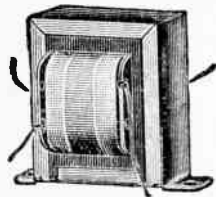


Takes the place of BH Raytheon Tube in B Eliminators. This Rectifier is guaranteed to work for 2,500 hours. It is sturdy, solid, dry, has none of the frailties of a tube, not affected by accidental overloads or line surges, it gives quieter and smoother power. The ideal replacement for the BH tube.

**\$1.45**

Cat. No. F-68

**THORDARSON**  
**Audio Transformer**



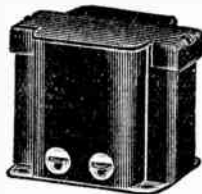
List: \$5.50

Ratio: 3 to 1  
A Genuine Thordarson 3-1 Audio Frequency Transformer which is very compact and serves beautifully as replacement in almost any receiver using single audio stages. Used in Sparton 69, 79, 79A and Ensemble Receivers, Rep. No. A-3433.

**\$1.35**  
Cat. No. B-21

**THORDARSON**  
**Audio Transformer**

This Genuine Thordarson Audio Transformer used in Sparton Receivers. However, it has excellent characteristics and may be used for replacement purposes in any receiver. With a ratio of 2:1 it has sufficient gain to deliver good volume in a receiver or amplifier.



List: \$5.00

Used in Sparton 515 and 526 Receivers. Replacement Nos. 1275-S-1, 1276-S-2, 1277-S-3.

**\$1.50**  
Cat. No. B-33

**Acme Audio Transformer**

BREMER-TULLY REPLACEMENT

Ratio: 3-1

It is fully cased with connections coming from the bottom. It's excellent design and construction makes it efficient for universal use.

**75c**  
Cat. No. B-38

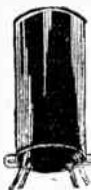
**Atwater Kent Shielded Audio Transformer**

Ratio 3 1/2 to 1.

Compact—1 1/2" diameter, 3 1/2" high. Replacement for Atwater Kent sets and battery and A. C. receivers.

**\$1.25 ea.**

4 for \$4.50  
Cat. No. 2901



**de Forest**  
**Output Transformer**

Ratio: 1-1

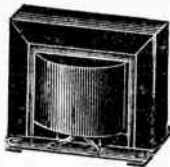
For protecting speaker from high voltage.

**50c**

Cat. No. B-35

Weight: 1 1/2 lb.  
List: \$7.50

**Kolster**  
**Audio Transformer**



List: \$10.00

Used in the K-5 Reproducer and 6-H and 6-M Receivers, Rep. No. A-5105 Has a ratio of 3-1. To be used in conjunction with a stage of power amplification using either a 210, 245 or 250 tube.

**75c**

Cat. No. B-67



**Victor First Stage Audio Transformer**

Replacement Part No. 10414 Used in Victor Models R-32, R-52, RE-45 and RE-75.

Has a special 200 ohm phonograph pick-up winding.  
List: \$5.50

Ratio 3 1/2:1

**75c**

Cat. No. B-25



**Super Audioformer**

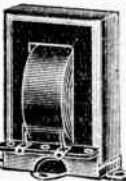
Ratio 2 1/2:1

Heavy duty Audio Transformer.

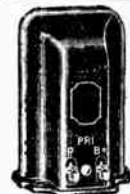
**95c**

Cat. No. B-31

Used in Sparton 89 and 89A Receivers. Rep. No. A-1862



List: \$9.00



**General Radio Audio Transformers**

Fully shielded in heavy case. One of the finest transformers made.

3 3/4 x 2 1/4 x 2 1/4"

Cat. No.	Type	Ratio	
3260	2S5H	3-1	<b>\$1.20</b>
3261	2S5D	6-1	<b>1.20</b>

**General Radio Impedance Choke Coil**

100 henries at 10 mils  
Type 369

For coupling choke in audio amplifiers; or audio filtering choke. Inductance value measures 100 henries at approximately 10 mils peak load. Same overall dimensions and appearance as General Radio Audio Transformers described above.

**\$1.35**

Cat. No. 3262

**Aerovox Bakelite Grid Leak and Resistor Mounting**



Moulded Bakelite. Designed to assure positive contact.

**15c**

Singles.....  
Cat. No. 3468

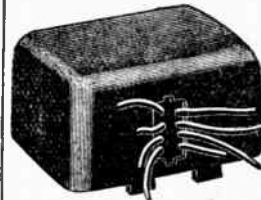
**30c**

Doubles.....  
Cat. No. 3469



**Genuine (Gen. Elec.) 2-Stage Audio Transformer Pack**

R.C.A. Replacement Part No. 5667  
Ratio of each Transformer 3-1



Size: 3 1/2 x 2 1/4 x 1 1/4"  
List: \$0.75

Used in Radiolas 16, 17, 18, 33, 41, 50, 51, 7-15, 7-25, and 9-16. Replacement part No. 5667.

Consists of a first and second stage Audio Transformer shielded in a metal container. Can also be used with any A. C. or D. C. radio sets where two good audio stages of amplification are desired.

This Audio Transformer Pack is well designed. Its compactness permits installation either above or below the panel.

**\$1.15**

Cat. No. B-53

**Single Audio Ratio, 3 1/2--1, 65c**

Cat. No. B-52

**Samson Dual Impedance**

Combines a plate impedance, grid impedance and coupling condenser in a single case. This unit enables one to construct an impedance coupled amplifier at a small cost.



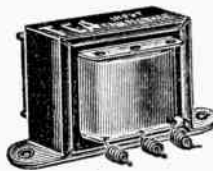
**\$1.50**

Cat. No. 2788

Type D

**American Input Push-Pull Transformer**

These Push-Pull Input Transformers have excellent characteristics, and can be used when a single tube is coupled to any two tubes in a push-pull circuit.



Easily mounted. Size: 2 3/4" long, 2" deep, 2 1/2" high.

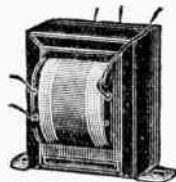
**85c**

Cat. No. B-47

**THORDARSON Input P.P. Transformer**

For use with all types of tubes

A Genuine Thordarson Input Push-Pull Transformer of excellent design and construction. Just the thing for your new amplifier. Its size permits use for any replacement purposes. Used in the Sparton 930 Receiver, Rep. No. A-3706.



**\$1.45**

Type T-3391

List: \$6.00

Cat. No. B-31

**BRUNSWICK  
Dynamic Push-Pull Output  
Transformer**

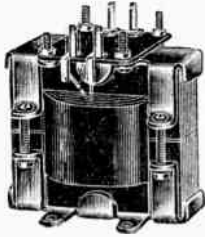


Two 245's or two 171A  
Voice Coil, 8-10 Ohms  
This Transformer is a genuine  
replacement for Brunswick,  
Bremer-Tully receivers and  
were also used on Farrand Dy-  
namic speakers. Primary for two  
245 tubes in push-  
pull. Secondary im-  
pedance, 8-10  
ohms.

**60c**

Cat. No. B-74

**Kellogg Output Transformer**



Push-Pull, for 245 or 250  
tubes to voice coil of dyna-  
mic speaker. Secondary im-  
pedance 10-12 ohms.

**\$1.25**

Cat. No. 2120

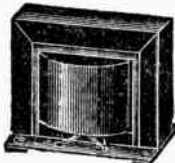
Coupling—Ratio 1:1—To  
couple magnetic speaker or  
where dynamic speaker  
has matching transformer.  
Has heavy primary wind-  
ing for a 245 or 250 tube.

Breadboard or  
Sub-Panel Mount

**85c**

Cat. No. B-20

**Kolster  
Output Transformer**



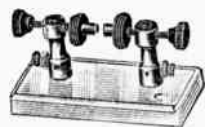
List: \$10.00

Used in the K-5 Repro-  
ducer and the 6-H and 6-M  
Receivers, Rep. No. A-5203.

To be used for coupling a  
210 or 250 to a dynamic  
speaker, having a 40-50  
ohm voice coil.

**75c**

Cat. No. B-68



**Adjustable  
Spark Gap**

Equipped with air circu-  
lating cooling flanges and  
screw type gap adjust-  
ment; mounted on porce-  
lain base.  
Recommended for Tesla  
Coil high frequency ex-  
perimental work.

**\$1.75**

Cat. No. 2968

**I. C. A. Jr. Filtervolt**



Light Duty

smallest and most compact noise  
eliminator made.

Light duty noise elim-  
inator for use with  
small motors of 1/16  
horsepower or less, or  
at the radio set. Filters  
noises from electrical  
house appliances such  
as vacuum cleaners,  
electric irons, toasters,  
etc. Most beneficial  
when used at source of  
interference. It is the

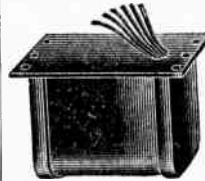
**\$1.70**

Cat. No. J-46

**Genuine (Gen. Elec.)  
Output Transformer  
and Condenser**



Used in Radiolas 41 A. C. and D. C., 51 and  
106 Speakers



List: \$10.20

R. C. A. Replacement No.  
5899. Used and attached  
on the 106 speaker chassis.  
Contains an output trans-  
former and two .1 mfd.  
condensers in series, cen-  
ter con-  
nection  
grounded  
in metal  
container.

**95c**

Cat. No. B-57

**OUTPUT TRANSFORMER FOR RADIOLA 62**

Replacement Part No. 8383. List \$12.00  
Output Coupling Unit comprising choke, conden-  
ser and transformer in metal container, same as  
above.

**\$2.50**

Cat. No. 2118

**OUTPUT TRANSFORMER  
For Radiola 46, 47 and 66**

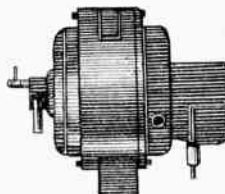
Replacement No. 6019. List \$5.85  
Output coupling unit comprises choke and .5  
condenser in metal container  
same as above.

**60c**

Cat. No. 2119

**Kolster Remote Control Motor**

Manufactured by **ROBBINS & MEYERS**



6" long, 4" diam.  
Weight: 5 lbs.

21 volt, 60 cycle A. C.  
A reversible motor, run-  
ning clockwise or coun-  
ter-clockwise.

3,300 r.p.m. motor geared  
down to 19 r.p.m., but  
can be adjusted for vari-  
ous speeds.

Various uses for this  
motor, running fans,  
toys, etc.  
Used in K-45 Receivers.

**\$3.95**

Cat. No. 3298

**Westinghouse Ammeter**



List: \$1.25

0-75 Amps.



Designed for testing Farm  
Lighting Equipments,  
Yachts, Motorboats, Bat-  
teries, Radios, etc.  
For Panel Mounting. Body  
2"—Flange 2 1/4".

**25c**

Cat. No. J-43

**I. C. A. Popular Filtervolt**



Medium Duty

Medium-sized eliminator  
for use with motors on  
electric refrigerators, wash-  
ing machines, etc. The  
popular model for use in  
all instances. Answers the  
demand for a low-priced  
efficient filtering unit, to  
be used at the receiver.

**\$2.94**

Cat. No. 1892



**R. C. A.**

**Photo-Electric Radiotron**



**UX-867**

This tube can be used for talking movie  
sound equipment, for light intensity  
measurement for television purposes and  
also may be used for operating a  
relay to indicate when lights are off,  
and on, and also for burglary alarm,  
and for experimental purposes.

**Rating and Data**

Anode Supply Voltage (Maximum).....200. Volts  
Anode Current (Maximum).....20 Microamperes  
Window Diameter.....1.25 inches

**Approximate Sensitivity**

Dynamic .....25 Microamperes-lumen  
Static .....30 Microamperes-lumen

**Maximum Overall Dimensions**

Length .....6 5/16 in.  
Diameter .....2 9/16 in.  
Socket .....UX or Navy Type  
For Experimental purposes only.

Photo-Electric Radiotron UX-867 is a highly sensi-  
tive, general purpose photo-  
cell of the central anode type.  
An output of from 1 to 5  
volts can be obtained with  
excellent fidelity.

**\$2.75**

Cat. No. 2726

**Television Receiving Lamps**



This lamp may be employed with any  
television system. Designed to avoid  
high space charges and eliminate  
the spots of high brilliancy over the  
surface of the cathodes.

The elements are rigidly supported by  
means of sturdy glass rods. U. X.  
standard bakelite base.

Exciting potential 180-230 volts. Safe  
average current 50 mils, maximum  
current, instantaneously, 125 mils.  
10 mils current at  
dark point.  
1 1/2" square cathode,  
overall 2 x 6".

**\$3.85**

Cat. No. 2983

Exciting potential 160-180 volts. Safe average  
current and maximum current same as above.  
8 mils current at dark point.  
1" square cathode, overall  
1 1/4 x 3 1/4".

**\$3.85**

Cat. No. 2984

**American Line**

**Interference Eliminator**

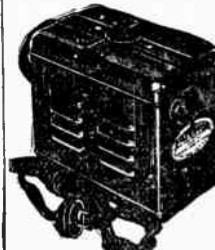


Install one of these Line  
Filters to eliminate any  
A. C. or D. C. line inter-  
ference from travelling into  
your radio. If you have a  
generator, vacuum cleaner  
or elevator, etc., interfering  
with your reception you  
should install this Filter.  
Easy installation.

**\$1.50**

Cat. No. 2598

**I. C. A. Sr. Filtervolt**



Heavy Duty

Heavy duty noise elim-  
inator for use with any  
electric receiver or any  
kind of an electric ma-  
chine which creates line  
noises. Filtervolt operates  
on A. C. or D. C. at any  
number of cycles and  
volts. It is absolutely the  
last word in an inter-  
ference eliminator.

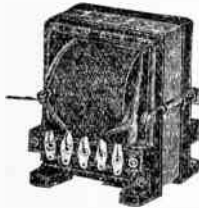
**\$8.45**

Cat. No. 1893



**Patent Heavy Duty Push-Pull Output Transformer**

MADE BY ACME



This genuine Push-Pull Output Transformer will handle up to and including 250 tubes in push-pull parallel. Secondary impedance: 4000 ohms. Mounted on heavy cast iron frame with an abundance of high grade silicon steel laminations.

Where speaker is equipped with a watching transformer, same may be connected to secondary for perfect matching. Heavy primary winding absorbs heavy "B" current of output tubes, preventing possible speaker transformer burn-out. **\$2.85**

Cat. No. A-56

**Earl & Freed Push-Pull**

AUDIO TRANSFORMERS

Input Push Pull

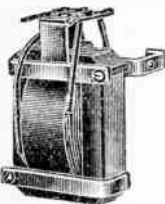
**\$1.70**

Cat. No. 3306

Output Push Pull (To 8-10 ohm Voice Coil of Dynamic Speaker.)

**\$1.75**

Cat. No. 3307



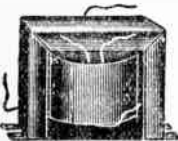
**Freshman Audio Transformer**

For Models Q, QD, N & M

3-1 Ratio

**50c**

Cat. No. 3301



**Sangamo**

**Audio Transformers**

Push-Pull Input and Output



Types HX and BX are designed for use as a pair of push-pull transformers in conjunction with a dynamic speaker. The input transformer has a high primary inductance, insuring maximum amplification at low frequencies. The secondary is accurately divided to secure practically identical frequency characteristics. The output transformer is designed for use with 171, 245 or 250 type tubes, but can be used with other models without loss of efficiency. Output transformer for 8-10 ohm voice coil.

List: \$13.00

**\$1.95**

INPUT—Cat. No. 2021. OUTPUT—Cat. No. 2022.

Each

SINGLE AUDIO Ratio: 3-1

The musical range runs from approximately 32 vibrations per second for the lowest note to about 5,000 vibrations per second on the highest note. The perfect audio transformer would amplify equally each frequency within this range—its amplification curve would show a straight line. The curve produced by this audio transformer is as near perfect as mechanically possible. **\$1.75**

Cat. No. 2023

**THORDARSON**

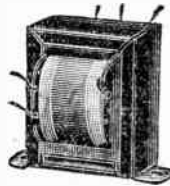
**Dynamic Push-Pull Output Transformer**

Two 245's or two 171A to 10 Ohm Voice Coil

This genuine Thordarson Push-Pull Output Transformer has excellent characteristics and will fit into most any receiver as a replacement.

**95c**

Cat. No. B-72



**Input Push-Pull Transformer**

This Input Transformer and the above Output makes an ideal matched pair of transformers. However it can be used independently. Couples a single tube to a pair of push-pull tubes.

**\$1.45**

Cat. No. B-73

**Push-Pull Output Choke**

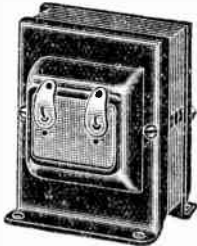
For above tubes. Appearance same as above.

**95c**

Cat. No. 3222

**THORDARSON**

**Push-Pull Output for Magnetic Speakers**



This Transformer is designed to couple a pair of 112A, 171A or 245 power tubes to a high impedance 2000 ohm magnetic speaker.

**\$1.75**

Cat. No. K-64

**Interstage Push-Pull**

This Interstage Transformer is designed to couple two plates of a preceding push-pull stage to two grids of a push-pull power stage. Turn ratio: 1 1/2-1.

Where 3 stages of audio are desired, using two push-pull stages, the following transformers are recommended. Viz: Input for first stage, coupled to interstage for second audio, push-pull and as an output for dynamic speaker the selection is obvious. **\$2.60**

Cat. No. K-63



**Input and Output Push-Pull Transformer**

Used in Radiolas 80, 82, 86 Also Victor R-35, 39, 34 and RE-57

Replacement No. 8554. Voice coil impedance 8-10 ohms.

Cat. No. A-38

**75c**



**Jefferson Push Pull Output Transformer**



Voice coil impedance: 8-10 ohms. For push-pull 245, 250, or 171A tubes.

**95c**

Cat. No. 3220

**THORDARSON Dynamic Output Transformer**



List: \$6.00

A Genuine Thordarson 40-1 Dynamic Output Transformer, made to be used in feeding the output of a 245, 210 or 250 tube into a dynamic speaker. Voice Coil: 8 ohms. Also used as matching transformer where output transformer is now being used. Used in the Sparton 89A Receiver, Rep. No. A-2117.

**95c**

Cat. No. B-32

**THORDARSON**

**Single Pentode Output Transformer**



In a jiffy you, too, can make your radio set up-to-date. Change your output transformer for the PENTODE tube and receive quality and volume you never had before. Single Pentode output to 8 ohm voice coil.

**95c**

Cat. No. B-7

**Push-Pull Pentode Output to 8 ohm Voice Coil**

**\$1.75**

Cat. No. 3803



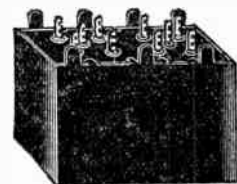
**Victor Push-Pull Input and Output Transformers**

Used in Victor Models R-32, R-52, RE-45 and RE-75 Replacement Part No. 10418

Primary output for two 245's, or 171-A's. Secondary impedance, 15 ohms. This Transformer can be used with most any other dynamic speaker.

**\$1.50**

Cat. No. B-75



List: \$10.00

**General Radio 30 K. C. "Intermediate Frequency" Transformer**



2 3/8 x 2 1/2 x 1 3/4"

Fully shielded in heavy case.

Type 271. Designed for super-het. circuits, where a compact, highly efficient R. F. Transformer is needed; also may be used in long wave R. F. frequency circuits.

**95c**

Cat. No. 3263

Set of Three **\$2.50**

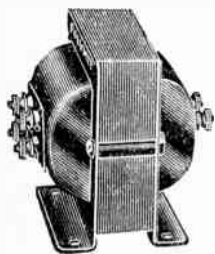




# Polymet Transformers and Chokes



## Auditorium Type



These transformers are all designed on a one-inch square core of high grade silicon steel. The coils are vacuum dried and impregnated to withstand humid conditions. The end shells are of heavy steel, so as to provide strong mechanical protection and magnetic shielding. The terminals are binding posts.

This is a brand new series designed according to the latest practices.

You will note they are unusually flexible in application.

Never before have such high quality transformers been offered for so low a price. The Polymet Company's tremendous production facilities make this value possible.

### Input

TYPE TA-450

An interstage Transformer in which the secondary is in two halves brought out to 4 binding posts. Can be used as a 3 to 1 or 1.5 to 1 straight audio transformer or as a 3 to 1 push-pull input in which connection the two power tubes may be biased separately if desired.

**\$2.25**

Cat. No. 2613

### P. P. Interstage

TYPE TA-451

A Transformer for use between two push-pull stages or from a push-pull stage to one 250 or 50 watt tube (with the secondaries in parallel). The secondary is in two halves with four terminals, so that two push-pull power tubes may be biased separately if desired.

**\$2.40**

Cat. No. 2614

### P. P. Output

TYPE TA-454

This is a universal output transformer to couple out of low impedance tubes. It will correctly match push-pull 171s, 245s or 250s to one, two or four standard dynamic speaker voice coils in series. There are many other output combinations possible in series parallel arrangements, etc.

**\$2.00**

Cat. No. 2615

### P. P. Pentode Output

TYPE TA-455

This transformer is similar to TA-454, except that it is for push-pull pentodes of any type.

**\$2.00**

Cat. No. 2616

### Variable Matching

TYPE TA-457

An input transformer with the primary so tapped that it will correctly match a single button microphone, a double button microphone, a 200-ohm line, a 50-ohm line, or the voice coil of a dynamic microphone to a tube.

**\$3.00**

Cat. No. 2617

### Line or Pick-up To Tube

TYPE TA-458

An input transformer with the primary so tapped that it will couple a 500-ohm line, a low impedance phono pick-up (500 ohms), or a high impedance (2000-3000 ohms) phono pick-up to tube.

**\$3.00**

Cat. No. 2618

### Tube To Line

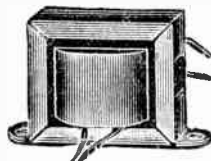
TYPE TA-459

An output transformer designed to couple a general purpose tube (201a, 112a, 227, etc.) to a 500-ohm or 200-ohm line. The secondary is tapped.

**\$3.00**

Cat. No. 2619.

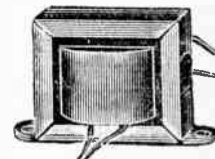
## Standard Type



The Standard Type low-priced Transformers and Chokes are of the open frame design having slightly less silicon steel than the higher-priced Auditorium type.

Due to compact design they lend themselves to easy replacement problems, being but 3 1/4 x 2 1/4 x 1 3/4" thick. Equipped with mounting brackets having mounting holes 2 3/8" from center to center. Colored leads to permit quick easy wiring.

The frequency response is excellent due to Polymet's design and manufacturing facilities engineering at all times quality and price.



### Audio Transformer

3-1 Ratio. All stage.

**\$1.00**

Cat. No. W-1529

### Push-Pull Input Transformer

3 to 1 ratio

**\$1.25**

Cat. No. 1530

### Push-Pull Interstage Transformer

(To couple Push-Pull to Push-Pull Tubes, for all types of tubes.)

**\$1.50**

Cat. No. 1535

### Push-Pull Output Transformer

(245 Push-Pull to 10 ohm voice coil.)

**\$1.15**

Cat. No. W-1531

### Push-Pull Output Transformer

(247 Pentode Push-Pull to 10 ohm voice coil.)

**\$1.00**

Cat. No. 1532

### Output Transformer

(Single 245 or 250 to 10 ohm voice coil.)

**\$1.00**

Cat. No. 1533

### Output Transformer

(Single 247 Pentode to 10 ohm Voice Coil.)

**\$1.40**

Cat. No. 1534

### Microphone Transformer

Single Button (200 ohm)

**\$1.50**

Cat. No. 1510

### Microphone Transformer

Double Button (200 ohm C. T.)

**\$1.50**

Cat. No. 1511

## Phonograph Pick-up Matching Transformer

2500 Ohm.

(To couple High Impedance Phono Pick-Up to grid of tube.)

**\$1.50**

Cat. No. 1536

## Audio Choke

280 henries at 2 m. a., center-tapped, D. C. resistance, 9000 ohms.

**\$1.25**

Cat. No. 1539

## Filter Choke

11 Henry, 60 M. A., 300 Ohm, D. C. resistance.

**75c**

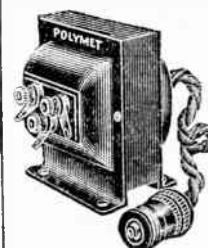
Cat. No. 1538

## Filter Choke

25 Henry, 25 M. A., 830 Ohm, D. C. resistance.

**95c**

Cat. No. 1537



## Filament Transformers

The three transformer listed below will be found useful in bringing sets up to-date and also will present a very useful item for experimenters. They are very conservatively rated. Insulated for 200 volts.

Type TF-952

2.5 volts, 10 amps., center-tapped  
Cat. No. 2610

Type TF-953

5 volts, 4 amps., center-tapped  
Cat. No. 2611

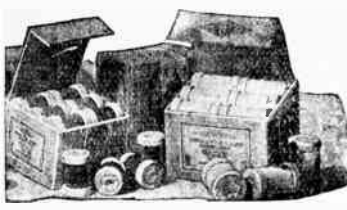
Type TF-957

7.5 volts, 3 amps., center-tapped  
Cat. No. 2612

ANY TYPE

**\$2.25**

A full line of Polymet equipment is contained in their latest catalogue, just off the press, which you may have free for the asking. **Special discounts** quoted.



### Magnet Wire

Pure copper magnet wire for winding R. F. chokes, coils and dynamic field coils.

#### DOUBLE COTTON COVERED

Size ...	14	16	18	20	22	24	26	28	30	32
1/4 lb. ...	\$.17	.18	.19	.20	.23	.27	.32	.39	.45	.55
1/2 lb. ...	\$.29	.30	.34	.37	.42	.50	.60	.73	.86	1.06

#### DOUBLE SILK COVERED

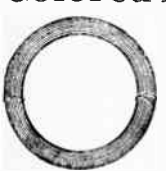
Size .....	18	20	22	24	26	28	30	32
1/4 lb. ....	\$.30	.34	.40	.47	.58	.73	.95	1.20
1/2 lb. ....	\$.57	.68	.77	.92	1.13	1.40	1.85	2.34

#### PLAIN ENAMELED

Size .....	18	20	22	24	26	28	30
1/4 lb. ....	\$.16	.16	.17	.18	.21	.23	.25
1/2 lb. ....	\$.28	.28	.30	.32	.38	.40	.46

Packed 12 spools in box. Above wire B & S Gauge. When ordering, please state size of wire wanted.

### Colored Rubber Covered, Stranded, Hook-up Wire



Very flexible tinned wire, covered with natural rubber. Ideal for wiring or hooking up sets.

### "Push-back Wire"

A high grade hook-up wire for general work, covered with paraffined braided push-back insulation. All colors.

Cat. No.	H-101	25-ft. Coils, 11c each,	\$1.20	Dozen
	H-100	50-ft. " 20c "	2.25	"
	H-99	100-ft. " 40c "	4.50	"

### Holyoke Push-back Wire



For use in wiring radio receivers, etc. Solder adheres easily. Comes in various colors. Paraffin push-back beeswax insulation.

Cat. No. F-102	25 ft.	15c
Cat. No. F-103	50 ft.	29c

### Holyoke No. 18 Bell Wire



This wire has varied uses in and around a radio installation. Used universally for connecting bells and for ground wire in radio.

Cat. No. F-104	1/4 lb.	9c
Cat. No. F-105	1/2 lb.	17c
Cat. No. F-106	1 lb.	33c



For French Phone

### THE NEW Telerad

Automatically Shuts Off Radio Speaker Only When Telephone Receiver Is Removed From Hook.

This new invention is the latest thing for efficiency in the home. When the telephone rings, it is not necessary to shut the radio off since by lifting the phone from the TELERAD, the loud speaker is automatically disconnected from the receiver. In this way, the tubes remain heated and therefore it is not necessary to wait until they heat again as would happen if the set were shut off. Do not confuse this with any other radio-telephone switches since this is the only type which does not actually shut the set off but disconnects the speaker.

TELERAD is easily installed by anyone in a few seconds. It comes in a beautiful black satin finish that matches your telephone and is priced so low that you cannot dispense with it. The extension cord is 25 feet in length.

85c each. Any type.

- Cat. No. S-2121—French
- " " S-2122—French (dial)
- " " S-2123—Upright
- " " S-2124—Upright (dial)

### Mitchell-Rand Spaghetti Tubing



No. 10 Gauge  
The finest quality of varnish tubing. Comes in black, green, red, and yellow.

Dozen Lengths	30 in. ....	Cat. No. 3287..	\$.60
	5 ft. ....	Cat. No. 3289..	1.20
	10 ft. ....	Cat. No. 3290..	1.95

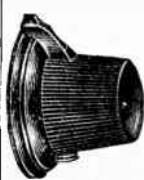
### Knobs — Knobs

We sell at lowest prices all styles of Knobs for all types of receivers.



Write for complete descriptive list.

### Bakelite Knob and Pointer



1/4 in. shaft with set screw. Black. Diameter, one inch. For volume controls and rheostats.

55c dozen

List: 50c

Cat. No. F-48

### Twisted Flexible Cord



For Lamps, Radio, Electrical, Etc.

Heavy rubber covered, each conductor individually braided and twisted.

Comes in white, and white with marker, all white, green and yellow, brown, and brown with marker, and all brown.

No. 18, copper 1/64 R. C. 500 ft. spool **\$3.75**  
Cat. No. 2222

### Reinforced Cord

No. 18 Copper 1/64 R. C. Type "P"  
Two flexible conductors, heavily rubber covered, individual braid over each conductor, over both conductors heavy wall of rubber and over the rubber a cotton braid. For heavy duty work.

- Cat. No. 2223—100 ft. .... **\$1.75**
- " " 2224—500 ft. .... **5.85**
- " " 2225—1000 ft. .... **10.50**

### Flexible Cotton Covered Fixture Wire

SINGLE CONDUCTOR For General Electrical Uses



Comes in white, brown, brown with marker, gray, gray with marker.

No. 18, copper, 1/64 R. C. 1000 ft. spool **\$3.95**  
Cat. No. 2226

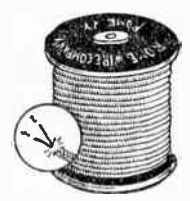
No. 20, copper, 1/64 R. C. 1000 ft. spool **\$3.20**  
Cat. No. 2227

### Silk-Covered Flexible Parallel Wire

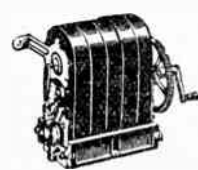
For radio and electrical uses such as wiring base board convenience outlets, lamps, etc. Comes in brown, white, old gold, brush brass.

No. 18, copper, 1/64 R. C. 1000 ft. spool **\$5.85**  
Cat. No. 2228

No. 20, copper, 1/64 R. C. 1000 ft. spool **\$4.95**  
Cat. No. 2229



### Magneto Generator



Manufactured by Western Elec. Co. 4 bars

Hand crank, very powerful. Fine for medical purposes, experimental, etc.

**\$3.50**

Cat. No. 1690

## Brandes Superior Phones



Standard and reliable since 1908, Brandes Headsets need no introduction to the radio trade. They occupy first position among headsets throughout the world.

2000 ohms.  
Cat. No. J-12 **\$1.45**

## CANNON-BALL PHONES

DIXIE 1800 ohms Cat. No. 4162 **\$1.20**  
SENIOR 2000 " Cat. No. 4163 **1.35**  
MASTER 2200 " Cat. No. 4164 **1.60**

## Baldwin Mica Diaphragm Headphones

2000 Ohms  
Used by U. S. Army and Navy  
The well-known Baldwin super-sensitive Mica Diaphragm Head Phones which need no introduction to the "Old Timers."



**\$5.50**

Cat. No. 1768

Genuine

## Holtzer-Cabot Headphones



100 Ohms Each Phone  
With headband. Excellent for instruction and practice work.  
Made for U. S. Navy.

**\$1.25**

Cat. No. 1748

## U. S. Army Headphone



100 Ohms  
With flexible headband. Fine for practice and instruction work.

**75c**

Cat. No. 1747

## Sangamo Ampere Hour Meter

0-500 Ampere-Hour Capacity  
Adaptable in circuits carrying up to 15 amperes.  
Measures ampere capacity remaining in batteries and, when being charged, records the charging rate.



**\$14.50**

Cat. No. 1751

Type MS.

## BAKELITE PHONE PLUGS



No. 230

Per Dozen  
**\$2.75**

Round Barrel Type Bakelite Phone Plug, accommodates two sets of head phones. Compact, nickel-plated plug, absolutely shock-proof.

**29c Each**

Cat. No. H-91

## WESTON PHONE PLUGS

This Bakelite Phone Plug is considered the finest made.



**39c**

Cat. No. 2084



## Pacent Radio Jacks

Nos. 61 to 70



No. 64  
List: 70c

Pacent Radio Jacks are known the world over for their fine performance and good construction. These jacks can be mounted on panels from 1/8" to 3/8" in thickness. Obtainable in any of the following numbers:

Cat. No.	Mr. No.	Description
J-1	61	Single, Open
J-2	62	Single, Closed
J-3	63	Double Circuit
J-4	64	Heavy Duty Loop Jack
J-5	65	Three Spring Automatic
J-6	66	Five Spring Automatic
J-7	67	Seven Spring Automatic
J-8	68	Four Spring Automatic Triple Circuit
J-9	69	Five Spring Special Filament Automatic
J-10	70	Six Spring Automatic

Per dozen **\$1.15** Any type  
Packed in individual boxes.

## PILOT Phone Plug Jack

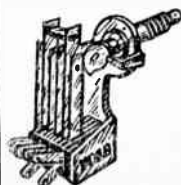
A ruggedly constructed jack that requires very little space, is single hole mounting only one inch deep. It is of the single circuit type which makes it adaptable to practically all circuits.



**25c**

Cat. No. T-1121

## Yaxley Phono-Radio Switch



Used in Peerless Sets  
Single hole, panel mount.  
Single pole, double throw.

**25c ea.**

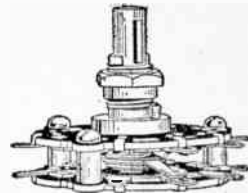
\$2.75 for 12

Cat. No. 3255

## Best Sectional Rotary Switches

Ruggedly constructed and built for reliable and exacting service.

Switches may be mounted on metal panels without additional insulation. Shaft of switch may be grounded, thus removing any possibility of electrical shocks or body capacity. All contacts and moving brushes are well insulated from shaft and each other. Furnished with any number of sections with either non-shorting or shorting contacts. Several switches can be gauged together. Made for use as Inductance Switch, Short-Wave Coil Switch, Speaker Relay Switch, Test Equipment, Public Address Work, etc. Furnished complete with knob, nut, and metal etched plate. One hole mounting, shaft 1/4" in diameter. Switches may be constructed according to your own specifications for switching as many as 6 circuits.



Cat. No.	No. of Poles	No. of Contacts	Type of Contacts	Price
2323	1	4	Non Shorting	\$ .81
2324	1	7	" "	.90
2325	1	9	" "	.98
2326	1	4	Shorting	.80
2327	1	7	" "	.89
2328	1	9	" "	.99
2329	2	4	Non Shorting	1.10
2330	2	7	" "	1.30
2331	2	9	" "	1.40
2332	2	4	Shorting	1.10
2333	2	7	" "	1.30
2334	2	9	" "	1.40
2335	4	4	Non Shorting	1.90
2336	4	7	" "	2.20
2337	4	9	" "	2.50
2338	4	4	Shorting	1.90
2339	4	7	" "	2.20
2340	4	9	" "	2.50
2341	6	4	Non Shorting	2.80
2342	6	7	" "	3.40
2343	6	9	" "	3.70
2344	6	4	Shorting	2.80
2445	6	7	" "	3.40
2446	6	9	" "	3.70

## BEST Three Pole, Four Point Switch

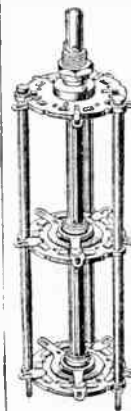
Short-wave Switch of Low Capacity

Same as used in coil assembly listed on this page.

With knob, escutcheon panel marked with wavelength.

**\$2.75**

Cat. No. 2323



## Roller-Smith R. F. Ammeter

0-10 Amps.

This Ammeter has zero adjuster. 4 in. in diameter. Used as radiation or tank circuit ammeter.



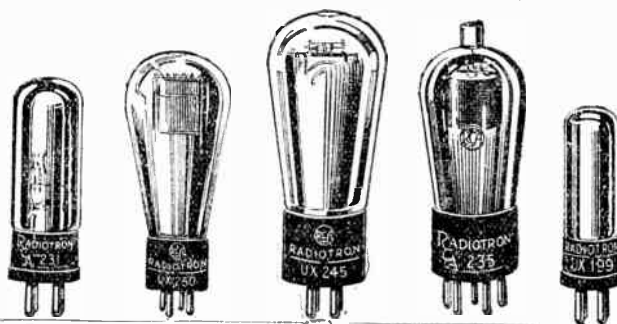
**\$6.50**

Cat. No. 1746

# We Are Official R. C. A. RADIOTRON Distributors



We feel that this appointment is significant to the extent that our customers will receive excellent service, fresh stock, and be assured of "Genuine" RCA Radiotrons at lowest prices. All tubes carry the regular factory guarantee provided the filament lights and glass is not broken.



<b>UX-112A</b> <b>DETECTOR-AMPLIFIER</b> Fil. Voltage .....5.0 Fil. Amperes ..... .25 Plate Volt. ....90-157 Grid Volts ..... -7-10.5 List: \$1.50      Net: \$1.88	<b>UY-226</b> <b>A. C. AMPLIFIER</b> Fil. Voltage .....1.5 Fil. Amperes .....1.05 Plate Volts .....135 Grid Bias ..... -8.0 List: 80c      Net: 47c	<b>UX-237</b> <b>AUTO DETECTOR-AMPLIFIER</b> Fil. Voltage .....6.3 Fil. Amperes ..... .03 Plate Volts .....135 Grid Bias ..... -9.0 List: \$1.75      Net: \$1.03	<b>UX-845</b> <b>50 WATT MOD. and AMPLIFIER</b> Fil. Voltage .....10.0 Fil. Amperes .....3.25 Plate Volts .....1000.0 Grid Bias ..... -150.0 Net: \$30.00
<b>UX-120</b> <b>AMPLIFIER</b> Fil. Voltage .....3.3 Fil. Amperes .....1.32 Plate Volt. ....135 Grid Bias ..... -22.5 List: \$3.60      Net: \$1.70	<b>UY-227</b> <b>DETECTOR-AMPLIFIER</b> Fil. Voltage .....2.5 Fil. Amperes .....1.75 Plate Volts .....180 Grid Bias ..... -18.5 List: \$1.00      Net: 60c	<b>UX-238</b> <b>AUTO PENTODE AMPLIFIER</b> Fil. Voltage .....6.3 Fil. Amperes ..... .03 Plate Volts .....135.0 Screen Volts .....135.0 Grid Bias ..... -13.5 List: \$2.75      Net: \$1.62	<b>UX-852</b> <b>OSC. &amp; R. F. AMPLIFIER</b> Fil. Voltage .....10.0 Fil. Amperes .....3.25 Plate Volts .....2000.0 Grid Bias ..... -250.0 Output Watts .....75.0 List: \$24.00      Net: \$24.70
<b>UX-171A</b> <b>AMPLIFIER</b> Fil. Voltage .....5.0 Fil. Amperes ..... .25 Plate Volt. ....135-180 Grid Bias ..... -27-40 List: 90c      Net: 53c	<b>R. C. A. 230</b> <b>D. C. DETECTOR-AMPLIFIER</b> Fil. Voltage .....2.0 Fil. Amperes ..... .06 Plate Volts .....90 Grid Bias ..... -4.5 List: \$1.60      Net: 94c	<b>R. C. A. 230</b> <b>AUTO R. F. PENTODE AMP.</b> Heater Voltage..... D. C. 6.3 Heater Amperes..... .03 Plate Voltage.....90-180 Screen Voltage.....90 Grid Voltage..... -3 List: \$2.75      Net: \$1.63	<b>R. C. A. 864</b> <b>AMPLIFIER-DETECTOR</b> Filament Voltage..... D. C. 1.1 Filament Amperes..... .025 Plate Voltage.....135 Grid Voltage.....9 List: \$2.00      Net: \$1.47
<b>UV-199</b> <b>UX-199</b> <b>DETECTOR-AMPLIFIER</b> Fil. Voltage .....3.3 Fil. Amperes ..... .06 Plate Volt. ....20-90 Grid Bias ..... -4.5 List: UX- \$2.50      Net: \$1.47 List: UV- 2.75      Net: 1.62	<b>R. C. A. 231</b> <b>D. C. POWER AMPLIFIER</b> Fil. Voltage .....2.0 Fil. Amperes ..... .13 Plate Volts .....135 Grid Bias ..... -22.5 List: \$1.60      Net: 94c	<b>UX-245</b> <b>POWER AMPLIFIER</b> Fil. Voltage .....2.5 Fil. Amperes .....1.5 Plate Volts .....250 Grid Bias ..... -48.5 List: \$1.10      Net: 65c	<b>UX-865</b> <b>S. G. OSC. and R. F. AMPLIFIER</b> Fil. Voltage .....7.5 Fil. Amperes .....2.0 Plate Volts .....500.0 Grid Bias ..... -75.0 Screen Volts .....125.0 List: \$13.00      Net: \$13.23
<b>UX-201-A</b> <b>DETECTOR-AMPLIFIER</b> Fil. Voltage .....5.0 Fil. Amperes ..... .25 Plate Voltage .....45-135 Grid Bias ..... -3 List: 75c      Net: 44c	<b>R. C. A. 232</b> <b>D. C. SCREEN-GRID AMPLIFIER</b> Fil. Voltage .....2.0 Fil. Amperes ..... .06 Plate Volts .....135 Screen Volts .....67.5 Grid Bias ..... -3 List: \$2.50      Net: \$1.35	<b>UY-247</b> <b>A. C. PENTODE AMPLIFIER</b> Fil. Voltage .....2.5 Fil. Amperes .....1.5 Plate Volts .....250.0 Screen Volts .....250.0 Grid Bias ..... -16.5 List: \$1.55      Net: 91c	<b>UX-866</b> <b>HALF-WAVE RECTIFIER</b> Fil. Voltage .....2.5 Fil. Amperes .....5.0 Plate Max. ....5000.0 Output Amps. ....0.6 List: \$7.50      Net: \$6.30
<b>UX-210</b> <b>POWER AMPLIFIER</b> Fil. Voltage .....7.5 Fil. Amperes .....1.25 Plate Volt. ....250-425 Grid Bias ..... -18-35 List: \$7.00      Net: \$4.12	<b>UX-233</b> <b>D. C. PENTODE AMPLIFIER</b> Fil. Voltage .....2.0 Fil. Amperes ..... .26 Plate Volts .....135 Screen Volts .....135 Grid Bias ..... -13.5 List: \$2.75      Net: \$1.62	<b>UX-250</b> <b>POWER AMPLIFIER</b> Fil. Voltage .....7.5 Fil. Amperes .....1.25 Plate Volts .....450.0 Grid Bias ..... -84.0 List: \$6.00      Net: \$3.53	<b>RCA-868</b> <b>PHOTOTUBE</b> Window Area of Cathode: 0.9" sq. Base ..... small UX For further data see full specifications under "Transmitting Tubes." List: \$7.50      Net: \$5.51
<b>UX-222</b> <b>D. C. SCREEN-GRID AMPLIFIER</b> Fil. Voltage .....3.3 Fil. Amperes .....1.32 Plate Volt. ....135 Screen Volt. ....45 Grid Bias ..... -1.5 List: \$4.50      Net: \$2.65	<b>R. C. A. 234</b> <b>D. C. R. F. PENTODE AMPLIFIER</b> Fil. Voltage .....2.0 Fil. Amperes ..... .06 Plate Volts .....90-180 Screen Volts .....67.5 Grid Bias, Variable..... -3 List: \$2.75      Net: \$1.62	<b>UX-280</b> <b>FULL-WAVE RECTIFIER</b> Fil. Voltage .....5.0 Fil. Amperes .....2.0 Max. Volts .....400.0 M. A. Output .....130.0 List: \$1.00      Net: 59c	<b>UX-874</b> <b>VOLTAGE REGULATOR</b> Operating Volts .....90.0 Starting Volts .....125.0 Operating M. A. ....10-50 List: \$4.75      Net: \$2.70
<b>UY-224</b> <b>SCREEN-GRID R. F. AMPLIFIER</b> Fil. Voltage .....2.5 Fil. Amperes .....1.75 Plate Volt. ....180 Grid Bias ..... -3 Screen Volt. ....90 List: \$1.00      Net: 59c	<b>UY-235</b> <b>VAR. MC. SCREEN-GRID</b> Fil. Voltage .....2.5 Fil. Amperes .....1.75 Plate Volts .....180-250 Screen Volts .....75-90 Grid Bias ..... -1.5-3 List: \$1.60      Net: 94c	<b>UX-281</b> <b>HALF-WAVE RECTIFIER</b> Fil. Voltage .....7.5 Fil. Amperes .....1.25 Max. Volts .....700.0 M. A. Output .....85.0 List: \$5.00      Net: \$2.94	<b>UV-876</b> <b>CURRENT REGULATOR</b> Operating Amps. ....1.7 Voltage Range .....40-60 List: \$6.50      Net: \$3.82
<b>UY-224A</b> <b>SCREEN-GRID R. F. AMPLIFIER</b> Same as 224, except it is a quick heater. List: \$1.60      Net: 94c	<b>UX-236</b> <b>AUTO S. G. R. F. AMPLIFIER</b> Fil. Voltage .....6.3 Fil. Amperes ..... .03 Plate Volts .....135 Screen Volts .....75 Grid Bias ..... -1.5 List: \$2.75      Net: \$1.62	<b>UX-841</b> <b>OSCILLATOR-POWER AMP.</b> Filament Voltage: 7.5 v. A.C. or D.C. Filament Current .....1.25 amp. Amplification Factor.....30 amp. For further data see full specifications under "Transmitting Tubes." List: \$10.00      Net: \$7.35	<b>UV-886</b> <b>CURRENT REGULATOR</b> Operating Amps. ....2.05 Voltage Range .....40-60 List: \$6.50      Net: \$3.82

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Crystal Holders	93	<b>N</b>		Spark Coil	72	Lamp	64	
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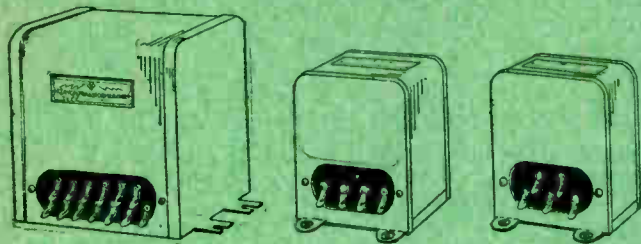
20% Deposit Must Accompany All C. O. D. Orders

# B Kenyon—Audio, Filament and Power Transformers—Filter Chokes

## AUDIO and POWER AMPLIFIER PARTS

Often especially in Public Address, Broadcast or experimental work, you have desired audio transformers with universal application. Now you can have such transformers which are listed in types BLG, BLL and BPL. Some of the universal applications are as follows: microphone to grid, microphone to line, pickup to line, plate to line, line to line, network\* to line or output to network.\*

\* Three 500 ohm or three 200 ohm or combination of a 200 and 500 ohm impedance.



Type No.	General Description	Mounting	Price
B-31	Input trans. from 1 plate to 1 grid. 3:1 ratio.	1C	\$2.70
B-12	Input trans. from 1 plate to 2 grids in push pull. 2:1 ratio each side.	1C	3.00
BLG	Input trans. from universal line to 1 grid.	1C	3.30
BLL	Mixing trans. from a universal line to a universal line.	1C	3.30
BPL	Output trans. from a detector plate to a universal line.	1C	3.30
B-245A	Output trans. from push pull 245's to a 500 ohm and 15 ohm voice coil.	2C	3.30
B-247	Output trans. from 247 to a 15 ohm voice coil.	2C	3.00
BP-247	Output trans. from push pull 247's to a 500 ohm line and 15 ohm voice coil.	2C	3.30
BC-350	Filter choke 30 Henries, Max. D. C. 90 M. A., 350 ohms D. C. resistance	2C	2.10
BC-210	Filter choke 15 Henries, Max. D. C. 150 M. A., 210 ohms D. C. resistance	2C	2.40
BC-3000	Audio choke for parallel feed, etc., 250 Henries, Max. D. C. 15 M. A. 3000 ohms D. C. resist.	1C	2.70
B-245 P.T.	Filament and plate supply transformer for a push pull 245 or 247 amplifier and tuner.	1LC	4.50
B-250 P.T.	Filament and plate supply transformer for a push pull 250 amplifier and tuner.	2LC	6.00
B-2.5 F.T.	Filament trans. Secondary 2½ volts, center-tapped, 10 amperes. 2000 volts test.	2C	3.00
BMI	Input transformer for a class "B" amplifier.	2C	3.60
BMO	Output transformer for a class "B" amplifier.	1LC	4.50

## PLATE SUPPLY TRANSFORMERS

Type No.	Secondary Volts	Sec. M. A.	Long	High	Wide	Weight Lbs.	Price
KPT-1	750/750 600/600	150	4	6½	7¾	16	\$8.40
KPT-2	1500/1500 1000/1000	200	4½	6¾	7¾	20	12.00
KPT-3	2500/2500 2000/2000 1500/1500	200	5½	6¾	7¾	26	18.00

NOTE—KPT-1 is supplied with two C.T., 7.5 Volt, 3 Amp. Filament Windings.



## FILAMENT HEATING TRANSFORMERS

10,000 VOLT A. C. TEST

Type No.	Sec. Volts	Sec. Amps.	Long	High	Wide	Weight Lbs.	Price
KF-806	2.5	10	2¾	4¾	5	5	\$6.00
KF-872	5	20	3¾	4¾	5¾	8	10.20
KF-203	10	7	3¾	4¾	5¾	8	10.20

Secondaries Center Tapped



## FILTER CHOKES

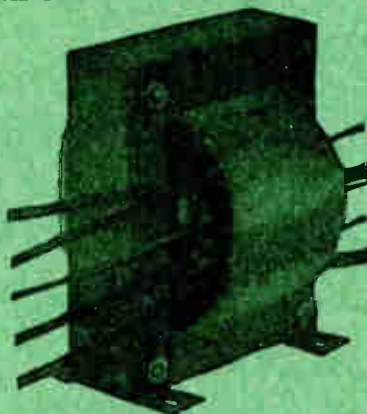
Type No.	Induct. Henries	D. C. M. A.	Resist. Ohms	Test Volts	Length	Height	Width	Weight Lbs.	Price
KC-300C	30	150	300	2000	2¾	4¾	5	5	\$4.50
KC-250C	30	200	250	3000	4	4¾	5¾	12	6.00
KC-150C	30	250	150	3000	4¾	4¾	5¾	15	7.20



## KENYON STANDARD POWER TRANSFORMERS



Type S Mounting with Leads



Type US Mounting with Leads



Type ST Mounting with Lugs

All transformers listed below can be had in either of the three types of mountings, viz: S, ST, or US. They are all designed to operate from 115 volts 50-60 cycles A. C. and equipped with grounded electrostatic shield to prevent line noises from entering your receiver from the power line, also reducing modulated hum pickup

**TYPE K-54:**  
For 4 and 5 Tube Receivers  
Lamination size 3¾ x 2¼"  
Coil 3¾"  
Secondaries  
No. 1—670 volts C.T., 50 M.A., D.C.  
No. 2— 5 volts, 2 amps.  
No. 3— 2.5 volts C. T. gnd., 7 amps.  
**\$2.10**

**TYPE K-56:**  
For 5 and 6 Tube Receivers  
Lamination size 3¾ x 3¾"  
Coil 3¾"  
Secondaries  
No. 1—690 volts C.T., 60 M.A., D.C.  
No. 2— 5 volts, 2 amps.  
No. 3— 2.5 volts C.T., 8.25 amps.  
**\$2.40**

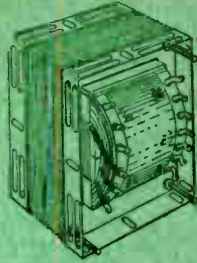
**TYPE K-67:**  
For 6 and 7 Tube Receivers  
Lamination size 3¾ x 3¾"  
Coil 3¾"  
Secondaries  
No. 1—700 volts C.T., 75 M.A., D.C.  
No. 2— 5 volts, 2 amps.  
No. 3— 2.5 volts C.T., 9 amps.  
**\$2.55**

**TYPE K-78:**  
For 7 and 8 Tube Receivers  
Lamination size 3¾ x 3¾"  
Coil 3¾"  
Secondaries  
No. 1—750 volts C.T., 90 M.A., D.C.  
No. 2— 5 volts, 2 amps.  
No. 3— 2.5 volts C.T., 12 amps.  
**\$2.70**

American Sales Company, 44 W. 18th Street, New York, N. Y.

**UNIVERSAL REPLACEMENT POWER TRANSFORMERS**

The Kenyon Transformer Company, as one of the oldest and foremost suppliers of transformers for radio manufacturers, is particularly suited as a source of supply for replacement transformers. Due to superior design, pretested materials and controlled production, the transformers described herein can be depended upon to stand up in service.



The replacement power transformers shown below use a new type of mounting bracket which is an exclusive Kenyon development. Through the use of this mounting, these transformers are easily installed in the receivers indicated below, with a minimum of improvisation. Any mounting dimension between the limits given can be obtained and the items can be mounted flat without alteration. The voltage data is marked at the lugs so that the possibility of improper connection is eliminated.

Type Number	Primary	Hi. V. Secondary	Low V. Secondaries	Overall Dim.	Mounting Dim. (Small Side)	Mounting Dim. (Large Side)	
<b>TYPE KR-1</b>	115 volts 50/60 cycles	700 v. C.T., 125 M.A.	5 Volts 2 Amp. 2.5 V. C.T. 3 Amp. 2.5 V. C.T. 10½ Amp.	3¾ x 4½ x 3¾	1½ to 2½ x 1½ to 2½	1½ to 2½ x 1½ to 3¾	<b>\$3.15</b>
<b>TYPE KR-2</b>	115 volts 50/60 cycles	580 v. C.T., 85 M.A.	5 Volts 2 Amp. 1.5 Volts 4.2 Amp. 2.5 V. C.T. 1.75 Amp. 5 V. C.T. 1.5 Amp.	3¾ x 3¾ x 2½	1½ to 2½ x ¾ to 2½	1½ to 2½ x 1½ to 3¾	<b>\$2.40</b>
<b>TYPE KR-3</b>	115 volts 50/60 cycles	650 v. C.T., 60 M.A.	5 Volts 2 Amp. 2.5 V. C.T. 1.5 Amp. 2.5 V. C.T. 8.5 Amp.	3¾ x 3¾ x 2½	1½ to 2½ x ¾ to 2½	1½ to 2½ x 1½ to 3¾	<b>\$2.40</b>

**CHART INDICATING REPLACEMENTS FOR STANDARD RADIO SETS**

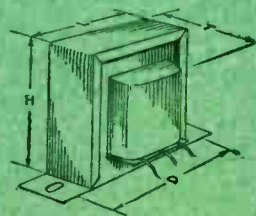
Manufacturers	Model No.	Trans. No.	Manufacturers	Model No.	Trans. No.
A. C. Dayton Co.	A. C. 63	KR-2	Gilfillan Bros., Inc.	Model 100	KR-1
Acme Electric Co.	A. C. 7	KR-2	A. H. Grebe & Co.	Synchrophase 7 A. C.	KR-2
All-American Mohawk Corp.	No. 96	KR-1	"	" SK4	KR-1
"	D (Lyric)	KR-1	Grigsby-Grunow Co.	(60-25V) 100, (60-25V) 90B	KR-1
American Bosch Mfg. Corp.	Model 48, 58, 60	KR-1	"	(60-25V) 100B	KR-1
Anrad Corporation	A. C. 7	KR-2	"	130A, 230A	KR-1
"	No. 81	KR-1	Howard Radio Co.	S. G. A.	KR-1
Apex	41, 42, 46, 47, 48	KR-1	"	8 Green Diamond	KR-2
Arbophone	No. 45	KR-2	Kellogg	523-526	KR-1
"	No. 55	KR-2	Colin B. Kennedy Co.	Model 20	KR-1
Atwater-Kent	Model 36, 37, 38	KR-2	King Mfg. Co.	J. H.	KR-2
"	" 40, 42, 43, 44, 52	KR-2	"	King Monarch	KR-1
"	" 55 & 55C	KR-1	"	Type 930	KR-1
Balkite Product Co.	" C	KR-1	Kolster Radio Corp.	6K A. C., 7 A. C.	KR-2
"	" F	KR-1	"	K43	KR-1
Brandies Kolster	930, K43	KR-1	"	K20, 22, 25, 27 & 37, K42	KR-2
"	6K, 7AC, K20, 22, 25, 27, 37, & 42	KR-2	Montgomery Ward & Co.	2-22, 2-27, 2-895, 2-897, 2-965, 2-967	KR-1
Bremer Tully Mfg. Co.	B. T. 6-40	KR-2	"	3035, 3037, 3065, 3067	KR-1
"	B. T. 7-70 & 7-71	KR-2	National Carbon Co.	Series 40	KR-1
Browning Drake Co.	M. B. 30, 69, 70 & 71	KR-1	Pilot Radio & Tube Corp.	K113, Twin S. G. S.	KR-1
Brunswick Radio Corp.	81-82	KB-1	"	No. K108	KR-2
"	(Panatrop) S-31	KR-1	R. C. A. Victor Co.	17, 18, 7-26, Radiola 17, 18, 38	KR-2
"	5-14-821-B, T. S., 31-S, 82	KR-1	"	Radiola 50, 51	KR-2
"	5KR, 5KRO, 2KRO, 3KRO,	KR-2	"	Radiola 15, 47, 66	KR-1
"	5KR9	KR-2	Silver Marshall	33A, 34A, 35A, 36A	KR-1
"	15 & 22	KR-1	Sonora Phonograph Co.	B31	KR-1
Bush & Lane Piano Co.	No. 12 S. G.	KR-1	Splitdorf	Abbey 171	KR-2
Colonial Radio Corp.	Model 32 A. C.	KR-1	Standard Radio Corp.	Model 29	KR-2
Columbia Phone Co.	C1, C3, C2 & C4, 930	KR-2	Steinite Radio Co.	261 & 262	KR-2
"	S. G. 3	KR-1	Stewart Warner Co.	950 A. C., 990	KR-1
Crosley Radio Corp.	30S, 31S, 33S, 34S	KR-1	Stromberg Carlson	641 & 642	KR-1
"	40S, 41S, 42S, 82S	KR-1	Temple Corp.	8-60, 8-80, 8-90, 8-61, 8-81, 8-91	KR-1
"	608, 704A, 704B, 706	KR-2	Transformer Corp.	A. C. 51, 53, 55 (25-51), (25-53), (25-55)	KR-1
"	610, 609 A. C., 41A & 42 A. C.	KR-2	"	Sentinel 660, Sentinel 666-C	KR-1
Eveready	40, 50	KR-1	United Air Cleaner Co.	Model 444	KR-1
F. A. D. Andrea, Inc.	25, 25F, 35, 35F, 40, 41, 42, 44	KR-1	U. S. Radio & Television	80	KR-2
"	46, 47	KR-1	"	Apex 60CY 48, 25CY 48A, 46A, 47A	KR-1
Freed Eisemann	90 S. A. C., NR95 A. C.	KR-1	"	Apex 41, 43 25CY, 42, 44 25 CY, 46	KR-1
Chas. Freshman Co., Inc.	G	KR-2	"	47	KR-1
"	41, 31S, 32S, 33S, A. C., 31-32 A. C.	KR-1	Zenith Radio Corp.	11E, 14E	KR-2
"	41 A. C.	KR-1	"	52, 53, 54, 60, 61, 62, 64, 67, 70	KR-1
General Motors	5077, 5080	KR-2	"	602, 612, 622, 642, 672	KR-1
"	Model "A"	KR-1			

Type KR-3 transformer will provide suitable voltage for all models of midget receivers made by the following manufacturers:

Advance Electric Co.	Master Radio Co.
Atchinson Radio Co.	McCormick
Automatic Radio Co.	Mission Bell Radio
Nathaniel Baldwin, Inc.	National Transformer Co.
Brown and Manhart	Patterson Radio Corp.
Cardinal Radio Co.	Pierce Alro, Inc.
Carteret Radio Lab.	Plymouth Radio Corp.
Champion Radio	Powell Mfg.
Crosley Radio Co.	Premier Electric Co.
Dewald	Premier Radio Co.
Echophone Radio Mfg. Co.	Remler
Elmore Lamping Co.	Republic Radio Co.
Flint Radio Co.	Secley Electric Radio
Ford Radio Co.	Simplex Radio Co.
J. French & Sons	Fred Stein
Gilbert, R. W.	Steinite Mfg. Co.
Gray & Danielson	Sterling Mfg. Co.
Griffin-Smith Mfg. Ltd.	Transformer Corp.
Halson	Trav-ler Mfg. Co.
Hyatt Electrical Corp.	U. S. Radio & Television
Jackson Bell Co.	Waltham Radio Corp.
Jewell Mfg. Co.	Zaney Gill Corp.

**REPLACEMENT AUDIO TRANSFORMERS AND CHOKES**

To assist our customers to secure general replacement audio transformers and filter chokes of exceedingly good quality, to replace defective parts in "Orphan" receivers or where the genuine part is too costly, we are listing the Kenyon replacement transformers and chokes.



Type No.	Class	Ratio	H"	L"	D"	T"		
KA-114..	audio	4:1	1½	2½	2¾	1½	\$1.05	
KA-115..	P. P.	input	2:1	1½	2½	1½	1.08	
KA-116..	6 lead input	2:1	1½	2½	2¾	1½	1.11	
KR-119..	audio	4:1	2¼	2	2¾	1½	1.05	
KA-34..	audio	4:1	2¼	2¾	3¾	1½	1.20	
KA-35..	P. P.	input	2:1	2¼	2¾	1¾	1.23	
KA-36..	6 lead input	2:1	2¼	2¾	3¾	1¾	1.26	
KB-115..	P. P.	input	2:1	2¼	2	2¾	1½	1.08

**FILTER CHOKES**

Type No.	Induct. H. Hennes	D. C. M.A.	Ohms H"	L"	D"	T"	
KC-200	20	50	200	1½	2¾	2¾	1½ \$ .78
KC-350	30	75	350	2¼	2¾	3¾	2¼ 1.35
KC-40	.1	250	40	2 1/8	3	3¾	2¾ 1.65

# BREMER-TULLY BATTERY RECEIVER

## Six-Tube Battery Console Receiver

One Dial, Illuminated Control, Completely Shielded



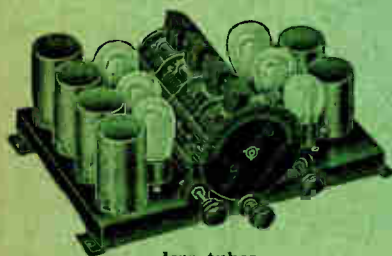
**Model 80**  
List Price: \$89.50  
(Without Speaker or Tubes)  
Size:  
21 x 40 x 14 1/2"  
Shipping weight:  
78 pounds.

**\$12.50**

less tubes and speaker  
Cat. No. S-2781

An entirely new Bremer-Tully 6-tube model with all the newest improvements. Latest type shielded circuit, perfectly tuned and neutralized. It incorporates three stages of Radio frequency amplification, Detector and two stages of Audio amplification using a power tube 112A or 171A. The four tuned stages are operated by a single control, with the added advantage of the special Bremer-Tully antenna trimmer for fine tuning. In selectivity, distance, reception and tone we believe that this Model 80 Bremer-Tully Receiver is the best battery operated receiver obtainable. Incorporates all the latest developments in radio engineering and design. Model 80 is a handsome piece of furniture, substantially and well-built. A beautiful grained walnut finished console cabinet. Stands 40 inches high, bringing tuning panel to eye level when sitting.

Battery compartment provides ample room for both "A" and "B" batteries and is accessible from the front. Uses four UX-201A, one UX-200A or UX-201A as Detector, and one UX-112A or 171A tubes.



less tubes

**\$10.50**

CHASSIS ONLY

Size: 15 1/4 x 10 x 7"

Cat. No. S-2782

### The New Model 10 Chassis Includes These Newest Improvements:

1. Precision connections, perfectly insulated, eliminates current leakage and battery drain, providing minimum operating cost.
2. Complete shielding of all radio frequency units.
3. Friction driven selector dial brings in each station surely and accurately, and always at the same point.
4. Pilot light illuminating panel and selector dial.
5. Only one station selector for easy operation, but with the added advantage of fine tuning control for sharper, clearer distance tuning.
6. Four-gang condenser. Four tuned circuits.

## Corrections and Additions to this Catalogue

Page 83—Angles and Brackets. Should read:

Cat. No.	Diagram No.	Size	
2170	1	1/2" x 1/2"	4 for 5c
2168	3	5/8" x 3/8"	2 for 5c
2168A	5	1" x 1"	2 for 7c
2167	6	1 1/4" x 1 3/8"	2 for 7c
2169	7	1 1/2" x 1 1/2"	2 for 10c
2169A	10	1 1/2" x 2 1/4"	2 for 7c
2171	11	3 1/2" x 1 1/2" x 1 1/2"	2 for 5c
2174	15	3" long	2 for 7c
2172	16	3/8" x 1 1/8"	4 for 5c
2173	23	1 1/2" x 1 1/2"	2 for 7c
2173A	24	1/2" x 1/8"	4 for 7c

### Page 83—Cable Clamps

Cat. No. 2166—Takes cable or cord up to 1/8" diameter.  
13 for 5c or 50c for 50

Cat. No. 2166A—Supplied to take up to 1/8" cable or cord.  
4 for 5c or 40c for 50

Page 97—All Transmitters and Receivers listed are sold less tubes

Page 53—Electrad Special Replacement Controls. Should read:

Our Spec. No.	Type Control	Used For	
FB-478T	Dual Supertonatrol	Eveready, Series 50	\$2.16
FB-227T	Dual Supertonatrol	Victor, R15	2.16
R-1434TP	Dual Royalty with Power Switch	Zenith, 70	1.62
RI-1513PG	Single Royalty with Power Switch	Majestic, 20	.94
RI-31	Single Insulated Long-Shaft Type	Stromberg 642	.68
R-1436 } set	Single Royalty Type	Stromberg 642	.54
RI-32 } set	Single Insulated Shaft Type	Stromberg 635	.68
R-1437 } set	Single Royalty Type	Stromberg 635	.54
R-147	Long Shaft Royalty	Fada	.68
R-60	Rear Shaft Royalty	Fada	.68
R-1651T	Dual Royalty	Colonial 32	1.35
R-1675	Royalty	Edison, R. C.	.68
R-1610TP	Dual Royalty with Power Switch	Jesse-French	1.62
R-1671	Royalty	Eveready, 1, 2, 3	.68
R-1670T	Dual Royalty with Power Switch	Victor, 35, 39, 57	1.35
R-1618T	Dual Royalty with Power Switch	Temple, 8-61, 8-31, 8-91	1.35

Page 53—(at bottom of page)—Can also supply Atwater Kent Volume Control Resistance Strips for Models 42, 44, 52, 55, 60, 66, at 43c each

American Sales Company, 44 W. 18th Street, New York, N. Y.



WE ARE AUTHORIZED DISTRIBUTORS FOR

*De Forest*

ARCTURUS  
MADE IN U.S.A.

*Sylvania*

EVEREADY  
RAYTHEON  
4-PILLAR RADIO TUBES



We have selected what we consider to be four of the finest brands of tubes to offer our customers. All these tubes carry the regular factory guarantee, provided the filament lights and glass is not broken.

Type Tube	List Price	Description	De Forest Audions	Arcturus Blue Tubes	Sylvania Tubes	Eveready 4-Pillar Tubes
UX112A	\$1.50	5.0 Volt Detector Amplifier	\$.88	\$.79	\$.79	\$.81
UX120	3.00	3.3 " Amplifier	1.76	...	1.59	1.62
UX171A	.90	5.0 " Amplifier	.53	.48	.48	.49
UV199	2.75	3.3 " Detector Amplifier	...	1.46	1.46	1.49
UX199	2.50	3.3 " Detector Amplifier	1.47	1.32	1.32	1.35
UX201A	.75	5.0 " Detector Amplifier	.44	.39	.39	.41
UX210	7.00	7 1/2 " Power Amplifier	4.12	...	3.70	3.78
UX222	4.00	3.3 " Screen-Grid R. F. Amplifier	2.35	1.59	1.59	2.43
UY224	1.60	2.5 " Quick Heater R. F. Amplifier	.94	.84	.84	.87
UX226	.80	1.5 " A. C. Amplifier	.47	.42	.42	.43
UY227	1.00	2.5 " Detector Amplifier	.59	.53	.53	.54
UX230	1.60	2.0 " Battery Detector Amplifier	.94	.84	.84	.87
UX231	1.60	2.0 " Battery Power Amplifier	.94	.84	.84	.87
UX232	2.30	2.0 " Battery Screen - Grid Amplifier	1.35	1.22	1.22	1.24
UX233	2.75	2.0 " Battery Pentode Amplifier	1.62	1.46	1.46	1.49
UY235	1.60	2.5 " Var. Mu. Screen-Grid Amplifier	.94	...	.84	.87
UX236	2.75	6.0 " Auto S. G. R. F. Amplifier	1.62	1.46	1.46	1.49
UX237	1.75	6.0 " Auto Detector Amplifier	1.03	.93	.93	.95
UX238	2.75	6.0 " Auto Pentode Amplifier	1.62	1.46	1.46	1.49
UX240	3.00	5.0 " Battery Hi. Mu. Amplifier	1.77	...	1.59	1.62
UX245	1.10	2.5 " Volt Power Amplifier	.65	.59	.59	.60
UY247	1.55	2.5 " A. C. Pentode Amplifier	.91	.82	.82	.84
UX250	6.00	7 1/2 " Power Amplifier	3.53	3.18	3.18	3.24
UX280	1.00	5.0 " Full Wave Rectifier	.59	.53	.53	.54
UX281	5.00	7 1/2 " Half-Wave Rectifier	2.94	2.65	2.65	2.70
UY551	1.60	High Gain Var. Mu. S. G. Amplifier	.94	.84	.84	.87
182B	2.50	Sparton A. C. Amplifier (Sylvania)	...	...	1.19	...
183	2.00	Sparton A. C. Amplifier (Sylvania)	...	...	1.06	...
485	1.75	Sparton A. C. Detector and Amp. (Sylvania)	...	...	.92	...
401	4.00	American (Sparton & Kellogg Type) 3 volt	...	...	1.50	...
484	2.75	American (Sparton Type) 3 volt	...	...	.95	...
373	4.50	American (Sparton-Filament at Base) 3 volt	...	...	.95	...
373	4.50	American (Sparton-Filament at Top) 3 volt	...	...	1.50	...

ARCTURUS 15 VOLT A. C. TUBES

Type	List	Description	Type	List	Description
26	\$4.00	Detector \$2.12	30	\$3.00	Power Amplifier \$1.59
28	3.00	Amplifier 1.59	40	3.00	Power Amplifier 1.59
48	3.00	Amplifier 1.59	32	3.00	High Mu 1.59
			22	7.50	Screen Grid 3.97

DE FOREST CERTIFIED REPLACEMENT TUBE KITS

For easy and rapid handling of tubes in kit form, we are offering various DeForest Tube Kits at attractive prices, packed in appealing cartons for quick sales at good profits.



Type Kit	Contents	Type Kit	Contents
A	3-424 2-427 2-445 1-480 \$5.29	G	3-424 3-427 2-445 1-480 \$5.82
B	3-424 1-427 2-245 1-480 4.76	H	4-426 1-427 2-471B 1-480 3.71
C	4-424 2-445 1-480 5.08	F	4-426 1-427 1-471B 1-480 3.23
D	5-427 2-445 1-480 \$4.35		
E	2-424 2-427 2-445 1-480 4.45		
F	6-427 2-445 1-480 4.87		

RCA Transmitting Tubes

We are pleased to announce that we have been appointed official R. C. A. Radiotron Distributors... The UX-845 and UX-866 Radiotrons are used especially in Photophone and Public Address High Powered Equipment

UX-866 Mercury-Vapor Half-Wave Rectifier



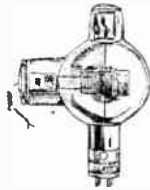
The UX-866 is a half-wave hot-cathode, mercury-vapor rectifier tube for use in suitable rectifying devices, designed to supply D. C. power from A. C. supply lines. Full wave rectification is accomplished by using two of these tubes. Filament voltage, 2.5 at 5.0 amperes. Maximum peak inverse voltage, 5,000. Maximum peak plate current, 0.6 amperes. Approximate voltage drop, 15. Overall dimensions: 6 7/8" x 7 7/8".

\$6.30

Cat. No. 3956

RCA UX-852 Oscillator or R. F. Power Amplifier

A 75 watt transmitting tube designed for use as an oscillator or radio-frequency power amplifier, particularly at frequencies above 2000 k.c. (wavelength below 100 meters). Filament voltage, 10 at 3.25 amperes. Plate voltage, 2000 at 160 m.a. Grid Bias volts, 250. Voltage amplification factor, 12. Overall dimensions, 8 3/4" x 6 x 6 1/2".



\$24.70

Cat. No. 3953

RCA UX-841 Oscillator Modulator and Power Amplifier

An All-Purpose Tube

FILAMENT VOLTAGE 7.5 volts A. C. or D. C.

FILAMENT CURRENT, 1.25 amperes

AMPLIFICATION FACTOR 30

PLATE SUPPLY Class A—Operation (Resistor Load of 0.25 megohm) 1250 volts maximum

PLATE VOLTAGE Class B—Operation 450 volts maximum

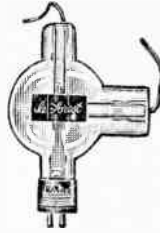
Class C—Operation (Modulated) 350 volts maximum (Unmodulated) 450 volts maximum

PLATE DISSIPATION Class A—Operation 12 watts maximum Class B and Class C—Operation 15 watts maximum

D-C PLATE CURRENT Class B—Operation (Unmodulated) 0.050 amp. maximum Class C—Operation 0.060 amp. maximum

OUTPUT Voltage Undistorted, Class A—Operation Refer to Technical Bulletin Peak Power, Class B—Operation at 450 volts 16 watts Carrier, 100% Modulated, Class B—Operation at 450 volts 4 watts Power, Class C—Operation at 450 volts, 13 watts Base: Medium 4-prong (sidepin).

\$7.35



DeForest

Transmitting Tubes

DeForest Transmitting Audions are today used in a large majority of the amateur stations and college laboratories in the United States. No agreement need be signed to purchase these. They are very broadly licensed. These tubes are shipped you directly from the DeForest factory and are thus doubly guaranteed both by us and DeForest. DeForest offers its usual guarantee and we present our offer of utmost satisfaction to our customers.

Cat. No. 1780. Type 510—15 Watt Oscillator. Specially treated plate gives high plate dissipation. No "creeping." High voltage breakdown. Low leakage. Ideal for crystal control oscillators. \$5.20

Cat. No. 1781. Type 511—50 Watt Oscillator. R. F. Amplifier, Modulator or Power Amplifier. Indead a general purpose tube. \$12.50

Cat. No. 1782. Type 503—250 Watt Oscillator and R. F. Power Amplifier. The standard "500 Watt" tube. \$25.00

Cat. No. 1783. Type 545—50 Watt A. F. Amplifier and Modulator. Not generally suited as an Oscillator or R. F. Amplifier. \$30.00

Cat. No. 1784. Type 512—75 Watt Oscillator and R. F. Amplifier. Low internal capacity between elements. Low "frequency shifting" (illustrated above). \$23.00

Cat. No. 1785. Type 508 A—250 Watt Oscillator. Modulator or R. F. Power Amplifier, standard "250 Watt" in general use. \$97.50

Cat. No. 1786. Type 504—250 Watt Oscillator. Modulator or R. F. Power Amplifier for heavy duty. Has rugged Tungston Filament, rating 11 volts, 14.85 amperes. \$97.50

Cat. No. 1787. Type 549—350 Watt Modulator. R. F. Amplifier or Oscillator. Specially valuable as a Modulator or speech Amplifier. Interchangeable with UV-549. \$160.00

Cat. No. 1788. Type 520-B—5000 Watt Oscillator—water cooled. An all-purpose Modulator Oscillator or R. F. Amplifier. Without jacket. \$187.50

Cat. No. 1789. Type 530-M—Modulator (Send for Electrical Characteristic data). \$200.00

Cat. No. 1790. Water Jacket for 520-B and 520-M. \$12.50

Cat. No. 1791. Type 507—10000 Watt Oscillator or R. F. Amplifier—water cooled—without jacket—interchangeable with UV-207. \$350.00

Cat. No. 1792. Type 548—10000 Watt water-cooled Modulator Tube (Send for Electrical Characteristic data.) Interchangeable with UV-548. Without jacket. \$350.00

Cat. No. 1793. Type 563—10000 Watt water-cooled Oscillator and R. F. Amplifier, interchangeable with UV-863. Without jacket. \$350.00

RCA UX-865 Screen Grid R. F. Power Amplifier or Oscillator

The UX-865 is a 7.5 watt four electrode transmitting tube designed primarily for use as a power amplifier at radio frequencies and needs no neutralizing. It is especially applicable to frequencies greater than 3,000 kilo-cycles. Also very useful as a crystal-controlled oscillator.

Filament voltage, 10 at 2.0 amperes. Plate voltage, 500 at 0.06 amperes. Grid Bias volts, 75. Screen voltage, 125. Voltage amplification factor, 150. Overall dimensions, 6 1/2" x 2 3/8". \$13.23

Cat. No. 0000

Cat. No. 3955

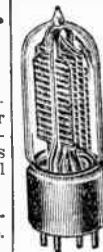


DeForest 545, 50 Watt Modulator or Amplifier

A 50 watt tube especially designed for service as a modulator or audio power amplifier.

Filament voltage, 10 at 3.25 amperes. Plate voltage, 1,000 at 75.0 M. A. Grid Bias volts, 150. Amplification factor, 5. Plate resistance, 2,100 ohms. \$30.00

Cat. No. 3954



Western Electric Genuine VT-1 Tube

Used in UV sockets. Filament Voltage 3 to 6 volts. Plate voltage 45. Used as detector or amplifier tube.

20c

Packed 8 tubes to carton \$1.30 per carton Cat. No. 8-2631

Genuine VT-2 Tube

Made for U. S. Signal Corps

Used in U. V. sockets only. Filament voltage is 5 to 7 1/2. Plate voltage maximum 350.

Excellent as an oscillator in amateur transmitters. Will deliver 5 watt output. May also be used as a power amplifier in audio circuits. \$3.25

Cat. No. 8-2632



# American Transmitting Tubes

TO PROVIDE OUR AMATEUR FRIENDS WITH A GOOD LINE OF LOW PRICED TRANSMITTING TUBES WHICH ARE GUARANTEED FOR THREE MONTHS

## UV-211—50 Watt. Oscillator, Modulator and Amplifier.

UV Base

Maximum Plate Voltage—1200 volts  
Max. Plate Current—175 m. a. Osc.  
Max. Plate Current—72 m. a. Mod.&Amp.  
Filament Voltage—10 volts  
Filament Current—3.25 amps.  
Amplification Factor—12

**\$14.50**

Cat. No. 3847

## UX-845 Modulator & Amplifier

For use in high powered audio amplifiers and as a modulator in low powered transmitters.

Rating as Audio Amplifier

Filament Voltage — 10 volts.  
Filament Current — 3.25 amperes.  
Plate Voltage (Nor.) — 1000 volts.  
Plate Current (Nor.) — 75 milliamperes.  
Negative Grid Bias — 150 volts.  
Safe Plate Dissipation — 75 watts.  
Plate Resistance — 2100 ohms.  
Undistorted Output — 20 watts.  
Amplification Factor — 5.  
Mutual Conductance — 2330 M. Mhos.

Rating as Modulator same as AMPLIFIER except that oscillator or modulated amplifier input watts for each 845 the output peak is 120 watts.

**\$16.50**

Cat. No. 3848

## UV-203-A—50 Watt. Oscillator, and R. F. Amplifier

For use in R. F. transmitters as an oscillator or R. F. amplifier also can be used as an audio power amplifier.

Rating as R. F. Amplifier

Filament Voltage — 10 volts.  
Filament Current — 3.25 amperes.  
Plate Volt (normal) — 1000 volts.  
Plate Current (normal) — 125 m. a.  
Negative Bias, Class B — 67.5 volts.  
Negative Bias, Class C — 112.4 volts.  
Safe Plate Dissipation — 75 watts.  
Power Output (normal) — 75 watts.  
Standard 50 Watt Base.

Rating as R. F. Oscillator

Filament Voltage — 10 volts.  
Filament Current — 3.25 amperes.  
Plate Volt (normal) — 1000 volts.  
Plate Current (normal) — 125 m. a.  
Grid Leak Resistance — 5000 ohms.  
Safe Plate Dissipation — 75 watts.  
Average Voltage Amplification — 500 ohms.  
Average Plate Resistance — 5000 ohms.  
Mutual Conductance — 5000 M. Mhos.

Cat. No. 3849

**\$14.50**

## UX-852—75 Watt Oscillator and R. F. Amplifier

**\$15.50**

Cat. No. 3850

# American MERCURY VAPOR RECTIFIERS

Hot Cathode

Guaranteed for 1000 hrs.



866

We are placing the Mercury Vapor Rectifiers listed here with with the understanding that these tubes will perform and give as good a satisfaction as the higher priced rectifiers on the market today.

Before placing these Mercury Vapor Rectifiers in service for the first time, it is necessary to light the filament ONLY for a half hour. After using these tubes for the first time it is only necessary to place filament in operation for 30 seconds before use.

The filament and plate of Type 871 can be turned on together without waiting for filament to heat up first.

All types are half-wave rectifiers except 588-M which is full-wave.



875

TYPE 866

Filament Voltage: 2.5  
Filament Current: 5.0 amps.  
Plate Volts Inverse Peak: 7500  
Plate Current: 0.6 amps.

**\$3.75**

Cat. No. 3446

TYPE 588-M

Filament Voltage: 5  
Filament Current: 2 amps.  
Plate Volts: 600  
Plate Current Peak 300 mls.

**\$2.50**

Cat. No. 3846

TYPE 881

Filament Voltage: 7.5  
Filament Current: 1.25 amps.  
Plate Volts Inverse Peak: 7500  
Plate Current Peak 400 m. a.

**\$3.95**

Cat. No. 3445

TYPE 871

Filament Voltage: 2.5  
Filament Current: 2 amps.  
Plate Volts Inverse Peak: 5000  
Plate Current Peak: 0.3 amps.

**\$2.50**

Cat. No. 4161

TYPE 872

Filament Voltage: 5.0  
Filament Current: 10.0 amps.  
Plate Volts Inverse Peak: 7500  
Plate Current Peak: 2.5 amps.

**\$10.50**

Cat. No. 3448

TYPE 875

Filament Voltage: 5.0  
Filament Current: 10.0 amps.  
Plate Volts Inverse Peak: 15000  
Plate Current Peak: 2.5 amps.

**\$25.00**

Cat. No. 3449

## Genuine RCA UX-216-B



### Rectifying Tube



List: \$7.25

This well-known Radiotron UX-216-B is a half wave rectifier. It is equipped with the well-known long life rugged "XL" Filament. Used in most sets where high voltage rectification is required. Two UX-216-B's may be used for full wave rectification.

Filament voltage 7½, filament current 1¼ amps, normal A. C. plate voltage 550.

Packed in original factory cartons. **\$1.50**

Cat. No. S-2033



## Genuine R. C. A. UX-213 Full Wave Rectifier Tube



Constants are nearly like that of the UX-280 tube, the difference being that the 213 has a slightly lower voltage input rating. Can be used instead of the 280 tube in most receivers. 5 volt filament. Passes 65 milliamperes. **35c**

Cat. No. S-2028



## Genuine Kenotron Rectifying Tube

Type TB-1

Manufactured by General Electric Co.



These half wave rectifying tubes operate on a filament voltage from 8-10 volts and draw 1½ amperes. They will safely stand an A. C. input voltage up to 550 volts and pass plenty of power and voltage for a Power Amplifier or Eliminator. **25c**

Cat. No. S-2034

## Stenode Tube



Build the latest Stenode Circuit with the Stenode Tube. Only one tube required in each circuit. The heart of the Stenode Circuit consists of a quartz crystal ground to 175 K. C. frequency and mounted in tube form for easy handling. Standard U. X. socket base.

The highest selectivity which is 5 to 1 greater than that of 10 K. C. supers is attained as well as unprecedented tonal range is now possible. It is radio at its best. At last noise-free radio reception, 500% better selectivity and 1000% more freedom from noise and better quality.

Send for free book on Stenode and also special prices on Stenode Kits. **\$14.70**

Cat. No. 1410

175 K. C. Stenode Crystal. Cat. No. 3851 \$4.95

### Used to Replace Kellogg 401 Tubes

These Tubes were purchased direct from the Sparton Co.



#### 3 VOLT TUBES SOVEREIGN—Type 373

These are 3 volt general purpose tubes with A. C. leads going to the top.

List: \$1.50

**\$1.50**

Cat. No. S-2023

In addition to being used in Sparton receivers, these tubes may also be used in Kellogg, McMillan, Mohawk, Day-Fan, Marti, Clearstone, Bell, Walbert, Wurlitzer, Pathé, Shamrock, Bush & Lane, Minerva, Crusader, Liberty, Metro, Super-vox and Case.

### CeCo and SONOTRAN Type 373

3 volt tubes with A. C. leads going to base. These tubes are the improved type and A. C. connections will reach lowered side pins.

List: \$1.50

**95c**

Cat. No. S-2031



Where leads from set are too short to make connections to the side-pins of above tubes, we can furnish wire leads and clips designed specially for this purpose.

Cat. No. S-2032.....15c

### Genuine RCA UX-200 Detector Tube

Bakelite UX Base Detector Tube drawing one ampere.



**\$3.00**  
per carton of 50

In Carton Lots of 50 Only.

No less than carton sold at this special price

List: \$1.75

Due to the extremely low price of these tubes we cannot allow any replacements. However, every tube is brand new and packed in original factory sealed cartons, having been purchased direct from the Radio Corp. of America.



### American Rectifier Charger Bulbs

90 Day Guarantee

For replacement in all new and old Tungar and Rectigon 2 and 5 amp. Chargers.

Cat. No.	Description	
S-3201...	2 amp. (tipless)..	\$2.15
S-3202...	2 amp. (with tip)	2.15
S-3203...	5 amp. ....	3.85
S-3200...	.6 amp. ....	1.95



### Eveready B-H and B-A Raytheon Tubes

Genuine Eveready Raytheon Rectifying tubes for use in all eliminators requiring these tubes. In original cartons.

Type B-H

Full wave rectifier (for "B" Socket Power Devices). 350 volts RMS per anode, 125 mils. (max.)

**\$2.43**

Cat. No. 3198

Type B-A

Full wave rectifier (for "A" Socket Power Devices). To supply filament current for 201-A tubes wired in series, 350 volts RMS per anode, 350 mils. (max.).

**\$4.05**

Cat. No. 3199

### B-H Type Rectifying Tube

For us in all "B" eliminators requiring B. H. Raytheon full wave rectifying tubes. 350 volts RMS per anode, 125 mils. (Max.)

**\$1.20**

Cat. No. 3861



110 Volts

### Genuine G. E. Mazda Pilot Lamp

110 Volt Pilot Bulbs for Victor and Colonial sets. Intermediary Base, frosted.

\$1.50 per carton of 10

Cat. No. 3161

Genuine

### General Electric Mazda Pilot Bulbs

FOR RADIO SETS

Cat. No.	Voltage	Per Carton of Ten
H-46.....	2.5	85c
H-45.....	3.2	85c
H-47.....	6.0	90c

Packed 10 in a Unit Carton

### INDEPENDENT PILOT BULBS

Cat. No.	Voltage	Per Carton of 10
H-46.....	2.5	<b>40c</b>
H-52.....	3.2	
H-47.....	6.0	



### Genuine G. E. Mazda Flashlight Bulbs

2.5 Volts for 2 Cells. Cat. No. H-49

3.8 Volts for 3 Cells. Cat. No. H-48

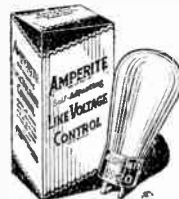
Box of Ten **69c**



### AMPERITE Self-Adjusting LINE VOLTAGE CONTROL

### Prevent Radio Trouble

### With a Real Regulator!



Since the output tubes determine the wattage of a set, the proper Amperite for any A. C. set can be approximated by the following chart.

Output tubes in set	Total No. tubes in set	Use Amperite No.
2-45's or 247.....	7 to 10	9-A-5
2-45's .....	11 to 13	13-A-5
1-45 .....	5 to 8	7-A-5
1-45 .....	3 and 4	5-A-5
1 or 2 '12A ('71A).....	6 to 9	7-A-5
1 210 .....	6 to 8	9-A-5
2 210's .....	6 to 8	11-A-5
2 250's .....	7 to 11	9-A-5 (use 2)
1 250 .....	7 to 11	13-A-5

The following sets take special Amperites as shown:

Set	Use Amperite No.
Brunswick 14; 21; 31.....	9-20
Hamm, Roberts III Q-31.....	10-10
Hi Q-31.....	11-20
Kylelectron K-71; K-72.....	11-20
Peerless 23; 25; 21; 22; 24.....	11-20
Star Raider .....	18-10
Victor R-35; R-39; RE-57.....	9-V-10
R-32; R-52.....	10-V-10
Westinghouse WR-5 .....	9-V-10
WR-6; WR-7 .....	9-V-10

Amperite—all types

**\$1.62**

Socket

**\$0.19**

Complete Amperite Chart in each box FULLY GUARANTEED



Socket Showing Wiring

### Confidential for Dealers

After repairing the set, do your customer a favor—Guard the set against future trouble by installing a REAL REGULATING voltage control—not just a fixed resistance. It takes the "bumps" out of the line. Like a shock absorber saves wear and tear. Service men are making \$100.00 a month extra on this real regulator.

### Duresite Line Voltage Regulator

Type 125

For operation from 90 to 125 volts



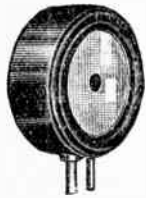
This voltage regulator keeps your line voltage constant at all times, preventing tube burnouts. Used in Brunswick 14, 15 and 31 neutrodyne and screen grid models; also Bremer-Tully S1, S2, S-81 and S-82 receivers.

A regulation 4-prong tube socket is used to make contact. A 30-volt drop through the tube must be allowed for. Will pass up to 1.25 amperes.

**\$1.25**

Cat. No. 2182

**Weston Photronic Cell and Relays**



**MODEL 594**  
Photronic Cell

This improved Photo-Electric Cell employs a sensitive light disc, which transforms light energy directly into electrical energy, without the use of any additional voltage amplification whatever. Response to light is instantaneous. Sufficient current is developed to operate Weston relays. Can be exposed to sunlight without harmful results. Life unlimited. Does not contain any liquid vacuum or gas, therefore not subject to chemical or physical changes. Prongs fit standard U. X. Socket.

**\$7.35**  
Cat. No. 1217

**Model 634 Relay**

For use with auxiliary or power relay N. D.-19747.

**\$9.94**  
Cat. No. 1218

N. D.-19747 Auxiliary or Power Relay.

**\$3.68**  
Cat. No. 1219



**MODEL 634**

**MODEL 534 RELAY**



**MODEL 534**

This excellent Relay is equipped with high and low contacts and 5 binding posts, 3 of which are normally adjusted so that its contacts will close when light beam is interrupted. May be adjusted to reverse operation.

**\$20.20**  
Cat. No. 1221

**Model 601—Type 1**

Photronic Relay

Operating on light intensity of 200 foot-candles and controlling 100 watts (consists of one 594, one 634, and one N. D.-19747).

**\$20.94**  
Cat. No. 1220

**Model 601—Type 2**

Photronic Relay

Operating on light intensity of 150 foot-candles and controlling 1.2 watts for signaling. (Consists of one 594 and one 534.)

**\$31.60**  
Cat. No. 1222

**Model 601—Type 3**

Photronic Relay

Operating on light intensity of 150 foot-candles and controlling 100 watts. (Consists of one 594, one 534, and one N. D.-19747.)

**\$35.28**  
Cat. No. 1223

\* A suitable light source is a small automobile searchlight. A 100 watt lamp, with reflector, will operate the relays through considerable distance.

**Light Sensitive Cells and Relay**



Type ST



Type D

No vacuum tube amplifier need be employed, this cell will actuate a relay directly controlling a circuit handling several watts. The life of these cells is indefinite and the cell structure is not effected by direct sunlight, and with normal usage should still be 100 percent after many years of service. Maximum photo potential with 22 1/2 volts, in direct sunlight is in the neighborhood of 25 M. A. A minimum photo potential at 22 1/2 volts with a 40 watt frosted lamp 12 inches from the cell will generate a 2 M. A. flow through cell circuit. This cell is usable in hundreds of fields such as the opening of doors or partitions by merely a ray of light, fire alarms, safety devices, grading and assorting according to color and transparency, for direct reading photometry film recordings, talking movies, etc. Overall dimensions are 3" x 1 1/2" x 3/4".

**\$3.50**  
Cat. No. 1597

TYPE "D" a double or center-tapped duplex cell which may be used in series to control two separate circuits. In parallel it will deliver twice the output of an S.T. single cell.

**\$4.50**  
Cat. No. 1598

RELAY fitted with make and break silver contacts and armature of the highest grade of permualloy. Coil resistance is 1000 ohms and will actuate relay at 1 1/2 m.a. Has a sensitivity adjustment. Fully enclosed, dust proof.

**\$3.95**  
Cat. No. 1599



**R.C.A. - 868**

**PHOTO TUBE**

A PHOTO-ELECTRIC CELL

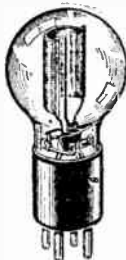
Anode supply voltage	90 volts maximum
Anode current	20 microamperes maximum
Static sensitivity*	45 microamperes per lumen
Dynamic sensitivity @ 1000 cycles*	40 microamperes per lumen
Dynamic sensitivity @ 5000 cycles	38 microamperes per lumen
Gas Amplification factor**	Not over 7
Load Circuit Resistance	0.1 to 5 megohms
Maximum overall length	4 1/8"
Maximum diameter	1 3/8"
Window area of Cathode	0.9 sq. inches
Bulb	T-8
Base	Small four prong

\* Sensitivity values are given for conditions where a Mazda Projection Lamp operated at a filament color temperature of 2970° Kelvin is used as a light source. A one megohm load resistance is used in the test circuit.

\*\* Gas amplification factor is given as the ratio of sensitivity at rated voltage to the sensitivity at a voltage sufficiently low (approx. 25 volts) to eliminate gas ionization effects.

**\$5.51**

**Caesium Photo Electric Cells**



Has a greater sensitivity than the magnesium type cell and gives perfect natural reproduction. Constant in operation and no continuous adjustment of voltage is required. These sensitive cells contain the inverted metal plate construction. Bakelite T. X. base. Overall length: 3 1/8".

**\$5.95**  
Cat. No. 2986

Overall length: 4 1/4"  
**\$7.95**  
Cat. No. 2986

The above Photo Electric Cells are used for many mechanical and electrical devices, such as; alarms, sound picture work, matching of colors, circuit control devices, fire protection, safety devices, etc.

**de Forest**

**Photo-Electric and Neon Tubes**

These tubes can be used in television, photo-electric color, and talkie work. VIS-ON 601. A neon lamp designed for use in television receivers. It functions at 150 volts D.C., and a change of 100 mills can be obtained with a voltage increase of 20 volts. The plate size is 1 1/2 inches square. A special process assures a very uniform and intense light.

**\$6.00**  
Cat. No. 2808

VIS-ON 668. This photo-electric cell of the Caesium-Argon type, mounted in a cylindrical envelope to permit the use of a half cylindrical silver-plated cathode, upon which the active surface is deposited, and a straight wire at the axis of the cathode serves as an anode. Not only is the cell operative within the visible light spectrum, but it is very responsive to the red end.

Base—Small UX.  
Cathode—Intercepts area of light 5/8" x 1 1/4".  
Anode—Connected to plate terminal of socket.  
Cathode—Connected to left-hand filament terminal of socket.  
Anode Voltage—90 volts, maximum.  
Photo-electric sensitivity at 90 volts—35 to 77 microamperes per lumen.

**\$10.00**  
Cat. No. 2810

VIS-ON 603-A. A caesium type of photo-electric cell for use in WESTERN ELECTRIC sound systems. This type of cell is being used to replace all other types in WESTERN ELECTRIC equipment. The superiority of the 603-A is most noticeable when used with new type silent-recorded films. Interchangeable with WESTERN ELECTRIC type, 3-A.

**\$25.00**  
Cat. No. 2809



**Photo Electric Cell**



The potassium magnesium type cell has an anode which is doubly supported by sturdy wire and is constructed of wide nickel ribbon, faced edgewise.

Bakelite T. X. base 4" overall size  
**\$3.90**  
Cat. No. 2985



### Glass Insulators

A highly efficient insulator, designed for great strain.  
**3 1/2 c**  
 Cat. No. 5787  
 Per 100.....\$3.00

### Porcelain Insulator

Brown porcelain insulator is of the standard strain type.  
 They are 2 1/2 inches in length, being moulded with reinforcement ribs to add tensile strength.



Per 100 ..... \$1.75 **2c**  
 Cat. No. 3843

### Porcelain Screw Eye Insulator



3-inch galvanized porcelain screw eye insulator made to withstand all weather conditions.

**32c**  
 Per dozen  
 Cat. No. 3807  
 \$1.90 box of 100

### Porcelain Lead-in Bushing

This device makes a workmanlike finish at a point in aerial installation that has been a source of power loss. Maximum length, 14 inches. Porcelain sections slide off brass rod to any wall thickness up to 9/16 inches. Threaded rod can then be cut at any desired point. Black Porcelain, Black Glaze. Passed by Underwriters Laboratories. Each Bushing in an attractive carton.



**79c**

Cat. No. W-1104



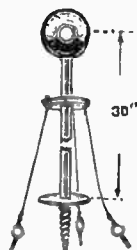
### Ground Rods

Ground Rods are considered to be the best method of grounding your radio set for unbeatable reception. Non-corrosive Ground Rods, 3/8 in. in diameter, with end pointed for easy driving. Special designed clamp makes a perfect, tight electrical connection and is adjustable and may be locked at any point on the rod.

4 ft. **35c** 6 ft. **55c**  
 Cat. No. 2583 Cat. No. 2584

### Aerial Mast

Large expensive Aerial Masts are no longer necessary. This device meets the requirement in a quick economical way. Aerial Mast screws into convenient location and is supported by three guy wires. Height 30 inches, made of 1/8 Chromium Plated Steel Rod. Furnished with Screw Eyes, but no Guy Wire.



**55c**  
 Cat. No. W-1105

### Stand-off Insulators

HEAVY GLAZED PORCELAIN  
 Bee-Hive Types

For use in transmitters; R. F. leads, choke coil, Tuning coil mountings, variable condensers and lead-in insulators. Greater strength and finer appearance than other makes, because of new type insulation used. Brass fittings. Extra heavy base. Size of base: 2". Height: 2 1/4".



**18c each** \$1.80 Per Dozen

Cat. No. J-75

Has a thinner wall with slightly higher leakage than Cat. No. J-75.



**12c each**  
 Cat. No. J-77  
 \$1.20 per dozen

Extra heavy base. Size: 2 1/2" square base. Height: 5 1/4".

**45c each**  
 \$4.95  
 Per Dozen  
 Cat. No. J-76



### Stand-Off Insulators

HEAVY GLAZED PORCELAIN



Increases aerial efficiency by keeping lead-in wire away from building.

Number J-42. Made of one piece porcelain. Heavy base.

Number J-72. Has heavy metal base.

4". Cat. No. J-42. 15c each. \$1.60 doz.  
 8". Cat. No. J-72. 70c each. \$7.50 doz.

### Red Devil Radio Insulators

Made in brown glazed porcelain. Has perfect insulation. Ideal for inside and outside wiring from aerial to receiver and ground.

**95c dozen**  
 (large size)  
 Cat. No. B-27

**75c dozen**  
 (small size)  
 Cat. No. B-26

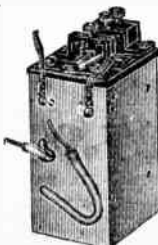


Sizes: 2 1/4 x 5"  
 2 x 2 1/2"

### 1/2 in. Spark Coil

Manufactured by the Connecticut Tel. and Elec. Co.

Works from any 6-Volt storage battery. Heavy tungsten contacts. Can be used for various purposes.



Size: 5 x 3 x 2 1/2"  
 Weight: 2 1/2 lb.

**95c**  
 Cat. No. S-2027

### Pyrex

### Transmitting Insulators



No. 67007: Overall length, 3 3/8". Developed leakage path 3 9/16". Average flashover value (Kv.) Wet, 22.5; Dry, 38. Weight: 3 oz. Strength: 450 lbs. Suitable for powers up to 25 watts.  
 Cat. No. J-77 ..... 17c

No. 67017: Overall length, 7 1/4". Developed leakage path, 6". Average flashover value (Kv.) Wet, 32; Dry, 75. Weight: 13 1/2 oz. Strength, 1000 lbs. Suitable for powers up to 250 watts.  
 Cat. No. J-78 ..... 68c

No. 67021: Overall length, 12 1/4". Developed leakage path, 11 3/16". Average flashover value (Kv.) Wet, 84; Dry, 124. Weight: 1 lb. 14 oz. Strength: 1000 lbs. Suitable for power up to 1 1/2" K. W.  
 Cat. No. J-79 ..... \$2.06

### Pyrex Lead-In Insulators

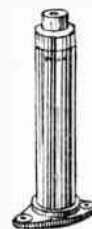
Pyrex's newest creation for amateur radio's use. It fills the long-felt want for a lead-in Pyrex insulator which is absolutely fool-proof and does just what it is intended for. The two 4" Pyrex bowls are made of high dielectric strength and have low power loss.



Cat. No. Total Length  
 J-80 No. 67104 ..... 15" ..... \$1.47  
 J-81 No. 67105 ..... 20" ..... 1.56

### Pyrex Stand-Off Insulators

Brass Fittings for Fastening Base Included



Cat. No. Total Length  
 2095 No. 67106 ..... 3" ..... \$1.54  
 2096 No. 67107 ..... 7" ..... 1.71

### Pyrex Navy Type Entering Insulators

Cat. No. Cat. No.  
 2093 2094  
 67009 67037  
 Weight  
 1 lb. 11 oz. 2 lbs.  
 Height overall  
 4 3/8 in. 4 3/8 in.  
 Outside diam. at base  
 6 1/8 in. 6 1/8 in.  
**68c 68c**



Can be furnished with three types of brass fittings and aluminum shields. Write for descriptive catalogue.

### Porcelain Insulator



Highly glazed, color brown, double groove, double-petticoat; equipped with lag screw; overall dimensions, including screw, 5 1/2 inches high; maximum diameter, 1 1/2 inches; distance between groove centers, 1 inch.

Packed in sawdust 500 to the case.

**\$5.00 per case**

Cat. No. S-3177

Cutler-Hammer Toggle Switches  
Approved by Underwriters  
Laboratories

### Single Pole Toggle Switch

3 amps., 125 v. 7/8 in. shaft.

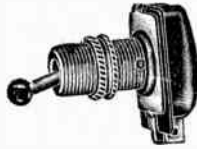


**18c**

Cat. No. K-44  
\$1.80 a dozen

### Single Pole Toggle Switch

with long neck (1 in.)  
3 amps., 125 v. For wooden  
panels and cabinet work.



**25c**

Cat. No. K-41  
\$2.70 a dozen

### Single Pole Triple Throw Toggle Switch

With Neutral Position  
2 amps., 125 v., 1/2 in. shaft.

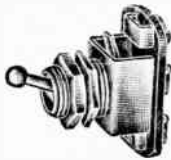


**79c**

Cat. No. S-2625  
\$8.50 a dozen

### Single Pole Double Throw Toggle Switch

With Neutral Position  
2 amps., 125 v., 1/2 in. shaft.



**49c**

Cat. No. S-2626  
\$5.25 a dozen

### Single Pole Double Throw Toggle Switch

3 amps., 125 v., 7/8 in. shaft.



**35c**

Cat. No. S-2627  
\$3.75 a dozen

### Heavy Duty Single Pole Single Throw Toggle Switch

10 amps., 125 v., 3/8 in. shaft.

**65c**

Cat. No. S-2628  
\$6.95 a dozen

### Double Pole—Single Throw

10 amps., 125 v., 3/8 in. shaft.

**65c**

Cat. No. 3740

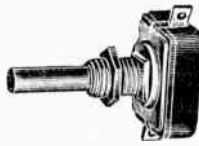


\$6.95 a dozen

### Cutler-Hammer Rotary Snap Switches

Single Pole

3 amps., 125 v. 1 1/4 in.  
shaft.



**30c**

Cat. No. S-2629  
\$3.25 a dozen

Single Pole, Double Throw

**39c**

Cat. No. S-2630

\$4.25 a dozen

Same rating and shaft  
as above.

### Cutler-Hammer or Pacent Push-Pull Switches

**15c**

Cat. No. K-40  
DOZEN \$1.20



### Beaver Rotary Snap Switch

With 15" insulated heads

3 amps., 125 v. Approved  
by Board of Fire Under-  
writers.



**15c**

Cat. No. S-2624

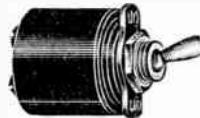
\$1.50 a dozen

### Connecticut Toggle Switch Single Pole

3/8 in. shaft. 3 amps. 125 v.

**15c**

Cat. No. K-45  
\$1.50 a dozen

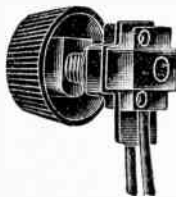


R. C. A.

### Rotary Snap Switch

For Radiola 33,

Replacement part No. 2518.  
3 amps. 125 v. Underwriter  
approved. 1/2 in. shaft, with  
8 in. leads. Single pole.  
With knob



**18c each**

Cat. No. K-43  
\$1.85 a dozen

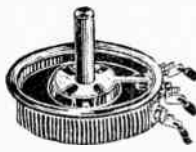


R.C.A. Victor

### Hum Control Potentiometer

Victor Part No. 10406

Used in RCA-Victor Re-  
ceivers R-32, 52, R-E 45  
and 75.  
Made by Carter for RCA-  
Victor.



**25c each**

Cat. No. 2570

20 Ohms.

\$2.50 doz.

### Extension Cords and Connectors



Cat. No.	Each	Per Doz.
F-26 . . . . .20 feet . . . . .	\$.16	\$1.80
F-27 . . . . .30 feet . . . . .	.25	2.75
F-28 . . . . .50 feet . . . . .	.40	4.40

Connector plugs for above, 8c extra.  
Cat. No. F-29

### Extension Cord for Dynamic Speakers



Four Conductors  
2 leads for voice coil; 2  
leads for field, and 4  
leads on other end. 10  
feet long. Fine for ex-

tending Dynamic Speaker to any part  
of home, and also for adding other  
additional speakers.

**50c**

Cat. No. S-3180

Where five conductor cable is re-  
quired, we can supply this 20 feet  
long.

**95c**

Leads color marked

Cat. No. S-3181

### Kolster Stranded Cable

50 ft. stranded, 15 con-  
ductor, shielded cable.  
Each conductor 7-strand,  
flexible rubber braid  
covered. Tinned ends.  
Shielded with flexible  
braid copper, which in  
turn is cotton braid cov-  
ered and brought out to  
lead for grounding.  
Various colored leads.



**\$2.75**

Cat. No. 3297

### Dial Light Sockets

Modernize your radio set or re-  
place that broken dial light socket.  
Can be placed to reflect light at  
any angle.



No. 1



No. 2



No. 3

Cat. No. H-35—No. 1  
Cat. No. H-34—No. 2  
Cat. No. H-95—No. 3

**85c dozen**  
any style

### Tip Jacks and Solderless Plugs



Tip  
Jacks

The Solderless Plug has a  
threaded removable sleeve  
hole through shank to ac-  
commodate wire. 1 1/8" long.  
Nickel plated. Will fit Tip  
Jack.

The Tip Jacks are solidly  
constructed, nickel plated,  
and will accommodate sol-  
derless plug or phone cord  
tip. The heavy contact  
springs insure positive con-  
nection. 3/8" diameter.  
.04 each .05 each

**45c**

Cat. No. B-38 per doz.

Solderless  
plugs



**50c**

Cat. No. B-37 per doz.

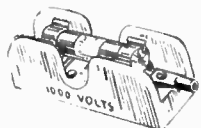
### High Volt. "Littlefuses"



**Renewals**

These Fuses are designed particularly to serve as an efficient, inexpensive protection to amateur and power transmitting tubes, high voltage rectifiers and high voltage equipment. Non-inductive and non-capacitative and may be used on D. C. or A. C. of any frequency. They are of the renewable cartridge type. Only fuses which are not damaged internally or otherwise will be renewed.

**1000 Volt**



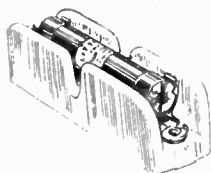
With Mounting Block and Clips

Where voltage does not exceed 1000 v. Length 3 in. Diameter of Caps. 3/8".

Cat. No.	Rating Amps.	Maximum Steady Load	Renewals	Price
2263	1/16	65 mills.		\$ .24
2264	1/8	110 "		.21
2265	1/4	200 "		.21
2266	3/8	300 "		.21
2267	1/2	400 "		.21
2268	3/4	600 "		.24
2269	1	1 amp.		.24
2270	1 1/2	1 1/2 "		.24
2271	2	2 "		.24

The above prices are less Porcelain Mounting Block and Clips, which are 95c extra. Cat. No. 2270.

**5000 Volt**



With Mounting Block and Clips

Where voltage does not exceed 5000 volts, for same uses as above. Length 5 inches. Cap diameter 1 1/2".

Cat. No.	Rating Amps.	Maximum Steady Load	Renewals	Price
2250	1/16	65 mills.		\$ .42
2251	1/8	110 "		.42
2252	1/4	200 "		.39
2253	3/8	300 "		.39
2254	1/2	400 "		.39
2255	3/4	600 "		.45
2256	1	1 amp.		.45
2257	1 1/2	1 1/2 "		.45
2258	2	2 "		.45

The above prices are less Porcelain Mounting Block and Clips, which are 85c extra. Cat. No. 2256

**10000 Volt**

Where voltage does not exceed 10,000 volts, for same uses as above. Length, 10 inches. Diameter of Caps. 1 1/2".

Cat. No.	Rating Amps.	Maximum Steady Load	Renewals	Price
2259	1/16	65 mills.		\$ .60
2259	1/8	110 "		.60
2259	1/4	200 "		.57
2260	3/8	300 "		.57
2261	1/2	400 "		.57
2262	3/4	600 "		.66
2263	1	1 amp.		.75
2264	1 1/2	1 1/2 "		.75
2265	2	2 "		.75



Clips

Mounting Blocks are not furnished for 10,000 volt fuses, due to bulk. Clips only—furnished at 8c each. Cat. No. 2262

### Super-Sensitive Crystal

A mineral product—packed in individual wrappers.

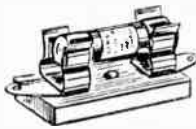
10c ea.

Cat. No. 3037

\$1.00 a Dozen



### Low Voltage "Littlefuses"



With Mounting and Clips

at blowing point about 20% above maximum steady load.

Glass enclosed. Overall length: 1"; diameter of caps. 1/4". For the protection of galvanometers, microammeters, micro and millivoltmeters, milliammeters of all sizes, radio tube testers, radio and rectifier tubes, radio sets, electric clocks, sound equipment, etc. Actual blowing point about 20% above maximum steady load.

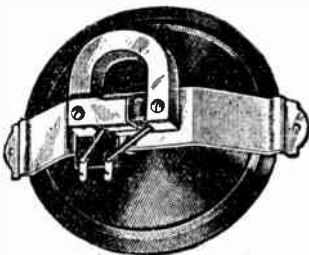
Cat. No.	Amps.	Steady Load	Max. Volts A.C. or D.C.	Average Resistance	Special	Price
2241	1/100	5-10 mills.	1500	138 ohms.		\$ .12
2242	1/32	25 "	1500	65 "		.12
2243	1/16	65 "	1000	21 "		.12
2244	1/8	110 "	750	16 "		.09
2245	1/4	200 "	500	6.2 "		.09
2246	3/8	300 "	350	3 "		.09
2247	1/2	400 "	250	2.5 "		.09
2248	3/4	600 "	200	1.0 "		.06
2248	1	1 amp.	125	.35 "		.06
2249	2	2 "	125	.14 "		.06

The above prices are less bakelite mounting block and clips, which are 20c extra. Cat. No. 3441

### Premier

### Magnetic Speakers

Cone: 6" in diameter, made from moisture proof fabric. Non-metallic bracket requiring a maximum of 6 1/4" diameter for mounting.



Tone quality and range is excellent.

\$1.50

Cat. No. 1735

Cone: 7" diameter.

\$1.75

Cat. No. 1736

Cone: 8" diameter.

\$1.95

Cat. No. 1737

### Replacement Solution and Fluid

For Willard, Exide, Philco, Balkite "B" Eliminators and Chargers  
Fluid for Willard "B" Power Units.  
Cat. No. 2104

Rectifier Solution for Philco "B" Eliminators.  
Cat. No. 2105

Fluid for Exide "B" Power Units.  
Cat. No. 2106

Solution for Models K and N Balkite Chargers and "B" Eliminators  
Cat. No. 2106A

Solution for Balkite, A Box and "A" Power Units  
Cat. No. 2106B

60c ea.

\$6.50 per dozen

All above furnished with complete directions



### Power Rheostat

MODEL PR-535 (Heavy Duty)



This Rheostat has two windings giving four different resistance values from 1.5 to 6 ohms, and has a large rated current-carrying capacity up to 2.5 amperes.

35c

List: \$2.75

Cat. No. F-88

MODEL PR-539

These Filament Rheostats are made in the same way as the PR-535 Power Rheostats. The various combinations permit four different resistance values from 8.2 ohms to 33 ohms. Rated to carry up to 1/2 ampere of current and will stand 50 per cent overload without heating.

10c

List: \$2.00

Cat. No. F-89

### Replacement Cells with Solution

For Radio Power Units Which Make Use of Electrolytic Rectifiers  
Philco, Willard, Vesta Exide "A" and "B" Eliminators



Type "A" For 4 volt elim.

\$1.50 each

Cat. No. J-67

Type "B"

\$2.00 SETS OF 4

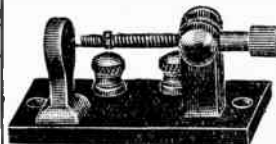
Cat. No. J-65

Type "AA" For 6 volt elim.

\$2.00 each

Cat. No. J-66

### Crystal Detector



Complete with super sensitive crystal, cat's whisker and binding posts, mounted on base.

29c

Cat. No. 3000

### Cat-Whiskers for Crystal Sets

German silver. 5/8" overall. 2 to an envelope.

10c ea.

envelope

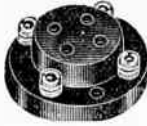
Cat. No. 3038

75c

per doz. envelopes



**Na-ald or Pilot Base Mounting Sockets**



These Bakelite Sockets have excellent nickel-plated wiping contacts. A clean-cut piece of merchandise. Equipped with binding posts.

4 prong **16c ea.** 5 prong  
Cat. No. F-42 Cat. No. F-41

Can also furnish Pilot 4 or 5 prong shockproof sockets at 25c each Cat. No. 4166

**Eby Isolantite Low-Loss Sockets**



Made of the well-known Isolantite ceramic substance which has a minimum of loss. Exceptionally well adapted for short wave transmission and reception as well as for television receivers.

Cat. No. Type  
F-43..... UX ..... **30c**  
F-44..... UY ..... **35c**

**EBY OR CINCH Bakelite Wafer Sockets**



For sub-panel mounting with phosphor bronze contact springs. Marked with numbers of any tubes. Also for midget and auto-radio receivers.

10c each

4 or 5 Prong Dozen ..... **95c**  
4 Prong Cat. No. F-47  
5 Prong Cat. No. F-46



**TIP JACKS**

Made of moulded bakelitestrip and marked:

Cat. No.  
K-50..... "Field"  
K-49..... "Phono"  
K-51..... "Speaker"  
K-57..... "Output"  
K-58..... "Input"  
K-48..... unmarked

**12c ea.**  
Dozen \$1.20



**TWIN POSTS**

Two inch binding posts on a moulded bakelite strip marked: Cat. No.

K-46..... "Ant-Gnd"  
K-47..... "Field"

All binding posts are insulated.

**14c ea.**  
Dozen \$1.45



**BINDING POSTS**

These genuine EBY Binding Posts come with the following markings: Antenna, Ground, Speaker Plus, Speaker Minus, Input, Output, Plus, Minus and Plain.

**\$1.00**

10c each Per dozen Cat. No. J-44



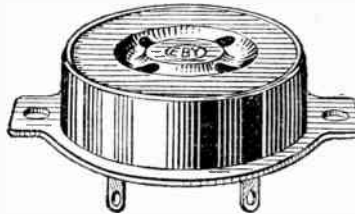
**Eby Bakelite Sockets**



Moulded Bakelite. Can be mounted above or below metal, bakelite or wood panel. A universal socket. Phosphor bronze, positive contacts.

4-prong **17c ea.** 5-prong  
Cat. No. 3504 Cat. No. 3505

**Eby Bakelite Sub-Panel Sockets**



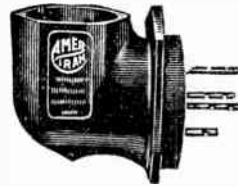
Used in Stromberg-Carlson and other receivers. Moulded Bakelite, Phosphor Bronze, Positive Contacts.

4-prong **17c ea.** 5-prong  
Cat. No. 3506 Cat. No. 3507



**AmerTran Front-of-Panel Socket**

In amplifiers and radio transmitters using large power and rectifying tubes which must be mounted vertically (such as Types 845 and 211) a front-of-panel socket is frequently needed. Large standard base AmerTran sockets of this type are now available. It is made of die-cast aluminum and is finished with black enamel. Contacts are extra heavy to insure positive connection.



**\$15.30**  
Cat. No. 2548

**Bakelite Sub-Base U.X Sockets**



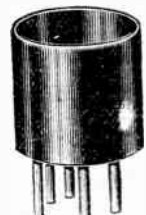
**Single and Double**

Bakelite Sub-base sockets originally used in Sparton Receivers. The exceptional prices at which these are being sold makes these a real buy. Singles are engraved: 280, 226, 182, 132, 281 and second audio; doubles: 182-132. These markings can easily be erased.

Used in Sparton Receivers

Single Sockets Per Dozen, 40c Cat. No. F-45  
Double Sockets Per dozen, 70c Cat. No. F-46

**Bakelite Tube Bases For Short-Wave Plug-In Coils**



These tube bases of genuine Bakelite are ideal for winding short-wave plug-in coils. This type of coil is recommended for use by E. C. Woodruff, W9CMP, Director of the Atlantic Division A. R. R. L. They make receivers compact. Height of Bakelite: 1 1/4 inches.

**50c**  
per doz.

Four Prong ..... Cat. No. F-32  
Five Prong ..... Cat. No. F-31

**4 and 5 Prong Bakelite Dynamic Speaker Plugs**



Extremely handy for making external connections to Dynamic Speakers from amplifiers and receivers. Also has many other uses. Cables are easily attached to these plugs by unscrewing the base.



Cat. No. 3275—U. Y. (5 prong).....\$0.25  
Cat. No. 3271—U. X. (4 prong)..... .22

Same as above, but less grip handle

Cat. No. 3293—U. Y. (5 prong).....\$0.20  
Cat. No. 3294—U. X. (4 prong)..... .18

**Female Bakelite Receptacle for Dynamic Speaker Extensions**

Cat. No. 3820—U. X. ....\$0.25  
Cat. No. 3821—U. Y. .... .28

**Phonograph Adapter**



5 prong adapter which may be used as a phonograph adapter. The adapter is equipped with tip jacks to take the pick-up leads. The tip jacks have a positive type grip and make perfect contact.

**40c**

Cat. No. J-29

Also supplied with 4 prongs. Cat. No. J-30.

**Microphone or Phono Adapter**



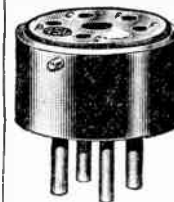
The molded microphone adapter is for inserting microphone connections in the detector tube socket. The adapter has a split cathode and can be used as a phonograph adapter or as an adapter for general purposes.

**60c**

Cat. No. 2406-

Also supplied with 4 prongs. Cat. No. 2406A

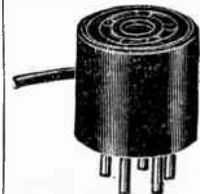
**Pentode Adapter**



Replace the 245 tubes with the new 247 Pentode Power tubes. Simply remove the 245 tube and insert this compact Adapter in the socket, and put the 247 tube in the Adapter.

**37c**  
Cat. No. 3276

**Speaker and Earphone Adapters**



Used to connect one or more additional magnetic or dynamic speakers or earphones to any set using either single or push-pull output tubes of any type. Simply remove power tubes and insert adapters in which is inserted the power tubes.

Cat. No. 3256—Single 4 prong.....\$ .75  
Cat. No. 3256—Single 5 prong..... .75  
Cat. No. 3258—Push Pull 4 prong..... 1.25  
Cat. No. 3259—Push Pull 5 prong..... 1.25

Complete with Extension Cord and Connector.

### Lightning Arrester



Protecting against lightning—surety during electrical storms. Vacuum air-gap. Made of weatherproof glazed porcelain. Approved by underwriters.

**\$1.00** per dozen

Cat. No. 1910

### Brach Storm King Lightning Arrester

A \$100.00 guarantee against lightning causing damage to your radio receiver.

Made of genuine bakelite with non-air gap insulation.



**35c**

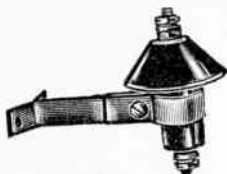
Cat. No. 2604

\$3.60 a dozen

### Outdoor

### Lightning Arrester

With \$150 Protection Bond

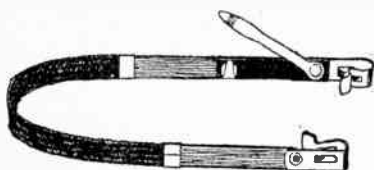


Meets the demand for a "Stand off" type outdoor, weatherproof arrester. Body of arrester made of Special High Tension Black Porcelain. All metal parts are made of extra heavy brass. The arrester is of the Mineral Gap type, assuring operation without loss of radio currents. Mounting screws furnished. Each arrester in an attractive carton. Passed by Underwriters Laboratories.

**98c**

Cat. No. W-1103

### Insulated Lead-In with Switch



Disconnects aerial from set. Switch is of the positive contact type and nickel plated, as are the terminal clips. Fahnstock clips.

**15c**

\$1.50 per dozen

### Insulated Lead-in-Strip



12 inches

Special weatherproof insulation over entire length. With Fahnstock clips. Packed 50 to carton.

**\$1.60**

for 50

Per 100, \$2.95

Cat. No. 3819

### Strap Ground Clamps



This genuine copper clamp is equipped with a Fahnstock clip, eliminating the necessity of soldering. Makes an excellent ground connection.

**4c** each

Cat. No. J-26

\$1.75 for 50

Copper-Plated—3c each 50 for \$1.25

Cat. No. 3902

### Tite-Grip Ground Clamp



This ground clamp is the easiest clamp to install. A screwdriver is the only tool necessary. The sharp point of the screw digs in and makes good contact on the pipe. Cadmium-plated.

**4c** each

Cat. No. J-25

\$1.60 for 50

### Aerial Spring Tightener



For holding aerial wire tight and straight, regardless of weather conditions. Comes complete with two porcelain insulators and strong spring.

Excellent to use when aerial is attached to any moving object or where high winds are common.

\$2.04 per dozen

**19c** each

Cat. No. 2967

### Spring Aerials

For Indoor and Outdoor Use

Solid Brass, 100 feet



**33c** each

Cat. No. 2965

\$3.75 a dozen

Copper Plated—75 feet

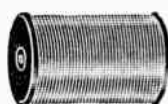
**10c** each

Cat. No. 2966

25 for \$2.25

### Special Shielded Lead-in Wire No. 18

Solid or Stranded Rubber Covered



Now used by amateurs for best results. An insulated copper wire with a woven metal shield around it to keep out extraneous pickups. Inside wire is used as lead-in, while outside shield is grounded.

Cat. No. H-112	50-ft. Roll.....	\$ .45
Cat. No. H-107	100-ft. Roll.....	.85
Cat. No. H-106	500-ft. Roll.....	4.25
Cat. No. H-105	1000-ft. Roll.....	8.25



### Aerial Wire

Pure Electrolytic Copper, 7 strand, 100 ft. coils

Cat. No.	Per Coil
H-127 Heavy 7/23.....	23c
H-127 Light 7/27.....	14c

H-120	Solid Copper enamelled 12.....	45c
H-119	Solid Copper enamelled 14.....	32c

100 Foot Coils

### Rubber Covered, Solid Copper, Lead-in Wire



No. 16 B. & S. Gauge, Tinned. 3/64 Rubber Insulation

50 ft. rolls.....	Cat. No. H-104.....	\$ .30
100 ft. rolls.....	Cat. No. H-103.....	.55
500 ft. rolls.....	Cat. No. 3167.....	2.15
1,000 ft. rolls.....	Cat. No. 3168.....	3.95
2,000 ft. rolls.....	Cat. No. H-111.....	7.50

### Gold Plated Antenna Wire



Everybody knows that gold has the lowest resistance of any metal. Here is gold-plated wire that insures, non-corrosion, better reception, better conductivity and less resistance than any other antenna wire on the market. Excellent for short-wave reception.

Cat. No. J-23 .....7/24 gauge...100 ft. **60c**

Cat. No. J-24 .....7/22 gauge...100 ft. **85c**

### "Stiktape" Aerial

Stiktape is made of a new metallic alloy which is coated with an adhesive rubber that will stick to any surface. Can easily be concealed behind picture moulding or on a baseboard. It is the aerial of tomorrow.



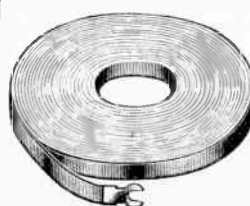
**54c**

Cat. No. 1906

Dozen \$6.40

Packed in Display Cartons of twelve

### Indoor Ribbon Antenna



Flexible metal ribbon antenna made for indoor reception. To be placed around the moulding of any room. Coils have 90 feet.

**29c** each

Cat. No. J-40

DOZEN, \$3.25

**Ball Aerials**

Complete with Installation Kit

Less static, increased selectivity. Non-directional. Made of pure aluminum, and highly polished. Guaranteed against corrosion and oxidation.

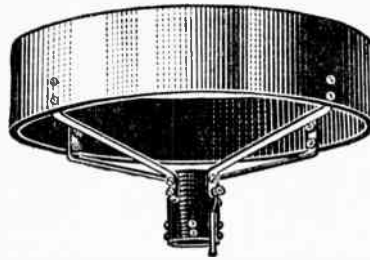
These Ball Aerials come complete with installation kit consisting of: 25 ft. lead-in wire; one 8 ft. collapsible mast; one universal mast base; 50 ft. copper guy wire; 4 porcelain insulators; one window lead-in, and one ground clamp.

8" Ball. Cat. No. 2586. **\$4.50**

10" Ball. Cat. No. 2587. **\$5.95**



**American All-Direction Antenna**



(For Long and Short Wave Work)

Receives radio reception from all directions. Gives greater volume and distance, distortion and interference is practically eliminated by this antenna.

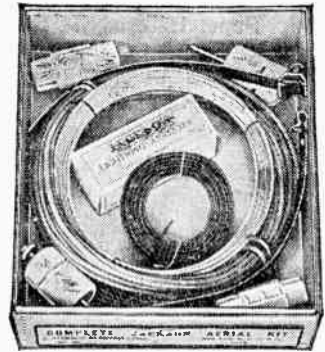
Occupies very little space. Made of pure copper. Easily installed, merely mount on an ordinary pole. Insert pole into insulated tubing of this antenna.

**98c**

Cat. No. 3844

Screws furnished.

**De Luxe Antenna Kit**



- 100 ft. 7/24 Stranded Copper Aerial Wire.
- 25 ft. Ground Wire.
- 50 ft. No. 16 Rubber Covered Lead-in Wire.
- 2 Glass Insulators.
- 2 Nailit Knobs.
- 1 Approved Lightning Arrester.
- 1 Window Weatherproof Lead-in Strip.
- 1 Copper Ground Clamp.
- 12 Insulated Staples.

**75c**

Cat. No. J-73

10 for \$6.95

**I. C. A. Insultenna**

**Aerial Eliminator**

This is a startling invention to replace outdoor and indoor antennas. It is not a light socket antenna and has no connection with the electric line. It is 100% efficient and fool-proof. Contains filtered aerial wire and condensers equivalent to a 75 foot aerial. Static reduced to a minimum.

**\$1.45**

Cat. No. 5783



**Tobe 4 Way Socket Aerial**

Socket antenna giving aerial and ground connections and A. C. outlet. Built-in lightning arrester. Just plug into light socket. No indoor or outdoor antenna required.

**45c**

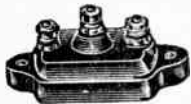
Cat. No. F-35



List: \$2.00

**Aerial and**

**Ground Eliminator**



A new indoor aerial found to work very satisfactorily under most conditions. Ground connection is made to this unit. Set aerial and ground wires are also connected to unit. No outdoor or indoor aerial needed. Packed in individual cartons with full directions. Does not connect into any light socket. No lightning arrester required. Easily installed.

**\$1.15**

Cat. No. W-1106

**Socket Antenna**



Plugs into any A. C. or D. C. outlet, eliminating the use of indoor or outdoor antenna and ground. Does not draw any current.

**39c each**

Cat. No. 3508

**\$3.95** dozen

**No. 1 ANTENNA KIT**

- 100'—7/27 Stranded copper aerial wire
- 35'—16 Rubber covered Lead-in wire
- 15'—Ground wire
- 1—Approved lightning arrester
- 2—Nail-it knobs
- 2—Porcelain insulators
- 1—Ground clamp
- 1—Window lead-in strip

**60c each**

Cat. No. S-74

10 for \$5.40

**No. 2 Antenna Kit**

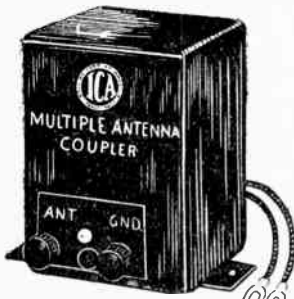
- 75 ft. 7/27 Stranded Copper Aerial Wire.
- 25 ft. R. C. Lead-in Wire.
- 1 Insulated Lead-in Strip.
- 1 Ground Clamp.
- 2 Nail It Knobs.
- 2 Porcelain Insulators.

**33c each**

Cat. No. J-27

10 for \$3.00

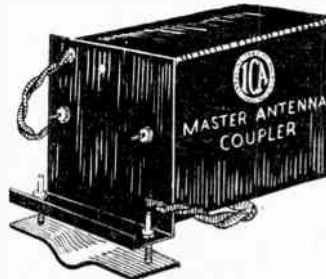
**I. C. A. Master and Multiple Antenna Couplers**



Large sales are really possible with these unique units.

Apartment houses and hotels use the Multiple Couplers in large quantities, depending on the number of apartments or rooms, as one is required for each set.

The Multiple Antenna Coupler permits sharp tuning, acts as a band pass filter and eliminates aerial noises, also is a lightning arrester. This Unit is placed near the radio set. The Master Antenna Coupler is attached to the outside aerial on the roof, thereby coupling the antenna to the radio sets using the Multiple Coupler.



This Master Coupler, by means of Condensers and Chokes, tunes the Antenna circuit to a frequency above the broadcasting range. Will operate up to 20 radio sets using the Multiple Coupler.

Multiple Antenna Coupler . . . . .

Master Antenna Coupler . . . . .

**\$1.47**

Cat. No. 1615

**\$2.94**

Cat. No. 1616

**INDOOR ANTENNA PACKET**

Where an outdoor antenna is not desired, this kit makes a simple, complete indoor installation. Here is what you get:

- 50 ft. indoor aerial wire.
- 112 insulated staples
- 1 ground clamp.

**39c each**

Cat. No. J-22



## American R. F. COILS

Super-Heterodyne, Screen-Grid, Tuned R. F., and R. F. Chokes

These coils should not be confused with inferior products being offered on the market, as these are wound on genuine threaded bakelite tubing to insure uniform spacing throughout the length of the coil. Excellent for replacement or where one desires to construct his own receiver.



Fig. No. 1

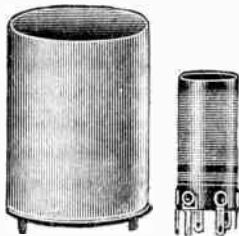
Cat. No. T-1012 ..... \$ .54 each

### R. F. and Oscillator Coil

Will produce a 175 kc heterodyne frequency when tuned by a .00035 variable condenser.

### Antenna and R. F. Coils

Completely shielded, equipped with mounting screws. For use with .00035 variable condensers. For ease of wiring, shield cans removable. Aut. Coil and first R. F. for super-heterodyne work.



Shielded ..... \$ .37  
Cat. No. T-1014

Unshielded .. .32  
Cat. No. T-1047

### Matched Set of Two R. F. Coils for Screen-Grid. 1-Ant. 1-R. F.

Cat. No. T-1015 Shielded ..... \$ .74  
Cat. No. T-1048 Unshielded ..... .64

### Matched Set of Three R. F. Coils for Screen-Grid Tubes. 1-Ant. 2-R. F.

Cat. No. T-1016 Shielded ..... \$1.72  
Cat. No. T-1049 Unshielded ..... .97

### Matched Set of Four R. F. Coils for Screen-Grid Tubes. 1-Ant. 3-R. F.

Cat. No. T-1017 Shielded ..... \$1.50  
Cat. No. T-1050 Unshielded ..... 1.30

### Combination Long and Broadcast T. R. F. and Antenna Coils

200-550, 850-2000 meters. Wound on 1 coil shielded.  
Cat. No. 3831 Antenna Coil ..... \$ .95  
Cat. No. 3832 R. F. Coil ..... .95

### Fixed T. R. F. Shielded Transformer

200-550 meters. Popular for compact and portable sets as an untuned stage of R. F.  
Cat. No. 3833 ..... \$ .95



## R. F. Screen Grid Coil Assembly

For Radiolas 44, 46 and 47.

(Replacement No. 8469 and No. 8470)

Consists of one first R. F. Transformer (Part No. 8469), with antenna loading coil, mounting brackets and two R. F. Transformers. (Part No. 8470) for the second and third R. F. stages, including low frequency primary and mounting brackets.



Complete for 3 Coils

**\$1.35**

Cat. No. 3272



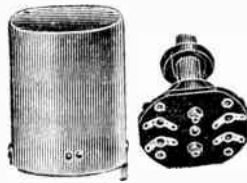
## Super-Het Coils

For Radiolas R60-62, R64-67-66, 9-54, 9-18. Replacement No. 8341 and 8480. Consists of R. F., detector and oscillator coil, with R. F. Chokes. Unmounted.

**\$1.35**

Set of 3 Coils

Cat. No. 3278



### R. F. and Detector-plate Chokes

These chokes are semi-bank wound type and have a conservative rating. Mounted on wooden impregnated bobbin for easy mounting. Soldering lugs supplied for good electrical connection. Low capacity winding.

Inductance	D.C. Resist.	Cat. No.	Special
1.0 Mill Henry	15 Ohms	T-1018	\$.17
4.25 "	27 "	T-1019	.19
5.5 "	40 "	T-1020	.21
8.8 "	64 "	T-1021	.26
16.0 "	82 "	T-1051	.28
22.0 "	102 "	T-1022	.30

### Intermediate R. F.

Transformer peaked for 175 kc. operation. Designed for high-gain stages. Equipped with aligning condensers.

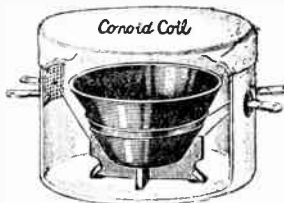
Cat. No. T-1013. \$1.19

Can be supplied with loose or tight coupling. Please specify.



## Premier Shielded "Conoid" Coils

Antenna and R. F. Coils



These "Conoid" Coils have been produced to give you an extremely sensitive and selective antenna and radio frequency transformer. High gain. Furnished complete in a copper shield. Compact, 2 1/2" diameter,

1 1/2" deep. Windings are self-supporting, no core or form is used, thus eliminating all absorption losses and greatly reducing high frequency resistance losses. Easily mounted, underneath, out of sight, or on top of chassis.

Made to be used with .00035 mfd. condenser, with all types of tubes. Antenna or R. F. Coil. Specify.

**49c**

Cat. No. 1682

Matched Set of Three Coils (One Ant. and Two R. F.).

**\$1.20**

Cat. No. 1683

Matched Set of Four Coils (One Ant. and Three R. F.).

**\$1.60**

Cat. No. 1684

## Earl and Freed R. F. Coil

Used on all Earl and Freed receivers with 00035 mfd. Condenser. Diameter 1 3/4", height 2", with brackets.

**45c**

Cat. No. 3311



## R. F. Coil Assembly

Replacement No. 8463  
Used in Radiola 33, 18, and 17

A complete set of matched tuned radio frequency coils, consisting of 1 antenna and 2 radio frequency stage coils. For use with any tuned radio frequency receiver employing .00035 mfd. variable condensers. Mounted on metal strip, complete with two neutralizing condensers, R. F. by-pass condensers and chokes. Build your own receiver using this unit.



List: \$5.40

Per set  
**95c**

Cat. No. 3271

## Victor Antenna and T. R. F. Coils



Complete set consisting of one antenna and three T. R. F. Coils. Tunes with .00035 mfd. condensers. Diameter 1 1/2 x 2 3/4" high.

Set of Four Coils

**50c**

Cat. No. 3269



## Pacent Duo Lateral (Honeycomb) Coils

These coils have many uses for test and experimental work; many transmitter circuits also use them as R. F. choke coils.

Potential amateur and commercial operators find them invaluable in connection with a long wave receiver to intercept long wave ship and trans-oceanic transmissions.

At these high wave lengths many variations in transmission speed may be tuned in at any hour and vary from five to forty words per minute, furnishing excellent code practice; also supply you with latest up-to-the-minute world press news from all parts of the globe.



With plug-in mounting

Turns	Wave Length Coverage Using a .00035 Mfd. Tuning Cond.	Wave Length Coverage Using a .0005 Mfd. Tuning Cond.	Less Mtg.
	25	80-220	
35	110-300	140-350	.37
50	160-430	200-510	.37
75	240-620	290-750	.45
100	310-830	380-990	.48
150	480-1360	590-1500	.56
200	650-1650	780-2000	.60
240	810-2150	960-2700	.71
300	980-2600	1200-3100	.78
400	1300-3500	1600-4120	.90
500	1700-4100	2000-5300	1.05
600	2000-5200	2400-6200	1.16
750	2500-6500	3020-7800	1.35
1000	3400-8800	4100-11500	1.65
1250	4100-10100	5300-13500	2.02
1500	6100-14000	6500-16500	2.40

Note: 50 mfd. is assumed to be the minimum of the .00035 Mfd. tuning condenser plus the parasitic capacity of the wiring, and 75 mfd. is assumed minimum capacity for the .0005 tuning condenser.

Above coils are also available mounted on moulded bakelite plug-in forms as illustrated at 75c extra.

Plug receptacle single units only, 75c each.

### Baird OctoCoils

16-225 Meters

Short-Wave Plug-in Coils

Moulded in genuine Bakelite in four distinctive colors: green (16-30 meter band); brown (29-58 meter band); Blue (54-110 meter band), and red (103-225 meter band).

Size: 3 5/8" height; 1 1/8" diameter.

Plugs into ordinary tube socket. Has a rugged rim to grasp coil so they will not break. For use with a .00015 variable condenser.

Set of 4 coils:

**\$3.25**

Cat. No. E-48

Individual Coils

**89c**

Cat. No. E-48A

Broadcast Coil (200-520 meters).  
Color: Black

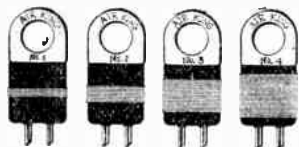
**89c**

Cat. No. 3166

## AIR-KING

### Short Wave Plug-in Coils

15-210 METERS



A reasonably priced short wave plug-in coil set for circuits needing high amplification with low loss. Forms of bakelite. Handles engraved with coil number. Four

coils cover range from 15 to 210 meters when used with a capacity of .0001 mfd. Excellent for the short wave experimenter.

Per set

**\$1.50**

Cat. No. E-49

### Air-King Precision

### Short Wave Plug-in Coils

15-133 METERS



Squirrel cage type, low losses. Can be plugged in and out without danger of breakage. Used with .00015 mfd. condenser. Regenerative

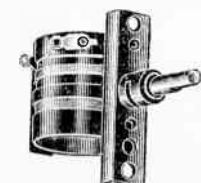
Coil uses .00025 mfd condenser. Antenna coil is variable for best position.

Per set

**\$3.60**

Cat. No. W-1141

### Earl & Freed Variometer



Ideal for use in antenna circuits for sharp tuning. When connected into the detector plate circuit a completely controlled regenerative detector is produced.

**95c**

Cat. No. 3305

## PILOT Parts

### Screen Grid Plug-In Coils (Sets)



Screen-Grid Tubes must be used with specially designed coils, and if used with the ordinary R. F. coils will tune broad with low amplification. This matched set includes an antenna coupler and three interstage transformers, each enclosed in polished aluminum shield cans 2 1/2 x 3 1/2 in. in size, with short lengths of flexible wire and cap for contact to the tube's control grid.

Complete Set of Four Matched Coils:

**\$3.84**

Cat. No. T-1115

### Blank Plug-In Coil Forms



Fitted with five prongs that fit the standard UY sockets and external lugs for coil terminations. The form is of genuine bakelite with ribs on surface giving maximum air dielectric to coil. Also fitted with handle to facilitate withdrawal from socket. Length of form for coil is 2 1/2" x 1 3/8" diameter.

**33c**

Cat. No. 1530

### R. F. Choke Coils



A 30 millihenry R. F. choke for general use in short and long wave receiver circuits and is effective from 15 to 550 meters. The distributed capacity being very low. Dimensions are: 1 1/2" x 1".

**75c**

Cat. No. 1531

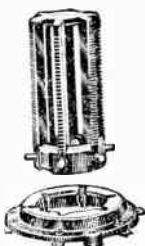
Note printing on cut

18 Millihenry R. F. Choke unshielded 1 1/2" dia. x 1/4" deep.

**30c**

Cat. No. 4165

### REL Plug-in Coil Form and Receptacle



Same as used in the R. E. L. receiver, also adaptable to transmitters up to 30 watts. One piece moulded bakelite. Six ribs forming the actual coil support results in 90% air dielectric of the inductance. Are so grooved to take any size wire up to No. 14 copper enameled and will accommodate 42 turns at a ratio of 14 grooves per inch. Six individual contacts are easily accessible and afford positive contact. 4 1/2 inches long by 2 inches in diameter. Net weight 2 oz.

**84c**

Coil form only

Cat. No. 2416

Receptacle only

**84c**

Cat. No. 3960

### Shielded Polarized R. F. Chokes



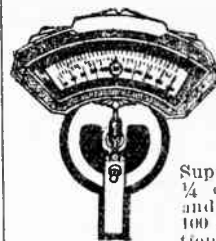
Cat. No. T-1065—80 M. H.

**65c**

Cat. No. T-1066—60 M. H.

**59c**

### Full Vision Vernier Illuminated Dial



Attractively decorated and plainly calibrated, on colored celluloid. Fitted with a removable dial lamp bracket.

An ingeniously designed constant tension friction vernier drive insures smooth tuning effect. Knob shaft is 1/4" diameter.

Supplied with 1/4 or 3/8" hub and 0-100 or 100-0 graduation.

**95c**

Cat. No. 2783

Complete with escutcheon plate

### Fan Type Revolving Vernier Dial



Both front and rear bearings insure positive and constant friction pulley drive, and sufficient torque to handle a six gang condenser with ease.

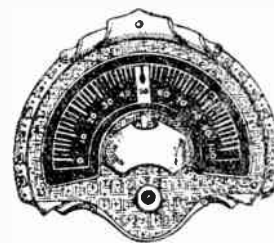
Fitted with removable dial light socket support. Indicating dial is of attractive gloss finish and the calibrations are printed in white. Furnished either in 0-100 or 100-0 readings. Two types are obtainable for 1/4 or 3/8" diameter shafts, the knob control shaft is 1/4" diameter, and the overall diameter of the dial is 4 1/2 inches.

**75c**

Cat. No. 2785

Complete with indicating 2 3/8" embossed bronze escutcheon plate.

### Full Vision Traveling "Spot-Light" and Indicator, Vernier Dial



The spot light and indicating pointer of this full vision dial travels over the calibrated scale in an arc in unison with the shaft.

The vernier action is of the reduction gear design. A very attractive, bronzed escutcheon plate will match effectively well with panel or cabinet design.

Furnished for 1/4 or 3/8 inch shaft. The knob shaft is 1/4 inch in diameter.

**70c**

Cat. No. 2784

### Illuminated Drum Dial



Designed for condenser gangs mounted in a parallel plane with panel.

Equipped with an automatic spring take up for the PHOSPHOR BRONZE drive cord, insuring constant and strong torque with NO back-lash.

Furnished complete with illuminating dial light bracket, control knob and an artistic, futuristic escutcheon plate.

The indicating scale is of black material and calibrations are printed in white in a manner so that the light shines through the calibrations.

**\$1.45**

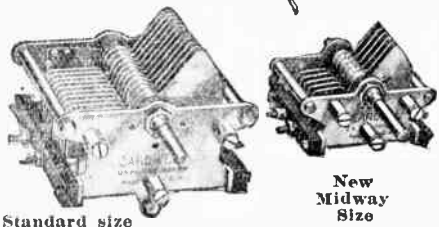
Cat. No. 2786

# Cardwell Condensers

INCLUDING THE NEW

## MIDWAY

FEATHERWEIGHT



Standard size

New Midway Size

### "MIDWAY" RECEIVING

(also suitable for 210 transmitters)

(.031" Air Gap)

Cat. No.	Type No.	Capacity	Plates	
E-20	401-B	26 mmfds.	3	\$1.26
E-21	402-B	50 "	5	1.32
E-22	403-B	70 "	7	1.38
E-23	401-B	105 "	11	1.44
E-24	405-B	150 "	15	1.50
E-25	406-B	200 "	25	1.65
E-26	407-B	305 "	35	1.80

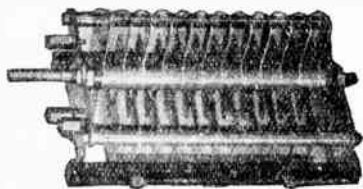
### "MIDWAY" TRANSMITTING

(suitable for transmitters to 75 watts)

(.070" Air Gap)

E	Type No.	Capacity	Plates	
E-27	408-B	22 mmfds.	5	\$1.82
E-28	409-B	35 "	7	1.96
E-29	410-B	50 "	11	2.24
E-30	411-B	70 "	15	2.52
E-31	412-B	100 "	21	2.98
E-32	413-B	150 "	31	3.85

### REGULAR TRANSMITTING



In offering the CARDWELL line of transmitting condensers, we present the condenser with the highest efficiency and best workmanship obtainable.

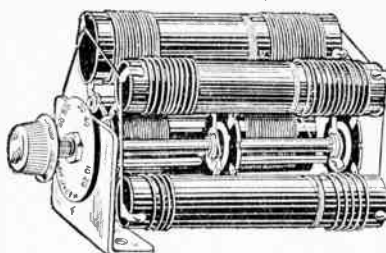
Cat. No.	Type No.	Capacity	Voltage	Plates	
2090	141-B	.00025	750	11	\$2.98
2091	123-B	.00045	750	21	3.50
2087	156-B	.0005*	750	21*	4.90
2092	137-B	.00096	750	41	4.20
E-33	197-B	.00008*	3000	9*	7.00
E-35	164-B	.00022	3000	21	4.90
E-36	157-B	.00022*	3000	21*	8.40
E-38	147-B	.00044	3000	43	7.00
E-37	T-199	.00033	3500	37	7.00
2089	512-B	.00005*	5000	11*	8.40
2088	510-B	.00011*	5000	23*	22.40
E-34	T-183	.00011	6000	23	7.00
E-39	166-B	.00030	7500	23	62.50

\* Split Stators. Figures apply to each side of condenser.

We will quote you special prices on condensers made to any requirements you desire. Write for special literature on short-wave or broadcast receiving condensers (taper plates).

## Best Short Wave Super-Het. Coil Assembly

with Automatic Four Position Wave Band Switch (10-200 meters)



An assembly of short-wave coils and a low capacity switch, eliminating the inconvenience of plug-in coils. Just a turn of the switch enables choice of the 10-20, 29-40, 40-50, 80-200 meter band. This unit is designed to be used with a two-tube converter circuit consisting of a first detector and an oscillator. The output then may be fed to a standard T. R. F. or a super-het. 200-550 meter broadcast receiver and this complete combination makes up a very efficient short-wave super-het receiver, plus the regular broadcast receiver.

Circuit is so arranged that all power can be furnished by the regular broadcast receiver. Each assembly equipped with knob and escutcheon plate marked with wavelength. Overall dimensions of entire coil and switch assembly: 4 3/4" wide; 4 1/2" high; 6 1/4" long. Designed for use with a 2 gang .00014 mfd. condenser.

Less 2 gang Condenser Cat. No. 2320

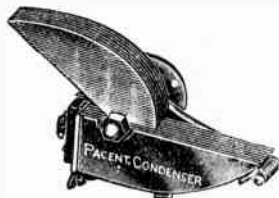
With Hammerlund 2 gang Condenser. Cat. No. 2321

Can also furnish this coil assembly for special Amateur Bands. (10, 20, 40, 80, 160 meters.)

any band less Condensers Cat. No. 2322



## S. L. F. Variable Condenser

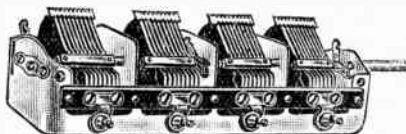


Model 251-B  
Weight: 1 1/4 lbs.  
List: \$3.50

.00035 Mfd.  
A scientific precision made condenser. Specially constructed for the finest of receivers for easy tuning on both lower and upper wave lengths.

30c  
Cat. No. E-52

## Hammerlund



.00035 M.F.D. 4-GANG VARIABLE CONDENSER

Ball bearing, bathtub style. Individual compensators. A genuine Hammerlund product.

We can also furnish another make of 4-Gang .00035 M.F.D. Variable Condenser at

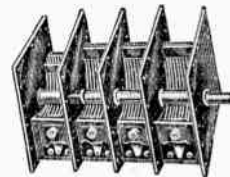
\$1.95  
Cat. No. 2903

\$1.25  
Cat. No. 2904

## General Instrument Variable Condensers

2, 3 and 4 Gang

These condensers are made of the highest quality material. Cast aluminum. Each section provided with compensator (trimmer and fully shielded. The rotors are mounted on a steel shaft and secured to the frame by ball bearings. Compact—size of end plate 2 5/8 x 1 3/8".



FOR SUPER-HETS

With Oscillator Tracking Condenser, .00035 mfd.  
Cat. No. 2905—Two Gang .....\$1.7  
Cat. No. 2906—Three Gang ..... 2.5  
Cat. No. 2907—Four Gang ..... 3.2

FOR STRAIGHT T. R. F.

.00035 mfd.  
Cat. No. 2908—Two Gang .....\$1.7  
Cat. No. 2909—Three Gang ..... 2.5  
Cat. No. 2910—Four Gang ..... 3.2  
Cat. No. 2911—Five Gang ..... 4.7

These condensers come with standard size shield between sections.

Add 25c per condenser gang if you want high shields between sections.

Add 25c per condenser gang for .0005 mfd. on any of the above Condenser Gangs

## Precise Single Section Variable Condensers

Excellent for ganging as they have a removable shaft. Single Hole Mounting. Aluminum rotor and stator. Length 3 1/2 x 3" high. Straight line frequency. Each condenser has compensator.

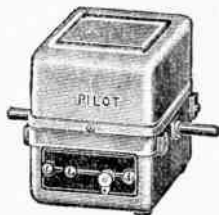
Cat. No.	No. Plates	Cap. Mfd.
2912	5	.00075
2913	7	.00013
2914	9	.00015
2915	13	.00025
2916	15	.0003
2917	17	.00035
2918	23	.0005

Any Size \$1.45 ea.

## PILOT

### Vaultype Variable Condensers

In dust-proof, die-casted aluminum cases. Made in single, double, triple and quadruple units. Very flexible for set construction, mountable from either end and completely shielded. Four in. wide, 3 1/2 in. high, and respectively 2 1/8, 4 1/8, 6 1/8, and 8 1/8 in. long. Each unit has a maximum capacity of .000365 mfd. per section.



Cat. No.		
1111	single	\$1.32
1112	double	2.67
1113	triple	3.99
1114	quadruple	5.34

TRANSMITTING type same as described above with 1000 volt insulation double-spaced plates, with a maximum capacity of 148 mfd., same physical dimensions as the above double type.

\$2.40

New S. W. Condenser, as used in the converters. Containing two sections of stator. Each section, .00014 mfd.

\$3.00  
Cat. No. 4157

**Isolantite Low Loss Sockets**

4- 5- or 6-Prongs



As is well-known, Isolantite is universally regarded as equivalent to fused quartz for almost every purpose requiring lowest losses and highest surface resistivity. Its electrical efficiency is not affected by either temperature or humidity.

The top and sides of the socket are glazed, perfect contact is assured by reinforced side-gripping contact springs of rust-proof construction.

The sockets are suitable for either subpanel and base mounting and are available in four-five- and six-prong types. They are 2 1/4" long and 1 5/8" wide, with standard 1 27/32" mounting centers.

- 4-Prong Cat. No. 3838
- 5-Prong Cat. No. 3839
- 6-Prong Cat. No. 3840

**44c each**  
Any Type

**Isolantite Short Wave Coil Forms**

4- 5- or 6-Prongs

A new type of plug-in coil forms affording maximum efficiency at high frequencies.

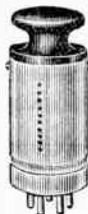
Isolantite material is known to science to be the finest for high frequency work.

The form is equipped with a black enameled grip handle, providing extreme convenience in removing and inserting. The top of this handle is broad and flat, to permit markings identifying the coils, wave-length range, etc. The surface of the form is "non-skid" eliminating the troubles encountered in winding on slippery surfaces. An abundance of wire terminal holes makes drilling unnecessary, and provides a form suitable for space winding or the winding of any number of turns. A small groove is also provided at the bottom of the coil form for primary or tickler winding.

This new form is 1 1/2" in diameter and 2 1/2" long, exclusive of knob and prongs.

- 4-Prong Cat. No. 3841
- 5-Prong Cat. No. 3842
- 6-Prong Cat. No. 3843

**59c each**  
Any Type



**R. F. Choke Coils Polarized**



The coil unit is thoroughly shielded in an aluminum shell. This construction results in a minimum external field and permits close, compact receiver design. High impedance to all broadcast frequencies, low distributed capacity. The polarity of the winding is indicated. The "high" side is marked "H" and should be connected to the "high" side of the circuit. Inductance approx. 10 milli-Cat. No. F-23

**88c**

**High Impedance**

Encased in bakelite. Ideally suited for use in detector plate circuits, "B" plus and grid return leads of radio frequency tubes and any other place where radio frequency filtering is required. The current carrying capacity of both sizes is 60 milliamperes.



High Impedance

**Description**

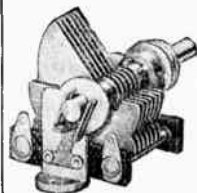
F-24 Has an inductance of 85 millihenries a capacity of 3 mmf. and a D. C. resistance of 215 ohms.

**\$1.18**

F-22 Has an inductance of 250 millihenries a capacity of 2 mmf. and a D. C. resistance of 420 ohms.

**\$1.32**

**New Midget Condensers**

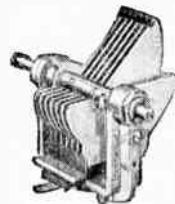


Soldered non-corrosive brass plates, sturdy frame and accurately fitted bearings. Parmica insulation, four point bronze wiping contact—no pigtail. Adjustment locking screw works in a groove—cannot burr the shaft.

Cat. No.	Plates	Min. Cap.	Max. Cap.	
F-21	43	12 mmf.	320 mmf.	\$2.06
F-20	34	10 "	260 "	1.77
F-19	27	10 "	200 "	1.65
F-18	19	7 "	140 "	1.47
F-17	14	6 "	100 "	1.35
F-16	11	6 "	80 "	1.18
F-15	7	5 "	50 "	1.06
F-14	5	4 "	35 "	.88
F-13	3	3 "	20 "	.88

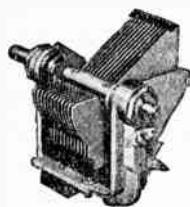
**Short-Wave Condensers**

Double spaced brass plates, Parmica insulation, smooth and easy tuning, double wiping contact, "Midline" shaped plates, full-floating rotor, shaft is removable. Panel or base-board mounting. Tested at 1000 volts.



Cat. No.	Capacity	
F-12	150 mmf.	\$2.94
F-11	125 mmf.	2.94
F-10	100 mmf.	2.94

**Midline Condensers**



The improved Midline Condenser utilizes the newly perfected Parmica low loss insulation. Four years of leadership attest to the remarkable engineering perfection of Midline Condensers. Special shaped brass plates, full floating rotor, removable shaft, ball and cone bearings, bronze pigtail, rib-reinforced aluminum alloy frame. Tested on 1000 Volts A. C.

Cat. No.	Max. Capacity	
F-7	.0005 mfd.	\$3.24
F-8	.00035 "	3.00
F-9	.00025 "	2.94

**New Multiple "MIDLINE" Condensers**

COMPLETELY SHIELDED WITH TRIMMING CONDENSERS  
Two- Three- and Four-Gang Models

The use of the new Hammarlund dielectric, "Parmica," with but 10% of the losses of usual insulation, insures lowest R. F. resistance and consequent increased selectivity and sensitivity.

Permanently aligned aluminum plates with tiebars; individual bronze wiping contacts for each section. Each section has its own trimming condenser for equalizing circuit capacity. Sections are matched to plus or minus 1/2% of 1 percent.

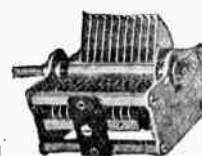
All models are supplied with 1/4 in. shaft, unless specially ordered. Capacity increases with counter-clockwise rotation of rotor. All condensers are tested for break-down on 1000 volts A. C.

Cat. No.	No. Sections	Cap. Per Section	Length	
3204	2 gang	.370 mmfd.	4 1/2"	\$3.87
3205	3 "	.370 "	6 1/2"	5.59
3206	4 "	.370 "	8 1/2"	7.35

**OVERALL DIMENSIONS**  
(Exclusive of Shaft)

3 5/8" high 4 3/4" wide

**Transmitting Condensers**

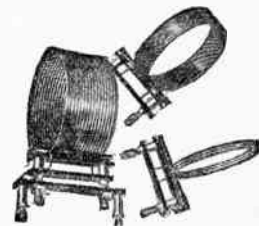


The very low losses and high quality of Hammarlund Transmitting Condensers are ideal for high powered transmitters. Spacing between plates is .983 in Breakdown voltage, 3500 Volts at 500 K. C., using 500 cycle alternator.

Cat. No.	Capacity	
3193	105 mmfd.	\$3.53
F-6	200 "	4.12
F-5	390 "	5.88

**Short Wave Plug-In Inductor Coils**

Constructed like the regular plug-in coils but without the tickler or variable primary. The windings correspond to the secondary windings of the tuning coils. Designed for receivers with a stage of radio frequency amplification, using standard or screen-grid tubes. A most efficient set of coils affording the utmost in results.



Set consists of base and coils for 20, 30, 40 and 80 meters.

**\$4.41**

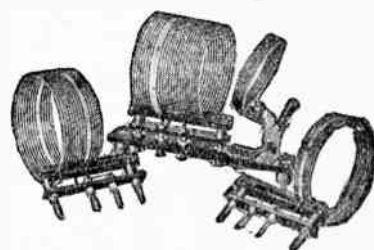
Cat. No. 3194

Additional coil covering 105 to 205 meters.

**\$1.18**

Cat. No. 3195

**Short Wave Plug-In Coils**



New and greatly improved. Built around the famous Hammarlund self-supporting space-wound coil material developed five years ago and since then acknowledged as standard for low resistance at high frequencies. Superior results will be obtained when using the Hammarlund 125 mmf. Short-Wave Condenser in conjunction with these coils.

Set consists of base with a variable antenna coil attached and coils for 20, 30, 40 and 80 meter bands.

**\$7.35**

Cat. No. 3191

Additional coil covering 105 to 205 meters.

**\$1.77**

Cat. No. 3192

**Equalizers**



A small neutralizing or balancing condenser, having an exceptionally wide capacity range. For equalizing the units of a multiple-tuning condenser. Its small size permits use in limited space. Bakelite base mount, mica dielectric and a heavy phosphor-bronze spring plate.

2 mmfds. to 35 mmfds. Cat. No. 1900  
20 mmfds. to 100 mmfds. Cat. No. 1901

**23c** either size

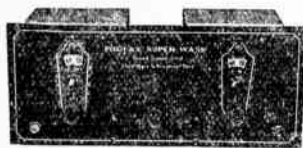
Write for Complete Hammarlund Catalogue.

Every amateur radio fan, and set builder throughout the world, knows the precision and durability of Pilot parts. Write for complete Pilot catalogue.



**Super Wasp Short Wave and Broadcast Receiver**

14-500 Meters



The short wave receiver of world wide reknown easily constructed and operated. Men and women, boys and girls between the ages of 10 and 90 have

made their own from this kit and are enjoying world-wide reception. The first short wave receiver that operated perfectly from A.C. power supply. It is supplied in kit form down to the last nut and bolt and inch of wire, complete with picture diagrams and full instructions for construction and operation. Is fully shielded and the circuit utilizes the well-known screen grid Radio Frequency amplification. Complete with 10 plug-in coils, from 14 to 500 meters; uses one 224 and three 227 tubes.

**A. C. Model**  
in kit form  
less tubes and power pack  
**\$33.75**  
Cat. No. 1623

**Battery Model,**  
less tubes and batteries.  
Battery model uses one 222  
and three 201A tubes.  
**\$29.25**  
Cat. No. 1624

**K-111 A. C. Power Pack**  
less the 280 tube  
for use with above  
A.C. Receiver  
**\$16.35**  
Cat. No. 1625

The above receiver only uses four tubes, but in most installations delivers as much volume as a regular seven or eight tube standard broadcast receiver, however, in some remote installations or comparatively dead spots an additional stage of audio amplification is necessary for loud speaker operation. A Booster unit has been designed for this purpose and is known as the K-115 Booster Unit.

**K-115 Booster**  
less 171 tube  
**\$6.54**  
Cat. No. 1626

**Space Wound Midget R.F. Transformers**



Consists of one Ant. and two R. F. stage coils. Where space is at a premium, this midget coil will solve the problem. It measures 1 1/4 inches in diameter and is 1 3/4 inches long. Is wound with enameled wire on light but strong Formalite tubing and will cover the broadcast band between 200 and 550 meters when tuned with a .00035 condenser.

per set of three  
**63c**

Cat. No. 1548  
Extra coils 25c each

**General Purpose Space Wound R.F. Transformers**

Consists of Antenna and 2 R. F. Coils

Space wound with enameled wire assuring low losses and minimum magnetic field. Will cover the broadcast band from 200 to 550 meters when tuned with a .00035 mfd. condenser. The coil form is of moulded bakelite and in addition to the connecting lugs at the base, it is so drilled that prongs may be bolted into the base, making it plug-in type that will fit a standard 4-prong socket. Dimensions are: 1 3/8" in diameter and 2 1/2" high.



**\$1.32**

Cat. No. 1549

Extra coil 55c each

**Short Wave Converter**

10 to 200 Meters  
No Plug-in Coils

With New Wasp Control



Transform your present broadcast receiver into a super-heterodyne short-wave receiver retaining all the features of your present set for operation in the 200 to 500 meter broadcast band. Adaptable to any set regardless of type or circuit.

This converter uses four tubes; two 224's, one 227 and one 280. Has its own A. C. power supply and is only necessary to reconnect your antenna to the converter and a short wire from converter to your set and you are ready to tune in England, France, Germany, Italy and the wide world on short waves; 10 to 200 meters. Not necessary to disconnect to listen to broadcast reception.

Complete with Pilot tubes  
**\$29.04**  
110 v. 60 cycles A. C. Other voltages supplied.  
Cat. No. 1627

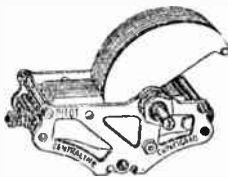
**Variable Midget Condensers**

Moulded bakelite frame with heavy brass plates. It requires only the shaft hole for mounting and is supplied with a bakelite knob, and made in four sizes: 5, 7, 13 and 23 plates. Only 1 1/2 in. wide and from 1 to 1 3/4 in. deep.

Cat. No.	Capacity	Price
1116	.000015 mfd.	\$.50
1117	.000025 mfd.	.50
1118	.000050 mfd.	.55
1119	.000100 mfd.	.60



**Centraline Variable Condensers**



Modified straight line frequency type fitted with reversible shaft for either clock or counter clockwise dials. Single hole mounting or holes in chassis for extra panel bolts or bracket mountings. The rotor connection is made by a brass pig-tail. The .00016 mfd. type is recommended for short-wave tuners as it has especially wide spacing between plates.

Cat. No.	Capacity	Price
1107	.00016 mfd.	\$1.05
1108	.00025 mfd.	1.05
1109	.00035 mfd.	1.10
1110	.00050 mfd.	1.25

**Intermediate Frequency Amplifier Transformer Set**



Comprises three carefully matched transformers for peak amplification at 175 kilocycles. Especially designed for use in conjunction with a circuit employing the Cat. No. 1546 set of coils, but adaptable to a circuit design which employs an intermediate frequency of 175 kilocycles. When ordering, specify type of tube to be used. Overall dimensions are 2 3/4 inches diameter, and 2 1/2 inches high.

per set of three  
**\$3.75**

Cat. No. 1547

Extra coils—\$1.50 each

**The New Dragon 9-Coil**

All-Wave Super-Heterodyne Receiver

18-555 Meters

With One 551, Two 234A, One 227, One 247 and One 280 Tubes



This Dragon Receiver is totally new and revolutionary to the radio art. A Pilot achievement finally perfected after five years of secret laboratory work.

The 9-Coil Super-Heterodyne Catacomb used in this receiver makes it equivalent to a 15 tube receiver.

Only one Tuning Control over entire band. Only one Scale to read, only one dial used to receive all signals. Only one chassis and one set of tubes required.

Incorporates a Dynamic Speaker and has a new acoustic cabinet to give full tone quality.

A new Amplifier is also used, giving quality so perfect that no tone control is needed.

With this Dragon you can hear Police Calls, Ships at Sea, Foreign Stations, Airplanes, Amateurs and Regular Broadcasting.

**\$43.74**

Complete with Pilot Tubes. Cat. No. 4001

Operates from 110 volts, 60 cycle A. C. Other Voltages supplied.

**Condenser Shaft Coupling**



For the "gang" coupling of condensers, etc., for 1/4 in. shafts constructed like a universal joint compensating for any slight irregularities in mountings. The coupling halves are insulated from each other.

**25c**

Cat. No. T-1120

**Super-Heterodyne Coils**



A matched set of coils for the three circuits of primary tuning in a super-heterodyne circuit; consists of one band-pass filter coil, one oscillator coil and a pair of special fixed condensers designed for a circuit comprising a band-pass filter, coupled to a stage of screen grid R. F. amplification ahead of the first detector, and an oscillatory circuit, all of which are tuned by a single controlled four gang .00035 mfd. condenser bank. The diameter of both coils is 1 3/4 inches and are respectively 5 3/4 and 4 inches long.

per set  
**\$2.25**

Cat. No. 1546

Extra coils—each 85c

**Pre-Selector Coils. (Sets)**

The special coils as used in the Pre-Selector Receiver are available separately and consist of the following: one antenna coupler, one band-pass and two interstage coils wound on formalite; one inch tubing 2 1/2 in. long and including the special aluminum shields designed for the coils. Must be tuned with .000365 condensers. Particularly designed for the Vaultype condensers.

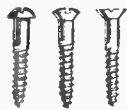
Complete set of four Matched Coils:  
**\$3.48**



Cat. No. T-1122



**Wood Screws**



Round and Oval Head. Packed in package of 10 screws to an envelope, or 100 screws to a box. Available in the following sizes:

3/8 x No. 4 Wood Screws    3/4 x No. 5 Wood Screws  
 1/2 x No. 5 Wood Screws    1 x No. 5 Wood Screws

**40c per Box    5c per envelope**

Specify size desired.    Cat. No. 2151

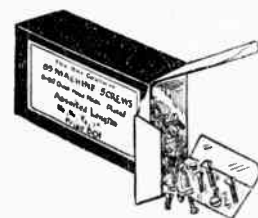
**Machine Screws**

Round and Oval Head. Packed in package of 10 screws to an envelope, or 100 screws to a box. Available in the following sizes:

3/8 x 6/32 Machine Screws    5/8 x 6/32 Machine Screws  
 1/2 x 6/32 Machine Screws    1 x 6/32 Machine Screws  
 3/4 x 6/32 Machine Screws

**40c per Box    5c per envelope**

Specify size desired.    Cat. No. 2152



**Machine Screw Assortments**

These machine screws are useful to the radio serviceman and set builder. Each assortment contains the following:

- 30 3/8 x 6/32 Machine Screws
- 20 1/2 x 6/32 Machine Screws
- 15 5/8 x 6/32 Machine Screws
- 10 3/4 x 6/32 Machine Screws
- 10 1 x 6/32 Machine Screws

Total: 45 Machine Screws. Can be had in the following heads:

- Cat. No. 2146—No. 1 Assortment Round Head.
- Cat. No. 2147—No. 2 Assortment Flat Head.
- Cat. No. 2148—No. 3 Assortment Oval Head.
- Cat. No. 2149—No. 4 Assortment Round Head 8/32
- 35 Machine Screws, 50 Nuts.
- Cat. No. 2150—No. 7 Assortment Round Head 6/32
- Assorted Screws, Nuts, Washers.

Any Assortment: **25c per Box**

**Washers and Nuts**

No. 6 Washers

25 washers per envelope. Cat. No. 2153. 5c per envel.

No. 8 Washers

25 washers to envelope. Cat. No. 2154. 5c per envel.

Assorted 100 washers. Cat. No. 2155. 18c per Box

6/32 x 1/8 nuts. 15 nuts to envelope. Cat. No. 2156 5c per envelope

8/32 x 1/8 nuts. 15 nuts to envelope. Cat. No. 2157 5c per envelope

6/32 knurled nuts. 6 nuts to envelope. Cat. No. 2158 5c per envelope

6/32 and 8/32 x 1/8 nuts. Cat. No. 2159 25c per 100

6/32 x 1/4 nuts. 20 nuts to envelope. Cat. No. 2160 5c per envelope

8/32 x 1/4 nuts. 20 nuts to envelope. Cat. No. 2161 5c per envelope

6/32 and 8/32 x 1/4 nuts. Cat. No. 2162 20c per 100

**Fahnstock Spring Clips**

No. 41 ... .15 per doz.

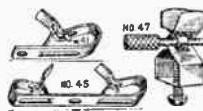
Cat. No. 2132

No. 45 ... .30 per doz.

Cat. No. 2133

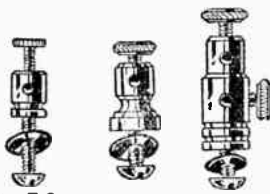
No. 47 ... .30 per doz.

Cat. No. 2134



**Brass Binding Posts**

Neatly Nickel Plated



No. 30    No. 31    No. 33

No. 30, \$ .30

Per Doz.

Cat. No. 2135

No. 31, \$ .40

Per Doz.

Cat. No. 2136

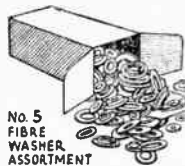
No. 33, \$1.00

Per Doz.

Cat. No. 2137

**Fibre Washer Assortment**

A handy item for the service kit. Contains all types of shouldered and plain fiber washers.

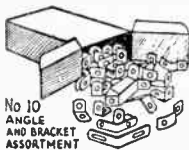


Per Box **25c**

Cat. No. 2138

No. 5  
FIBRE  
WASHER  
ASSORTMENT

**Angle and Bracket Assortment**



No. 10  
ANGLE  
AND BRACKET  
ASSORTMENT

This assortment contains 28 of the most popular angles and brackets used on the average radio set. They are manufactured of solid brass and are neatly nickel plated. Every service man should not be without them.

Per Box **25c**

Cat. No. 2139

**Screen Grid Caps**

Manufactured of spring phosphor bronze and tinned.

**2c each**

20c per dozen

Cat. No. 2140



**Screen Grid Caps with Soldered Lead**



This lead is approximately 6 inches long and soldered to the top, ready for use.

**10c each**

\$1.00 per dozen

Cat. No. 2141

**Cable Clamps**

Made to hold 1/4" or 1/2" cord.

**3 for 5c**

Cat. No. 2166



**Screws, Nuts and Washers**



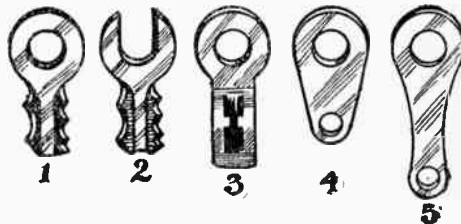
Packed 12 of each piece to an envelope, total 36 pieces per envelope. In Oval and Round Head. Available in the following sizes:

1/2" x 6/32    3/4" x 6/32    1" x 6/32

**10c per Envelope**

Cat. No. 2163

**Soldering Lugs**



These lugs are tinned and are ready for soldering. Packed 20 lugs to an envelope, or 100 lugs to a box.

5c per envel. **19c per Box of 100**

Specify type desired by number.    Cat. No. 2164

**Fuse Clips**

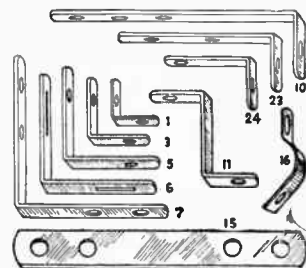
Used as grid leak or resistance holders. Neatly nickel-plated.



**15c per dozen**

Cat. No. 2165

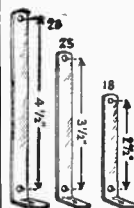
**Angles and Brackets**



- Cat. No. 2167.... 6..... 1" x 1" ..... 2 for 7c
- Cat. No. 2168.... 3..... 3/4" x 3/4" ..... 2 for 5c
- Cat. No. 2169.... 7..... 1 1/2" x 1 1/2" ..... 2 for 10c
- Cat. No. 2170.... 1..... 1/2" x 1/2" ..... 4 for 5c
- Cat. No. 2171.... 11 1/2" x 3/4" x 1/2" ..... 2 for 5c
- Cat. No. 2172.... 20..... 2" x 2" ..... 2 for 15c
- Cat. No. 2173.... 18..... 1/2" x 3" ..... 2 for 15c
- Cat. No. 2174.... 15..... 3" ..... 2 for 7c

**Transformer Brackets for Audio and Power Transformers**

These brackets are ideal for mounting all types of transformers as they can be had large enough for special drilling of holes if necessary. The center to center dimensions of holes are given in the illustration.



Cat. No. 2175, No. 18 Tran. Brackets 4 for 20c

Cat. No. 2176, No. 25 Tran. Brackets 4 for 30c

Cat. No. 2177, No. 26 Tran. Brackets 4 for 40c

## EVEREADY 2 Volt Air Cell



The new 2-volt cell that you can use with the new type 2-volt, 230 series of tubes.

Has 600 ampere hours capacity, which is sufficient to operate a receiver for 1000 hours. Battery drain must never be greater than 0.65 amperes. At an average use of 3 hours daily, it will last approximately a year or more.

Battery shipped dry. It is placed in operation by the addition of "distilled" water. Full operating instructions are located on side of battery.

**\$5.95**

Cat. No. 2183

NOTE—1000 milliamperes are equal to 1 ampere. Warning—Never test air cell with an ammeter. Battery will be ruined.



## EVEREADY A, B, and C Batteries

Unit Package Quantity	Weight of Unit in Pounds	In Less Than Unit Package Quantities	In Unit Package Quantities
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22½ volts. "B" or "C" Battery.

Voltage and Type	Unit Package Quantity	Weight of Unit in Pounds	In Less Than Unit Package Quantities	In Unit Package Quantities
Air Cell "A" Bat. ....	1	27		\$5.95
1½ V. "A" Dry Cell. . . .	25	54	\$ .40	1.36
45 V. Med. Size, Layerbilt	5	54	1.82	1.65
45 V. Large Size, Layerbilt	5	82	2.51	2.28
45 V. Med. Size, Rd. Cell. .	5	49	1.54	1.40
45 V. Large Size, Rd. Cell .	5	77	2.28	2.07
45 V. Med. Size, Rd. Cell. .	5	49	1.35	1.23
45 V. Large Size, Rd. Cell .	5	75	2.00	1.82
45 V. Med. Size, Horiz. . .	5	51	2.12	1.93
22½ V. Med. Size, Vertical	5	29	1.16	1.05
22½ V. Med. Size, Horiz. .	5	27	1.16	1.05
22½ V. Portable, Vertical. .	5	13	1.16	1.05
45 V. Portable. . . . .	5	18	1.74	1.58
22½ V. Portable. . . . .	5	6	1.16	1.05
45 V. Police Squad Bat. . .	5	82	2.89	2.63
45 V. Auto. Radio Bat. . . .	5	50	1.93	1.75
22½ V. Auto. "C" Bat. . . . .	5	7	1.16	1.05
22½ V. "B" or "C" Bat. . . .	5	9	.97	.88
15 V. "C" Bat. . . . .	5	7	.97	.88
7½ V. "C" Bat. . . . .	5	3½	.58	.53
4½ V. "C" Bat. . . . .	5	2	.31	.28
4½ V. "C" Bat., 4 Taps. . . .	5	5	.38	.35
4½ V. "C" Bat. . . . .	5	10	.31	.28
Aircraft Beacon Rec. Bat. .	5	60	5.60	5.10

## Eveready and Columbia Dry Cells

Type	Voltage	Approx. Wght in Stnd Pkg lbs.	Qty in Package	Per Cell in Broken Packages	Per Cell in Standard Packages
No. C. . . . .	1½	57	25	\$ .36	\$ .32½
Red Label. . . . .	1½	120	50	.36	.32½
7111 . . . . .	1½	57	25	.40	.35½

## Hot Shot Batteries (For Motor Ignition)

Type	Voltage	Approx. Wght in Stnd Pkg lbs.	Quantity in Package	Per Bat. in Broken Packages	Per Bat. in Standard Packages
461 . . . . .	6	60	6	\$1.77	\$1.67
462 . . . . .	6	64	6	1.77	1.67
561 . . . . .	7½	116	8	2.11	1.99
562 . . . . .	7½	107	8	2.11	1.99
662 . . . . .	9	124	8	2.51	2.37

## Master Blowtorch (Alcohol)

Power 2200° blast with attached burner. One turn of thumb screw releases burner, producing 1700° needle-point flame.



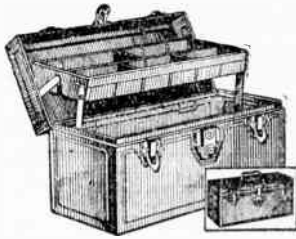
### Features

1. Double burner for needle point and heavy intense flame
2. Pressure release valve
3. Cleaning pin kept in handle
4. Full-grip handle—always cool
5. Filter screen in jet prevents plugging.

**\$3.00**

Cat. No. 2181

## STEEL UTILITY CHESTS



Cantilever Tray Type

The Cantilever Tray type automatically lifts up the tray out of the box as the cover opens.

With Automatic Cantilever Tray. Size: 14 x 6½ x 8". **\$1.30**

\$13.50 per dozen Cat. No. 1716

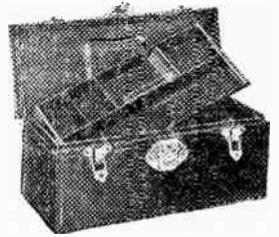
With Automatic Cantilever Tray. Size: 19 x 6½ x 6". **\$1.60**

\$16.95 per dozen Cat. No. 1717

These Chests are used extensively by radio servicemen, also as a mechanics' tool chest, fishing tackle boxes, household tool boxes, outing boxes, Boy and Girl Scouts, etc.

They have movable tray partitions, matched hardware, brass-plated throughout. Heavy gauge cold rolled steel with electric welded flush seams.

Equipped with lock and key, also two-bolt catches. Color olive, green, hard-baked enamel. Permanent embossed rule on cover. Flush handles.



Loose Tray Type

With Loose Tray. Size: 14 x 6½ x 6". **\$1.10**

\$11.50 per dozen Cat. No. 1718

With Loose Tray. Size: 19 x 7 x 7". **\$1.40**

\$14.95 per dozen Cat. No. 1719



## Alcohol Blow Torch

A durable Blow Torch which should be contained in every serviceman's kit. For outside soldering or where electric current is not available. Burns alcohol and gives a hot flame which is automatically shot off by air suction. Individually packed in neat carton.

**90c**

Cat. No. 2179

## Duplex Blowtorch

(Alcohol)

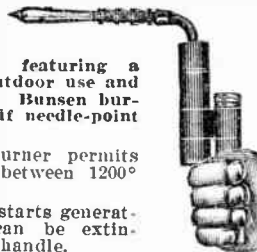
A heavy-duty torch featuring a Bunsen burner for outdoor use and heavy soldering jobs. Bunsen burner can be detached if needle-point flame is desired.

Pressure valve on burner permits adjustment of flame between 1200° and 2000°.

When Bunsen burner starts generating, priming tube can be extinguished and used as handle.

**\$1.50**

Cat. No. 2180



## Handy Furniture Scratch Remover



Just a touch of the stain with the brush and the scratch disappears forever.

Always ready for use, suitable for any color finish.

You will find it indispensable in your store, for touching up minor scratches and defects.

Packed in permanent case, easily carried in the vest pocket.

Packed one dozen to a carton with 3 color counter display. **\$3.60**

Per Doz. Cat. No. 2869

## Cabinet Repair Outfits

Repair Any Damage to Any Finish



An outfit designed specially for the Radio Dealer containing everything necessary to place cabinets in salable condition.

No need to mark down a set on account of a damaged finish.

A scratch, a mar, a dent, broken edges, nail holes, rubbed places, in fact, any damage that can occur to a cabinet finish is repaired easily, quickly and satisfactorily.

Repair outfits pay for themselves on the first job. The Instruction Book furnished with each outfit tells HOW.

Nothing new or difficult. These repair outfits have been used for years in furniture and piano stores to repair damages to their stock caused in shipping and handling.

Kit No. 1. **\$11.95**

Cat. No. 2858

Kit No. 2. **\$7.95**

Cat. No. 2859

Outfits vary from each other in quantity of material only. Leatherette carrying case, as pictured, supplied with each outfit.

## Handy Cabinet Touch-Up Kit



Just the thing for touching-up scratches, mars, rubbed or light spots on radio cabinets.

Contains all the materials necessary to place cabinets in salable condition.

Handy and convenient for outside jobs and to carry on the delivery truck.

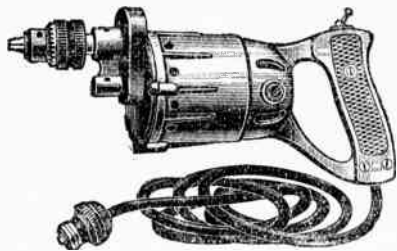
A single cabinet again made salable will pay the entire cost of the kit.

End forever your worry and bother with damaged cabinets.

The Instruction Book furnished with each set tells how. **\$3.90**

Cat. No. 2860

**Electric Hand Drill**



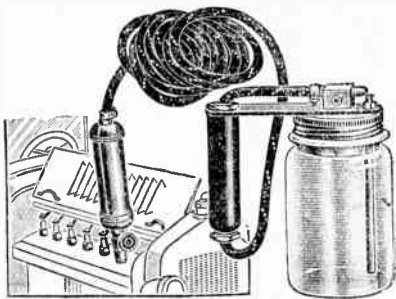
**GENUINE GENERAL ELECTRIC MOTOR BALL BEARING**

Light weight but sturdy. A speedy, dependable electric drill for rapid drilling up to 1/4 in. work in steel. The genuine General Electric Universal A. C. or D. C. motor makes this drill far superior to ordinary "light duty" drills in its weight and price range. 1800 R. P. M.

The spindle is offset from armature shaft for working close up in the corners. Equipped with genuine Almond three-jaw geared key chuck. A handy toggle switch at the top of the pistol grip, easily operated with the thumb. Fitted with nine feet of heavy rubber-covered cable, complete with plug. For 110 volt operation.

**\$14.85**  
Cat. No. 1665

**POWER SPRAY GUN**



Will operate up to 150 feet of attached hose.

**OPERATES FROM YOUR GASOLINE ENGINE CYLINDER** by Removing a Spark Plug and Connecting Gun

Excellent for spraying and cleaning your engine, painting, spraying your trees, and in general wherever a paint brush is used. All parts are of heavy brass, therefore rust proof. Complete with sprayer, pint jar, spark plug, air check valve, compression tank, adapters for all size spark plugs, and 12 feet of air hose.

**\$4.75**  
Cat. No. 1674

Extra Hose, per foot, 7c.

**Hand Drills**

Has a polished chuck with 3 hardened steel jaws holding up to 3/8" drills. Hollow handle for holding drills.

**97c**  
Cat. No. 1663

Same as Cat. No. 1663, but has no side knob, and handle is solid.

**75c**  
Cat. No. 1664

**BENCH VISE**

Carefully machined and polished jaws. Made very sturdy, opens wide and clamps on any place. Vise is operated by an accurately cut steel screw. There is no lost motion or loose play as the two steel guide rods insure rigidity.

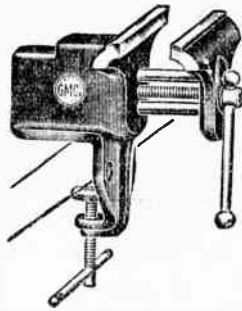
2 1/2" jaw; weight: 3 1/2 lb.

**95c**

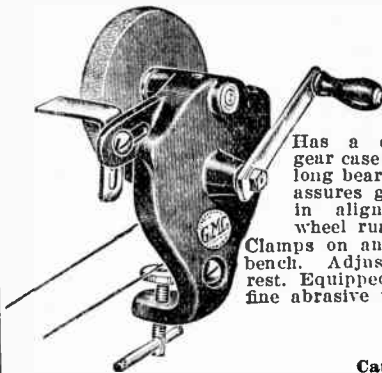
Cat. No. 1669

3 1/2" jaw; weight: 7 1/2 lb. .... **\$1.40**

Cat. No. 1670



**BENCH GRINDER**

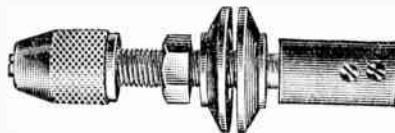


Has a dirt proof gear case with extra long bearings which assures gears being in alignment and wheel running true. Clamps on any table or bench. Adjustable tool rest. Equipped with 4 in. fine abrasive wheel.

**97c**

Cat. No. 1668

**MOTOR ARBORS**



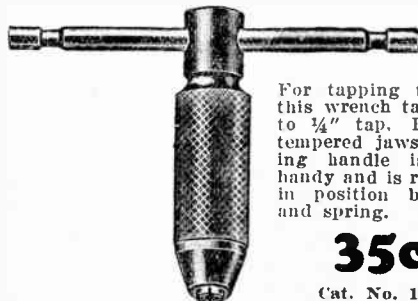
These arbors fit directly onto the shaft of any small motor in place of pulley. Each arbor is equipped with flanges and locking nut to hold grinding wheels, circular saws, buffing wheels, etc. Has a chuck with 3 hardened jaws.

Cat. No. Motor Bore Drill Chuck ANY SIZE

1671.....1/8".....1/4" **95c**  
1672.....1/4".....1/2" **95c**  
1673.....1/2".....3/4" **95c**

Can also be furnished for 1/2" chuck. Write for prices.

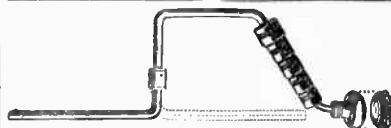
**TAP WRENCH**



For tapping threads this wrench takes up to 1/4" tap. Has oil tempered jaws. Sliding handle is very handy and is retained in position by ball and spring.

**35c**

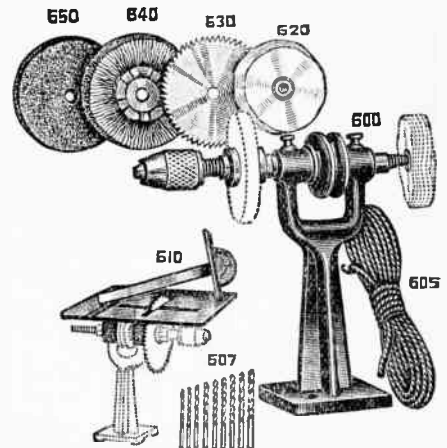
Cat. No. 1679



**95c**

Cat. No. 1676

**WORKSHOP OUTFIT**



For the home, shop, garage and laboratory. Equipment can saw, drill, polish, grind and buff. Has a two-speed pulley and chuck taking up to 3/8" drill.

**\$3.25**

Cat. No. 1666

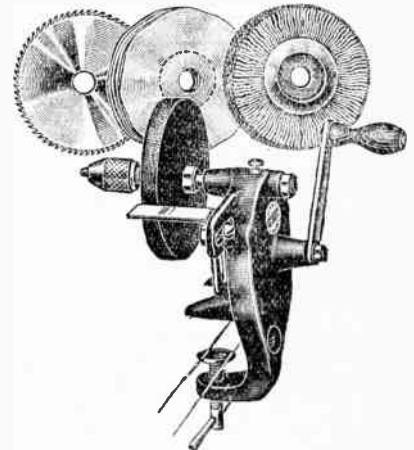
Complete as illustrated

INDIVIDUAL PARTS FOR ABOVE

No.	Description	Cat. No.	Price
600	Polishing head	3210	\$ .70
605	5 ft. round leather belt	3211	.30
610	Saw table with guide	3212	.75
620	Buffing wheel, 3", with lead center	3213	.25
625	Polishing compound	3214	.20
630	Circular saw, 4"	3215	.20
640	Wire scratch brush	3216	.49
650	Emery grinding wheel, 4" diam., 1/2" wide	3217	.30
507	Set of 9 steel twist drills, 1/16" to 3/8"	3218	.33

**Workshop Combination Bench Outfit**

Combination Grinder, Drill, Buffer, Polisher and Saw



A complete grinding outfit with a 10 to 1 gearing ratio, consisting of grinding wheel, steel chuck for drills up to 1/4 in. circular saw, wire brush and buffing wheel. Vice clamp will fit any table or bench up to 1 1/2 in. thickness. Adjustable grinding and polishing guide.

**\$1.95**

Cat. No. 1667

**WRENCH SET**

Combination Demountable Rim Wrench, Speed Wrench and L Set

Excellent as a tire rim wrench. Also for tightening or loosening bolts and nuts. Supplied with 6 case hardened sockets, 1/2", 3/8", 5/8", 1 1/8", 3/4", and 7/8".



**Bakelite Cap Handle**  
Saves the cord and prevents trouble.  
25 for  
**\$1.25**  
Cat. No. 2970



**Bakelite Current Tap**  
Two side outlets for attachment plugs, and one Edison screw receptacle.  
10 for  
**\$1.25**  
Cat. No. 2969

**Kant Kink Cord Set**

Something New in Appliance Cord Sets



Prevents cord from kinking and keeps cord out of the way when in use.  
Attractive Bakelite Plug with "on" and "off" appliance switch. Fits any appliance.  
Bakelite Cap Ring to prevent pulling on cord.  
Cord is 6 feet, of a high grade, glazed cotton with Rayon tracers.  
Approved by Underwriters.



**85c each**

Bakelite Cap Ring Not Shown  
Cat. No. 2571  
**\$8.40 per dozen**

**3 Way Bakelite Cube Tap**



A 3-way Bakelite plug for which there is always a big demand.

12 for  
**95c**  
Cat. No. 2863

**Hubbell T-Tap**



Plugs into old type electrical outlet to obtain two, either old or new type outlets.

**10c**  
Cat. No. E-51  
Dozen **\$1.00**

**Baseboard Outlets**



Cat. No.	Outlet	Type	For Ten
J-10...	Single...	Composition	\$1.50
3800...	Single...	Porcelain...	1.75
3801...	Single...	Bakelite...	1.85
3802...	Double...	Porcelain...	2.50

**Tumbler Switches**

These are double-pole double-throw switches. Can be used for various purposes.

5 A 125 v.  
12 A 250 v.

**15c**

Cat. No. F-84

Dozen **\$1.25**

**Bakelite 4-Way Table Tap**



With 4 appliance outlets for various appliances. Excellent for connecting the electric percolator, toaster, grill, etc., at the table. Saves footsteps. 6 feet of cord and bakelite handle cap.

**59c**

Cat. No. 2998

**\$5.95 a Dozen**

**Bakelite Switch Heater Plug**

Fool-proof, compact, phosphor bronze contacts.

**35c each**

Cat. No. 2973

**\$3.50 a Dozen**



**Soft Rubber Cord Connector**



A well-built soft rubber cord connector useful on sewing machines, electric motors, etc.

**\$1.70 for ten**

Cat. No. F-31

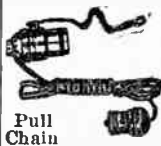
**Midget Cord Connector**



Smallest connector made. For small motors, malted milk machines, etc.

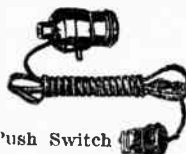
Box of 10—**\$1.65**  
Cat. No. F-30

**Silk Extension Cord Sets**



Pull Chain

Approved Socket



Push Switch

2-piece Bakelite Attachment Plug 5 ft. 2/18, 1/32 rubber silk cord

Cat. No. 1921  
Pull Chain

**25c**

each

**\$2.75 a dozen**

Cat. No. 1922  
Push Thru Socket Switch

**Feed Thru Cord Switch**

Approved by Underwriters



Will carry up to 660 watts. For make and break switch on any electrical appliance. 3 amps. at 250 volts, 6 amps. at 125 volts. Composition.

For ten

**\$1.70**

Cat. No. 3798

Bakelite Feed Through Cord Switch, same specifications as above. Cat. No. 3799. **\$2.25 for 10**

### Electric Fuses

CLEAR VISION AND SHOCK-PROOF

Here is an item which every radio and electrical dealer should stock in quantity. It is an item that moves consistently. In any of the following amperages: 10, 15, 20, 25, or 30.

Cat. No.	Amperes
J-56.....	10
J-57.....	15
J-58.....	20
J-59.....	25
J-60.....	30



Lots of 50  
**\$1.10**

Packed 5 of each size to Box

### All-Rubber Trouble Lights



With Rubber Handle and Rubber Attachment plug. Heavy flexible rubber cord. Impervious to oil, weather, etc.

Cat. No	Size	
2976.....	12 ft.	\$0.85
2977.....	20 ft.	1.10
2978.....	30 ft.	1.40

Reflectors—25c each, extra

### Porcelain Base Knife Switches

These knife switches are very handy around a laboratory and where test equipment is to be built. They are sturdily constructed on porcelain bases and have copper nickel-plated blades and contacts. Insulated handle.



Cat. No.	Type	Box of 10
J-32.....	Single Pole, Single Throw.....	\$1.00
J-36.....	Single Pole, Double Throw.....	1.50
J-33.....	Double Pole, Single Throw.....	1.75
J-35.....	Double Pole, Double Throw.....	2.75
J-34.....	Triple Pole, Double Throw.....	4.25

### Glow Coil Heating Elements



Cone

Fits all screw type Heaters. Best grade of "Nichrome" wire used. 110-130 volts, 600-660 watts.



Straight

**22c ea.**  
\$2.00 for 10  
Cat. No. 2867

### Aluminum Sub Panel Brackets

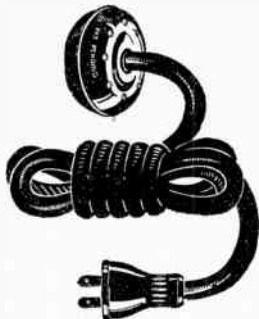


These brackets are ideal for all set builders and service men. They are manufactured of non-magnetic aluminum with a bright finish. They are so constructed that they will support the panel most rigidly. They come in various dimensions.

Cat. No. 2142.....	1	x 8 1/2.....	\$ .28 per pair
Cat. No. 2143.....	2 1/2	x 7.....	.24 " "
Cat. No. 2144.....	2	x 9.....	.35 " "
Cat. No. 2145.....	2	x 11.....	.52 " "

### Electric Immersion Heater

Operates on A. C. or D. C. current. This Heater on test heated four quarts of water in five minutes.



A real, simple appliance, guaranteed for one year.

Rust proof, very simple to operate. Simply plug into light socket and place heater in water.

Excellent for home, office, barber shop, dentist, doctor, etc.

**\$1.10**  
Cat. No. 2898

### Instantaneous Hot Water Heaters

Operates on 110 volt A. C. or D. C.

From your cold water faucet.

Can be plugged in by anyone in a minute. Requires no plumber or electrician. Merely plug into nearest electrical outlet and you get steaming hot water in a flash from your cold water faucet.

Consumes little current. Works like magic. Parts cannot rust. Sturdily built. Foolproof. No resistance wire to burn out or parts to get out of order. Fully automatic, when water stops running the current shuts off by itself. Color—Green.



**\$2.25**  
Cat. No. 2865

Eagle Model. Instantaneous Hot-Water heater, same principle as above. Assorted colors.

**\$1.50**  
Cat. No. 2866

### Pas-Ke Air Purifiers



A "wizard" at transforming atmosphere—dissipating in an unbelievable short time all odors and replacing them with clean, fresh, pure, exhilarating ozone. Will purify 5,000 cubic feet of air in one hour. Simple to operate. Just plug it into your 110 volt, 60 cycle A. C. outlet. Nothing to refill or spill. Positive

in operation. May be used intermittently or continuously as desired. Costs a few cents a month to run. No service or attention is necessary. Fine for Homes, Hospitals, Clubs, Lavatories, Restaurants, etc.

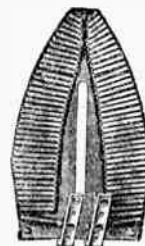
**\$3.95**  
Cat. No. 3284

Large size (Airkure), same as above, only giving off more ozone.

**\$8.50**  
Cat. No. 3285

### Universal Flatiron Element

For Replacement in All 6-4b. Irons



Genuine Nichrome Ribbon Element. Also uses finest grade of mica insulation. Will fit over 90 per cent of irons on the market. For 110-120 volts.

**25c each**  
\$2.25  
Carton of 10  
Cat. No. 2861

### Nichrome Wire

600 Watts

One length to a card. Requires no further cutting. For repairing all electrical appliances. May be stretched to any length desired.



**14c each**  
\$1.25 for 10  
Cat. No. 2862

### Mark-Time Switches

AUTOMATIC TIME CONTROL SWITCHES

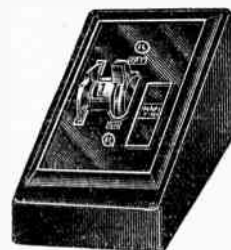


Table Type



Cabinet or Wall Type

Use it anywhere in the house. With the Radio to awaken you in the morning or to bring you a radio program when you desire. In the breakfast nook to crisp your toast or brew your coffee. In the laundry to stop your washing machine. In the bedroom to control fan or warming pad while you sleep.

Wherever current is used these switches will be found to be a magic servant. At your pleasure it turns off the current—it turns on the current in your absence or if you forget. At any time, however, current can be cut off manually even if this switch is set.

Connected in a jiffy to any appliance.

Table Type will turn off or on from five minutes up to twelve hours.

**\$4.69**  
Cat. No. 3029

For Radio Cabinet Flush Installation, same as above specifications.

**\$3.95**  
Cat. No. 3030

For Wall Flush Outlet, same as above specifications.

**\$4.95**  
Cat. No. 3031

All above operate on 110 v., A. C. or D. C.

### De-Luxe Silvertone Nobility Electric Clock

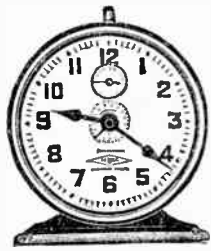


Designed metal front in new black and nickel effects. Buff dial—convex glass. Equipped with second-hand. Plug and cord. Height: 6"—Width: 6"

**\$1.57**  
Cat. No. 2812

### De-Luxe Silvertone Electric Alarm Clock

Black and nickel combination case on pedestal base—buff dial, convex glass, plug and cord. Automatic alarm switch on back. Guaranteed motor.



Height: 4 1/4"  
Width: 4 1/4"

**\$2.65**  
Cat. No. 2813

### De-Luxe Electric Mantel Clock



Tambour shape mahogany case on base. Ornamental inlay design. Sunray aluminum dial. Raised numerals. Equipped with second-hand. Convex glass. Plug and cord.

Height: 6 3/4"—Width: 14"  
Cat. No. 2814

**\$5.95**

### De-Luxe Electric Alarm Clock

Gothic shape mahogany case on base. Overlay design. Buff color dial. Convex glass. Plug and cord. Automatic switch for alarm on back.



Height: 6"  
Width: 5"

**\$5.75**  
Cat. No. 2815

### Belmont Electric Kitchen Clock



The Belmont Electric Kitchen Clock is built of molded "Beetle". It is 7 1/2" in diameter and 2 1/2" deep; the ideal kitchen size. The 5" buff dial, covered by a convex crystal of pure white glass, contains numerals that may be read accurately at a glance. Pastel shades of green, yellow, ivory and French blue harmonize with your kitchen finish.

Kitchen Belmont has a brass sweep hand; also an 8 foot electrical cord and plug approved by the Underwriters Laboratories.

Cat. No. 2816 (Green)  
Cat. No. 2817 (Yellow)  
Cat. No. 2818 (Ivory)  
Cat. No. 2819 (French Blue)

**\$4.20**

All Electric Clocks Being Sold by Us Operate on 100-132 Volts, 60 Cycles, A. C.

### Belmont Boudoir Electric Clocks



The strikingly modernistic design of this Bakelite Belmont Electric Clock matches beautifully the rich walnut and jet black finishes in which this model is offered. This clock is 6 1/2" high, 4 3/4" wide, and 2 1/4" deep; the ideal boudoir size. The 3 1/2" buff dial, covered by a convex crystal of pure white glass lends beauty to the ensemble. Each Belmont Electric Clock has a brass sweep hand; also an electrical cord and plug approved by the Underwriters Laboratories. Also furnished with molded "Beetle". The blue lacquered minute and hour hands harmonize perfectly with the warm colors of French blue, green, orchid and ivory.

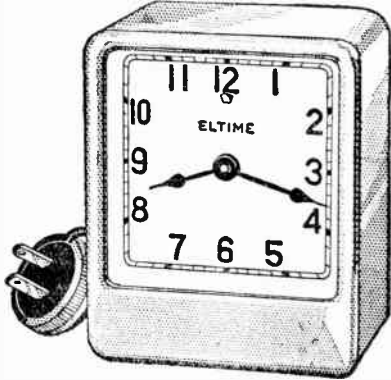
**BEEBLE—Without Alarm**  
Cat. No. 2820—French Blue } **\$3.25**  
Cat. No. 2821—Green }  
Cat. No. 2822—Orchid }  
Cat. No. 2823—Ivory }

**BAKELITE—Without Alarm**  
Cat. No. 2824—Walnut } **\$2.50**  
Cat. No. 2825—Black }

**BEEBLE—With Alarm**  
Cat. No. 2826—French Blue } **\$3.75**  
Cat. No. 2827—Green }  
Cat. No. 2828—Orchid }  
Cat. No. 2829—Ivory }

**BAKELITE—With Alarm**  
Cat. No. 2830—Walnut } **\$3.25**  
Cat. No. 2831—Black }

### Eltime Electric Boudoir Clock



The "Eltime" is a genuine, true synchronous electric clock. It is guaranteed to keep the same accurate time—always to the second—just as any of the more expensive clocks. The "Eltime" is not an electrically wound clock, but derives its motive power direct from the electric circuit. All you do is plug cord into any convenient electric light socket. The "Eltime" is quiet and economical, consuming approximately two watts, costing on an average of less than 10c per month. The "Eltime" has a 6-foot cord with plug, is packed in individual cartons, and weighs 15 ounces.

Size: 4 1/2" high; 3 1/2" wide; 2 3/4" deep. Guaranteed for one year against faulty workmanship and material.

Cat. No. 2835—GREEN or MAHOGANY ..... **\$1.20**

### Havlin Electric Clocks

Mfd. by Kodel Electric Co.  
**RADIOLARM DE LUXE RADIO PROGRAM CLOCK**



No. 808-H

Just what every radio fan has always wanted—a clock that eliminates missing your favorite programs. Set the Radiolarm for the time desired and it will automatically turn on your radio. May be used with any A. C. or electric radio set. No wiring changes are necessary. Case is of Bakelite, exquisitely pebbled and highly polished, with two color dial 3 1/2" square. Improves the appearance of any radio upon which it is set. Size: 7 x 4 1/2 x 3".

**\$5.95**  
Cat. No. 2832

### HAVALARM DE LUXE ELECTRIC ALARM CLOCK

A sensational new electric alarm clock. Awakens the soundest sleeper—gently but surely. Alarm is easily and accurately set, and continues operating until shut off by a convenient switch on the rear of the clock. In handsome case of walnut finished Bakelite, beautifully pebbled and polished. Dial is 3 1/2" square, with figures set within a wide gold finished band on a brushed, satin silver finished background.



No. 804-D

**\$5.95**  
Cat. No. 2833

### CORDOVA CALENDAR CLOCK

Just what everyone has wanted—a perpetual calendar clock at a reasonable price. Not only does the Cordova provide a source of accurate, electric time, but it automatically indicates the day and date as well. Case is of walnut finished Bakelite, beautifully embellished and polished, with two color dial, 3 1/2" square. An unusual clock that is as attractive as it is useful. Size: 7x4 1/2x3".



No. 806-F

**\$6.50**  
Cat. No. 2834

### Lincoln Electric Kitchen Clock

Metal frame 8" octagon. Dial dia., 5". Sweep second hand, and convex crystal. Equipped with 6 ft. of cord and plug.



Buff Body, Dark Green Rim. **\$2.50**  
Cat. No. 2837

White Body, Blue Rim. **\$2.50**  
Cat. No. 2838

### Lincoln Electric Boudoir Clock



Bakelite Walnut Finish  
5 1/2" High. 4 1/2" Base.  
Square edge dial. Flasher type indicator. Square crystal lens, with 6-foot cord and plug.

**\$1.95**  
Cat. No. 2839

### 3 in 1 Electric Food Mixer



Operates on 110 volts either A. C. or D. C. (Universal).

- 1—A general food mixer.
- 2—A fruit juice extractor.
- 3—A drink mixer.

An efficient time and labor saving device adaptable to many duties. Simple to operate and easily cleaned.

Some of the exclusive features of this machine are as follows:

- 1—Slips off the stand for a score of mixing jobs.
- 2—Mixer can be raised and lowered—or swung back and forth—to all positions in the bowl. This assures a perfect mix for any type of batter.
- 3—One or both beaters removable. (Special drink mixing paddle included with every mixer).
- 4—Beater blades are of stainless steel.
- 5—Bowl turntable revolves on roller bearings.
- 6—No special bowls required.
- 7—Variable 3 speed, rugged, powerful motor.
- 8—Supplied with one, extra large mixing bowl, one 5 pint measuring pitcher, one juice extractor, and one drink mixer blade.

**\$14.50**

Cat. No. 1660

### Eskimo Twin Mixer

(De Luxe Model)



A valuable addition to any home as it may be put to so many uses.

It will not only mix drinks, but also beats eggs and mayonnaise, whips cream and mixes light batters. Contains large motor 1/50 H. P.

Finished in lettuce green and white enamel, with nickeled trimmings.

With Graded Quart Glass Mixing Bowl, Aluminum Cup for Mixing Drinks, Also Two Attachments—A Twin Beater for Beating and Whipping and a Mixer for Drinks. Adjustable stand and 6 feet of cord. Operates on 110 volt A. C. or D. C. current.

**\$6.35**

Cat. No. 2239

Regular Model

**\$4.95**

Cat. No. 2239A

### Eskimo Fruit Juice Extractor

For Extracting Juice From Oranges, Lemons, Limes and Grapefruit

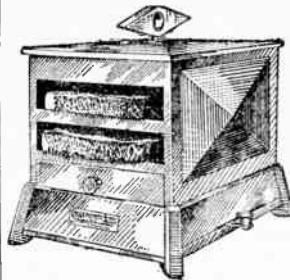
The high speed reamer does not throw juice out of the bowl. All exposed surfaces are either porcelain, enamel or chrome plated to prevent rusting. Easy to keep clean. Base fitted with rubber pads. Porcelain removable bowl and reamer, with extra large motor (1/50 H. P.). On and off switch. Height: 10"; base: 5" square. Complete with 6 feet of cord. Operates on 110 volt A. C. or D. C. current.



**\$10.45**

Cat. No. 2238

### Electric Automatic Two-Slice Toaster



Here is an item you have been waiting for. At last a Two Slice Automatic Toaster at a low price. Push lever back and insert bread. Toast is automatically ejected when done, and current is automatically shut off. All electrically operated.

Two slices of bread perfectly toasted, is an adjustment to enable you to toast your bread as you desire, either light or dark.

Removable Crumb Drawer for easy disposal of any crumbs. Chromium-plated, easy to keep highly polished. Very attractive. Mountings are finished either in black or Nile green. Specify finish when ordering.

With six feet of silk-covered asbestos heater cord with attachment plug. Size: 6" high, 8 1/4" long, 6" wide. Guaranteed for one year. Packed in attractive box. Universal Type. 110 v. A. C. or D. C. current.

**\$7.50**

Cat. No. 2582

### Two-Burner Electric Stoves

Made of heavy steel, genuine nichrome elements imbedded in high grade porcelain brick. Every connection concealed and protected. With 6 foot cord and plug. Size: 19 x 9 x 5 1/2" high.



For operation on 110 volt A. C. or D. C.

**SINGLE HEAT**  
On and Off Switch

Cat. No.	Finish	Price
2888	Blue enamel	\$2.00
2889	Green enamel	2.00
2890	Polished nickel	2.50

**THREE HEAT**  
High, Medium and Low Switch

Cat. No.	Finish	Price
2891	Blue enamel	\$2.95
2892	Green enamel	2.95
2893	Polished nickel	3.35

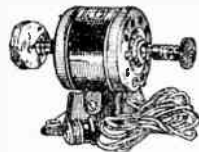
### Single Burner Electric Hot Plate

Size: 10 1/2" diameter; 4" high. Made of heavy steel, genuine nichrome element imbedded in high grade porcelain brick. For operation on 110 volt A. C. or D. C. With cord and plug.

Cat. No.	Finish	Price
2894	Black enamel	\$ .79
2895	Blue enamel	.79
2896	Green enamel	.79
2897	Polished nickel	.98

### Utility Motor

1/50 H. P.—1500 R. P. M.



A remarkable little electric power plant that can be adapted to many uses.

Enables one to polish, sharpen, grind or, by attaching pulleys, operate many mechanical tools.

The motor is mounted on a sturdy foundation and is 5

in. high and 8 in. wide. With 7 feet of cord. With grinder, buffer, belt, and grooves to take care of several pulleys.

Operates on 110 v. A. C. or D. C. current. Less attachments \$4.95

**\$5.95**

Cat. No. 2340

### Circular New Way Fan

This fan can be used anywhere—Banks, Hospitals, Offices, Printing Plants, Homes, etc.



It will not blow your papers away from desk, nor will you get any draft from keeping this fan close to you as in ordinary fans.

Indirect circulation for all year 'round use.

Steel construction, Mahogany, Green, Walnut or Satin Duco finish. Ivory Plug and eight-foot cord included. Specify finish desired when ordering.

Universal Type, 110 v., A. C. or D. C. current.

Motor equipped with ball thrust bearings. Two speed control, one year guarantee.

**\$14.50**

Cat. No. 2603

### New Photo-Flashlight Lamp and Holder



Now you can take photographs indoors or outdoors, when it is dark, by means of this Flashlight. Excellent for the amateur or professional photographer.

Noiseless. No smoke or fire hazard. Simple to operate. All that is necessary is to insert lamp in socket, press side button and a bright flash of light is produced for taking the picture.

Flashlight Holder with 7" Reflector and Battery—

**65c**

Complete, less lamp. Cat. No. 3796

**18c**

Cat. No. 3797

Lamps only .....

### Ultra Square Electric Lantern

The Smart New Lantern in Alarm Clock Shape

Three lanterns in one. Exceedingly smart appearance. Sturdily built, first-class enamel, wonderful light. Silvered Arc-reflector. Holds two standard size round batteries of 1 1/4" diameter and genuine Mazda bulb.

Fitted with extra red and green disks which, when placed between clear lens and reflector, transforms the UTRA LANTERN quickly into a handy emergency lantern or signal light, visible at great distances.

No other hand flash is like the UTRA. Its SQUARE. Stand it on back or sides—it shines UP or SIDEWAYS. Has device for wearing on belt or cap, suspending lens down from tent pole, etc.



**\$1.15**

Cat. No. F-1

Complete with bulb and batteries.

### Genuine G. E. Neon Glow Lamps



For use on either D. C. or A. C. 110 or 120 volts. The 1/2 watt size operates only on A. C. current. Sheds a soft and diffused light which is desirable for boudoirs, halls, etc. Excellent for silent "indicators." Also used widely in amateur transmitters to show oscillation. Costs practically nothing to operate.

The wattage rating indicates the exact power consumption per hour.

Cost 7 cents for approximately 1,500 hours continuous use.

Cat. No.	Approximate Rating	Life—3,000 Hours.	Price
H-41	1/2 Watt		55c
H-42	1 "		55c
H-43	2 "		75c

## Improved Sun Ray Infra-Red Lamps

Radiates Ultra Violet and Infra Red Rays



Easy to handle and foolproof. A knob in back of lamp adjusts carbons, and starts the arc. Resistance coil of finest nickel chrome wire.

A high quality health lamp which can be used for furnishing you sunshine all year round, besides supplying infra-red heat rays, which relieves pains and aches. Complete with goggles, carbons, instruction book, and registration card. Guaranteed for 1 year.

Table Model ..... Cat. No. 2588 **\$3.90**

Floor Model, with Stand. (Can be raised or lowered).....Cat. No. 2589 **\$5.95**

Extra Goggles .....Cat. No. 2590 **\$.25**

Extra Sunlight Carbons (10 to box, 6" long).....Cat. No. 2591 **\$.95**

Extra Tanning Carbons (10 to box, 6" long).....Cat. No. 2592 **\$.95**

Operates on Universal current 110 volt A.C. or D.C.

## Genuine Battle Creek Sun-Arc Infra-Red Lamp

This is a Professional Machine



The body-building sensation of the year! Brings you Sun-light in the privacy of your own home. Enables you to build up the tissues of your body with artificial Sunlight—recommended by leading doctors as the greatest aid to the healthfulness of the human being. It produces tanning, increases resistance to disease, improves nutritive properties of the blood and vitalizes all body processes.

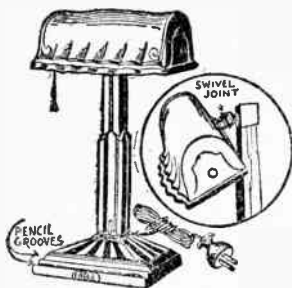
Comes complete with G. E. or Westinghouse Mercury Vapor Lamp and three Infra-Red elements which supply both Ultra-Violet and Infra-Red Rays. Double switch enables control of either. Max. Height: 69"; Min. Height: 26"; Base, 16 1/2 x 14 1/2"; Reflector: 14". Wattage: S-1 lamp 400 watts. Infra-Red units 400 watts. Net weight: 52 lbs. With genuine Westinghouse or G. E. S-1 bulb. Operates on 105-125 v., 50-60 cycle A. C. current.

**\$55.50**

Westinghouse or General Electric Replacement S-1 Mercury Vapor Bulbs. Cat. No. 1898. **\$5.62** Cat. No. 1898.

## De Luxe Desk Lamp

The shade is adjustable to all angles by means of a ball swivel. The neatly designed base is grooved for pen and pencil.



**\$2.75**

Cat. No. 2994

## Flexible Arm Lamps

All of these Lamps are ruggedly built and beautifully designed. Can be purchased in 3 colors—Old Gold, Mahogany, Green.

These Lamps are used in the shop, office and the home.



Clamp Type



Desk Lamp



Clamp Type **\$1.15 ea.**

Cat. No. 2594

Desk Lamp **\$1.05 ea.**

Cat. No. 2595

Desk Lamp with Ash Tray **\$1.35 ea.**

Cat. No. 2596

## Superior Therapeutic Lamps

Large, highly polished aluminum, 8 3/4" reflector. Half of in side silver-etched. Furnished with 260 watt carbon lamp.

Will stand up under high heat. 6 feet of cord and 2-piece attachment plug. Handle connected directly to reflector. Has push socket with cord through it. Highly recommended by physicians for various ailments. Operates on 110 volts, A. C. or D. C. current. **\$1.60** Cat. No. 2996

Floor Type—same lamp as above with telescopic stand that can be adjusted from 3 ft. to 6 ft. Heavy 8 pound base. Whole lamp finished in nickel and white enamel. **\$8.50** Cat. No. 2997

With 260 watt bulb **60c** Cat. No. 2998

## Window Spot Light



Focuses a powerful light at any desired spot and a soft diffused outer glow. Very beautiful window and store effects can be obtained. Finds a ready sale in all retail stores, automobile show rooms, drug stores, and should be used in every show window where you wish to have some article stand out. Built of heavy gauge aluminum with universal bracket and porcelain socket. Furnished complete with adjustable brackets and five assorted color films. **\$2.75** Each Cat. No. 3268

Six for \$15.50

## Automatic Electric Cigar Lighter



No button to push. No carbons to replace. No refills. Lights up only when turned over and tipped towards you. In every other position it's out. Safe, efficient and foolproof. Made of beautiful imitation onyx and marble.

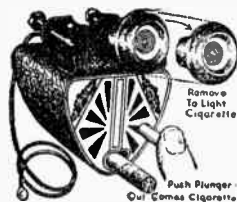
**62c** each Cat. No. 2995 **\$6.25 dozen**

## Cigmat Humidor and Electric Lighter for Auto

Serves Cigarettes and Lights Them, Too

The motoring smoker has long craved the convenience and safety of not having to fumble and fuss for a cigarette while driving. This unit not only delivers a cigarette—but lights it—too. Indispensable to the motoring smoker.

Easily installed. Just tighten two set screws against the dash and attach wire to ammeter.

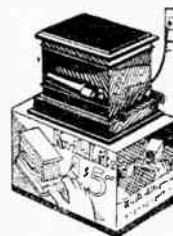


**\$1.20**

Cat. No. 3885

## Kwik-Lite Automatic Cigarette Lighter

Delivers Lighted Cigarette



Has compartment for cigarettes and by pulling lever a lighted cigarette is ejected. Universal Type, 110 v. A. C. or D. C. current. Uses current only when cigarette is being lit.

**\$2.95**

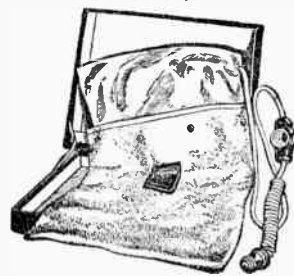
Cat. No. 2602

## Standard Heating Pad

3 Heat Thermostatic Control

Ideal for various forms of sickness such as backache, neuralgia, etc. 12 x 15" full size, three heat (low—Medium—high). Thermostatic control. Foolproof. Each pad in a distinctive colored waterproof cover. Colors: green, tan, and orchid. Flexible, safe and sanitary.

Furnished with a new positive "on and off" three temperature bakelite Cutler-Hammer control switch and 8 feet of flexible heater cord to match pad. Enclosed in cellophane wrapper. Operates from 110 v. A. C. or D. C. current. **\$3.30**



Cat. No. 2864



# Nationally Known Makes of VACUUM CLEANERS

(Rebuilt—Like New—1 Year Guarantee)



EUREKA



HOOVER (Large)



WESTERN ELECTRIC



AIRWAY



HAMILTON BEACH



ROYAL



TORRINGTON

These Vacuum Cleaners look like new and work as well as brand new Cleaners. They have new bags, new brushes, new cords, re-enamelled handles. All metal parts are re-nickled and polished. Motor worn parts replaced. All operate on 110 volt A. C. or D. C. (Universal motor).

Cat. No.	Make	Price
3021	Hoover (large)	\$18.75
3022	Hoover (baby)	16.50
3023	Eureka	13.95
3024	Royal	12.50
3025	Hamilton Beach	12.50
3026	Torrington	10.75
3027	Western Electric	10.75
3028	Airway	16.75

Complete set of attachments for any of the above Vacuum Cleaners, \$4.25

## Polar Cub Electric Whisk Broom

Mfd. by A. C. Gilbert Co.



A very handy portable unit used for quick and thorough cleaning of your Automobile, mattresses, furniture.

Motor casing finished in black baked enamel. Blue cloth bag supported inside by spring to hold it in shape, is easily detachable for emptying.

Compact—Size: 21" long x 5 1/4" wide.

Only weighs 3 lbs.

Operates on 110 volts A. C. or D. C. current. (Universal Motor.)

**\$4.50**

Cat. No. 3147

## Gem Hand Type Vacuum Cleaner



For portable use. Cleans the automobile, furniture, upholstery, etc.

Features: Oilless self-aligning bearings; ventilating and cooling fan for motor; averse size quick detachable red leatherette bag. Cast aluminum motor housing; nozzle and fan case; long sloping nozzle; sturdy hand-grip. No attachments used with this model.

110 volt A. C. or D. C. (Universal Motor).

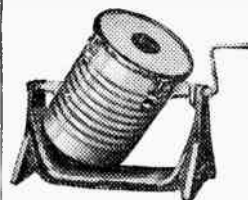
**\$10.50**

Cat. No. 3020

## COLUMBIA DRY CLEANER



Manufactured by the Columbia Phonograph Co.



The Columbia Dry cleaner and Washer, cleans, your dresses, hats, coats, ties, gloves, silks, etc., at practically no cost. Large enough to clean several dresses at a time, yet is light and easily handled. It will pay for itself, in a short time.

Complete with instructions

**\$4.50**

Cat. No. 1650

## Columbia Dry Cleaning Fluid

This fluid is intended for use with the Columbia Dry Cleaner above. This fluid is odorless, non-explosive and non-inflammable. Innumerable cleanings may be performed with one filling. Sold in one gallon cans.



Complete with instructions.

Cat. No. 1651

**\$1.40**

Per Gallon

## Columbia Spot and Stain Remover Set



The Spot Remover set will take out stains and spots in your clothes and should be used before dry cleaning. This is the procedure practiced by large dry cleaning establishments. This compound is non-explosive and non-inflammable.



Complete with instructions per set

**\$1.10**

Cat. No. 1652

## Firemaster Fire Extinguisher

Every automobile, boat, amateur station, garage, office, etc., should have one.

Simple, dependable, pump action, very easy to handle. Contains one pint of carbon tetra chloride which is the same fluid used in all high-priced extinguishers. Non-injurious to fabrics and may be used with safety on electrical fires.

Firemaster is built on a new idea—it is positively sealed and good until used. Non-refillable—the first turn of the handle breaks the seal. When used, buy another—the cost is the same as refilling most other fire extinguishers.



Complete with Bracket

**\$1.95**

Cat. No. 3958

## MONARCH ELECTRIC WINDSHIELD WIPER

Clear Across Type for 6 volts



For automobile or motorboat

These high grade windshield wipers go clear across your windshield, which is the best type of wiper. Full installation instructions shipped with each wiper.

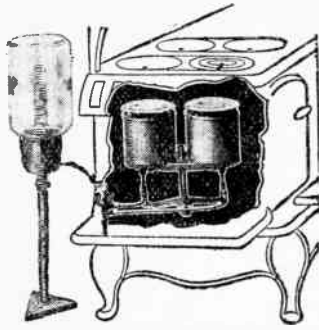
Very well constructed and complete with switch and wiring. Operates from your storage battery. When ordering, specify width of windshield so we will send proper size.

**\$5.75**

Cat. No. 3443

Let Us Quote on Your Special Requirements

## American RANGE OIL BURNER



No more coal, wood, ashes, dirt, etc., and what a saving! Comfort in cooking and heating. Economy in cost and operation comes to every housewife who has her kitchen range fitted with one of these Oil Burners.

It puts the most modern scientific equipment right into your range, banishes coal, wood, and ashes, and allows clean range oil or kerosene to do twice the work that the old fuel did.

One of the exclusive features is a patented vaporizing chamber which mixes the oil and air in correct proportions for producing gas having the highest possible combustion quality. Every American Oil Burner is fitted with a constant level device that keeps the oil always at the same height in the base of the burner. As a result the hot flame is steady and even, thus eliminating soot.

Develops a genuine blue flame that is as controllable as city gas. The heat can be raised 150° higher than in any competing type of range burner.

Note from the photograph here the convenient attractive assembly of oil bottle, and strong three-legged stand. Installing, Re-fueling and starting is very easy. It is foolproof.

Comes with a 2 gallon carboy (runs full blast for 24 hours when full) and uses either range oil or kerosene which costs very little. Not as expensive as coal. Takes up little room. Fits into the space in stove designed for the coal or wood.

Safe—Silent—Odorless. Adjustable valves for operating burners independently of each other. Weight: 36 lbs. Approved by Underwriters. Complete with installation and operating instructions. **\$29.95** Cat. No. 1720

## Polymet Oil Burner Ignition Transformers

Approved by Underwriters' Laboratories

Polymet Oil Burner Ignition Transformers are built from the ground up in Polymet's modern plants, under constant engineering supervision.



Particular care is taken in all stages of manufacture to assure long life and efficient performance.

Low losses—Efficient—High Safety Factors—Thorough Factory Tests—Mid-point Secondary Ground Connection—Low Corona Losses—Suppressed Radio Interference—Units for Gas and Oil Ignition—Suitable for Intermittent or Continuous Service.

Cat. No.	Volt-Ampere Rating	Secondary Voltage (Open Circuited)	Secondary Current (Shorted)	Secondary Winding Connected	
3324	50	5,000	20	Grounded	\$ 6.75
3325	50	5,000	20	Insulated	6.75
3326	250	10,000	23	Grounded	9.50
3327	250	10,000	23	Insulated	9.50
3328	250	10,000	23	Mid-point	9.50
3329	250	12,000	23	Mid-point	11.25
3330	250	14,000	20	Mid-point	11.95
3331	450	14,000	30	Mid-point	13.50

These transformers are designed for 60 cycle, 110 volt supply lines.

## Duplex Telephone Set

Manufactured by Connecticut Tel. & Elec. Corp. These telephones are the result of 37 years' experience in manufacturing telephone equipment and are guaranteed for one year.



Will operate up to distances of 1,000 feet and a number of these phones can be hooked up on one line. Each phone uses two 1½ volt dry cells and it is simple to hook up.

Excellent for inter-communication between points, such as garage and house and cellar, theatres, stores, remote points, etc.

There are a thousand uses for these Telephones.

Cases are of heavy gauge steel, finished in light-green Duco. Telephone bells are nickel-plated.

**\$5.62** Packed two in strong, attractively labeled carton, with 100 feet of wire, staples and complete instructions for installing. Cat. No. S-1600 (less batteries)



**INDIVIDUAL PHONES (less batteries) \$3.15** Cat. No. S-1601

## LIQUID COMPASS

Manufactured for U. S. Signal Corps by Sperry Gyroscope Co.



Sensitive and Accurate. These Compasses are excellent for the camper, hunter, Boy Scout, etc. They are complete with magnifying lens and sight, in leather carrying case.

**\$1.50**

Cat. No. 1691

## "HOT SHOT"

High Frequency Spark Transformer For all Automobiles

More power, pep and speed and less gasoline used.

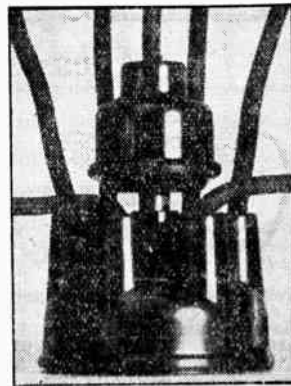
The "Hot Shot" Transformer is guaranteed to save you money on gasoline and oil by giving more complete combustion, which also prevents the accumulation of carbon in your motor.

The transformer will pay for itself within a very short time.

Every car owner operator knows that a better spark means more power. The gasoline must be burned very quickly to get all the power out of it and it takes a good hot spark to do this. The more heat you have the quicker the gasoline will burn.

The ordinary spark has a dull reddish color which shows little heat. The new "Hot Shot" Blazing Arc Spark gives a bluish-white flame which is the proper color of the most intense heat known to science—the kind of heat that will get the maximum power and mileage out of any kind of gasoline.

The "Hot Shot" Transformer gives you the required pure, strong electric spark which gives you quick starting, saves your battery and cannot injure any part of the car. Why not install one now? It only requires two minutes and is so simple that anyone can do it.

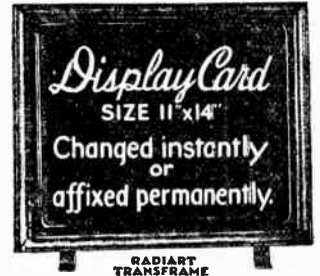


**85c**

Cat. No. 3957

## U—CHANGE—IT NEON SIGNS

Operates on 110 Volt, 60 Cycle A. C.



Here is a fine advertising sign for any type of store.

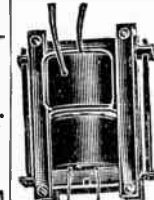
You or your local sign painter can paint or print your advertisement on an ordinary card, which can be quickly inserted into the slot on top of this sign.

This is an all-metal sign with a Neon tube, which runs all around the border, and this Neon tube also illuminates the card with your advertisement or message, making a most attractive eye-catching sign.

Supplied in red, green or blue Neon tube. Specify color and size when ordering.

In two sizes:  
 11 x 14" **\$14.50** Cat. No. 1733  
 14 x 22" **\$19.50** Cat. No. 1734  
 Complete with Neon Tube, Transformer, Cord, and Plug, ready for operation.

## Polymet or Thordarson Neon Sign Transformers



Indoor Type Uncased

We can quote you special low prices on all types of Neon Transformers. These Transformers operate cool and silent. Compact and of rugged construction. Made with a new patented primary; Insulated throughout with heavy mica.

Every Transformer approved by the National Board of Underwriters, guaranteed for one year.

When asking for quotation, let us have full specifications and whether desired for outdoor or indoor use, closed or open type of mounting, primary and secondary voltage.

## Precise Automatic Safety Switches

Ideal Protector for radio sets, washing machines, home appliances, fractional H. P. motors, etc. Simply connected on the line in series with the apparatus to be protected, this protector is a silent never-failing guardian, entirely automatic, requiring neither adjustment or care.



When an overload occurs the circuit is instantly broken and the current must be established manually, after the cause of the trouble has been removed.

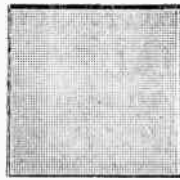
Earns its cost many times by protecting tube transformers, fuses, etc. Compact, size: 3 3/8" x 2 1/4" x 1 1/2", bakelite base.

Cat. No. 2192—110-250 A. C., 9 amps. (990 watts)  
 Cat. No. 2193—32 v. D. C., 12 amps. (390 watts)  
 Cat. No. 2194—110 v. D. C., 4 amps. (440 watts)  
 Cat. No. 2195—220 v. D. C., 3 amps. (660 watts)  
 Cat. No. 2196—240 v. D. C., 4 amps. (960 watts)

Any Size, **\$2.65**

Mention size when ordering.

### American Oscillating Quartz Crystals



These sturdy oscillating crystals are ground from finest material obtainable and calibrated with precision instruments by experts in our subsidiary laboratories. The test equipment is constantly being checked and improved, consistent with latest developments.

**ALL CRYSTALS GROUND TO ORDER**  
The 80 and 160 meter crystals are calibrated to 1/10th of 1% or better and adjusted to within 1/2 of 1% of specified frequency.

If you desire these crystals calibrated to 5 K. C. of your specified frequency, add \$1.50 to price. The 40 meter crystals are adjusted to within 1% of specified frequency. Size 1" x 1", furnished in either "X" or "Y" cut. Specify cut desired when ordering. All calibration tolerances are plus or minus.

- 1715 to 2000 k. c. (160 meter band)  
Cat. No. 3714
- 3500 to 3550 k. c. (80 meter phone band)  
Cat. No. 3715
- 3550 to 4000 k. c. (80 meter c. w. band)  
**\$7.95**  
Cat. No. 3716
- 7000 to 7300 k. c. (40 meter band)  
**\$12.50**  
Cat. No. 3717

### Bakelite Rods

(Round)

Cat. No.	Diam.	Per Ft.	Cat. No.	Diam.	Per Ft.
4142	1/4"	\$0.42	4146	3/8"	1.36
4143	5/16"	.59	4147	7/8"	1.62
4144	3/8"	.82	4148	1"	2.06
4145	5/8"	1.09			

### Bakelite Tubing



1/8" Wall. Black.  
Fine for winding short wave coils, R. F. inductances, etc.

O. Diam.	Cat. No.	3" long	Cat. No.	4" long
1"	2271	.14	2279	.22
1 1/4"	2272	.18	2279	.28
2"	2273	.23	2280	.34
2 1/2"	2274	.27	2281	.42
3"	2275	.32	2282	.48
3 1/2"	2276	.37	2283	.54
4"	2277	.42	2284	.59

The 1 1/2" tubing will fit snugly over a tube base. Can also cut Tubing to order.

### Genuine Bakelite Panels

Fine for Amplifier Rack, Panels, Transmitters, Receivers, etc.



Finished in Polished Black, Walnut or Mahogany

Cat. No.	Size	Weight lbs.	Each
2295	.36 x .36 x 1/8"	4	\$4.95
2296	.36 x .36 x 3/16"	6	7.50
2297	.36 x .36 x 1/2"	8	9.85
2298	.36 x .36 x 3/4"	10	12.50
2299	.36 x .36 x 7/8"	12 1/2	15.50
2300	.36 x .36 x 1"	16 1/2	19.95

Cat. No.	1/8" Thick	Cat. No.	3/8" Thick
2301	7 x 10" .65	2309	.96
2302	7 x 12" .78	2310	1.15
2303	7 x 14" .92	2311	1.36
2304	7 x 18" 1.18	2312	1.71
2305	7 x 21" 1.37	2313	2.03
2306	7 x 24" 1.57	2314	2.32
2307	7 x 26" 1.73	2315	2.50
4158	7 x 28" 1.84	4159	2.71
2308	7 x 30" 1.96	2316	2.90

#### Special size panels cut to order:

- 2 1/4" a square inch for 1/8" stock.
- 2 3/4" a square inch for 3/8" stock.
- 3" a square inch for 1/2" stock.

### Hard Rubber Panels

(Black) 3/16" thick

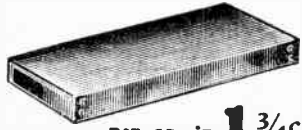
Cat. No.	Size	Price	Cat. No.	Size	Price
4139	10x24"	2.40	4135	7x20"	1.35
4129	7x10"	\$0.49	4136	7x25"	1.40
4130	7x12"	.60	4137	7x30"	1.50
4131	7x14"	.70	4138	8x24"	1.95
4132	7x18"	.90	4140	8x26"	2.10
4133	7x21"	1.05	4141	12x21"	2.40
4134	7x24"	1.20			

#### SPECIAL SIZES CUT TO ORDER

- 1/2" thick ..... .01 3/4c per sq. in.
- 3/4" " ..... .02c " " "
- 1" " ..... .02 3/4c " " "

### Aluminum Chassis Decks

14 gauge (3/16" thick) bright finish

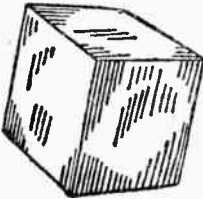


per sq. in. **1 3/4c**  
Cat. No. 2317

Riveted corners. Made to your specifications. Let us know the height of the deck, also length and width when ordering.

To determine the number of square inches ordered, multiply length by width of top. Then multiply length by height times two, also width by height times two. Add all together to make a grand total of number of square inches.

### Aluminum Shield Cans

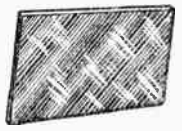


No. 14 Gauge (1/16" thick) Bright Finish

Are supplied in knocked-down form with drilled and tapped corner posts. Can be put together by anyone in a few minutes.

Cat. No.	Size	Price	Cat. No.	Size	Price
2285	5x6x9"	\$1.77	4006	14x7x6"	2.80
4002	6x6x6"	2.05	4007	12x10x6"	3.38
4003	8x8x6"	2.36	4008	18x9x6"	4.56
4004	5x5x6"	1.63	4009	12x6x6"	2.05
4005	10x8x6"	2.65			

### Aluminum Panels



No. 14 Gauge. (3/16" thick) Bright Finish

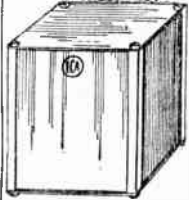
Cat. No.	Price	Cat. No.	Price
2287	7 x 19" \$ .49	2291	7 x 21" \$ .99
2288	7 x 12" .59	2292	7 x 24" 1.18
2289	7 x 14" .69	2293	7 x 26" 1.35
2290	7 x 18" .88	2294	7 x 30" 1.47
2294A	24 x 36" \$5.69		

### Aluminum Panels Cut to Order

- 3/32" thick....1 c a square inch.
- 1/8" thick....1 1/2c a square inch.
- 3/16" thick....1 3/4c a square inch.
- 1/4" thick....2 c a square inch.

### Electralloy Shield Cans

1/16" thick



These cans are made of non-corrosive non-magnetic sheet metal material. Drills and machines much easier than other metals. Finished in beautiful dull silver. These cans are supplied in knocked down form with drilled and tapped corner posts. Can be put together in a few minutes.

Cat. No.	Size	Price	Cat. No.	Size	Price
4110	5x6x9"	\$1.47	4115	14x7x6"	2.25
4111	6x6x6"	1.63	4116	12x10x6"	2.80
4112	5x5x6"	1.33	4117	18x9x6"	3.68
4113	4x5x6"	1.18	4118	12x6x6"	1.63
4114	10x8x6"	2.05	4119	8x8x6"	1.77

### Electralloy Panels

No. 14 gauge (1/16" thick)

Same material as the Electralloy Shield Cans.

Cat. No.	Size	Price	Cat. No.	Size	Price
4120	7x10"	\$0.30	4125	7x21"	.62
4121	7x12"	.36	4126	7x24"	.71
4122	7x14"	.42	4127	7x30"	.88
4123	7x16"	.48	4128	36x36"	4.95
4124	7x18"	.53			

### Aluminum Corner and Angle Posts



For building your own Aluminum or Electralloy Cans.

Cat. No.	Price
4149	6" Corner Posts, drilled and tapped \$0.18
4150	Corner Posts, not drilled and tapped, per foot ..... .21
4151	1/2" Angle Post, 3/16" thick, per foot.. .18
4152	3/4" Angle Post, 1/8" thick, per foot.. .21

### American Quartz Crystal Holders

PLUG-IN TYPE



Equipped with General Radio pin tips. Dust-proof, and ideally suited for amateur and broadcast transmitters. Contact to the crystal is made through brass plates ground perfectly flat. The bottom brass plate is nickel-plated on its outer side, and the top Bakelite cover is held in place by 4 screws.

For Crystals 1 x 1"  
Cat. No. 3153

**\$2.50**

For larger Crystals  
Cat. No. 3154

For Any Type

### Edison Storage Battery

IN STEEL PORTABLE CASE

7 Cells, 10 Volts, 37 Amps. Non-spill, Battery cannot be seriously damaged by short circuit, complete discharge or by a heavy overcharge.



**\$19.50**

Cat. No. 1762

Type B.B.1

### Edison Storage Battery Cells

Cannot be damaged by short circuit or complete discharge or by heavy overcharge. Non-spill.

Type M-3, 1.2 Volts, 11 Amps.

**\$1.95**

Cat. No. 1763

Type A-4, 1.2 Volts, 175 Amps.

**\$4.50**

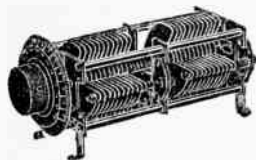
Cat. No. 1764

Type A-6, 1.2 Volts, 225 Amps.

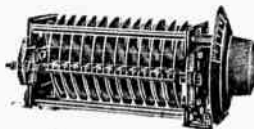
**\$5.50**

Cat. No. 1765

# SHORT WAVE TRANSMITTING CONDENSERS



National Radio Products are widely recognized as high grade, dependable equipment, manufactured by a company that has been in the Radio field for many years and has done a great service in the advancement of the art through its research and development of high grade efficient equipment.



## VARIABLE TRANSMITTING CONDENSERS

An efficient, low-loss, economical rugged condenser to fit every need and circuit required in amateur transmitters.

Cat. No.	Voltage	Capacity	No. of Plates	
W-1145	6000	.000035 Mfd.	7	\$2.70
W-1146	6000	.000050	12	3.60
W-1147	3000	.0001	11	2.70
W-1148	6000	.0001	23	6.00
W-1149	3000	.00015	17	3.00
W-1150	6000	.00015	35	8.40
W-1151	3000	.00024	23	5.40
W-1152	6000	.00024	51	10.20
W-1153	3000	.00035	35	7.50
W-1154	3000	.00045	43	8.40

Cat. No.	Voltage	Per Section	
W-1155	3000	.00023	\$9.00
W-1156	3000	.0001	6.00
W-1157	6000	.0001	9.60

All above condensers are constructed of heavy gauge polished aluminum plates and all corners and edges carefully rounded.

All above prices are less dial. Type "A" dial as shown, \$1.50 additional.



## R-39 Plug-In Inductances

Forms are moulded of the special R-39 material developed by the R. F. Laboratories. The following list designates the wave band each pair will cover when used in the new SW Thrill Box receivers, or with 70 mmfd. variable condenser.

Cat. No.	Meters	Per Pr.
1189	9 to 15	\$3.24
1190	15 to 25	2.94
1191	23 to 41	2.94
1192	40 to 70	2.94
1193	65 to 115	2.94
1194	115 to 200	3.24
1195	200 to 360	3.24
1196	350 to 550	3.24
1197	500 to 850	3.83

Special Inductances for 20, 40, 80, or 160 meter amateur bands for a 50 degree dial spread.

Per Pair **\$3.83**

Cat. No. 1200

## Long Wave Inductances

5 Prong—Plug-in Type

For use with SW-5 receiver and 70 mmfd. variable condenser. All bands require two coils.

Cat No.	Meters	Any wave band	
3207	850 to 1200		<b>\$4.70</b>
3208	1200 to 1500		
3209	1500 to 2000		

Per pair

## Coil Forms and Sockets

Forms only four, five or six prongs.

Each **60c**

Cat. No. 1198

Special six prong sockets.

Each **45c**

Cat. No. 1199



## Dial Lever Indicator

Same as above, only fitted with a shorter pointer, and is not supplied with a scale.

**\$1.65**

Cat. No. W-1160

## New Design in Short Wave Tuning Condenser



Especially designed for 270 degree rotation equicycle plates, insulated front bearing and constant impedance pig tail, single hole panel mounting, 1/4 inch shaft, R-39 low-loss insulation, all of which go to make it the most efficient for ease of tuning and high signal strength results. Also available in the 180 degree rotation type. Specify type desired when ordering 270 or 180 degree.

ify type desired when ordering 270 or 180 degree.

Cat. No. 1180 50 M. Mfd. **\$2.06**

Cat. No. 1181 100 M. Mfd. **\$2.21**

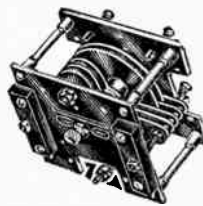
Cat. No. 1182 150 M. Mfd. **\$2.36**

## Band Spread Variable Condenser

Designed to have a minimum capacity for use in frequency meters and amateur band spreading circuits. Low loss, high efficient operation. Minimum capacity is 35 mfd. maximum, 70 mfd.

**\$3.50**

Cat. No. 1411

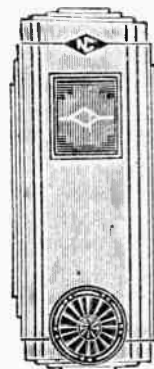


## Dial Lever Indicator

Designed for transmitter control panel use, fitted with well defined bronze pointers and insulated handle. Etched scales to match (0-100) furnished on request.

**\$2.25**

Cat. No. W-1155



## DISC PROJECTION DIAL

Employs a disc mechanism designed for use when the condenser shaft is at right angles to the front panel. This is a monocular projector dial. Specify when ordering if clock or counter-clockwise type is desired and type of scale desired, 180 or 270 degrees.

**\$2.21**

Cat. No. 1183

## Precision Velvet-Vernier Dial

Four inch diameter, solid German silver, designed for precision adjustments and logging of settings, making accurate readings easily taken to one-tenth of a degree. Dial attaches to three points on panel, making accurate mountings exceedingly easy. Specify when ordering type of dial scale desired, clock, or counter-clockwise, 180, 270, or 360 degrees.



Cat. No. 1184—4 inch **\$3.82**

Cat. No. 1185—6 inch **\$8.82**

## Velvet Vernier Dial



The original National Velvet - Vernier, gearless transmission gives even, regular control throughout the entire range.

No backlash can develop. Specify when ordering 3% or 4 inch diameter clock or counter-clockwise.

**\$1.50**

Cat. No. W-1161

The above dial is also obtainable in 360 degree variation graduated 0-200 and a 270 degree variation. Specify type when ordering.

## Variable Ratio Vernier Dials

Easily and quickly attachable without special tools. 6-1 to 20-1 ratio instantly obtainable by small knob above tuning knob. Clockwise or dual-range in 360 or 180 degree scales.

**\$1.50**

Cat. No. W-1162

Above dials are 4 inches in diameter and obtainable with rear illuminator bracket, 30c extra.

Same dial as above only 3 inch diameter, instead of four inches. **\$1.20**

Cat. No. W-1163

## Dial Lever Indicator

For transmitter or wavemeter, fitted with well defined bronze pointer and insulated handles.

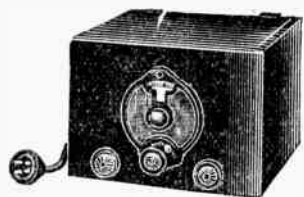
Etched scale to match (0-100) furnished on request.

**\$1.80**

Cat. No. W-1159



## Double Screen Grid SW-3 Three-Tube Thrill-Box



With all sensitivity, ease of tuning and exact radio-frequency, detector and first audio wiring, as SW5, only the output push-pull stage is omitted, and even then this compact headset output receiver will deliver loud speaker volume.

This compact portable and light receiver was designed especially for amateur, aircraft, and expedition communications. The A. C. model uses the new UY235 variable Mu tubes in the first R. F. amplifier and detector, a UY227 as audio amplifier. The D. C. model uses two of the new UY236 and one UY237 6 volt low current tubes. Both models are furnished with three sets of band spread coils for the 20, 40 and 80 meter amateur bands.

Cat. No. 1172—AC SW3 with coils as above.

less tubes **\$32.34**

Cat. No. 1173—DC SW3 with coils as above.

less tubes **\$32.34**

Above prices less power pack or batteries, but include wiring and testing.

## Screen Grid SW-5 Thrill-Box

Using The New Variable Mu Tubes



A highly sensitive yet easily tuned (single dial control) short-wave receiver, capable of giving consistent loud speaker volume on reception of foreign broadcast, as well as meeting all the stringent requirements for both amateur and short-wave commercial operators.

The circuit comprises a stage of tuned screen-grid R. F. amplification, a screen-grid detector with new and extremely efficient R. F. and detector coupling systems. The audio amplifier section may be had using one 227 as first stage, and two 227's in push-pull as output, or 245's in push-pull for a high power output to give powerful loud speaker volume at the same price. A jack is provided for headphone use. The complete set is of rugged construction and housed in an attractive all-metal cabinet. Four sets of coils are supplied to cover the entire short-wave band from 15 to 115 meters.

provided for headphone use. The complete set is of rugged construction and housed in an attractive all-metal cabinet. Four sets of coils are supplied to cover the entire short-wave band from 15 to 115 meters.

AC SW5 in Kit form.

Less tubes and Power Pack **\$45.32**

Cat. No. 1170

DC SW5 in Kit form with four sets of coils as above and for use with the new battery type tubes, namely, two 232 screen-grid, one 230 as first audio, and two 231 power output tubes.

Less tubes **\$42.75**

Cat. No. 1171

The above two outfits are also obtainable completely wired and tested at an additional charge of \$5.75

## A. C. Power Units



One of the essentials for humless A. C. Short-Wave Reception is the use of a power unit designed especially for that purpose. NATIONAL power packs have an exceedingly low inherent hum, employing a double section filter using good quality chokes and plenty of condenser capacity. The power transformer has an electrostatic shield between the primary and other windings in order to prevent line disturbances from getting into the power unit and into the Thrill Box.

A special R. F. filter, located between the 280 rectifier tube and the hum filter is a feature of all NATIONAL power packs designed for short-wave use and is one of several important factors contributing to the complete elimination of so-called "tunable hums," frequently encountered in short-wave reception.

Special designed power packs for use with the NATIONAL Short-Wave Thrill Boxes on the different current supplies available in various sections of the United States and in foreign countries as listed. Completely wired power supply for use with the ACSW5, ACSW3 Thrill Box using the '27 tubes in the output stage on 105-120 volts, 50-60 cycle current supply. Cat. No. 1174.

less tube **\$20.29**

Completely wired power supply for use with the ACSW5 Thrill Box using the '27 tubes in the output stage on 105-120 volts, 25-40 cycle current supply. Cat. No. 1175.

less tube **\$23.23**

Completely wired power supply for use with the ACSW5 Thrill Box using the '27 tubes in the output stage on 220-230 volts, 50-60 cycle current supply. Cat. No. 1176.

less tube **\$21.76**

Completely wired power supply for use with the ACSW45 Thrill Box using the '45 tubes in the output stage on 105-120 volts, 50-60 cycle current supply. Cat. No. 1177.

less tube **\$23.23**

Completely wired power supply for use with the ACSW45 Thrill Box using the '45 tubes in the output stage on 105-120 volts, 25-40 cycle current supply. Cat. No. 1178.

less tube **\$24.99**

Completely wired power supply for use with the ACSW45 Thrill Box using the '45 tubes in the output stage on 220-230 volts, 50-60 cycle current supply. Cat. No. 1179.

less tube **\$23.23**

## SCREEN GRID TUBE SHIELD

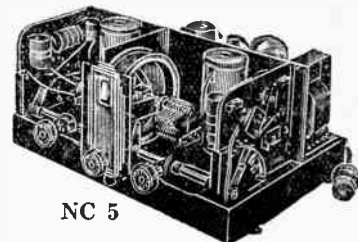
Of polished aluminum, with removable top and a bottom mounting plate. Vents for proper cooling air circulation.

Complete

**21c**

Cat. No. 1186

## NC-5 Five Tube Short Wave Converter Range 15-185 Meters



NC 5

This Converter is designed to occupy the same place in the Converter field as the well-known SW5 Thrill Boxes have in the Short-Wave Receiver field. It is also designed to give results regardless of the type of broadcast receiver used. This is accomplished by including enough inherent amplification in the Converter itself so that it will give very satisfactory results even with insensitive receivers.

### NO PLUG-IN COILS

A unique feature in the design is the R-39 combination coil mounting and switching panels located at each end of the chassis. These panels also contain the built-in "padding" condensers for making the oscillator and first detector circuits track.

The coils are so mounted as to prevent any inter-coupling and thus all "lead" spots in the tuning range are conspicuous by their absence.

A very useful feature is the inclusion of an experimental set of coil forms and contacts on the frequency shifting switch, which permits of an experimental frequency range which may be altered at will to cover the reception of any new stations on frequencies outside of the range of the standard Converter that may be erected in the future.

A novel and attractive feature is the manner of indicating the particular pair of coils in the circuit at any one time. As the wave changing switch is turned to throw the different pairs of coils into the circuit, the color of the illumination of the main dial light also changes and thus serves as an indicator of the frequency range to which the receiver is adjusted. The tubes employed are a UY-235, two UY-224's and UY-227 and a UX-226 rectifier. The Converter is available for 110 volts, 50-60 cycles; 220 volts, 50-60 cycles and 110 volts, 25-40 cycles.

NATIONAL 5-Tube Shortwave Converter, completely wired and laboratory tested (less tubes) in Metal Cabinet.

**\$44.10**

Cat. No. 1201

NATIONAL 5-Tube De Luxe Shortwave Converter, completely wired and laboratory tested (less tubes) in Mahogany Finish Cabinet.

**\$49.98**

Cat. No. 1200

Above prices are on units for use on 105-120 volt, 220-230 volt, 50-60 cycle, A. C. current. When desired for 110 volt, 25-40 Cycle, A. C. current add \$3.00.

## Control Grid-Grip Clip



For A. C. or D. C. screen grid tubes. Easily and quickly connected, making a perfect continuous gripping contact for receiving tubes

Each

**06c**

Cat. No. 1187

For transmitting tubes, such as 872.

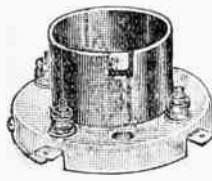
Each

**12c**

Cat. No. 1188



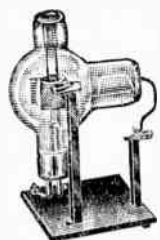
**50 Watt. Isolantite Tube Socket**



For all standard tubes, as type -03A, -11, -45, -72, etc. Max. H. F. insulation and contact surface assured due to heavy glazed ISOLANTITE base and one piece heavy phosphor bronze spring contacts giving both bottom and side wiping contact. Nut and bolt or soldered lug connection and plainly marked. Net weight: **\$1.65**  
Cat. No. 2428  
½ pound.

**Type-52 Tube Holder**

Designed for the very popular ultra short wave tube of the 75 watt type -52, or -60, with or without screen-grid, specify when ordering for type -60. Filament prongs of tube plugs into rigid bayonet prongs insuring positive electrical contact and sturdy support mechanically



Cat. No. 2430 **\$1.70**

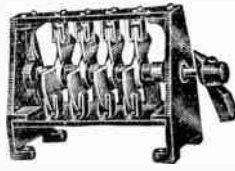
**250 Watt. Isolantite Tube Mountings**



For all standard double ended tubes such as the -04A, -49, -51, -51, -69, etc. Isolantite has recently been approved by the U. S. N. as one of the best H. F. insulating materials. Clips are of one piece phosphor bronze nickel-plated and designed to carry 20 amperes. Net weight: **\$3.08**  
24 oz. pair. Per Pair Cat. No. 2429

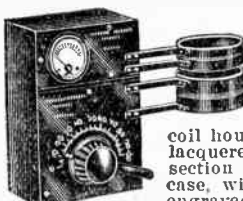
**Anti Cap. Changeover Switch Heavy Duty**

A four pole double throw switch, may be used as antenna changeover with auxiliary contacts for filaments relays, etc.; as a wave change switch. Due to unique construction, flexible leads are eliminated and a through solid contact of 20 amperes capacity is assured. Base: 2 3/4 x 5 1/2 x 4 1/2" high.



**\$9.00**  
Cat. No. 2431

**Frequency Meters**

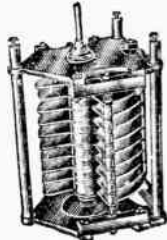


The upper unit shown in cut is the resonance indicator. It consists of a D. C. Milliammeter, a rugged fixed crystal rectifier, and pick up coupling coil housed in black crystalline lacquered metal case. The lower section is housed in a similar case, with sanded bakelite engraved panel and is interchangeable. It can be supplied in four different types as listed below, employing different L-C ratios.

85-75 meters	Inductance Panel	\$12.75
42.8-41 meters		12.75
21.4-20.8 meters		12.75
10.7-10.0 meters		12.75

Resonance Indicator Panel Indicator for use with any above units. **\$13.50**  
Cat. No. 2426

**Variable Condensers**



Isolantite insulation low-loss construction. Requires 6 1/4 inch diameter panel space. Brass plates 1/8 inch stock buffed and all corners carefully rounded, minimizing brush discharge losses, and fitted with wear compensating bushings. Temperature coefficient practically nil and no capacity change at various frequencies.

Type No.	Breakdown Voltage	No. of Plates	Max. Cap. Mmfd.	
K	3,000	19	200	\$13.25
L	"	33	350	15.75
M	"	59	650	21.75
N	5,000	11	60	12.75
O	"	19	100	15.00
P	"	33	180	21.00
R	10,000	5	25	12.50
S	"	11	45	14.25
T	"	19	80	20.25

**Special Short Wave Tuning Condenser**



**Isolantite Insulation**  
A large capacity is mounted in the rear section and controlled by means of a 3-inch bakelite disc and ratchet. A small variable capacity is mounted in the forward section and controlled by the panel shaft which is a single plate fitted with a set-screw so that it may be adjusted for the correct spread in the individual circuit. It is tuning. Maximum capacity 115 mmfds. Breakdown voltage 1000 volts D. C. Net Weight, 1 1/2 lbs. **\$4.35**  
Cat. No. 2418

**Indicating Tuning Scale Locking**



An excellent die cast job cadmium-plated and lacquered. A 0-100 calibration scale and a blank scale for recording your own special adjustments and space in upper portion for identifying circuit. Approximately 6 in. in diameter, with an extension adjusting handle extending 3 1/2 in. for shaft center and fitted with a locking device. Will beautify your transmitter rack and give it a finished appearance. **\$4.20**  
Cat. No. 2421

**Inductors**



Adaptable up to 2 k. w. wound with flatwise copper ribbon nickel-plated, moulded crystal glass spacers give 90% air dielectric and assures lowest possible distributed capacity; and extremely rigid mechanical construction.

TYPE "S"	TYPE "L"	TYPE "LL"
3" diameter, 6" long, eleven turns, 3 spacers.	5" diameter, 6" long, eleven turns, 3 spacers.	8" diameter, 8" long, eleven turns, 4 spacers.
<b>\$3.30</b> Cat. No. 2432	<b>\$3.30</b> Cat. No. 2433	<b>\$6.60</b> Cat. No. 2434

These units are so designed that they may be telescoped in the next larger type if so desired where extremely close coupling is desired. In orders of double units two glass 1/2 in. rods fifteen in. long are supplied free, for flexible coupling mounting.

**Radio Frequency Choke .9 M. H. 50 M. A.**



Pie wound five pancake windings reducing to a minimum the effective field and distributed capacity of the windings. Extremely efficient for receivers and low powered transmitters or grid R.F. chokes for high power tubes. Effective over the entire 15 to 90 meter band. D. C. resistance, 12.9 ohms. 2 1/4" high x 5/8" diameter. **75c**  
Cat. No. 2435

**Radio Frequency Chokes 500 M. A.**

Single layer winding on bakelite, protected with transparent insulating lacquer assuring constancy under all climatic conditions.

3/4 x 4 1/4" for 15 to 90 meter band. 26 M. H. D. C. -5.2 ohms	<b>90c</b> Cat. No. 2436
1 x 6" for 90 to 200 meter band. .73 M. H. D. C. -7.1 ohms.	<b>\$1.43</b> Cat. No. 2437

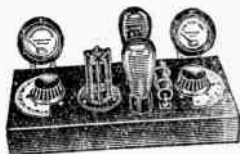


**General Purpose Wavemeter**



Sensitive Neon tube as resonance indicator assuring sharpness. Housed in a metal case with removable cover. Inner compartment for storing the three coils covering the complete band between 17 and 560 meters. Each instrument is individually calibrated and supplied with a three color calibration chart, covered with transparent soil-proof material and fits directly inside the cover. Case measures 9 1/2 x 7 x 7" and net weight is 4 1/2 lbs. **\$15.95**  
Cat. No. 2427

### 30 Watt Telegraph Push-Pull Transmitter



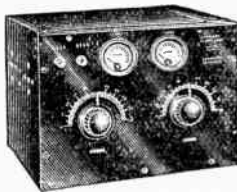
The best value in amateur transmitters. Complete, ready for operation, plug in the tubes, connect the power supply and press the key CQ de HAM. Regularly supplied with one grid coil and one plate coil for the band specified upon order. This outfit functions perfectly with the 245 type tube or when used with the DeForest 510 tubes an output of 30 watts will be obtained. Meters not furnished.

**\$15.45**  
Cat. No. 2042

Additional coils for the other amateur bands per pair are \$1.40.

### 10 Watt Tel. and Tel. Transmitter Kit

The ideal amateur low power phone and code transmitter, in reality a miniature broadcast station. Utilizes a 210 type tube as an oscillator, and a 250 type tube as a modulator. Three plug-in coils are furnished covering the amateur 20, 40 and 80 meter band.



Cabinet dimensions are 9x13 in. front and 10 in. deep. Net weight: 13 lbs. Kit complete, less tubes.

**\$59.98**  
Cat. No. 2043

### 10 Watt Multi-Stage Telegraph Transmitter Kit



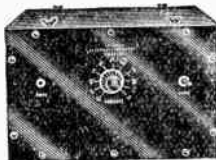
The traffic handler deluxe assuring the utmost in frequency, stability and tone quality. Utilizing the following tube arrangement: a 227 as master oscillator, a 224 as screen-grid buffer stage or frequency doubler, and a 245 or 210 as R. F. power amplifier. Regularly supplied, less tubes, and including one complete set of plug-in coils for specified band upon order.

**\$56.00**  
Cat. No. 2044

Additional set of three coils for other bands are \$7.00 per set.

### 10 Watt Modulator Kit

Used in conjunction with the 10 watt multistage transmitter. It will operate from the same power supply and give 100 percent modulation of the carrier wave, plus perfect reproduction. Employs a 250 tube as modulator and a type 227 as speech amplifier, and designed for use with a single button microphone but easily changeable for two button microphones. Cabinet dimensions are 9x13 in. front and 10 in. deep. Net weight: 21 lbs. less tubes



**\$42.00**  
Cat. No. 2045

### 50 Watt Tel. and Tel. Transmitter Kit



An amateur phone set which will transmit the voice with true fidelity over great distances; it employs a 203A type tube as oscillator, and a 845 type tube as modulator with a 250 type tube as speech amplifier. Inductances are regularly supplied for the 40 and 80 meter bands, or 20 and 40 meter band as ordering. Cabinet dimensions are 9x28 in. front and 16 in. deep. Net weight: 72 lbs. less tubes

**\$146.40**  
Cat. No. 2046

### 50 or 75 Watt Master Oscillator Power Amplifier Transmitter Kit



The most popular transmitter circuit for the average medium power amateur station. Easy to connect and operate, producing results beyond comparison. A 210 type tube functions as a master oscillator, exciting a 50 or 75 watt power amplifier according to specifications upon ordering. Either two sets of inductances regularly supplied for the 40 and 80 meter band or the 20 and 40 meter band. Cabinet measurements are 9x28 in. front and 16 in. deep. Net weight: 43 lbs. less tubes

**\$114.65**  
Cat. No. 2047

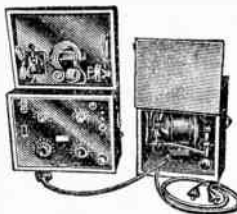
### 250 Watt Telegraph Kit

For those who want to burn a hole in the ether a mile wide from here to Mars. A real "he-man's" outfit which can be used as a self-contained transmitter or as a power amplifier following a crystal and buffer stage or as an amplifier for a master oscillator circuit. Supplied with 20-40 or 40-80 meter coil sets. Specify range desired. Type 204A tube used. Cabinet measures 9x28. front by 16 in. deep. Net weight: 53 lbs. Kit, less tubes



**\$124.20**  
Cat. No. 2048

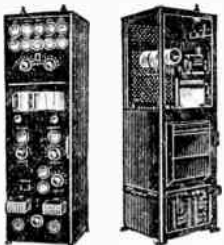
### Combined Portable Telephone or Telegraph Transmitter and Receiver



Regularly supplied with transmitter adjustable in the band between 55 and 70 meters and the receiver for operation in the 40 to 100 meter band. Transmitter uses one type 210 tube as oscillator and a 250 type tube as modulator. The receiver tubes are: one -32 type tube as an R. F. amplifier, a -30 type tube as detector, and another -30 type tube as audio amplifier. Completely ready to operate, including tubes, power supply motor generator, antenna equipment, key, headphones and microphones, less 12 volt storage battery. Specify frequency desired.

**\$356.70**  
Cat. No. 2049

Other standard transmitters up to 1. K. W. and special higher power outfits and accessories promptly and courteously estimated and quoted on or technical data supplied gladly, free of charge.



The American Sales Co. operates a department for special point to point short-wave transmission, receiving and direction finding equipment for portable, marine and tropical service, at very attractive prices, economical service and operation costs.

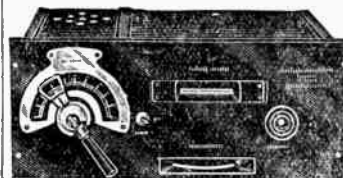
### Portable Receiver Dry Cell Battery Operated

Requires two 22½ volt "B" batteries and one 4½ volt "C" battery for the filaments for two 230 tubes. A regenerative detector and one stage audio. Is excellent for service and as a monitor, portable receiver or electrical powerline interference locator. Supplied with a set of three plug-in coils covering from 20 to 100 meters. Operates very efficiently as a regular C. W. or phone receiver



less tubes and batteries. **\$27.00**  
Cat. No. 3899

### Piezo Crystal Oscillator Automatic Temperature Controlled Oven



19 x 8 x 11" deep

A separately heavy shielded oscillator circuit is on the left side and a scientifically designed constant temperature oven on the right housing the crystal. The mean temperature may be set to remain constant at any point between 40 and 50 degrees "C" over a wide variation of room temperature. Approved by Federal Radio Commission. A diaphragm type thermo-regulator and with an accurately ground piezo crystal it is easily possible to hold the frequency of a transmitter to within less than 50 cycles. A new type disc crystal selector switch allows the use of THREE crystals. The grid coupling lead to any selected crystal remains constant and only three inches long. The oscillator comprises a standard circuit built up of the finest parts throughout. Power supply required is 7½ volts for the filament, 300 volts for plate supply and 45 volts of "C" battery. The net weight is 21 lbs. Heat control unit operates from either A. C. or D. C. 110 volts. When operation for 220 volts either A. C. or D. C. is desired, specify. Complete

**\$145.00**  
Cat. No. 1766  
less tube and crystal

### Modulation Percentage Indicator



A compact, accurately calibrated instrument for measuring the percentage of modulation in relation to the non-modulated carrier wave. Ideal for complying with the latest Federal Radio Commission ruling. Keep a constant instantaneous visual check. Easy to operate, requires no physical connection to transmitter. Simply mount it somewhere conveniently in the field of the lead-in. Coils furnished for any amateur, commercial or broadcasting band.

Completely shielded in one piece aluminum cast case, finished in black crystalline lacquer. Overall dimensions, including coil, 6" high, 5½" wide, 13" deep. Net weight, 4½ lbs. Complete

**\$28.00**  
Cat. No. 1757

### Amateur Band Spread Receiver For A. C. or Battery Operation

Screen grid R. F.; screen grid detection and Pentode audio. Uses either the new 6 volt Indirect Heater battery tubes or A. C. heater type. Spreads the 20, 40 or 80 meter band fully over the entire full vision dial. Volume control, calibrated in the "R" scale as a signal attenuator.



Isolantite insulating material. Plug-in type power cable and extension posts for antenna and ground connections making for ease and rapid connection or changes. It is regularly furnished with three coils to cover the three different amateur bands which function with the special tank, automatic proper, 1/C ratio condenser and properly spreads the three different bands totally over the entire dial scale. Batteries, tubes or A. C. power pack not included in the price, specify when ordering as to type desired, battery or A. C. Size 11 x 7 x 9½" deep, net 11lbs. The entire cabinet and panel finished in walnut crystalline lacquer permanently insured against atmosphere actions.

**\$31.50**  
Cat. No. 3900

A. C. Power Pack (National) **\$22.30**  
Cat. No. 3901

**Learning the Code and Practicing Proficiency**

**THE TELEPLEX**

An automatic sender adjustable from 5 to 80 words per minute. A spring motor drives perforated tape through a set of well-balanced contacts which may be used to sound a buzzer, sounder or close an audio oscillator circuit.

Is supplied with six rolls of Continental or Morse code in mixed or straight English, code and numerals. Each roll contains about 400 words.

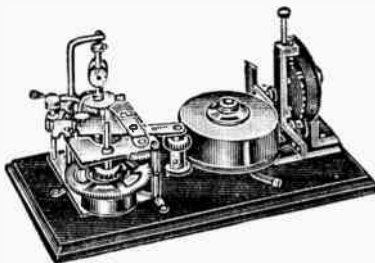


**\$27.50**  
Cat. No. 1609

With four rolls and without carrying case...\$22.50  
Extra rolls of 400 words.....Each \$1.00  
Special tape perforated to order.....Per roll \$2.00

The use of an audio oscillator is strongly recommended for clean-cut, well-toned signals. If ordered with the Teleplex this oscillator is built into the Teleplex, and a Tube, Key, and a set of phones are included, for \$5.50 extra (less battery).

**THE OMNIGRAPH**



No. 2

The U. S. Bureau of Navigation uses this instrument to test all applicants for licenses, and this instrument is considered standard by all U. S. Government Radio Inspectors.

This instrument will maintain an absolute constant speed and may be adjusted to duplicate the paralytic style of prolonged dashes sent by the professional or the style of the amateur. The speed is adjustable from 5 to 50 words per minute.

The use of metal discs makes this instrument a lifetime investment and comes complete with five differently coded discs.

**\$31.50**

Cat. No. 1610

Extra and special discs are also obtainable.

**Duplex Telegraph or Wireless Practice Set**

Manufactured by Connecticut Tel. & Elec. Corp.



Used for inter-communication between points up to 1000 feet. Head phones not required. A number of these can be connected in one circuit. Also can be used by prospective amateur for practicing wireless code.

Furnished with a name plate showing Continental code, and instruction book which includes the Morse code. Each set requires a 4 1/2 volt "C" battery for operation.

Equipped with adjustable high frequency buzzer. Wood case of mahogany finish.

Packed two in strong, attractively labeled carton with 50 feet of wire and complete instructions for installing. (less batteries).



**\$3.75**

Cat. No. S-1602

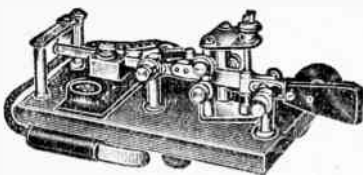
**INDIVIDUAL PRACTICE SET**

(less battery)

**\$2.15**

Cat. No. S-1603

**The Original Martin Vibroplex**



Cut your self nice clear well-spaced and timed signals in the ether and get an answer to a three call CQ where before after

calling CQ 50 times you are past-up. More miles per watt and what operator does not take pleasure in answering a DX CQ that is properly transmitted. Owning a bug does not necessarily mean you are a speed demon but shows good judgment in realizing the value of clean-cut normal speed sending. Two sets of contacts—one for dots and the other for dashes. May be had in blue, green or red Japanned bases.

**\$16.66**

Cat. No. 1608

Same as above in nickel-plated base.....

**\$18.62**

Same as above only fitted with extra heavy contacts for special direct radio keying with Japanned or nickel-plated base.....

**\$24.50**

Carrying case for above finished in handsome black morocco with reinforced corners plush-lined and fitted with lock and key.....

**\$2.94**

**Flameproof Wireless Key**

Made for U. S. Army Signal Corps

These Keys are fine for use in any transmitter, including aeroplanes. Flameproof. Will handle large amount of current. Have 1/4 in. solid coin silver contacts bakelite base. With tell-tale lamp equipped with double contact automobile base, which uses any size automobile lamp.



**\$2.50**

Cat. No. 1715

**SIGNAL Transmitting Keys and Buzzers PRACTICE SET**

A simple practice set for those who want code practice in sending and receiving. Complete outfit, needs only battery to operate the high frequency buzzer. Has connections for phones.

R-68



Cat. No. E-72

**\$2.00**

**JUNIOR KEY**

112-K



Made on a mahogany base. Coin silver contacts and nickel-plated lever. For use in low-power sending.

**\$1.35**

Cat. No. E-71

**1/4 K. W. KEY**

R-48

Polished and lacquered brass base, nickel-plated lever, coin silver Tungsten contacts.



**\$1.68**

Cat. No. E-70

**HIGH FREQUENCY BUZZER**

High quality high frequency buzzer, same as used on practice set. 2 ohm resistance. To be used on a 3 volt battery. Black crystalized lacquer finish. Adjustable.

R-60

**75c**

Cat. No. E-66

R-64



Cat. No.

E-67—R-64 ..... 2/8" contacts ..... \$2.50  
E-68—R-63 ..... 1/4" " ..... 2.25  
E-69—R-62 ..... 3/16" " ..... 2.00

**HEAVY KEYS**

The most popular key for amateur transmitting stations. Made of heavy brass which is polished and lacquered. Has bakelite finger rests.

**U. S. Signal Corp. "Speed Bug" Transmitting Key**

Type J-36

Approved and used by U. S. Signal Corp.



A bug which is far ahead of anything yet built in the way of ease of operation and fine character of transmission. It is smooth and "light." It is ideal for the beginner who wants to make his "ist" sound good.

A touch of the transmitting arm to the left produces a dash whose length is determined by the touch. A touch to the right produces dots whose speed can be regulated by two weights placed upon the movable arm. The number of dots it makes is regulated by the length of time the arm is held in that position. Speeds from 5 words per minute to 40 are obtainable. "It distinguishes the expert operator from the poor one."

**\$9.85**

Cat. No. E-64

**Bunnell 20 Ohm Telegraph Sounder**

For operation on 6 volt battery or dry cells. Adjustable.

**\$1.95**

Cat. No. 1759



**We Are Distributors**



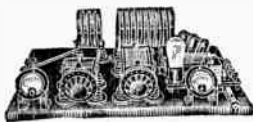
for all Tobe products consisting of Transmitting By-Pass and Filter Condensers. All types of Filterettes, etc.

Send for complete catalogue giving special discount.



### 30 Watt Push-Pull

## Hartley C. W. Transmitter



This Transmitter uses the finest of parts, such as Cardwell Variable Condensers, Sangamo Condensers, Eletrad Resistors, etc.

It is a husky job and is equipped with low-loss inductance coils, and can be used on

which are interchangeable and the 20, 40 or 80 meter band.

Has a "Key Thump" filter and a plug is provided for hooking up the key.

Uses 2 Deforest 510 tubes.

Completely assembled and wired

With Jewell 0-1 amp. Thermo Ammeter.

With Jewell 0-200 D. C. milliameters.

**POWER SUPPLY** for the above transmitter consisting of a Stromberg-Carlson 1200 Volt Power Transformer, Dubilier Condensers, Thordarson Choke, etc. Delivers 600 volts Pure D. C. Assembled and wired:

Less meter

**\$34.50**

Cat. No. 1000

Less Tubes

**\$9.95**

Cat. No. 1001

**\$5.95**

Cat. No. 1002

**\$25.50**

Cat. No. 2774

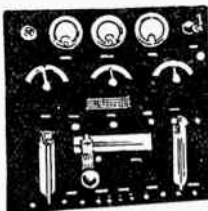
## U. S. Navy 250 Watt Tube Transmitter

Uses two UV-204A tubes as oscillator and modulator. Wired to transmit on 600 or 1600 meters. Designed for trans-Atlantic aircraft service, easily adaptable to amateur wave lengths.

less power supply and tubes

**\$125.00**

Cat. No. 2190



## Western Electric Filter and Switchboard

Built for U. S. Navy

Control Board for Dynamotors C. W. 927. Consists of starting switches, fuses, 0-50-500 volt voltmeter with switches for testing main lines and output. Also contains complete filter system.

**\$16.50**

Cat. No. 2191



Type CW928

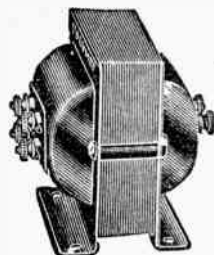
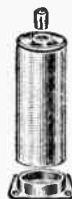
## Aluminum Tube Shield Base and Cap

Constructed of finest aluminum. Furnished to fit on all standard screen-grid tubes as well as the new small D. C. tubes. Specify type desired when ordering.

Aluminum Shield and Base. **16c**  
Cat. No. 4179

Aluminum S. G. Cap. **3c**  
Cat. No. 4181

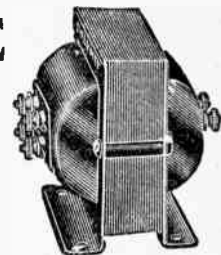
Per set of 3 pieces **18c**  
Cat. No. 4180



## AMATEUR PHONE TRANSFORMERS

100% MODULATION

The Most Economical System



This system of GRID MODULATION is the most recent development of one of the world's largest research laboratories and broadcast transmitter manufacturers.

Specially designed transformers for correct matching to any P. P. R. F. power amplifier stage from 10 to 250 watts output.

ONLY TWO STAGES of audio using TWO type 227 TUBES necessary to effect 100% modulation to power amplifier up to 50 watts, or a 227 and a 245 for 250 watt tube.

The same modulation system may be used when you increase power, which effects a tremendous saving in cost, equipment and labor.

This pair of transformers act as the coupling between the output of an audio amplifier with a 245 type tube in the last stage and the Grids of the R. F. Power Amplifier.

Instruction wiring diagram furnished with each order

Per Pair **\$9.50**

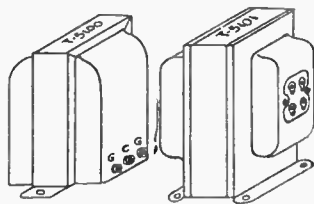
Cat. No. 2400

**SPECIAL**—The above set of transformers combined with one interstage and one microphone to grid transformer for use in the two stage audio amplifier. The microphone transformer will match to either a single or double button microphone. Special price for complete set of four

**\$15.00**

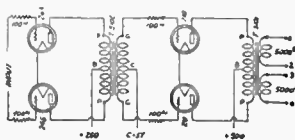
Cat. No. 2921

### CLASS "B" MODULATION



Input

Output



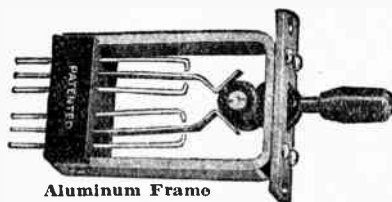
## THORDARSON Transmitting Modulation Transformers

This extremely efficient modulation system was described in QST, Dec. '31. Great amounts of power output may be had from comparatively small tubes. A 100% modulated 30 to 40 watt carrier will be radiated when this system is used to modulate two 210 R. F. output tubes in push-pull. The secondary of the output transformer (T-5101) has two windings, one is used when modulating a single 210, the two in series for two 210's in push-pull and the two in parallel when modulating two paralleled 210 power amplifiers.

**\$10.29**

Set of two Cat. No. 1591

## Federal Anti-Capacity Switches



Aluminum Frame

These Anti-Capacity Switches are equipped with highly polished nickel-plated face plate. Springs are of phosphor bronze, silver-plated for good conductivity. The cam arrangement is of the roller type, providing smooth and easy action. Excellent for use as radio and phonograph change-over switch, also in Public Address, Motion Picture, etc., equipment.

4 P. D. T. 12-spring. **\$1.89**  
Cat. No. 1685

D. P. D. T. 6-spring. **\$1.59**  
Cat. No. 1686

D. P. S. T. 4-spring. **\$1.59**  
Cat. No. 4171

## Transmitting Grid Leaks and Bleeder Resistors



These heavy-duty Transmitting Grid-Leaks and Bleeder resistors are designed for use in transmitters up to 250 watts.

They are mounted on angles, made for easy installation. They are 9 1/4" long.

Cat. No.	Description	Price
J-17	5000 Ohm Grid-Leak.....	\$1.50
J-16	10000 Ohm Grid-Leak.....	1.50
J-15	20000 Ohm Grid-Leak.....	1.50
J-14	50000 Ohm Bleeder Resistor.....	3.25
J-13	100000 Ohm Bleeder Resistor.....	3.25

## W. E. Lineman's Test Set



Used for inter-communication purposes, such as between homes, house and garage, and remote points.

Front piece is used for receiving and talking. Also used for testing telephone lines.

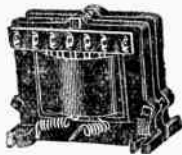
Includes Magneto and Ringer. Works from dry cells or telephone line.

**\$9.50**

No. 175

Cat. No. 1749

## American Filament Transformers



FOR TRANSMITTERS AND AMPLIFIERS

These transformers are the same in appearance, design and construction as the American high voltage transformers and chokes.

An overload will not affect the performance of these transformers. Neatness in constructional appearance of your transmitter or amplifier will result if all transformers and chokes have the same physical appearance.

10 Volts at 7 Amps. C. T.

Insulated at 10,000 volts, for 852, 203-A, 211, 845-201-A, etc., tubes.

**\$5.50**

Cat. No. B-55

2½ Volts at 10 Amps. C. T.

Insulated at 10,000 volts, for 852, 871, and 82. Mercury Vapor Rectifiers.

**\$3.95**

Cat. No. B-56

12 Volts at 10 Amps. C. T.

Insulated at 10,000 volts.

**\$6.75**

Cat. No. 3739

5 Volts—20 Amps. C. T.

For two 572 Mercury Rectifier tubes

Insulated at 15,000 volts.

**\$11.50**

Cat. No. 8742

Two—7½ Volts—3 Amps. each C. T.

For two 250's or two 210's and two 281's or two 216 B's

Insulated at 5,000 volts.

**\$4.50**

Cat. No. 8741

The above Filament Transformers operate on 110 volts, 60 cycles A. C.

## American High Voltage Plate Transformers

Excellent for Transmitters and High Power Amplifiers

These transformers, mounted on heavy cast-metal frames, have been given a stamp of approval by the transmitting amateur. They are wound on heavy silicon steel and with heavy wire throughout.



4000 Volts

Primary: 1,000 Watts, 6,000 Volt Insulation.

Secondary: total 4,000 volts; tapped at 2,000, 1,500, and 1,000 each side of center-tap. Delivers: 300 mills.

**\$17.50**

Cat. No. A-13

(2000—1500—1000—0—1000—1500—2000)

3000 Volts

Primary: 600 Watts, 4,000 Volt Insulation.

Secondary: total, 3,000 volts; tapped at 1,500, 1,000 and 750 volts each side of center-tap. Delivers: 200 mills.

**\$12.50**

Cat. No. 8-3456

(1,500—1,000—750—0—750—1,000—1,500)  
The above transformers operate on 110 volts, 60 cycles A. C.

## Western Electric Relay

With Adjustable Platinum Contacts

Capable of controlling a local circuit of comparatively high voltage, with a very low primary consumption. (6 volt battery, or dry cells) 100 ohm coils.

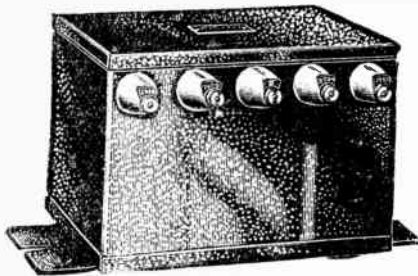


Cat. No. 1760

**\$5.95**

## THORDARSON TRANSMITTING POWER TRANSFORMERS

Thordarson for many years has been acknowledged by the "Ham" as a manufacturer of high grade transformers and chokes. Whenever better transformers could be made, Thordarson made them.



TYPES 2388A and 2389A

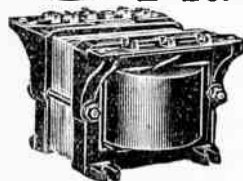
TYPE	Primary Volts	Primary Fuse-110V	Secondary Voltage each side of C.T.	Max. Secondary Load Amps.	Cat. No.	
4150	110-220	3 amp.	522	.150	1288	\$14.59
4455	110-220	10 amp.	1870	.250	1289	29.40
4460	110-220	25 amp.	1860	.750	1290	58.80
2387-A	110	10 amp.	1000-1500	.500	1291	12.94
2388-A	110	10 amp.	1500-2000	.250	1292	17.64
2389-A	110	20 amp.	1500-2000	.500	1293	23.32

\* Denotes voltage delivered out of Filter.



## AMERTRAN

## Plate-Supply Transformers



The AmerTran Plate-Supply Transformers listed below have been designed so that they may be adapted to the most common applications in rectifying and transmitting circuits.

These units have two section, high-tension windings which may be connected in series or parallel to obtain full voltage at rated current or half voltage at double current. The primary windings in standard models are designed for operation from a 60-cycle, 115-volt supply and have four taps to permit compensation of voltage variations.

Cat. No.	Va. Rating	Line Volts	Sec. Volts	D. C. Amps	Test Volts	Type No.	
2546	232/330	100/108/115/125	2460/1230	0.200	7,000	P-4656A*	\$25.45
3547	272/386	100/108/115/125	2900/1450	0.200	7,000	P-6111*	32.35

\* For use with —'66 rectifier tubes—impedance input to filter (4725 Amerchoke recommended)

## Ward Leonard Type TD-1A Midget Time Delay Relay

SAVE YOUR RECTIFIER TUBES



The "60" and "72" mercury vapor type of rectifiers require the filaments to be turned on 15 to 30 seconds before the plate potential is applied. When such precaution is not taken, it becomes permanently paralyzed, making replacement necessary.

The type TD-1A Time Delay Relay is designed especially for amateur use. It is small, compact, and economical. For use on a 110 volt, 60 cycle line. Contacts will handle up to 4 amperes. Delay 15-30 seconds. Back connected for panel mounting, also can be used on base-board. Dimensions: 3½ x 4 x 2½".

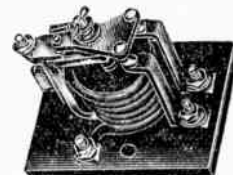
**\$8.95**

Cat. No. 1571

## Ward Leonard Midget Magnetic Keying Relays

(110 Volt A. C. or D. C. operation)

The Ward Leonard type "A" midget relay has been designed for those applications requiring a small inexpensive relay, yet a relay which is rugged and will stand abuse. It can be used on practically any type of circuit, either A. C. or D. C., up to 115 volts.



Features which are Standard

- 1—A. C. or D. C. operation.
- 2—Coils designed for continuous duty operation.
- 3—Small power consumption.
- 4—Single Pole, Double Break.
- 5—Silver to silver contacts rated at 2 amps. D. C., or 6 amps. A. C., at 110 volts.
- 6—Front of panel connected.
- 7—Relay measurements: base 2½ x 1¾", and height 1½".
- 8—Bakelite and Fibre insulation. Sensitive enough to follow "bug" or key readily. Will handle a 250 watt transmitter.

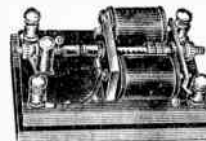
**\$3.75**

Cat. No. 1576

Also for 6 volt battery operation at same price.

## American Key Relay

(110 volt A. C. or D. C. operation)



Three point suspension and variable tension spring for adjusting to high speed keying. Is provided with heavy special metal contacts which are adjustable up to a ¼ inch

gap. Insulated for 4,000 volt peak. It will fit in a space 4½ x 3 x 1½" inches.

**\$4.50**

Also for 6 volt battery operation at same price.

## SIGNAL COMMERCIAL and PONY RELAYS

These Relays are sturdily constructed. They are exceptionally fast, and will follow a bug nicely. Used by amateurs extensively for breaking and keying purposes. Suitable as keying relay in transmitters. Requires 6 to 12 volts for operation. Have adjustable armatures. Mounted on mahogany finish hardwood and black enamel base.



Model	Ohms		Model	Ohms	
M-104	4	\$3.32	M-107	75	\$3.95
M-105	20	3.50	916	150	7.35
M-106	50	3.67	917	250	7.50

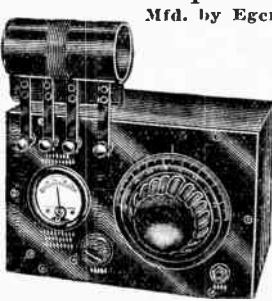
**FREE!**

HVE U SEEN OUR QSL CRDS? THY R T JUICE IN T ANT WHN IT CUMS 2 LAYOUT ES DSGN. WE PRNT EM UP FR U WTH UR STN CALL ES QRA IN 2 CLRS. WTH EVY ORDR UF \$5.00 U GT 50 ES 100 FR \$10.00 OR OVR. MK SURE U ASK FR EM, GVG UR CAL, ETC. HRS UR CHNCE 2 GT SUM QSA5 CRDS. AR K.

**Radio Frequency Oscillator**

Mfd. by Egert Eng. Co.

This oscillator, designed for general laboratory measurement and test work, employs a plate current meter and any standard type tube. A good grade of variable condenser is used and various capacities are available for shifting band spread. Coils are available from 14 to 2,000 meters and are mounted on heavy nickel-plated quick coil changes.



Copper strips to allow for clearly defined calibration sheets, provided with each coil. Dimensions of box are 8 x 6 x 6 1/4 inches, and the weight is 5 lbs. Specify frequency range desired.

**\$22.50**

Cat. No. 1542

With one calibrated coil  
Extra calibrated coils \$5.00 each

**Beat-Note Heterodyne Audio Oscillator**

Mfd. by Egert Eng. Co.



40 to 15,000 cycles per second. Utilizes four tubes, two as the heterodyning R. F. oscillators; one as the mixer; and one as an audio amplifier or output tube. The tubes are all of the two volt type and the output of this instrument is practically constant over the entire range. It is housed in a black crystalline cabinet with an aluminum panel, the overall dimensions are 10 x 8 x 7 3/4 inches; the weight is 6 lbs. A calibrated curve supplied with each instrument.

talline cabinet with an aluminum panel, the overall dimensions are 10 x 8 x 7 3/4 inches; the weight is 6 lbs. A calibrated curve supplied with each instrument.

**\$54.75**

less tubes

**Audio Oscillator**

This model uses a filament transformer for heating the cathodes from a 110 volt A. C. line and has a compartment for 135 volts of "B" battery. A filament voltmeter and rheostat is mounted on the panel. The use of four 227 type tubes deliver an output which is variable from zero to 2 volts across a 4000 ohm load. The harmonic content of the output frequency is less than 6%. The output frequency is continuously variable from 60 to 10,000 cycles. It will go down below 60 cycles but is not calibrated in that region. The dimensions of the walnut cabinet are 16 7/8 x 7 1/2 x 12 1/2". Net weight with the batteries is 20 lbs.



**\$162.00**

Cat. No. 1064

Less tubes and batteries.

**A. C. Audio Oscillator**



Operates direct from a 110 volt, 60 cycle supply. The frequency range is continuously variable between 40 and 10,000 cycles per sec. and has an output variable from zero to 160 volts which is directly indicated on an output meter. The harmonic content of the output wave is approximately 5% above and 10% below 100 c.p.s. No 60 cycle hum can be detected even with sensitive earphones. Two 224 type tubes are used as oscillators, a 227 as a mixer, one 224 and two 245 tubes as audio amplifiers, and a 280 type tube as plate supply rectifier. Dimensions are 22 1/4 x 10 1/2 x 11" and the net weight is with power supply 30 lbs.

output variable from zero to 160 volts which is directly indicated on an output meter. The harmonic content of the output wave is approximately 5% above and 10% below 100 c.p.s. No 60 cycle hum can be detected even with sensitive earphones. Two 224 type tubes are used as oscillators, a 227 as a mixer, one 224 and two 245 tubes as audio amplifiers, and a 280 type tube as plate supply rectifier. Dimensions are 22 1/4 x 10 1/2 x 11" and the net weight is with power supply 30 lbs.

**\$228.00**

Cat. No. 1063

Less tubes

**Amateur Band Dynatron Oscillator and Monitor**

Mfd. by Egert Eng. Co.

This combination dynatron oscillator and monitor is constructed extremely rugged, insuring the permanency of calibration and reliability for accurate frequency measurements which are not only essential in every station, but absolutely necessary, to keep within the assigned band and to keep a constant check on the quality of the carrier wave, as ruled by the Federal Radio Commission. It is furnished with a plate milliammeter and variable resistor for the plate circuit in order to keep constant calibration characteristics. A jack is supplied for phone plug connection when instrument is to be used as a monitor. A filament heating transformer is also supplied. The dimensions are 10 x 8 x 7 1/4 in. and the net weight is 8 1/4 lbs. Requires a 224 type tube.



less tube without calibration: **\$19.09**  
Cat. No. W-1097  
less tube with calibration: **\$23.59**  
Cat. No. W-1098

**New Tubes—Just Released!**



**Type 82**

Full Wave Mercury Vapor Rectifier

Filament Voltage ..... 2.5 Volts A. C.  
Filament Current ..... 3.0 amps.  
Max. A. C. Voltage per Plate 500 Volts (R. M. S.)  
Max. Peak Inverse Voltage ..... 1,400 A. C.  
Max. Peak Plate Current ..... 400 M. A.  
Max. Continuous D. C. Output Current ..... 125 M. A.  
Tube Voltage Drop (Approx.) ..... 15 Volts  
Standard U. X. Base.

Cat. No. 4186

**73c**



**Type 46**

Class "B" Amplifier

Filament Voltage ..... 2.5 Volts A. C.  
Filament Current ..... 1.75 Amps.  
Max. Plate Voltage ..... 400 Volts  
Max. Peak Plate Current ..... 200 M. A.  
Plate Current ..... 6 M. A.  
Control Grid Voltage (both grids tied together) ..... Zero Volts  
Plate Impedance ..... 1450 ohms  
Max. Signal Input Voltage ..... 41 R. M. S.  
Plate Dissipation ..... 10 watts

As Class "A" Amplifier

Filament Voltage ..... 2.5 Volts A. C.  
Filament Current ..... 1.75 Amps.  
Max. Plate Voltage ..... 250 Volts  
Plate Current ..... 22 M. A.  
Control Grid Voltage (grid adjacent to plate tied to plate) ..... 33 Volts  
Plate Impedance ..... 2380 Ohms  
Amplification Factor ..... 5.6  
Power Output ..... 1.25 watts  
Standard UY Base.

Cat. No. 4187

**94c**

**Rotary Grid Chopper Wheel**



MODEL P.X. 1638

and Contact Brush Model P.T. 1642  
For use with C.W. Vacuum Tube Transmitters. Gives 100 per cent modulation since oscillation can be completely started and stopped at audio frequencies. The note obtained can be varied to any desired pitch by changing the driving motor speed. Complete with shaft bushing for 5/16" or 1/4" motor shaft. When ordering mention size desired.

List: \$7.25

**50c**

Cat. No. E-75

**Copper Oxide Rectifier For D. C. Meter Conversion**

Make a Rectifier Type Meter from your present 0-1 D. C. milliammeter by using this rectifier. This will make an A. C. voltmeter up to 1,000 volts by the use of multipliers, which can be obtained from us. Rectifier is small enough to install in meter, if desired. Curve and diagram furnished.

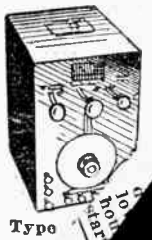
**\$2.95**

less Multipliers Cat. No. 4183

**Radio Frequency 'Driver'**

Built for U. S. Navy

A very sturdy instrument and easily converted to use the new type receiving tube. Frequency range: 6000 to 30000 meters. Ideal for a stable oscillator for the adjustment and alignment of intermediate transformers in super-het. circuits, etc.

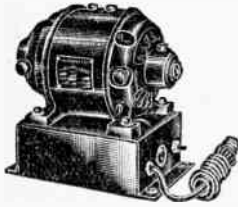


**\$29.50**

Cat. No. 2203

Typo

**Janette Rotary Converters**



**TRANSFORMS  
D. C. to A. C.**

Janette Rotary Converters are compact, dynamically balanced units which change direct current to 110 volt, 60 cycle, alternating current for the operation of A. C. radio sets on D. C. circuits.

**CREATE BIG MARKET FOR A. C. SETS**

The Janette Rotary Converter, opens up a fertile field for A. C. radio sales. Over 500,000 farmers own 32 or 110 volt D. C. lighting plants. Every one of them is a prospect for a double-profit sale consisting of an A. C. radio set and a Janette Rotary Converter. Alert radio dealers and jobbers everywhere are seizing this opportunity to build new volume.

A great market in the D. C. districts of large cities—plus the marine field, also for sound trucks make this exceptional buy a very profitable item.

**PERFECT RADIO RECEPTION**

Janette Rotary Converters are equipped with the Janette Filter which prevents converter interference from reaching the radio. Janette Converters are guaranteed not to interfere with radio reception. All these converters run at 3600 R. P. M.

**32 Volts D. C. to 110 Volts, 60 Cycles A. C.**

Cat. No.	Type	Output: Watts	Input: Amps	Price
2733...	CA-20-F	110	6.5	\$ 35.50
2734...	CA-18-F	150	8.5	39.00
2735...	C-13-F	300	17.0	53.75
2736...	CB-11-F	400	19.0	88.50
2737...	E-8-F	500	24.0	131.25

**110-115 Volts D. C. to 110 Volts, 60 Cycle A. C.**

Cat. No.	Type	Output: Watts	Input: Amps	Price
2738...	CA-20-F	110	1.9	\$35.50
2739...	CA-18-F	150	2.1	39.00
2740...	C-13-F	300	4.0	53.75
2741...	CB-12-F	500	6.4	68.00

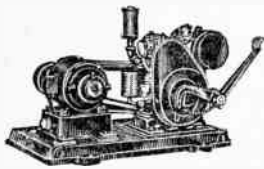
**220-230 Volts D. C. to 110 Volts, 60 Cycle A. C.**

Cat. No.	Type	Output: Watts	Input: Amps	Price
2442...	CA-20-F	110	.95	\$38.60
2443...	CA-18-F	150	1.20	43.50
2444...	C-13-F	300	2.00	57.50
2445...	CB-12-F	500	3.20	76.50

For Operation from Storage Batteries in Trucks and Automobiles—Delivering 110 Volts, 60 Cycle A. C.

Cat. No.	Type	D. C. Output: Volts	Input: Watts	Price
2746...	CA-18-F	6	60	19½ \$47.25
2747...	CB-11-F	6	110	27 93.75
2748...	CA-20-F	12	80	14 40.88
2749...	CA-18-F	12	120	19½ 47.25
2750...	C-13-F	12	160	22 63.75
2751...	CB-11-F	12	230	27 93.75

**Janette Gasoline Motor Driven Generator Sets**



**110 Volt, 60 Cycles  
Single Phase, A. C.**

For Public address sound trucks or where the home is without electric current.

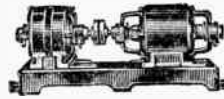
Cat. No.	Type	Watt Output	Shipping Weight	Price
2731.....	S	300	270 lbs.	\$163.50
2732.....	M	500	290 lbs.	174.75

Where the above units are used with radio or sound systems, filter and engine ignition shielding is necessary. Price \$17.50 additional. Where these units are to be used for lighting and power purposes only, filter and shield not necessary.

The gasoline engine is of the air cooled, one cylinder type. Gasoline consumption is exceedingly low, using but one gallon for approximately 6 hours continuous use. Engine equipped with foot pedal for quick and easy starting.

**Esco 32 Volt-500 Watt Motor Generator**

110 VOLTS, 60 CYCLE, A. C.



Here is the buy of year, think it over. Just a few in stock. When they will be gone, there won't be any more. An ideal unit for sound trucks. Generator has a large enough capacity to operate the largest amplifier made today and has a reserve to operate a few electric lights for night work.

**Motor Voltage—32 Volts, D. C.  
Motor Current—25 Amperes.  
Generator Voltage—110 Volts, 60 Cycle, A. C.  
Generator Current—500 Watts.**

Completely equipped with filter and field rheostat. **\$121.50**

Cat. No. S-1063

We can supply ESCO motor generators and dynamotors for all types of Service. Write, giving your specifications and we will quote at once.

**Motor Generators for Transmitters**

Made by Crocker-Wheeler and Holtzer-Cabot  
110 D. C. to 110 or 220 A. C.—500 cycle

These ball-bearing M. G. Units were designed for Marine duty to supply A. C. for the primary source of vacuum tube transmitters. The 500 cycle output is extremely simple to rectify and filter. Excellent for amateurs located in D. C. districts.

These generators are slightly used, but are guaranteed.

Cat. No.	Output	Crocker-Wheeler	Holtzer-Cabot
3043	500 Watt	\$ 93.00	\$ 85.00
3044	1 K.W.	185.00	175.00
3045	2 K.W.	275.00	225.00
3046	5 K. W.	375.00	.....

**Western Electric Dynamotors**



Type CW-927

Manufactured by Westinghouse Electric Co. for U. S. Navy

Input 27-32 volt D. C., and delivers 350 volts at 80 mills. D. C.

Two may be used in parallel to give 160 mills. at 350 volts, or in series giving 80 mills. at 700 volts.

Ideal for Delco systems, also for supplying power to transmitters. **\$12.50**

Cat. No. 2198

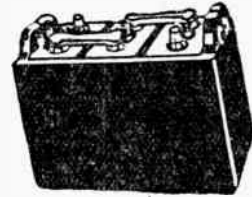
Two of these Dynamotors in shock-proof hanger. **\$23.50**

Complete, per pair Cat. No. 2199

Control Switchboard listed on Page 99.

**Exide BATTERIES**

These Exide Batteries are especially designed for Public Address installations. A set of 36 cells is recommended with a field rheostat to maintain constant voltage on the output. Used by movie news reel sound trucks continuously. Have given three to four year service under extreme conditions.



**TYPE LX-17-1**

18 cells, assembled in three six-cell units.

Will Deliver	36 Volts 200 Ampere Hours	Continuous Use
24 amperes	.....	5½ hours
19 amperes	.....	7½ hours
17 amperes	.....	8½ hours

Charging rate, 12 amperes

**\$149.50**

Cat. No. 2129

**TYPE LXRH-21**

18 cells, assembled in six three-cell units.

Will Deliver	36 Volts 250 Ampere Hours	Continuous Use
24 amperes	.....	7½ hours
19 amperes	.....	10 hours
17 amperes	.....	12½ hours

Charging rate, 14 amperes

**\$221.50**

Cat. No. 2130

**Type LXRH-25-1**

18 cells, assembled in six three-cell units.

Will Deliver	36 Volts 300 Ampere Hours	Continuous Use
24 amperes	.....	9½ hours
19 amperes	.....	12½ hours
17 amperes	.....	15½ hours

Charging rate, 18 amperes.

**\$265.20**

Cat. No. 2131

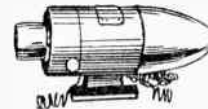
The number of continuous hours of use are figured for battery to reach 32 volts from 36 volts.

Regular Exide Storage Batteries can be furnished. Write giving type desired, and we will quote.



**General Electric Dynamotor**

Made for U. S. Navy



May be driven by belt power or 24 volt D. C. or batteries. Primary electrical consumption, 1 ampere.

Output delivers 24 volt D. C. filament and 1000 volt

D. C. at approximately 60 mills. for plate supply. Complete with Extended Shaft and Pulley. **\$65.00**

Cat. No. 2197

**ESCO DYNAMOTORS**

110 Volt D. C. to 110 Volt, 60 Cycle A. C.

Equipped with filters. Excellent for use with A. C. equipment where the electric supply is Direct Current.

Cat. No.	Capacity	R. P. M.	Price
2210.....	120 watt	3600	\$37.12
2211.....	150 watt	3600	40.87
2212.....	300 watt	1800	53.50
2213.....	500 watt	1800	65.25



We can supply all types of Esco Motor Generators and Dynamotors. Write for Catalogue and Special Discount.



With Filter

## IMPROVED American Microphone-Phonograph Mixers

Mixes voice from Microphone and Music from Phonograph! Couples Microphone to volume. Controls volume from either microphone or phonograph with an overall volume control for both.



Size: 11 x 8 x 7"

### Model M-P

Absolutely the latest thing in Public Address work, this Phonograph and Microphone Mixer has been developed in our own laboratories and has been perfected to such a degree where both the music from a phonograph pick-up and the voice from a double-button microphone can be blended with each other to make the perfect combination for real Public Address work. Individually, the intensity of the signals from both the microphone and pick-up can be varied from full volume to nothing.

Three jacks are built-in, which enables the testing of microphone current on either of the buttons of the microphone or the total current on both buttons. A battery On and Off Switch is incorporated on the microphone current control which regulates the flow of current from the batteries, which are placed in a special compartment in the rear of the cabinet. The Gain Control regulates the volume of the microphone, and the mixer blends both the phono pick-up and the microphone. A special double-button microphone transformer and phonograph pick-up transformer are included in

the cabinet. Special "L-pads" are used as mixers and volume control. Output impedance: 500 ohms. Battery compartment accommodates four 1½ volt standard annunciator dry batteries. Cabinet finished in black leatherette.

**\$23.50**

Cat. No. S-3454

## American Double Microphone-Phonograph Mixer

### Model M-P-M

Where more than two microphones are to be used on an installation, write for quotation. Give detailed information. We can also supply mixers, to fade two or more phonographs.

The Model M-P-M Mixer is the same as model M-P, except that it mixes two microphones instead of one, with a phonograph pick-up. Output impedance: 500 ohms. Cabinet specifications same as above.

**\$32.50**

Cat. No. 3455

## Dual Phonograph Table

With Two Dual Speed Motors  
For public address, broadcast and  
dance hall work

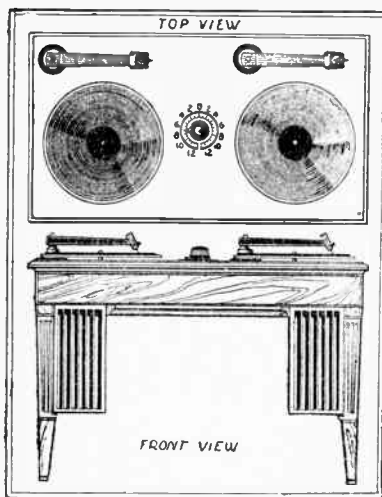


Table is provided with two six-record sections for 16-inch records. 48" long x 24" deep x 33" high.

Pickups are the new Audak "Transcription" type and can be supplied with 200, 2000 or 4000 ohms impedances. Also for 500 and 8,500 ohms.

Motors are the new General Industries dual speed 33 1/3 and 78 R.P.M., and are equipped with 12-inch turntables.

Fader is made by Ward-Leonard and is of the constant impedance type.

Dual jack and plug are supplied for monitoring with a pair of headphones. A special phone cord is supplied to change your phones from series to individual, to properly "fade" from one disc to the other without loss of continuity.

Needle Cups, one for new and one for spent needles are provided on table.

The pickups are designed to be used with the new Victor long playing and "talkie" records.

When used with the regular records a decided improvement in quality will be noticed.

**\$198.70**

Cat. No. 2125

## American Microphone Booster Amplifiers

We are offering One and Two stage microphone amplifiers as a companion to our mixers on this page. However, these boosters may be used with any standard power amplifier. These booster amplifiers are used where a microphone or microphones are remotely operated from the main amplifier. Our booster amplifiers are ABSOLUTELY "HUM-FREE", a condition which cannot be obtained with A. C. operated booster amplifiers.

### MODEL BA—No. 1

Enclosed in the cabinet described on this page as our M. P. Mixer. Uses a UX-230—2 volt tube. Two 1½ volt dry cells and one 45 volt "B" battery required. Input impedance 500 ohms. Output impedance 500 ohms. Equipped with meter for checking filament current regulation.

**\$21.75**

Cat. No. S-3291

### MODEL BA—No. 2

Same as Model BA—1 except that there are two UX-230 tubes used in two stages of transformer coupled amplification. An exceedingly fine battery operated amplifier at a very low price.

**\$32.50**

Cat. No. S-3292

## Ward Leonard Vitrohm Faders



For use with talking motion picture equipment where the use of a dummy is not required. It is used to change from one projector to another and to adjust the volume of sound.

A two-pole can switch of the telephone switch-board type is provided so that the Vitrohm Fader may be switched from sound-on to Film to sound-on disc and vice-versa.

Twelve steps of attenuation on each side of zero position are provided. Vitrohm resistors are used insuring long life.

It is necessary that the following information be supplied. 1—input impedance; 2—output impedance; 3—attenuation desired per step.

**\$36.40**

Cat. No. 1311

## Special Fader & Dummy Control

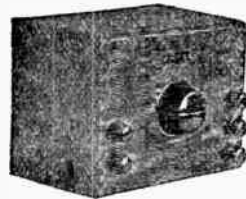
Where two projectors are used, for convenience a control is desired at each projector, a dummy control box can be supplied with shaft. Couplings on Fader and dummy. ¼-inch brass rod can be purchased at any local hardware store in any length desired. Same detailed information must be supplied when ordering as requested on Fader only. Complete with Fader, dummy control box and shaft couplings.

**\$85.00**

Cat. No. 1312

## Universal Microphone Input Stages

### FOR SINGLE-BUTTON "MIKES"



Junior Radio and Amplifier Input Stage completely assembled. For use with Model "A" or Baby Mike, Hand-Mike or any single button microphone. Consists of microphone input transformer, switch and battery bracket in neat wooden box. Terminals plainly and simply marked. Complete

**\$4.70**

Cat. No. S-3184

### FOR DOUBLE-BUTTON "MIKES"

Senior Radio and Amplifier Input Stage, completely assembled in neat box. For use with Model "B," "K.K.," "L.I." or any two-button microphone. Consists of No. 1089 transformer, potentiometer volume control, switch and battery receptacle. All connections plainly marked. Twenty-five foot 2-conductor cord and full directions. Size: 3" x 3" x 7". Weight: 2½ lbs.

**\$8.82**

Cat. No. S-3185

### FOR DOUBLE-BUTTON "MIKES"

SPECIAL Senior Input Stage—Same as above Senior except that it is equipped with special transformer to match phonograph jack connection on radio or amplifier.

**\$10.58**

Cat. No. 3186

## Universal Tone Control



A new accessory that means much added value. The tone control is used across the buttons of any microphone to change the tone to fit adverse conditions. Shrill, high pitched voices may be toned down to normal, and gruff, deep voices may be tuned to more pleasing positions in the voice frequencies.

The tone control also permits an adjustment in public address and loud speaker installations that eliminates the "feed back," resonance or ringing echo following the pronunciation of certain words. It provides a flexible, adjustable element against these drawbacks when working in a building having bad acoustics.

**\$4.70**

Cat. No. 3442

**DESK TYPE**

A high grade, bronze-lacquered, heavy gauge metal. Substantially weighted base. Height: 12".



**\$3.75**

Cat. No. S-2454



**BANQUET TYPE**

SAME QUALITY as desk type, but a larger and heavier base. Adjustable from 11 1/2 to 19".

**\$5.25**

Cat. No. S-2456

**FLOOR TYPE**

Heavier gauge metal than desk or banquet stand. Larger, heavier base. Adjustable from 37 to 70 in.

**\$8.25**

Cat. No. S-2457



**Condenser Floor Stand**

For supporting condenser microphone units.

**\$19.50**

Cat. No. 2464

**American Weatherproof Microphone Cover**



Microphones deteriorate when dirt and moisture attack it. To protect your microphone when not being used, you should use this excellent weatherproof microphone cover. It is equipped with adjustable fastener. Will fit over any size microphone ring and fit snug and secure. Can be used with desk, banquet or floor stand.

**\$1.75**

Cat. No. S-1169

**Shielded Microphone Cord**

Flexible Three Conductor Triple Braided with Spade Terminals and Tie Cords

Lead coming from shield for grounding



Cat. No.	Length	Each
E-40	6 feet	\$.60
E-41	12 feet	1.05
E-42	25 feet	1.85
E-43	50 feet	2.95

We can also supply three conductor, triple braided, flexible and shielded Microphone Cable not grounded at 6c per foot (no less than 25 feet sold on any order). Cat. No. 3862

**DESK TYPE**

Ring is made of highly polished nickel-plated brass. Microphone cable runs through hollow tube in stand. 6 in. weighted shell base with felted bottom. 7 in. diameter. Ring: 12 in. high overall.

**\$6.50**

Cat. No. S-2458



**BANQUET TYPE**

Ring is made of highly polished nickel-plated brass. Microphone cable runs through hollow tube in stand. 8 in. weighted shell base with felted bottom; 7 in. diameter ring. Adjustable from 12 to 24 in. Stand and base electro-plated statuary bronze.

**\$9.50**

Cat. No. S-2459

**FLOOR TYPE**

Ring is made of highly polished nickel-plated brass. Microphone cable runs through hollow in stand. 10 in. weighted shell base with felted bottom; 7 in. diameter ring. Adjustable from 36 to 72 in. Stand and base: electro-plated statuary bronze.

**\$13.50**

Cat. No. S-2460



**Universal Desk Mounts with Covers**



**MODEL "L"**

6 1/2" diameter. Highly polished and plated in statuary bronze. Extra room is provided inside of ring and screened covers to allow freedom of movement without danger of jar or shorting of wires. Used for mounting Western Electric 387-w, Universal Models "L.L." "BB," or other large, heavy types of microphones.

**\$9.60**

Cat. No. S-2442

With 8 suspension springs.

**MODEL "K"**

5" diameter. Used with Universal Models "A" or "KK" and other types of microphones. Plated in deep maroon statuary bronze.

**\$5.40**

Cat. No. S-2443

With 8 suspension springs.

**Rubber Covered Shielded Microphone Cable**

FOR HEAVY DUTY WORK  
3 Conductor

This microphone cable is the rubber covered, shielded and weatherproof type. Outside dimension 7/8". This cable is ideal for sound truck work and anywhere that the set-up is more or less temporary. Excellent for permanent installations due to the thickness of the rubber insulation.



per foot **12c**  
Cat. No. 3816

**MICROPHONE RING**

TO FILL A LONG DEMAND FOR A LOW-PRICED RING For permanent installations for orchestra stands, etc. We are offering this low-priced good-looking bronze ring. 6 5/8" in diameter.



**\$2.25**

Cat. No. S-2462

**MICROPHONE RING**



This Microphone Ring is made of highly polished nickel-plated brass and is 7 in. in diameter. It will make an attractive addition to any public address installation.

**\$3.50**

Cat. No. S-2463

**Double Microphone Floor Stand**

This stand is finished in a beautiful statuary bronze and is equipped with two 7 in. microphone rings. Highly polished nickel plated brass. Microphone cable runs through hollow tube in stand. Heavy gauge stand. Heavy 10 in. diameter base. Adjustable from 36 to 68 in.

**\$19.75**

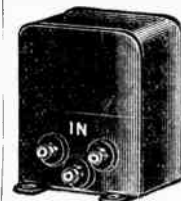
Cat. No. 2461



**American**

DOUBLE AND SINGLE BUTTON

**Microphone Transformer**



A fully shielded 200 Ohm Microphone Transformer, 100 ohms each side of C. T., for use with double button microphones. It is well built and should add to the appearance of any transmitter or public address outfit as well as increase the efficiency. Also excellent for home recording.

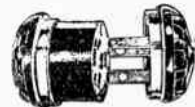
**\$2.95**

Cat. No. A-65

For use with single button microphones, 200 ohm impedance, use two outside connecting posts eliminating C. T.

**Three Way Microphone Plugs and Connectors**

To facilitate the connecting and disconnecting of microphone rapidly for temporary set-ups, or where the changing of microphones is a frequent operation.



Male Plug  
**36c**  
Cat. No. 3817

Female Plug  
**48c**  
Cat. No. 3818

Microphone Springs listed on page 106

# American Carbon, Condenser and Dynamic Microphones

Through unstinting effort on the part of our Technical Staff, we are now able to present a line of Microphones which, taken individually, have passed all the requirements looked for in public address work, station broadcasting and for the home. Our tests have taken us right through most of the popular lines of microphones in selecting the models listed below. Without fear of contradiction, we can say that we are offering absolutely the best money value, combined with quality. It is needless to pay for a name on a microphone. We have therefore contracted with a few of the largest microphone companies in the United States (all of them are national advertisers) to deliver their products under our own name, thereby considerably reducing the costs. Each individual type has been chosen from a particular company as being their best product. These Microphones are guaranteed by us against factory defects and to give the utmost in satisfaction.

## Model DB-1

### STRETCHED DIAPHRAGM



An extra large two-button microphone extremely rugged in construction, built specially for all broadcasting purposes. Only the best materials are used. The diaphragm is of special duralumin .002 thickness, with pure gold contacts on each surface under the buttons. This model is 3 1/4" in diameter, and 1 1/4" thick, the frequency range being from 30 to 7500 cycles with 100 ohms per button. Requires 6 volts with not over 10 mils. per button. Very beautiful in appearance, being of bright polished nickel finish. This microphone compares with any other on the market in appearance and quality of tone. Buttons: 100 ohms each. Weight: 2 1/2 lbs. Cat. No. S-2012

**\$36.50**

## Model DB-2

### STRETCHED DIAPHRAGM

A rugged two-button microphone, built of only the finest material obtainable with a very minimum of hiss. This unit uses a duralumin diaphragm .002 thickness, with pure gold contacts below each button (same diaphragm as in the DB-1). It has a frequency range from 30 to 6500 cycles, which is greater than that of other models in this price range. Buttons are 100 ohms each. This microphone is specially adapted for use in small broadcast and amateur stations and in high class public address equipment. It is very sensitive. High nickel finish. Weight: 2 lbs. Cat. No. S-2013



**\$24.50**

## Model DB-3

### STRETCHED DIAPHRAGM

This two-button stretched gold diaphragm microphone has enjoyed so much success with us in the past that it is being repeated in our new line. Public Address men and Broadcast station engineers have given this model their approval. It has a frequency response of from 30 to 6000 cycles with each button having a resistance of 100 ohms. It is ultra-sensitive. Its appearance makes it a real broadcast model. It has a high nickel finish and weighs 3 1/2 lbs. It will handle up to 25 mils. per button without fear of danger, although this figure is not recommended. It should not be used at more than 10 mils. per button. Cat. No. S-2014



**\$19.50**

## Model DB-4

### STRETCHED DIAPHRAGM

A two-button microphone, built only for voice pick-up, faithfully reproducing all the notes and sounds within the audible range of human voice. It is specially adapted for public address work and amateur radio phone work. It has a frequency response of from 45 to 3500 cycles with an impedance of 100 ohms per button. It operates on 6 volts and not over 10 mils. per button. It has a bright polished nickel finish and is thoroughly inspected before being shipped. Its weight is 1 1/4 lbs. Cat. No. S-2015



**\$12.50**

## Model DB-5



Here is an excellent double button microphone, equipped with felt damping to offset microphonic feedback. Big value for a little microphone. Frequency response 70 to 5000 cycles. Cat. No. 3196

**\$8.75**

## Model SB-2

Same as D. B. 5 but having only a single button. Excellent for home recording, public addresses, etc. Cat. No. 3197

**\$4.95**

## Model SB-1

This unit is a single-button microphone built for use where only the voice is necessary. It is entirely hand-made throughout and not die-cast. Extremely rugged in construction. The frequency response is 70 to 3000 cycles and having a resistance of 100 ohms. This microphone is suitable for home recording and for small public address outfits as well as in small broadcast transmitters. Weight: 3/4 lbs. Cat. No. S-2016



**\$6.25**

## Dual Purpose Double Button Microphone For Hand or Suspension STRETCHED DIAPHRAGM

### Model DB-6



Never before has a microphone been offered that fits any occasion. A hand microphone for close talking and sports announcing and in a jiffy a regular 4 suspension microphone for speech or orchestra work. The frequency response is extremely good for this type of microphone, 70 to 5000 cycles. 100 ohms per button. Not over 10 mils per button. Cat. No. 1824

This double button microphone should not be confused with low-priced makeshift hand microphones being offered on the market. **\$10.95**

## Condenser Microphone Head

An extremely high quality condenser Microphone Head. Not subjected to climatic changes. Frequency range: 50 to 7500 cycles flat, above which the output drops about 3 d. b. and is flat from there to 8500 cycles. Cat. No. 2468



**\$52.50**

Same condenser microphone head as used in CM-3, CMA-2 and bullet types.

## Just Released

### PERMANENT MAGNET ELECTRO DYNAMIC MOVING COIL MICROPHONE

#### Desk Type with Suspension Ring

This new type of Dynamic Microphone is entirely revolutionary and will shortly supplant all condenser microphones and other types used by broadcasting stations and in sound on film recordings. It is also ideal for public address work. Cat. No. 4173

This type of dynamic microphone has been adopted by the U. S. Navy as standard equipment for their intercommunication systems. Practically foolproof, extremely compact, and is not affected by extreme variations in temperature or sound pressures. Voice and sound transmission is reproduced with an uncanny naturalness. Definition, Pitch and Timbre are terms that take on a new meaning when applied to the reproducing qualities of this Dynamic Microphone. In frequency response within the broadcast audio spectrum it has no equal. Will respond to frequencies from 30-10,000 cycles, and is much flatter than that of a condenser microphone. Requires a main amplifier with a gain of 90 D. B. No battery required. A pre-amplifier is not required as part of the microphone head, as in the case of the condenser microphones. Voice Coil impedance is 30 ohms. Comes complete with either one of the following types of matching transformers. Specify type desired when ordering. Matching Transformers, 30 ohms to line, or 30 ohms to grid of tube. **\$87.50**

Complete with Matching Transformer Cat. No. 4173

Can supply the above matching Transformers separately at..... **\$10.50** Matching Transformers are flat, plus or minus 2 D. B., 30 to 10,000 cycles. Cat. No. 4174

## CONDENSER TRANSMITTERS TYPE CM-3 3-STAGE



Type CM-3—3-stage amplifier, condenser, head, desk stand. Complete with 3-64 tubes and 5-wire cable. Output impedance for 200 ohm lines. A 500 ohm transformer can be supplied at slightly higher price. Output gain approximately 2 d. b. Frequency response 50 to 8500 cycles. **\$229.50**

Desk Type

Cat. No. 2465

## TYPE CMA-2 2-STAGE

Condenser Transmitter—Desk Type

Amplifier, condenser head, desk stand. Complete with 2-64 tubes and 5-wire cable. Output impedance for 200 ohm line. A 500 ohm transformer can be supplied at slightly higher price. Output gain slightly less than type CM-3. **\$177.50**

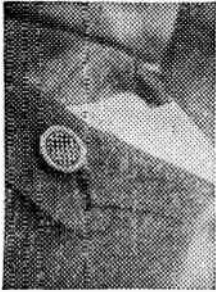
Cat. No. 2466

## BULLET TYPE SUSPENSION CONDENSER TRANSMITTER

Complete with 2-stage amplifier 2-64 tubes, and 5-wire cable. Output impedance same as types CM-3 and CMA-2. Output gain same as CMA-2. **\$164.50**

Cat. No. 2467

## American Lapel or Hand Type Microphone



A stretched gold-plated duralumin diaphragm, single button carbon microphone.

Will stand current up to 25 mills., 15 mills. being recommended.

Operating voltage 1½ to 6.

Impedance 100 ohms. Frequency range 80 to 3,000 cycles.

No longer will public speakers be handicapped by the necessity of speaking directly into the microphone.

This new device is so diminutive that it may be worn inconspicuously on the lapel of the speaker's coat, allowing him full freedom of motion, even to the extent of turning his back. Can also be held in the hand when talking.

**\$9.75**

Cat. No. S-3146

## New Type Microphone Springs

Absolutely the finest and least vibrating spring made today. Jumps back to normal size whenever stretched. A much needed small part, always handy to have and sometimes hard to get. Special heads as shown are made of very best spring steel wire.

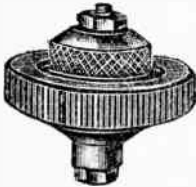


**20c**

Set of Eight Cat. No. H-127

## Microphone Button

The Most Sensitive Microphone Button



You can easily make a highly sensitive detectophone by using a Transmitter Button to collect the sound waves. You can build your own outfit without buying expensive equipment. Full directions for connecting up the button for uses which are varied are contained in each individual carton. Some uses are: Radio Amplifier, Detectophone, Stethoscope, Microphone, Phonograph Amplifier, Telephone Amplifier, Loud Speaker Amplifier, Crystal Set Amplifier, Home Recording.

**70c**

Cat. No. H-93

## GEM Home Broadcasting Mike



Do your own home broadcasting at home through your radio set. The greatest home entertainer. Give your guests a thrill. What fun! Cut in and out of radio programs with this mike, with jokes, songs, announcements, etc. Your voice is clearly reproduced thru the speaker.

Comes complete, with 25 ft. extension cord, allowing your concealment in another room.

Easily attached to any kind of radio set. No tools are necessary. Instructions furnished.

**\$4.50**

Cat. No. 3959

## Universal Double Button Handi-Mike

This microphone fills the breach caused by the lack of a good double button microphone in the hand type. It has a special shielded back and all feed-back is greatly reduced making possible the use of both the microphone and speaker in one room. It has a frequency response of from 70 to 5,000 cycles. Resistance is 100 ohms per button. Used extensively by night announcers.

**\$8.82**

Cat. No. S-2017

UNIVERSAL Single Button Handi-Mike, frequency response 70 to 3,000 cycles. 100 ohm button.

Cat. No. S-2018.....\$5.88

## Universal Baby Mikes



Baby Mike is a real microphone, single button with circuit switch and 25 foot cord. The case is 3 inches high. The button is gold-plated and the response of far better quality than would be expected for the low price of \$4.41. A sheet of instructions is included.

**\$4.41**

S-2019

Model QRQ: same as above but with shorter cable and no switch.

**\$2.94**

Cat. No. S-2020

## Western Electric

SINGLE BUTTON MICROPHONE WITH SWITCH

Operates on 6 volts and drain is up to 15 mills. Operates with a 100 ohm microphone transformer.

**\$3.35**

Cat. No. S-3164



Type C.W. 930

Same as above. Used but guaranteed.

**\$2.75**

Cat. No. S-3164-A

## Utah Microphone and Headset

Designed for communication between range finder and gunner for U. S. Navy.

Microphone is a very sturdy single button type, supported from a breast plate designed for close talking to keep out extraneous noises. A "quiet" button on breast plate shunts out the microphone for listening. Phones are of the low resistance type. Outfit is supplied complete with an extra-heavy 12-ft., 3-conductor cable and plug.

**\$4.75**

Cat. No. 2127

Requires 6-8 volts on button and 100 ohm Microphone Transformer



## Victor Hand Microphone



Used with Victor R.E.-57 and R.C.A. 86 Home Recording Combinations

A single-button Microphone fine for home recording and amateur broadcasting. 100 ohm button. Operates from a 1½ v. dry cell and draws 10 mills. Gun metal finish, equipped with 5 ft. cord.

**\$3.25**

Cat. No. 1003



## Amplion Transverse Current Microphone



Contains no metal diaphragm, no carbon buttons, no metal levers or moving parts. Carbon hiss entirely eliminated and carbon does not pack. Works on new principle.

The area of the carbon granule receptacle in the Amplion Microphone is approximately 20 square centimeters as compared with 2 or 3 square centimeters in the conventional type.

This unusually large cross-sectional area affords low resistance, eliminates heating, prevents packing, allows the flow of a high as 60 milliamperes of current, makes operation non-critical, eliminates the probability of burn-outs due to the application of excessive voltages, affords great efficiency, stability, sensitivity and long life. Frequency range, 60-4000 cycles. Impedance, 500 ohms. Voltage, 22½ v. battery.

**\$5.50**

Cat. No. S-182

## Amplion Matching Transformer for Above Microphone

This Transformer is especially designed for use with Amplion Transverse current microphone, and has impedance of 500 ohms.



**\$4.95**

Cat. No. S-183

## Universal Telephone Mounted Microphones

The head can be tilted, and the base is cushioned by a rubber ring

Telephone Mount containing Model "B.B." two-button unit and 12 ft. cord



**\$23.22**

Cat. No. S-157

Telephone Mount containing Model "K.K." Gold two-button unit and 12 ft. cord.

**\$37.92**

Cat. No. S-158

## Magnavox Single Button Microphone

Anti-noise. Used by U. S. Army. Works on 6 volts and draws 15 mills.

**\$1.75**

Cat. No. 2098





# THE NEW PRESTO RECORD MAKER

1. Make perfect records of your own voice.
2. Perfect reproduction of all records.
3. Converts your radio into an electric phonograph.
4. Record epic broadcasts. Preserve the voices of children for future years.



Open View  
Cover Not Shown

The Presto Record Maker is not a toy or an experiment. It is the crowning achievement of a nationally-known manufacturer with twenty years' successful background in the production of sound recording devices. It is a proven scientific instrument that reproduces any sound with startling realism—the result of life itself! The records are permanent and can be played many hundreds of times without any loss of the original brilliance of reproduction. With Presto, your home is transformed into a perfect recording studio.

Presto comes to you complete with motor, turntable, volume control, microphone, patented feed mechanism and recording head, selector switch and radio-phonograph switch, and is housed in a beautiful compact portable leatherette case.

The Presto Record Maker converts your radio into an Electric Phonograph that will play all standard records. It both makes and plays back records. Presto uses a smooth metal disc (listed below) 6, 8, 10 or 12 inches in diameter and cuts its own grooves as it records.

**\$39.50**

Cat. No. 2796

Complete with "Recording" Hand Microphone.



## Records for Home Recording

There are two types of records being used for home recording today. There are the smooth, oil-treated aluminum and composition pre-grooved records. The composition pre-grooved records are used with VICTOR, G. E. WESTINGHOUSE, GRAYBAR, R. C. A., PACENT, and many others. The aluminum records are used with PRESTO, SENTINEL, and with sound recording studio recorders.

### REMSEN ALUMINUM RECORDS—Double Faced

Cat. No.	Size	Playing Time	Price
0-1083.....	6".....	1½ minutes	\$.14
0-1084.....	7½".....	2 minutes	.21
0-1085.....	10".....	3¾ minutes	.35
0-1086.....	12".....	5 minutes	.53

### VICTOR TYPE COMPOSITION UNBREAKABLE PRE-GROOVED RECORDS—Double Faced

Cat. No.	Size	Playing Time	Price
W-1087.....	6".....	1½ minutes	\$.15
W-1088.....	7".....	2 minutes	.20
W-1089.....	10".....	3 minutes	.35
W-1090.....	12".....	4½ minutes	.58

Has space to write titles of recording, date of recording and name of person making recording.

## NEEDLES for HOME RECORDING

Recording Needles for aluminum records  
Cat. No. T-1091 6 for \$ .25

Play-back Cactus needles for aluminum records  
Cat. No. T-1092 2 for \$ .25

Recording and Play-back needles for composition pregrooved records. Same needle used for either purpose.

Cat. No. W-1093 8 for \$ .25

## THEATRE INCIDENTAL MUSIC

We can supply large 33 1/3 R. P. M. records recorded with incidental music for theatre work. Used for exit marches and during showing of future attractions.

Cat. No. 1094 \$1.00 each

# Dual Speed Portable Recorder and Play-Back

33 1/3 and 78 R.P.M.

COMPLETE WITH SAMSON TWO-STAGE AMPLIFIER AND DYNAMIC SPEAKER  
Uses 1-227, 2-245, 1-280 tubes



Many times you have wanted to record your child's voice or send a greeting-card through the medium of a record to some friend or relative. Excellent for recording dance orchestras and solo singers.

Here is a machine that will record voice or music through a microphone, or "broadcast" from your radio receiver. It will also play your recording right back, just as you would want to hear it. Make it as low or loud as your taste dictates. It will also play the new Victor "Transcription" records that require the low, constant speed of 33 1/3 R. P. M., or play the regular Victor, Brunswick and Columbia records at 78 R. P. M. Recordings can be made at either 33 1/3 or 78 R. P. M. and it is obvious that at 33 1/3 speed you can make your recordings twice as long.

This equipment is extremely simple to operate. To insure perfect co-ordination, a Samson two-stage amplifier with a Sonochorde dynamic speaker is built into the carrying case. The amplifier is used for recording and playback and has plenty of volume.

The 110 volt, 60 cycle motor is extremely powerful and of constant speed. The recording head, travels on a gear spindle mechanism that is positive at all times, assuring evenly spaced grooves or lines. The weight of the recording head is only 4½ pounds. All switches and controls are located on top of the motor board.

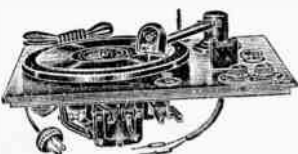
The carrying case is supplied with a hinged, detachable cover and is covered with extremely fine leatherette. Fittings are of heavy brass. Complete with double button microphone, banquet stand and springs as shown, less tubes.

**\$214.50**

Cat. No. 1656

SAME AS ABOVE BUT LESS MICROPHONE, STAND, SPRINGS AND TUBES  
Cat. No. 1657.....\$190.00

# Bosch Phonograph Assembly



Here is a unit everyone has been looking for. Insistent demand from our customers made us obtain these, and at a price. Look at the features: Presto "Carmuse" Pick up, General Electric Induction Motor and 12 in. turntable. Volume Control. On and Off Switch, Speed Regulator, Automatic Stop, Needle Cups, etc. It is completely wired and just requires plugging into the 50-60 cycle, 110-130 volt A. C. current. (We recommend the Bosch Two-Stage Push-Pull Amplifier with this unit.) Dimensions: Length: 19"; Width: 16"; Depth: 4". Limited Quantity.

**\$21.50**

Cat. No. 8-2775

**\$6.50**

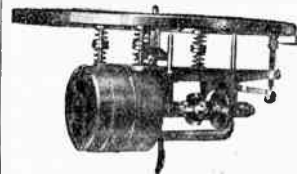
Cat. No. 8-2776

Bosch Lowboy Cabinet (as described on page 2), for installation of this unit.



## PACENT 25 CYCLE INDUCTION MOTOR 78 R. P. M.

With 12" Turntable



There is no need to praise this marvelous electric motor in glowing terms. Its performance speaks for itself. Look at the features: it is of the silent induction type, specially designed to

give the utmost performance and satisfaction in radio-phonograph service. It is completely insulated against noise and vibration—no commutators, no brushes, no sparking. The turntable is friction cone driven. The whole motor is spring suspended. It has ball thrust bearings, balanced governor weights and a silent worm drive. **POWERFUL ENOUGH FOR USE IN HOME RECORDING.** 25 Cycle A. C. at 110 Volts.

**\$8.50**

Cat. No. S-2117

## Pacent 60 Cycle Induction Motor 33 1/3 R. P. M. 12" TURNTABLE

A 33 1/3 R.P.M. phonograph motor, for operation on 110 volt, 60 cycle A. C. Same excellent features as described above. Can be used for "electrical transcriptions" recorded for broadcast purposes, and the new Victor long playing records.

**\$7.95**

Cat. No. S-2022

## Electromatic Automatic Phonograph Record Changer

With 33 1/3 and 78 R. P. M. Dual Speed Motor and "Electrical Transcription" Pickup

Ball-bearing, counter-balanced inertia, tone arm and pick-up to play new Victor Electrical Transcription records. Will also play the regular type-records.

Absolute positive action—not depending on fragile center hole of record.

Changes ten 10" records automatically. Repeats any record when desired and plays any make, any size, and any style. Also plays 12" records mechanically and repeats automatically. Requires only 3 second intervals between selections.

Record Rejector permits instant change of records, if desired. Fool-proof unit.

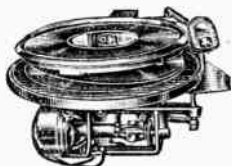
Vibration eliminated by insulated motor suspension on adjustable sub-base.

Easy to install, 3-point bolt suspension. Compact, 19 1/2" front, 14 1/2" depth, front to back, 9 1/2" high, including top of Pick-up to base of motor.

Complete with 12 inch turntable, record changer, A. C. induction motor, pick-up with tone arm, volume control and switch.

**\$63.00**

For 110 volt, 60 cycle A. C. Cat. No. 1612



## Dual Speed Capehart Automatic 10-12C Record Changer

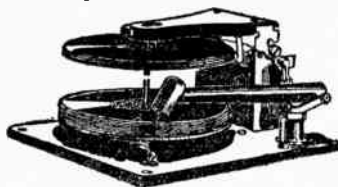
DUAL SPEED—33 1/3 and 78 R. P. M. Excellent for the home, public address systems and ballrooms.

Equipped with "Electrical Transcription" Pick-Up

Using ten of the new long playing "Victor 12" records, you can listen to 4 hours of music without a stop.

The Capehart 10-12-C Chassis is automatic in its operation. It plays ten records of either size, 10 or 12 inch. Either regular 78 or new long-playing Victor records at 33 1/3 can be used. The last record repeats until the records are restacked or the master switch is shut off. An encore may be had on any record by raising magazine to a perpendicular position. The Record Changer is further equipped with a reject device and a record unloading lever.

Base Dimensions.....14 1/2 x 14 1/2 in.  
Height above mounting board.....7 1/4 in.  
Depth below mounting board.....3 1/8 in.  
Shipping weight.....30 lbs.



**\$67.50**

Cat. No. 2789

### Special Pick-Up Matching Transformer

A special 5-terminal matching transformer, makes it possible to match the pick-up impedance with most radio sets and amplifiers. Cat. No. 2790

**\$4.75**

## G. E. Synchronous Phonograph Motor

With 10-inch Turntable

Smooth and silent running. Compact—only 4 in. deep.

Turntable revolves at exactly 78 R.P.M. despite any voltage fluctuations.

Operates on 110-120 V., 60 cycles, A. C.

**\$3.75**

Cat. No. 2567



## G. E. Induction Phonograph Motor

With 12-inch Turntable and Speed Regulator Governor

A heavy duty, powerful torque Phonograph Motor of the induction type. Noiseless, being free of any commutators or brushes. Quick starting, without manual assistance. Compact, only 6 in. deep.

**\$7.50**

Cat. No. 2568



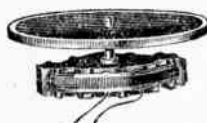
## Allen-Hough Rotor Synchronous Motor

Complete with turn-table. The motor is only 1 1/4 in. thick. Starts and stops at the touch of a finger.

Operates at 80 revolutions per minute. Operates on 110-120 volts, 60 cycle A. C. current.

**\$3.25**

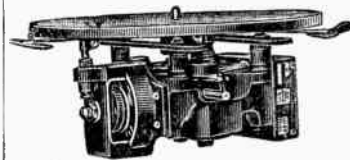
Cat. No. S-3459



List: \$22.00

## Green Flyer Combination Two Speed Phonograph Motors

33 1/3 — 78 R. P. M.



Type D

Here is the latest in phonograph motors. Designed and built by General Industries of Elyria, O. It was placed on the market for use with the new 33 1/3 Electrical Transcription Victor records and can also play the regular 78 R.P.M. discs by simply pressing a lever. Especially insulated against vibration. Gears are of laminated bakelite and run in oil, at all times. A. C. motors are of the induction type. Equipped with speed indicator dial, speed indicator pointer, speed change escutcheon plate, speed change pointer, mounting screws, washers and 12 inch turntable.

Cat. No.	Type of Current	Price
1009.....	110 volt, 60 cycle.....	\$ 9.75
2393.....	110 volt, 25 cycle.....	11.35
2394.....	220-240 volt, 60 cycle.....	10.95
2395.....	220 volt D. C.....	14.95
2396.....	110 volt D. C.....	14.95

## The Improved Blue Flyer Phonograph Motors



operation. Complete with 10" turntable, speed indicator dial, speed indicator pointer, mounting screws and washers.

The Improved Blue Flyer Phonograph Motor is now more quiet and vibrationless than ever before. Type "E"—7 R.P.M. for 11 volt, 60 cycle

**\$8.45**

Cat. No. T-1010

Type "F"—33 1/3 R.P.M. for 110 volt, 60 cycle operation. Same equipment as Model "E."

**\$11.65**

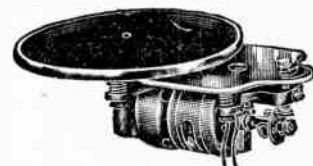
Cat. No. T-1011

A 12-inch turntable can be supplied at \$.50 additional.

For line frequency other than 60 cycle or 110-220 volts D. C., write for quotation.

An automatic stop can be supplied for types D, E, and F at an additional cost of \$.95.

## Prime "Green Giant" Electric Phonograph Motor



READY MOUNTED

This is an improved motor of the induction type. Complete with turn-table that takes up to 12 in records. Equipped with speed control, also "on and off" switch. An excellent motor at this "give away" price. No hum.

**\$7.50**

Cat. No. S-277

78 R. P. M.

## Automatic Stop

With Automatic Switch for Electric Phonographs



This Automatic Stop with automatic switch was specially designed for phonographs operated with an electric motor. With this combination stop and switch, the electric current is shut off at the same time the Turntable is stopped. No holes need be drilled in the tone arm. Nickel-plated.

**\$1.25**

Cat. No. E-73

## Columbia Electric Phonograph with Automatic Record Changer and Amplifier

Uses One 227, Two 245's, One 280 Tubes  
**MODEL NO. 990—For 110 Volt, 60 Cycle A. C.**

At last you can buy an automatic electric phonograph that can be used for the home, dance halls, club rooms, schools, confectionery store, and public address work, at an exceedingly low price.

The automatic mechanism, amplifier and speaker are enclosed in a beautiful walnut cabinet, with exquisite carvings and two tone inlays. Equipped with record space. The phonograph plays nine 10 in. records automatically, one on the turntable, and eight on the magazine mechanism. A half-hour of music without the necessity of changing a needle or record. 12-inch records may be reproduced individually.

The amplifiers and speakers were manufactured by the Columbia Kolster Company.



Closed View



Open View

Cabinet 40" high x 26" wide x 20" deep.

Columbia Electric Automatic Phonograph, Amplifier and Speaker complete, except tubes.



Automatic Record Changer Chassis

If desired, this instrument can be used without the automatic feature.

**\$29.50**

Cat. No. 1658

## Bosch All-Electric Amplifying Phonograph and Record Demonstrator

We are featuring this instrument due to its tremendous low price and its adaptability to so many varied uses. It is a seller. Our supply of these is limited and quick action only will enable you to benefit.

This all-electric amplifying phonograph is adapted for large homes, music studios, lobby entertainment, dance halls, clubs, theatres, dining rooms and other places. This instrument can also be used by simply adding a microphone and input transformer, as a public address system for use in offices, amusement parks, for public speaking, in churches and for outdoor advertising. Additional speakers can be attached. Music stores will find this instrument excellent for demonstrating all types of phonograph records, making for quicker sales.

It uses a Bosch Two-stage, 245 Push-Pull Power Amplifier, using one 227, two 245's and one 280 tubes. Its other components consist of a Bosch 9" Dynamic Speaker, a General Electric Induction Motor with a 12" Turntable, an Automatic Stop, Volume Control and Speed Regulator. The pick-up is a Presto "Carmuse." These are built into a beautiful Bosch walnut cabinet with a grilled front. Added features are the self-balancing, up-lifting cover and the phonograph record drawer. The cabinet measures 42" in height, 27" in width, and 18" in depth. Tapped Primary, 105-130 Volts, 50-60 Cycle A. C. Current.

**\$31.50**

Cat. No. 3-1961



## R.C.A.-Victor End-Table Phonograph

All Electric

Now is your chance to have an all electric phonograph to operate through your radio amplifier. The cabinet itself is made of attractive walnut, and when lid is closed, it makes an artistic addition to any home.

Equipped with a Genuine General Electric Induction motor and 12 in. turntable; an RCA-Victor 200 ohm balanced phono-pick-up; automatic stop; volume control and matching transformer with radio-phonograph switch for mounting on your radio receiver. Operates on 110 volt, 60 cycle A. C. Equipped with 8 feet of A. C. cord and plug.

Motor Board  
 20" Long, 12½" Wide



Transformer and Switch



Used with any type receiver Model T-5

Size 24" high; 26" long; 15¼" wide.

**\$17.50**

Cat. No. 1585

## Wall-Kane Phonograph Needles

"The Original 10 Record Needle"

This handsome metal enamel, three color display stand holds 60 packages: 2 dozen extra loud, 2 dozen loud, and 1 dozen medium.

Each package contains 50 needles. Retail price of these needles is 15c per package, bringing dealer \$9.00 for the stand. Complete Stand (60 packages).

**\$3.70**

Cat. No. 1721



Individual Packages. Cat. No. 1722: \$0.06 each

## Cinema Needles

Approved for use with Western Electric Sound Systems and other talking picture systems.

These needles are especially treated for talking and sound pictures.

Will play the new Victor Electrical "Transcription" records.

Comes in medium, loud, extra loud, fine-tone and half-tone. Mention type desired when ordering. 50 needles to envelope. 100 envelopes per carton. carton.

Per carton (100 envelopes, 5,000 needles), **\$6.00**

Cat. No. 1723

Individual envelopes. Cat. No. 1724. \$0.07½ each

## Truetone Long Life Phonograph Permo Point Needle

(Iridium-Tipped)

This loud playing Needle will play more than 2,000 records without changing.

Used extensively with automatic phonographs and talking movies.

**85c Each**

Cat. No. 1725



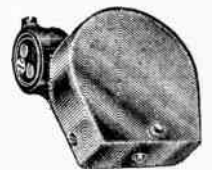
## RCA Victor Pick-Up Head

Low Impedance (200 ohms)  
 Used with Electrola-Radiolas Models 9-16, 9-1A, 9-54, 9-56, 10-69.

This pick-up Head is excellent for use where low impedance is desired.

**\$2.50**

Cat. No. F-45



List: \$21.00

## AUDAK PHONOGRAPH PICK-UPS

Audak is the acknowledged leader in the Phonograph Pick-Up field, having had many years of successful experience in designing and building quality merchandise. When ordering, state what impedance you desire.

### New Poly-Chron "TRANSCRIPTION" PICK-UP

Just released from the Audak laboratories made expressly for use with the new Victor long playing "Transcription" Records. It also may be used with the regular type records. Tone arm counter balanced and pick-up coil specially designed.

Can be supplied in 200, 500, 2500, 5000, 8500 ohm impedances.

High Impedance Type with Volume Control

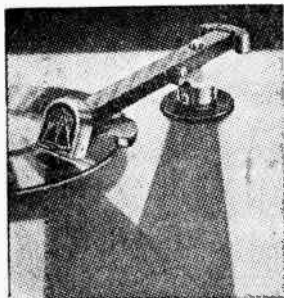
**\$14.41**

Cat. No. 2551

Low Impedance Type with Volume Control

**\$15.88**

Cat. No. 2552



### New Professional Theatrical Poly-Chron Pick-up

For Use with "Transcription" Records

Can be had in 200, 500, 2500, 5000, 8500 ohm impedances.

Less Volume Control

**\$58.80**

Cat. No. 2553

### "Model 20" Pick-Up

A high quality pick-up, supplied in either high or low impedance, as listed above. Has exceptional quality, sacrificing neither low or high frequencies. For use with regular 78 R. P. M. records.

With Volume Control

**\$10.30**

Cat. No. 2554



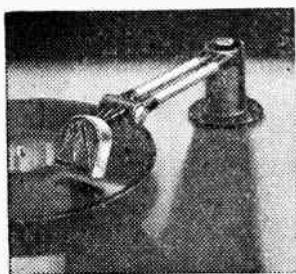
### "Model 30" Pick-Up

Equipped with balanced head. May be had in either high or low impedance, as listed above. For use with regular 78 R. P. M. records.

With Volume Control.

**\$12.35**

Cat. No. 2555



A "Tuned Pick-up" feature can be had in any of the above models at an additional cost of \$1.20.

Just Released



## FREQUENCY METER



### Electron Coupled Oscillator Type

Covers complete amateur Wave-Bands, between 5 to 200 meters.

Approved by American Radio Relay League (Q. S. T.) as one of the most reliable instruments for use as a Wave Meter.

Readings are accurate to within 125 cycles.

Uses an A. C. (224) or D. C. Battery (222) Screen Grid Tube.

Very accurate scale.

Can be used for calibrating either Transmitters or Receivers and also checking against the constant frequency transmission tests.

**\$19.21**

less tube

Cat. No. 4170

## Audak Dual Speed Musicchrome

Equipped with Dual Speed Motor and Poly-chron "Transcription" Pick-Up



This portable, just released from the Audak laboratories, employs a dual speed motor of 33 1/3 and 78 R. P. M. It is also equipped with the latest POLY-CHRON "Transcription" Pick-Up for use with the new Victor playing, or the regular 78 R. P. M. records.

CABINET, solid walnut, beautifully finished, size: 11 x 11 x 7". MOTOR, operates on 110 volt, 60 cycle A. C. Motors for other types of current

and frequency can be supplied at slightly higher prices.

With High Impedance Pick-Up

**\$39.70**

Cat. No. 2549

With Low Impedance Pick-up

**\$41.15**

Cat. No. 2550



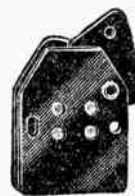
## Automatic Phonograph Switch

This switch was used on RCA-Victor Phonograph Combinations. When the phonograph pick-up reaches end of record and arm comes in contact with this switch, the current automatically is shut off.

**25c ea.**

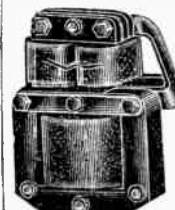
\$2.75 for 12

Cat. No. 3270



## G. E. Induction Motor Coils

Used in G.E. Induction Phono-Motors



This motor was used in General Electric, Radiola, Gray bar, Westinghouse, Victor Brunswick, Atwater Kent Philco and many other make of phonograph combinations. Two used for each motor. For 110 volt, 60 cycle operation.

**\$1.75 each**

List: \$10 each

Cat. No. 3296

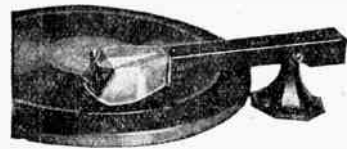
Pacnet

"Phonovox" Pickups



Reproduce your phoongraph records electrically with a Pacnet "Phonovox" and be amazed at the new heights of realism obtainable. Delicate musical values brought out with fidelity, inviting comparison with original rendition.

All Pacnet Phono Pick-ups are now equipped to play the new Victor long-playing records



Control, adapters and radio-phonograph switch.

No. 120-L—PHONOVOX—Same as above, but is low impedance, 200 ohms at 400 cycles. Volume control, adapters, radio-phonograph switch supplied.

No. 120—PHONOVOX—high impedance pick-up, 2000 ohms at 1000 cycles. Beautifully modulated tone arm. Equipped with volume control.

**\$7.94**

Cat. No. 1072

FOR 16 INCH RECORDS  
No. 160-T—PHONOVOX. Same as No. 120, but designed for use with records up to and including 16 inch. Volume control, adapter, radio-phonograph switch supplied.

**\$7.94**

Cat. No. 1073

No. 160-TL—PHONOVOX. Same as No. 160-T, but is low impedance, 200 ohms, at 400 cycles. Volume control, adapters, and radio-phonograph switch supplied.

**\$9.60**

Cat. No. 1075

Pacnet Recordovox and Control Box for Home Recording and Reproducing

A combination instrument for both making and reproducing records electrically through a radio receiver or amplifier. Will play new Victor long playing records.

TYPE No. 171 RECORDOVOX

The Recordovox outfit consists of the following: one control box, one phonorecorder pickup, one set of recording weights. The microphone comes as a separate item. The Recordovox control box performs the following operations by a mere twist of a dial.

1—Connects single-button microphone to radio audio system to make announcements through radio loud speaker—or for recording voice or instrumental music on pregrooved home-recording discs.

—Connects the combination recording and reproducing head to the radio receiver, to permit the reproduction of phonograph records or home-recorded records.

—Connects the combination recording and reproducing head to the output of the radio receiver to permit the recording of sound picked up either by the radio receiver from a selected broadcasting station, or by the microphone.

uses the Victor type re-grooved records.



**\$16.50**

Cat. No. 0-1081

Single-button Hand Microphone or No. 171 Recordovox.

**\$6.50**

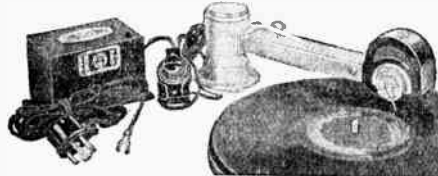
Cat. No. 0-1082



Pacnet

Oil Damped Pickups

WITH ADJUSTABLE NEEDLE PRESSURE  
WILL PLAY THE NEW ELECTRO TRANS. RECORDS



A specially compounded oil is used for damping instead of rubber as is commonly used in regular type of pick-ups. The advantages of oil damping is obvious to the technical man.

No. 108-B—PHONOVOX. High impedance, 2000 ohms at 1000 cycles. Volume control and radio-phonograph switch supplied.

**\$14.70**

Cat. No. 1076

No. 108-BL—PHONOVOX. Same as 108-B, except that it is low impedance, 200 ohms at 400 cycles. No volume control is supplied.

**\$14.70**

Cat. No. 1077

Coupling Transformers

Special coupling transformer for oil-damped pick-ups. Type No. 117; 1:17 ratio to couple a two stage amplifiers not equipped with input transformer.

**\$9.00**

Cat. No. 1078

Special coupling transformer for oil-damped pick-ups. Type No. 123; 1:17 ratio to couple to a radio receiving set via adapters. It is equipped with a radio-record change-over switch.

**\$11.70**

Cat. No. 1079

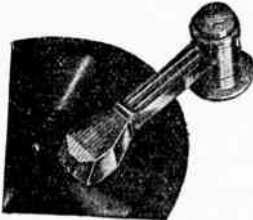
A No. 113 coupling transformer, with a 1:3 ratio is to be used where a three stage amplifier is not equipped with input transformer or a two-stage amplifier is equipped with input transformer.

**\$6.00**

1080



Type 107-T Theatrical Phono Pickups



Master Phonovox 107-T List \$30.00

Will Play Up to 16" Records

These pick-ups are of exceptionally high quality and many of these types can be found in your neighborhood theatres. Can be had in high or low impedance types. When ordering specify high or low impedance.

less Volume Control

**\$6.95**

Cat. No. 8-1008

Gordon "Acme" Pick-Up



Less Volume Control No. 3

The Acme pick-up represents the latest development in electromagnetic pick-up design. It departs from the conventional tone arm construction and is not only unusually attractive but its simplicity reduces the necessary cabinet space fully one inch less than that required for the ordinary pick-up. Arm and base made of genuine Bakelite which eliminates scratches on the panel board.

**\$3.95**

Cat. No. E-87

American

New Type Combination Phono Pick-Ups



Will play the new Victor Electrical Transcription Records as well as the regular type records.

A precision-made pick-up which will reproduce faithfully over all frequencies. "Damping" is so arranged that armature will remain centered under extreme usage.

With Volume Control

Equipped with a "full floating armature," which accounts for needle scratch being kept at a low level.

Statuary Bronze finish. Volume control built in base.

Made for us by one of the large factories whose name we cannot mention, due to our low selling price.

High Impedance. With Volume Control.

Cat. No. 2381. 2500 ohms .....  
Cat. No. 2382. 4000 ohms .....  
Cat. No. 3919. 8500 ohms .....

**\$5.75**

Less volume control.....

Cat. No. 2383. 2500 ohms .....  
Cat. No. 2384. 4000 ohms .....  
Cat. No. 3920. 8500 ohms .....

**\$5.25**

Low Impedance with Volume Control

Cat. No. 2385. 200 ohms .....  
Cat. No. 2386. 500 ohms .....

**\$5.75**

Less volume control

Cat. No. 2387—200 ohms. ....  
Cat. No. 2388—500 ohms. ....

**\$5.25**

With Tone Arm for playing up to 16-inch Theatrical Records, less volume control:

Cat. No. 2389. 2500 ohms (High Imped.) .....  
Cat. No. 2390. 4000 ohms (High Imped.) .....  
Cat. No. 3921. 8500 ohms .....

**\$7.50**

Cat. No. 2391. 200 ohms (Low Imped.) .....  
Cat. No. 2392. 500 ohms (Low Imped.) .....

**\$7.50**

Can furnish weight to fit over any of these Pick-Up heads for recording on pre-grooved "composition" and aluminum records. **65c**

Cat. No. 3922

Columbia-Kolster Phonograph Pick-Up



An excellent pick-up for all around use. Embodies all the latest features looked for in a pick-up of this type.

Very well made and gives a marvelous reproduction of tone. Complete with tone arm.

**\$4.95**

Cat. No. E-79

Columbia - Presto Pick-Up



A deservedly popular "Columbia" pick-up in combination with the "Presto" base. Will take records of any marketed size. Here is an unusual value that you should take advantage of quickly.

**\$4.50**

Cat. No. E-78

Columbia Pick-Up



With Volume Control

This excellent electrical phonograph pick-up has a volume control built into its base. The pick-up head is one of the finest made for reproduction and electrical transcription of phonograph records.

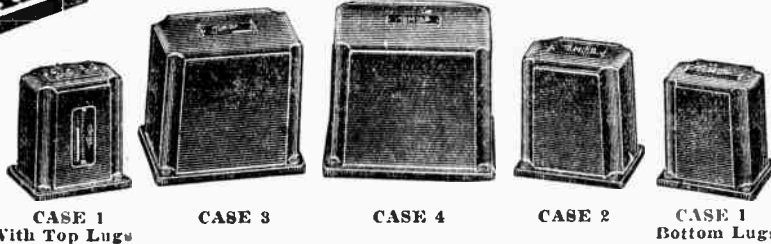
**\$4.75**

Cat. No. E-80



# LABORATORY TYPE EQUIPMENT

**FILTER  
AND  
AUDIO  
CHOKES**



**INPUT, OUTPUT,  
MATCHING FILAMENT  
AND POWER  
TRANSFORMERS**

TomLab Audio Transformers are so designed as to respond equally to all frequencies within the audible range, that is from twenty-five cycles to twelve thousand cycles. TomLab Transformers and Chokes are encased in sturdy cast iron shields, thus eliminating the possibility of magnetic pickup or parasitic coupling. Broadcasting stations, research laboratories and experimenters are now assured of building flat line amplifier equipment without the slightest trace of distortion.

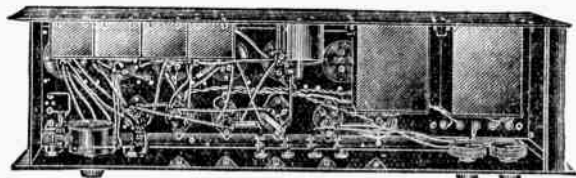
The Precision Line-TomLab Power Transformers and Chokes. Every Power and Filament Transformer designed for temperature rise of 42 C under continuous full load. Every transformer and choke is encased in a heavy cast iron shield. Every secondary winding is center-tapped. All Power Transformers can be supplied for 110 volt, 25 cycle operation. Write for quotation.

Type	Use and Description	Price	Cat. No.	Type	Use and Description	Price	Cat. No.
KA31 Case 1	Cascade—single plate to single grid. Turn ratio 3-1. Primary impedance 130,000 ohms at 30 v, 60 cycles. Limit 5 ma. D. C.	<b>\$4.80</b>	1023	K245PT Case 3	Power Transformer. Primary: 100, 110, 115, 125 volts, 60 cycles. Secondaries: 750 volts, .125 amps.; 5 volts, 2 amps.; 2½ volts, 3 amps; 2½ volts, 14 amps.	<b>\$13.20</b>	1038
KA11 Case 1	Cascade—single screen-grid plate to single grid. Turn ratio 1-1. Primary impedance 600,000 ohms. Limit 2 ma. D. C.	<b>7.20</b>	1024	K250PT Case 4	Power Transformer. Primary: 100, 110, 115, 125 volts, 60 cycles. Secondaries: 1200 volts, .175 amps.; (2) 7½ volts, 1½ amps.; 7½ volts, 3 amps.; 2½ volts, 14 amps.	<b>15.00</b>	1039
KA12 Case 1	Input—single plate to 2 grids. Turn ratio 2½-1 each side. Secondary in two sections. Primary impedance 85,000 ohms, at 30 v, 60 cycles. Limit 8 ma. D. C.	<b>7.20</b>	1025	K845PT Case 4	Power Transformer. Primary: 100, 110, 115, 125 volts, 60 cycles. Secondary: 2400 volts, 175 ma. For 845 or 211 tubes.	<b>18.00</b>	1040
KA22 Case 2	Input—2 plates to 2 grids. Turn ratio 1.8-1 each side of center. Primary and secondary in 2 sections. Primary impedance 90,000 ohms each side of center. Limit unbalanced primary current 4 ma. D. C.	<b>12.00</b>	1026	K852PT Open Type	Power Transformer. Primary: 100, 110, 115, 125 volts, 60 cycles. Secondary: 5000 volts, 200 ma. open type. For 203-A or 204-A tubes.	<b>36.00</b>	1041
KM500 Case 1	Input—200 ohm (2 button mike to 500 ohm line. Limit unbalanced primary 10 ma. D. C.	<b>9.00</b>	1027	KC30-200 Case 4	Filter Choke. 30 henrys, 200 m. a.	<b>10.80</b>	1042
K200G Case 1	Input—200 ohm (2 button mike) to grid. Limit unbalanced primary 10 ma. D. C.	<b>9.00</b>	1028	KC15-120 Case 2	Filter Choke. 15 henrys, 120 m. a.	<b>3.60</b>	1043
K500G Case 1	Input—500 ohm line to grid. Turn ratio 17½-1.	<b>9.00</b>	1029	KC40-60 Case 2	Filter Choke. 40 henrys, 60 m. a.	<b>3.60</b>	1044
KPUG Case 1	Input—pickup to grid. Primary impedance tapped at 500 ohms, 1000 ohms, 2000 ohms and 4000 ohms.	<b>9.00</b>	1030	KC500-3 Case 1	Audio Choke. 540 henrys, 3 m. a.	<b>4.80</b>	1045
KD500 Case 1	Output—1 or 2 plates to 200 or 500 ohm line. Turn ratio 10-1. Primary impedance 80,000 ohms each side of center. Primarily in two sections, for series or parallel connections; secondary 500 ohms tapped at 200 ohms.	<b>9.00</b>	1031	KC700-5 Case 2	Audio Choke. 700 henrys, 5 m. a.	<b>12.00</b>	1046
KPP500 Case 2	Output—2-250 or 245 plates to 500 ohm line and 15 ohm line.	<b>13.20</b>	1032	KF2.5 Case 2	Filament Transformer. Primary: 100-120 volts, 60 cycle. Secondary: 2.5 volts at 14 amperes, 2.5 volts at 3 amperes.	<b>6.00</b>	1052
KPPMD Case 2	Output—2-250 or 245 plates to 4000 ohm line cutting head, or magnetic speaker and 15 ohm voice coil.	<b>9.00</b>	1033	KF7.5 Case 1	Filament Transformer. Primary: 100-110-120 volts. Secondary: 7.5 volts, 3 amperes. Designed to permit separate "C" bias for UX250 tube, when power transformer does not provide this extra winding, by supplying the rectifier filament of the UX281's from a separate filament transformer.	<b>4.80</b>	1053
KPPD Case 2	Output—2-250 or 245 plates to one or more low impedance voice coils, secondary 15 ohms tapped at 2, 4 and 8 ohms.	<b>7.20</b>	1034	KF10-2.5 Case 4	Filament Transformer. Primary: 100-110-120 volts. Secondaries: 10 volts, 6½ amperes, for 2 UX845's and 2.5 volts, 10 amperes, for 2 UX866's.	<b>12.00</b>	1054
KPP10-47 Case 2	Output—2-247 or 2-210 plates to 4000 or 500 ohms and 15 ohm line, 4000 ohms tapped at 500 ohms, 15 ohms on separate winding.	<b>9.00</b>	1035	KL110 Case 3	Power line adjusting auto transformer. Primary: 90-100-110-120-130 volts. Secondary: 110 volts, 3 amperes.	<b>7.20</b>	1055
KLS30 Case 3	30 watt line to speaker auto-transformer. Designed to couple 200 ohm, 500 ohm, 2000 ohm, 4000 ohm lines of combinations of speakers working out of 60 ohm, 45 ohm, 30 ohm, 15 ohm, 7½ ohm, 5 ohm, 3½ ohm or 2 ohm outputs.	<b>15.00</b>	1037	KL220 Case 3	Power line step-down or step-up auto transformer—110 volts to 220 volts; or 220 to 110 volts, 3 amperes.	<b>6.00</b>	1056
KPP845 Case 3	Output—2-845 plates to 500 ohm line and 15 ohm line.	<b>18.00</b>	1036				

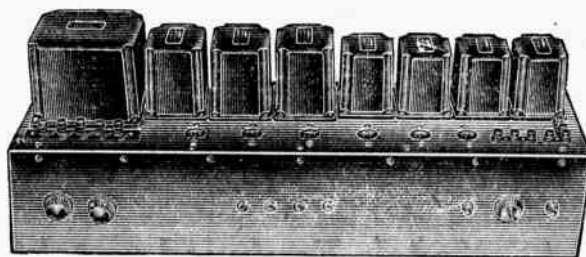
# TOM LAB AMPLIFIER KITS

113

FOR 100—125 VOLTS, 60 CYCLE A. C. OPERATION



BOTTOM VIEW—250 AMPLIFIER



TOP VIEW—250 AMPLIFIER

Through the combined efforts of the engineering departments of Tom Lab and the American Sales Co., we are offering you two extremely fine amplifiers in kit form.

Many weeks were spent on these amplifiers to make them letter perfect insofar as power output, frequency response and hum level was concerned.

These amplifiers are being offered in "kit" form. However, at a slight additional charge, we can supply completely assembled and wired amplifiers.

Cost was not considered when designing these amplifiers, as only the highest grade material was used.

A feature of these amplifiers being, that they may be operated without a GROUND at a lower hum level than many of the well-known makes of amplifiers USING A GROUND.

The angular phase shift, the leakage resistance, and distributed capacity of each transformer is rigidly held down so as to prevent frequency discrimination of fundamentals and harmonics. These amplifiers are the closest approach to flat-line amplification without audible hum level. Frequency range: 30 to 10000 cycles, with a loss of 1/10 D. B. at 50 cycles and a rise of 3/10 D. B. at 10000 cycles.

## List of Parts for the 2 Stage 245 Push-Pull Amplifier

Tubes: One 227, Two 245's, One 280

INPUT for 500 ohm pick-up and 500 ohm winding for radio, through matching transformer.

OUTPUT: 4000 ohm for cutting head or where dynamic speaker is matching transformer. Also matches magnetic speaker. Additional 15 ohm winding for one or more voice coils of dynamic speakers.

- 1—KA500G 500 Ohm to Grid Transformer.
  - 1—KA12 Input Push-Pull Transformer.
  - 1—KAPPM 45 Push-Pull Output Transformer.
  - 1—KC 40-60 Filter Choke.
  - 1—KC 15-120 Filter Choke.
  - 1—K 245 PT Power Transformer.
  - 1—245 "C" Bias Resistance.
  - 1—227 "C" Bias Resistance.
  - 1—2-816 Condenser Block.
  - 1—Parallel Feed Resistance.
  - 1—Parallel Feed Condenser.
  - 1—Filter Resistance.
  - 2—Filter Condensers.
  - 1—D. P. D. T. Anti-Capacity Switch.
  - 2—Jacks to measure Plate Current.
  - 1—A. C. Switch.
  - 1—Single Pole, 4 Throw Switch for Primary Voltage Control of Power Transformer.
  - 1—Bleeder Tapped for Different "B" Voltages.
  - 0—Binding Posts.
  - 1—A. C. Outlet.
  - 4—Wafer Bakelite Tube Sockets.
  - 1—Chassis Deck Drilled.
  - 1—Box of Screws, Bolts, Washers and Wire.
  - 1—Schematic Blue Print.
  - 1—Construction Blue Print.
- Complete, unwired, less tubes.

**\$97.50**

Cat. No. 1590

## List of Parts for the 3 Stage 250 Push-Pull Amplifier

Tubes: Two 227's, Two 250's, Two 281's

INPUT for 200 ohm double-button microphone and two 500 windings for phonograph and radio.

OUTPUT: 500 ohm for line with a 15 ohm for Monitor Dynamic Speaker.

- 1—KM 500 Microphone Transformer.
  - 1—KA500G 500 Ohm to Grid.
  - 1—KA11 Audio Transformer.
  - 1—KA12 Input Push-Pull Transformer.
  - 1—KAPP 500 Output Transformer.
  - 1—KC 15-120 Filter Choke.
  - 1—KC 40-120 Filter Choke.
  - 1—K250PT Power Transformer.
  - 2—2000 Ohm Variable 250 "C" Bias Resistors.
  - 1—2000 Ohm Fixed 1st Stage "C" Bias Resistor.
  - 1—2500 Ohm Fixed 2nd Stage "C" Bias Resistor.
  - 1—Filter Resistance 1st Stage.
  - 1—Filter Resistance 2nd Stage.
  - 1—Plate Resistance 2nd Stage.
  - 1—Parallel Feed Resistance.
  - 2—2MFD 400 Volt By-Pass Condensers.
  - 2—2MFD 200 Volt By-Pass Condensers.
  - 6—Wafer Bakelite Tube Sockets.
  - 1—"T" Pad Volume Control.
  - 2—D. P. D. T. Anti-Capacity Switches.
  - 4—Jacks to Measure Plate Current.
  - 1—A. C. Switch.
  - 12—Binding Posts.
  - 1—¼ MFD 400 Volt Parallel Feed Condenser.
  - 1—Single Pole 4 Throw Switch for Primary Voltage Control of Power Transformer.
  - 3—Variable "B" Voltage Bleeder Resistances.
  - 1—A-250F Filter Condenser Block.
  - 1—Chassis Deck Drilled.
  - 1—Box Assorted Bolts, Screws, Washers and Wire.
  - 1—Schematic Blue Print.
  - 1—Construction Blue Print.
- Complete, unwired, less tubes.

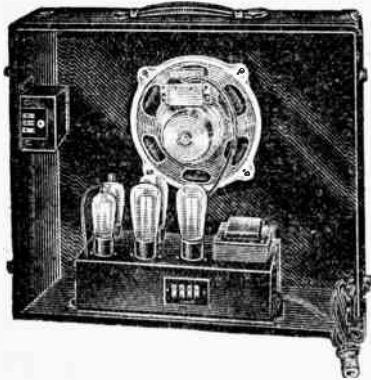
**\$137.50**

Cat. No. 1589

Can furnish Tom Lab Parts for you to build any type of high quality Amplifier. Let us have full specifications.

There is a constant demand for temporary use of sound systems. The wide-awake man realizes the possibility of making real money, renting these systems for one or more evenings. You can make \$25 to \$35 an evening without sacrificing your work during the day. It takes but 15 to 45 minutes to set this equipment up for operation. A "Control Man" is eliminated, as all models are equipped with volume control at the microphone.

## All Models Equipped to take a Microphone or Phonograph Pick-Up



**TYPE PT-30, A. C. operated**—designed for use with audiences of as many as 1,000 persons. It consists of a small leatherette covered carrying case into which are mounted a double push-pull Pentode amplifier and a matched dynamic loud speaker. A two button stretched diaphragm, hand microphone with volume control in handle with 25 feet of cord is supplied. Provision is made in carrying case to house this microphone when same is not in use. No microphone batteries are required as this is supplied by the amplifier. Additional A. C. dynamic speakers may be used as taps have been provided on output for same. Tubes used; 2-224, 2-247, 1-280. Complete with hand microphone and R. C. A. Tubes.

**\$70.07**

Cat. No. 1004

**TYPE PT-30B**, is identical as PT-30 except that it is designed for battery operation. It requires 250 volts of "B" battery, 15 volts of "C" and 6 volt "A" (storage battery). Complete with hand microphone and R. C. A. Tubes, but less batteries.

**\$70.07**

Cat. No. 1005

**TYPE PT-31, A. C. operated**—similar to PT-30 but is designed for use where a broadcast type microphone and floor stand are required. The only difference being that the PT-31 is equipped with a broadcast type double button microphone having a stretched diaphragm, and adjustable floor stand with self-contained volume control. Microphone equipped with 25 feet of microphone cord. Complete with microphone, floor stand and R. C. A. Tubes.

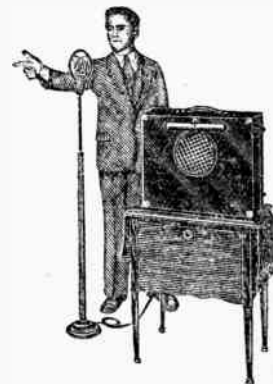
**\$86.00**

Cat. No. 1006

**TYPE PT-31B, battery operated**—is identical with type PT-31 except that it is entirely battery operated. It requires the same battery equipment as type PT-30B. Complete with microphone, floor stand with volume control and R. C. A. Tubes, but less batteries.

**\$86.00**

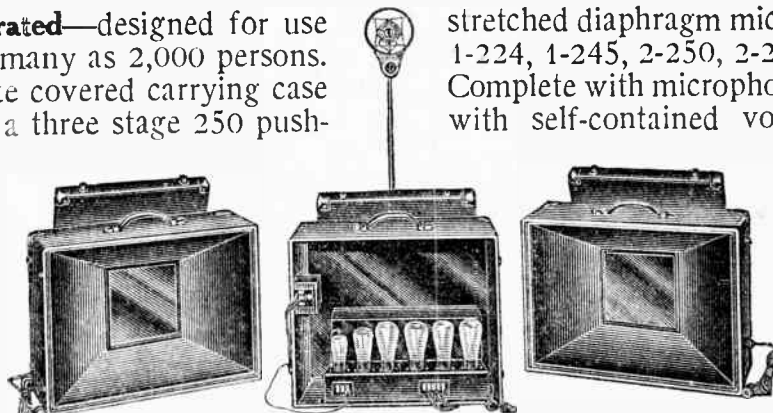
Cat. No. 1007



**TYPE PT-40, A. C. operated**—designed for use with audiences up to as many as 2,000 persons. It consists of a leatherette covered carrying case into which are mounted a three stage 250 push-pull amplifier and input coupling unit. Two portable A. C. dynamic speakers, exponential baffle equipped, mounted in individual carrying cases, and a broadcast type double button

stretched diaphragm microphone. Amplifier uses 1-224, 1-245, 2-250, 2-281 tubes.

Complete with microphone, adjustable floor stand with self-contained volume control, a kit of R. C. A. Tubes, and all necessary leads and cables.



**\$251.61**

Cat. No. 1007A

We Can Supply All Types of Powerizer Public Address Equipment and Amplifiers. Give Full Specifications and We Will Quote You



# American Three Stage 250 Push-Pull Power Amplifier

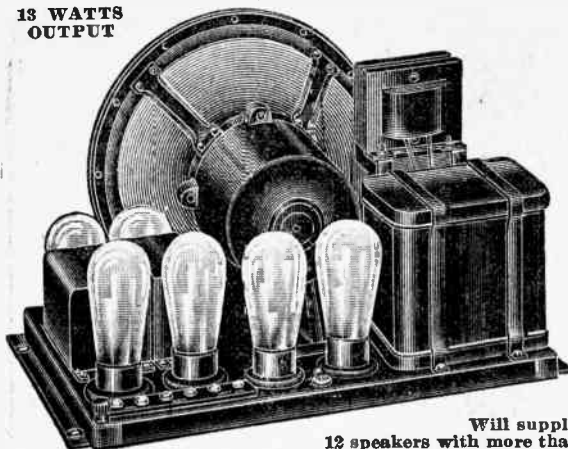
Uses Two 227's, Two 250's, and Two 281 Tubes

with Built-in Kolster 10" Dynamic Speaker

**SPECIFICATIONS**

Tubes required: 2-227's, 2-281's, 2-250's.  
 Number of stages: Three.  
 Gain at 1000 cycles: 68 db.  
 Frequency response: 40-7000 cycles.  
 Maximum undistorted output: 13 watts.  
 Power consumption: 165 watts.  
 Maximum temperature rise above surrounding air for continuous operation: 20° C.  
 Impedance for which amplifier is designed to work out of: 4000 ohms, three separate windings.  
 Impedance for which amplifier is designed to work into: 4000 ohms.  
 Power supply: 110 volts, 60 cycle A. C.  
 Weight: 58 lbs.  
 Dimensions: width: 19"; depth: 11"; height: 11 1/2".

13 WATTS OUTPUT



Will supply 12 speakers with more than 1 watt of energy to each speaker.

The output of this amplifier is designed so that the regulation high impedance electric pick-up can be hooked right into the first stage without the use of a pick-up or coupling transformer. A double button microphone can be hooked into this unit through the American Microphone Pick-up Mixing Unit described elsewhere, or a Microphone Transformer. The output of a radio tuner can be hooked into the first stage by using an audio transformer.

Every amplifier is unconditionally guaranteed against defects and to give the utmost in satisfaction.

**\$43.50**  
 less tubes  
 Cat. No. 8-2752

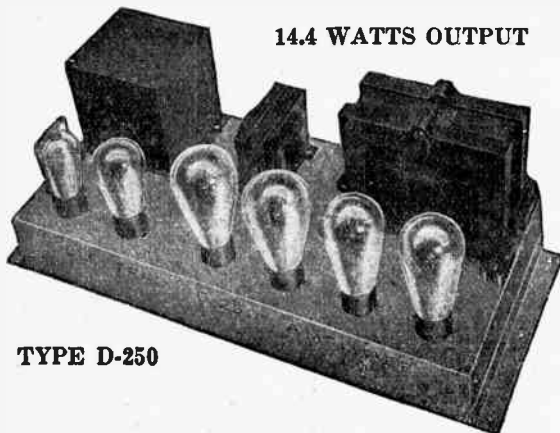
The amplifier sensation of the Public Address World! It gains the immediate support of all those who hear its remarkable quality and pep! It has a greater output than two Power Pentodes in Push-Pull would have.

Using a 227 in the first stage, a 227 in the second, two 250's in Push-Pull in the third stage and two 281's in full-wave rectification; this amplifier can supply three Trumpet Exponential Speakers with giant Dynamic Units if so desired since it has connections for three external speakers. This is in addition to the Kolster 10 in. Dynamic Speaker built into the amplifier which can be used as a monitor on the signals being amplified. Dynamic Speakers of any type can be used for external purposes. Ideal for Home Recording since speaker can be used as a monitor and for play-back. The output transformer has four separate windings; one to match the Kolster Dynamic Speaker and three high impedance windings for the external speakers. Also contains switch in voice coil of Kolster Speaker to cut out that Speaker as desired when using external ones. Ground binding post supplied to conveniently ground amplifier if desired.

## Electrad—Power Amplifiers—Electrad

All Amplifiers Operate on 110 Volts 60 Cycle A. C. Write for 25 Cycle Prices—Frequency response, 40-7000 cycles

### 3 Stage-250 Push Pull



14.4 WATTS OUTPUT

TYPE D-250

In the higher powered units, such as this D-250 Amplifier, which uses two 250 tubes in push-pull, or the E-250 which used four 250's in dual push pull, an entirely new circuit is used. The voltage amplifier stages consist of a '24 and a '27 making three stages in all. The '27 is coupled to the power output stage through a high quality coupling unit.

The care that has gone into the selection of the components of these circuits is reflected in high power and excellent frequency characteristics. Liberal safety factors have been allowed in the design of all of these amplifiers which gives to them a life factor and a dependability seldom equalled in amplifiers of anything like the cost.

The D-250 Amplifier is a logical application of high powered output tubes to a simple, efficient circuit.

Basically, the direct coupled stage is fed through high quality audio coupled units, into the push-pull power output stage so that excellent frequency characteristics are realized with extremely high power.

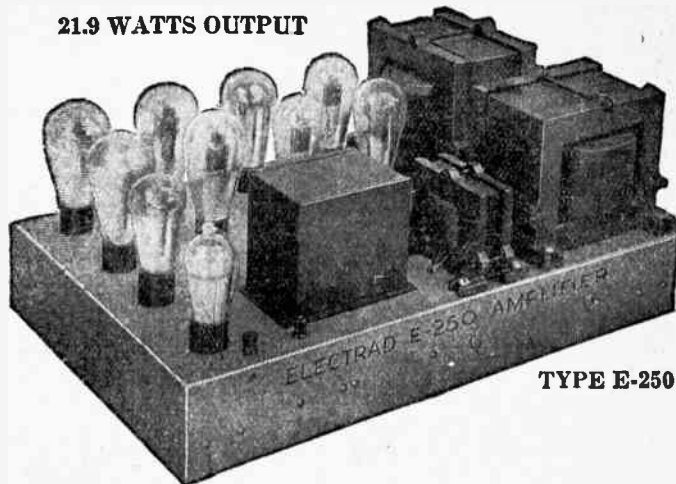
The overall gain of this Amplifier is approximately 76 decibels, which is entirely sufficient to operate from a low impedance phonograph pick-up or any other low source of input. Will supply 14 speakers with more than one watt of energy to each speaker.

**Specifications**

Gain at 100 cycles—75 db  
 Gain at 1000 cycles—76 db  
 Gain at 10000 cycles—54 db  
 Undistorted power output 14.4 watts  
 Hum level—.5 volts  
 Primary watts—170  
 Tubes—one '24, one '27, two '50's, two '81's

Input direct to grid of '24  
 Specify output transformer desired.  
 Overall dimensions — Length 22", width 9", height 10 1/2"  
 Net weight — exclusive of tubes — 63 lbs.  
 less tubes **\$55.86**  
 Cat. No. 3148

### 3 Stage-250 Push Pull Parallel



21.9 WATTS OUTPUT

TYPE E-250

Used where tremendous output power is necessary to cover an exceptionally large area, or to overcome high noise level such as in air ports, convention halls, ball parks, or college stadiums.

By utilizing four (4) 250 tubes in a special push-pull parallel circuit, the E-250 delivers 21.9 watts of undistorted energy. This is sufficient to supply 20 speakers with more than one (1) watt of energy to each speaker. Similar to the other direct coupled amplifiers developed by Electrad, the input to the E-250 may be taken from a high impedance phonograph pick-up, a microphone or a radio tuner.

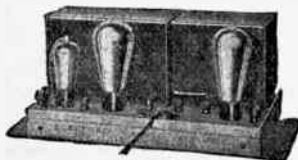
The coupling to a radio tuner may be either resistance in capacity or transformer.

**Specifications**

Gain at 100 cycles—75 db  
 Gain at 1000 cycles—76 db  
 Gain at 10000 cycles—54 db  
 Undistorted power output 21.9 watts  
 Hum level—.5 volts  
 Primary watts—315  
 Tubes—one '24, one '45, four 50's four '81's

Input direct to grid of '24  
 Specify output transformer desired.  
 Overall dimensions — Length 23", width 15", height 10 1/2"  
 Net weight — exclusive of tubes — 115 lbs.  
 less tubes **\$114.66**  
 Cat. No. 3149

### 4.9 WATTS OUTPUT



TYPE A-250

Power is sufficient to operate four (4) speakers, supplying over 1 watt of energy to each speaker. Field excitation current is available for one (1) 2,500 ohm field.

**\$40.87**  
 less tubes  
 Cat. No. 4189

### 2 Stage—Single 250

Power consumption—85 watts  
 Tubes required—One '24, one '50, one '81  
 Rated max. undis. output—4.9 watts  
 Rated gain at 100 cycles—52.5 db  
 Rated gain at 1,000 cycles—55db  
 Rated gain at 10,000 cycles—51.5 db  
 Input volts for max. output—28 volts  
 Hum level—.4 volts

**Specifications**

Input direct to '24 control grid  
 Output direct from '50 plate  
 Speaker field current supply—2,500 ohm resistor attached, which may be removed when field current is desired  
 Dimensions overall — length 16 1/2", width 7 3/4", height 7 3/4"  
 Net weight exclusive of tubes—23 lbs.

# American PUBLIC ADDRESS SYSTEMS

By popular request we are showing once again our high quality Public Address System which was accepted by our customers and acclaimed the finest of its kind at more than twice the money. We have had many requests to include in a higher priced complete Address System additional features such as: 9 Record Automatic Turntable, Additional Speakers and Trumpet Dynamic Speakers. We are now offering a Special Address System for mobile use where a 32-volt generator or gas engine generator is necessary.

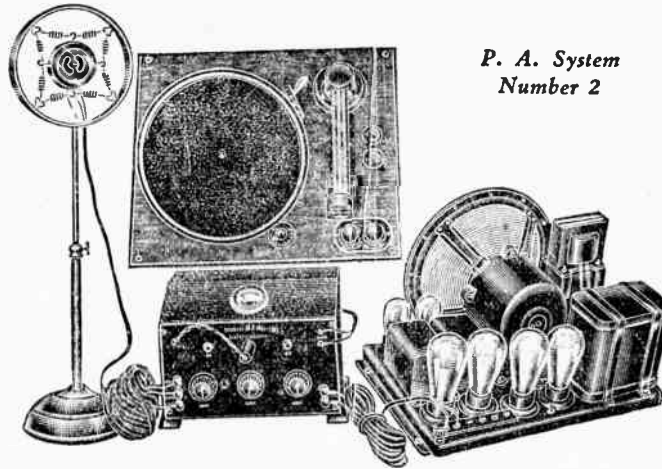
## PUBLIC ADDRESS SYSTEM No. 1

Consists of:

- 1 American 3-Stage 250 P. P. Amplifier with Speaker†
- 1 Kit\* of R.C.A. Tubes.
- 1 American Microphone-Phonograph Mixer
- 1 American DB-3 Microphone
- 1 American Floor or Banquet (specify) Microphone Stand
- 1 12-ft. Shielded Microphone Cable
- 1 Set of 8 Microphone Springs
- 1 50-ft. Extension Cord

**\$105.95**

Cat. No. 3461



P. A. System Number 2

## PUBLIC ADDRESS SYSTEM No. 2

Consists of: (Illustrated)

- 1 American 3-stage 250 P. P. Amplifier with Speaker†
- 1 Kit\* of RCA Tubes
- 1 Bosch Phonograph Motor Board
- 1 American Microphone-Phonograph Mixer
- 1 American DB-3 Microphone
- 1 American Floor or Banquet (specify) Microphone Stand
- 1 12-ft. Shielded Microphone Cable
- 1 Set of 8 Microphone Springs
- 1 50-ft. Two Conductor Extension Cord

**\$124.90**

Cat. No. 3462

## PUBLIC ADDRESS SYSTEM No. 3

Consists of:

- 1 American 3-Stage, 250 P. P. Amplifier with Speaker†
- 1 Kit\* of RCA Tubes
- 1 Columbia Automatic 9-Record Phonograph Motor Board
- 1 American Microphone-Phonograph Mixer
- 1 American DB-3 Microphone
- 1 American Floor or Banquet (specify) Microphone Stand
- 1 12-ft. Shielded Microphone Cable
- 1 Set of 8 Microphone Springs
- 1 50-ft. Two-Conductor Extension Cord

**\$135.90**

Cat. No. 3463

## PUBLIC ADDRESS SYSTEM No. 4

Consists of:

- 1 American 3-Stage, 250 P. P. Amplifier with Speaker†
- 1 Kit\* of RCA Tubes
- 3 Kolster 10-inch A. C. Dynamic Speakers
- 3 RCA UX-280 Tubes
- 1 Bosch Phonograph Motor Board
- 1 American Microphone-Phono. Mixer
- 1 American DB-3 Microphone
- 1 American Floor or Banquet (specify) Microphone Stand
- 1 12-ft. Shielded Microphone Cord
- 1 Set of 8 microphone springs
- 1 50-ft. Two-Conductor Extension Cord
- 100 ft. of Two-Conductor Cord

**\$169.85**

Cat. No. 3464

## PUBLIC ADDRESS SYSTEM No. 5

Consists of:

- 1 American 3-Stage, 250 P. P. Amplifier with Speaker†
- 1 Kit\* of RCA Tubes
- 3 Photophone Dynamic Speakers
- 3 A. C. Field Exciters
- 3 RCA UX-280 Tubes
- 3 Special Matching Transformers
- 1 Bosch Phonograph Motor Board
- 1 American Microphone-Phono. Mixer
- 1 American DB-3 Microphone
- 1 American Floor or Banquet (specify) Microphone Stand
- 1 12-ft. Shielded Microphone Cord
- 1 Set of 8 Microphone Springs
- 1 50-ft. Two-Conductor Extension Coil
- 100 ft. of Two-Conductor Cord

**\$179.50**

Cat. No. 3465

# Special Public Address Systems for Sound Truck Use

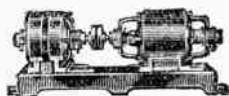
Consists of: Mobile Public Address System No. 6

- 1 American 3-Stage 250 P. P. Amplifier with Speaker†
- 1 Kit\* of RCA Tubes
- 2 3½ ft. Racon Stormproof Trumpets
- 2 Racon Master Dynamic Horn Units
- 2 Special Matching Transformers
- 1 Bosch Phonograph Motor Board
- 1 American Microphone-Phonograph Mixer
- 1 American DB-3 Microphone
- 1 American Banquet or Desk (specify) Microphone Stand
- 1 12-ft. Shielded Microphone Cord
- 1 50-ft. Two-Conductor Extension Cord
- 100 feet of Two Conductor Cord
- 1 Esco 32-volt, 500-watt Generator
- 1 36-volt, 200-ampere Exide Storage Battery
- 1 Forest Electric Battery Charger

**\$533.50**

Cat. No. 3466

\* Denotes—Two 227's, Two 250's, Two 281's.  
† Denotes—Ten-inch Kolster Dynamic Speaker



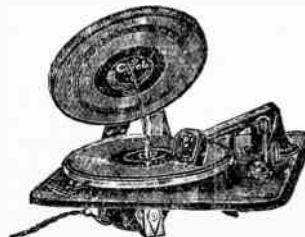
Esco Motor Generator

Consists of: Mobile Public Address System No. 7

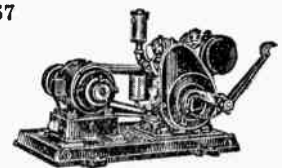
- 1 American 3-Stage, 250 P. P. Amplifier with Speaker†
- 1 Kit\* of RCA Tubes
- 2 3½ ft. Racon Stormproof Trumpets
- 2 Racon Master Dynamic Horn Units
- 2 Special Matching Transformers
- 1 Bosch Phonograph Motor Board
- 1 American Microphone-Phonograph Mixer
- 1 American DB-3 Microphone
- 1 American Banquet or Desk (specify) Microphone Stand
- 1 12-ft. Shielded Microphone Cord
- 1 50-ft. Two-Conductor Extension Cord
- 100 feet of Two Conductor Cord
- 1 Janette 500-watt Gas Driven Generator

**\$439.50**

Cat. No. 3467



Columbia Automatic 9-Record Motor Board



Janette Gas-Driven Generator

If there is any special Public Address System desired, write us full specifications and we will quote.

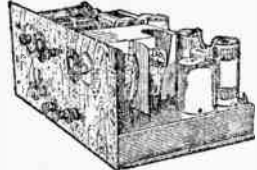


# Dependable SILVER-MARSHALL Products

Since the early days of radio parts and kits, Silver-Marshall has manufactured merchandise that has given the consumer no regrets for his selection of this dependable equipment. From the smallest by-pass condenser to the high powered amplifier, the same pains taking care is exercised to insure your utmost satisfaction. Can supply you with all Silver-Marshall Parts. Write for Complete Catalogue. All chassis are factory assembled, wired and tested.

## Model 726 S.W. All-Wave

11 TUBE PENTODE VARIO-MU SUPER-HET  
10 to 540 Meters

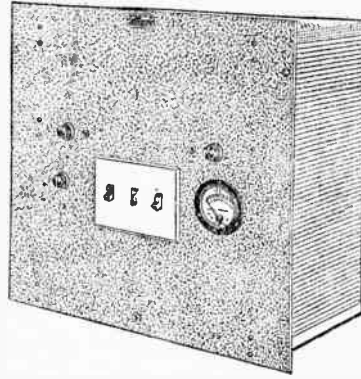


A real combination short-wave and broadcast receiver eliminating the use of plug-in coils. As a broadcast receiver (in the 200 to 550 meter band) it is a 9-tube vario-mu super heterodyne with 2 pentodes in push-pull. Selectivity, absolute 10 K. C. separation.

As a short-wave receiver, it is a true 11-tube superhet using "double supping" on not one, but two intermediate frequencies. Yet it has but one dial. Selector switch used to select between four ranges (from 10 to 200 meters) at will. Equipped with selectivity, sensitivity and tone control. Operates from 110-120 volts, 50 to 60 cycle A. C. Uses two 24 three 227, three 51, two 47, one 80 tubes. Equipped with 10 1/2" S-M dynamic speaker.

**\$82.03**  
less tubes Cat. No. 1297

## PA-22A and PA-32A Fifty Watt Amplifiers

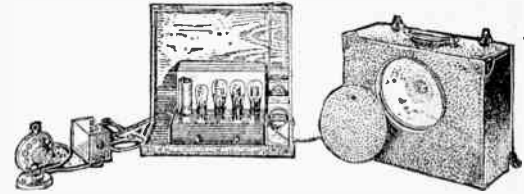


The PA-22A is a 3-stage power amplifier having an undistorted output of 50 watts. It uses two 845-50-watt tubes in push-pull and two 866 mercury vapor rectifiers. For economy sake, a separate 280 rectifier is used to supply plate voltage for the two stage pre-amplifier which consists of one 224 and one 245 tube. The pre-amplifier and output amplifier are in separate units housed in one case.

Frequency range 30 to 10,000 cycles. Input 200-10,000 ohms pick-up, out of an input transformer or tube. Output either a 200 or 500 ohm line. Shipping weight: 100 lbs.  
**PA-22A, 3-stage, 50-watt amplifier.** **\$202.86**  
less tubes Cat. No. 1308

**PA-32A, single-stage, push-pull 50-watt amplifier.** Shipping weight: 75 lbs. **\$173.46**  
less tubes Cat. No. 1309  
For operation on 110 volt, 60 cycle A. C.

## Model 686 COMPLETE Portable Address System



A splendid address system for banquets, show houses, for stage stunts and political speeches. Has sufficient volume to cover a 4,000 seating capacity show house.

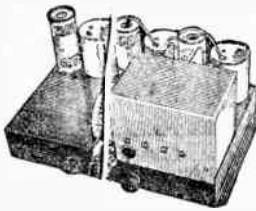
This portable address system comes complete in one carrying case, containing a 3-stage, 90 D. B. 7 to 8 watt Pentode push-pull amplifier; with a frequency response of 40 to 8500 cycles; a two-button high grade microphone in a screened desk mounting; a 10 1/2" in. Silver-Marshall dynamic speaker with 25 feet of cable; a microphone control box; a complete set of 5 tubes, one 224 one 227, two 247, one 280. Operates on 110-120 volt, 50-60 cycle A. C., 25 cycle slightly higher. Model 686-Portable Address System, complete with tubes. **\$117.30**  
Weight: 70 lbs. Cat. No. 1310

## Model 733

## Airport Super-heterodyne

200 to 1900 Meters

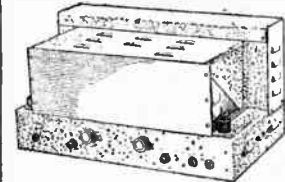
This eight tube super-heterodyne receiver is designed to cover from 200 to 1900 meters in two ranges, viz.: 158 to 475 K. C. (1900 to 631.6 meters) and 520 to 1500 K. C. (576.9 to 200 meters). Uses one 224, two 51, two 27, two 47, one 80 tubes. Equipped with 10 1/2" S-M dynamic speaker. For operation on 105-120 volt, 25 to 60 cycle and 210-240 volt, 25 to 60 cycle A. C. Shipping weight: 40 lbs. less tubes



3 1/2" deep  
16 1/2" long, 9" high,  
and 210-240 volt, 25 to 60 cycle A. C.  
**\$70.27**  
Shipping weight: 40 lbs. less tubes  
Cat. No. 1300

## Model 692 3 Stage High Gain Amplifier

Uses one 24, one 245, two 250, two 281 tubes



A high gain, high quality public address amplifier, delivering 15 watts of output. Perfect fidelity from 30 to 10,000 cycles. Has a voltage amplification of 4000 (72 D. B.) This amplifier is equipped with its own volume control, plate current measuring jacks and individual biasing adjustments for balancing the 50 push-pull tubes.

Will operate from 200-10,000 ohm pick-up, out of an input transformer or tube.

The output designed to operate into 3 to 125 ohm circuits, although it will operate into 900-7200 ohm circuit by using primary of the output transformer as an auto-transformer or choke. For operation on 105-120 volt, 50-60 cycle A. C. **\$99.67**  
less tubes Cat. No. 1301

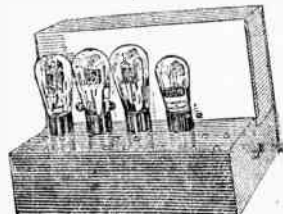
692-R-FOR RACK AND PANEL MOUNTING  
Can supply 200 and 500 ohm output as standard. **\$102.62**  
less tubes Cat. No. 1302

6920-R-STEEL PANEL FOR 692-R WITH PROPER CUTOUTS  
Size 10" x 21" x 1 1/8"  
Finish Black Crystalline **\$3.00**  
Cat. No. 1303

69225-Same as 692 but for 25 cycle operation. 2 weeks delivery. **\$114.37**  
less tubes Cat. No. 1304

69225-Same as 692R but for 25 cycle operation. 2 weeks delivery. **\$117.31**  
less tubes Cat. No. 1305

## Model 683-2 Stage Push-Pull Pentode Amplifier



Uses one 27, two 247, and one 280 tubes. This two-stage Amplifier is equipped with a special dual tone control to permit attenuation of the bass or treble range, as your taste dictates.

The amplifier comes equipped with the S-M 855-B 10 1/2" dynamic speaker whose field is excited by

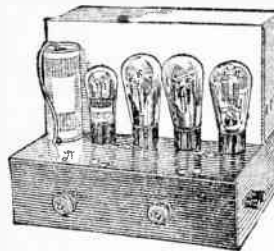
**\$52.63**  
Cat. No. 3939

the power pack of the amplifier. For 110-120 volts, 50-60 cycle A. C. less tubes

For 105-240 volts, 25-60 cycle A. C. less tubes **\$61.45**  
Cat. No. 3940

## Model 684 3-Stage Push-Pull Pentode Amplifier

Uses One 24, one 27, two 47, one 80 tubes



A three-stage push-pull amplifier of extremely high gain. Designed for microphone or PE cell phone or PE cell for portable or home movie use. Frequency range 30 to 9000 cycles. Gain 90 D. B. Operates on 105-120 volt, 50-60 cycle A. C. Finished in black DUCO. Has self-contained volume control and on and off switch.

High Gain  
Input 200 or 500 ohms. Output 15 ohms for voice. Coil for Dynamic speaker. No field for speaker supplied. **\$40.88**  
less tubes Cat. No. 1306

Shipping weight: 30 lbs.

Same as 684 but for 105 to 240 volts, 25 to 60 cycle operation. **\$49.70**  
less tubes Cat. No. 1307

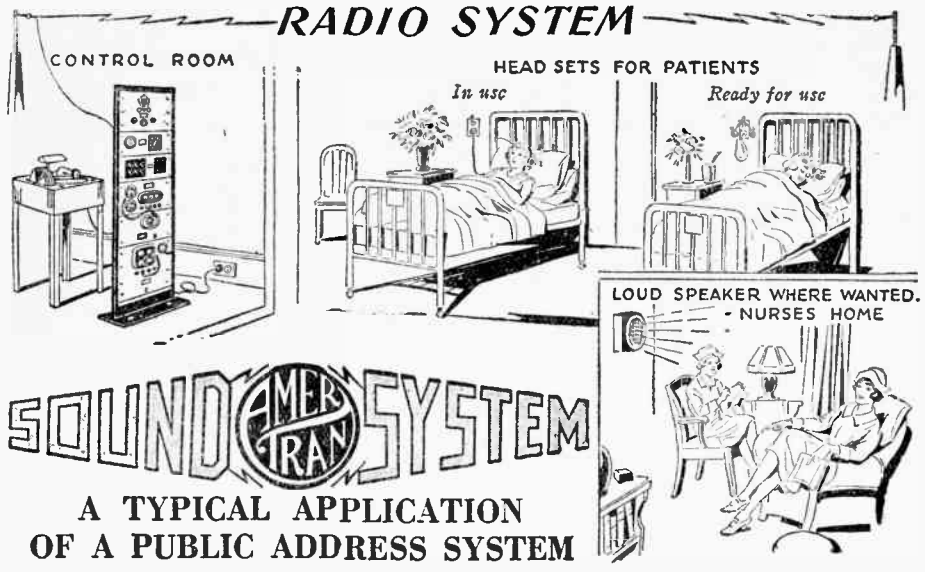
## Model 727 New 10-Tube All Wave Super-Het Chassis

With 11 3/4" Compensated Dynamic Speaker-16.5 to 550 Meters.

This new amazing all-wave superheterodyne receiver is single dial operated, same being calibrated on the broadcast and four short-wave bands, plus one non-critical auxiliary trimmer for short-waves. Some of the features are: true automatic volume control, visual meter tuning, ten tubes on short and broadcast bands, fractional microvolt sensitivity, absolute 10 k. c. selectivity and push-pull Pentode Tubes, giving 6 watts output. Uses one 224, two 551's or 235's four 227's two 247's one 280 tubes. For operation on 110 v. 60 cycle A. C. **\$64.67**  
less tubes Cat. No. 3941

Several hundred broadcasting stations in many countries are using Amertran Rack and Panel installations. This in itself should testify as to the quality and dependability of Amertran Sound Systems. Send us your specifications on any sound installation.

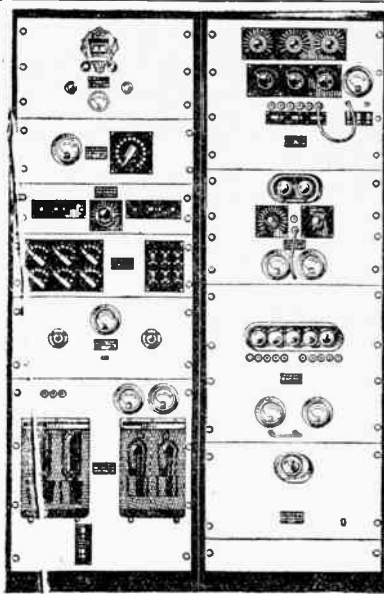
## RADIO SYSTEM



# SOUND AMERTRAN SYSTEM

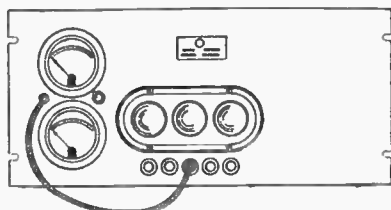
A TYPICAL APPLICATION OF A PUBLIC ADDRESS SYSTEM

An Amertran 50 Watt Rack and Panel Installation



### TYPE A-36

Two-Stage Intermediate Amplifier



Amplifier Type A-36 is for connection between a 500-ohm input source (usually Type C-93 or C-94) and a 12- or 25-watt output amplifier consisting of one or two Type PA-39 panels, its source of supply being Type P-32. Gain: 40 dB; output: 10 dB; input imped.: 500 ohms; output imped.: 30000 ohms; 1st stage: one 227; 2nd stage: two 226's p/p; 0-10 mA. d. c. meter with plug for measuring plate and grid current of each tube; 0-3 v. a. c. meter for indicating filament voltage; dimensions: 19" w., 8 1/4" h., 8 1/4" d. (Without tubes.)

**\$180.00**  
Cat. No. 1984

### TYPE A-36-B

Two-Stage Intermediate Amplifier

(Similar Panel Appearance as A-36)

This Intermediate Amplifier is connected between a 500-ohm input source (usually Type C-93 or C-94) and a 12- or 25-watt output amplifier consisting of one or two Type PA-39B panels, its source of supply being Type P-32B. Gain: 40dB; output: 10 dB; input imped.: 500 ohms; output imped.: 500 ohms; 1st stage: one 227; 2nd stage: two 227's p/p; 0-10 mA. d. c. meter with plug for measuring plate and grid current of each tube; 0-3 v. a. c. meter for indicating filament voltage; two output jacks; dimensions: 19" w., 8 1/4" h., 8 1/4" d. (Without tubes.)

**\$190.00**  
Cat. No. 1985

### TYPE A-67-B

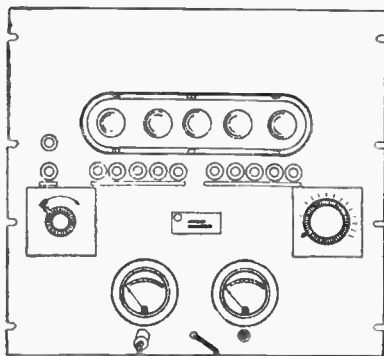
Three-Stage Intermediate Amplifier

In Amplifier Installations providing outputs of 50 or 100 watts, this panel is used as an intermediate amplifier between a 500-ohm input source (usually Type C-93 or C-94) and one or two Type PA-64, its source of supply being P-63B—its filaments are heated with d. c. so that a. c. hum in the output is reduced to the absolute minimum. Gain: 75dB; output: 28 dB (4.5 watts); input imped.: 500 ohms; output imped.: 500 ohms; 1st stage: one 227; 2nd stage: two 227's p/p; 3rd stage: two 245 p/p; 0-10/100 mA. d. c. meter, with plug for measuring the plate and grid current of each tube; 0-2 amp. d. c. meter for indicating filament current; filament current regulator; two output jacks; dimensions: 19" w., 17 1/2" h., 8 1/4" d. (Without tubes.)

**\$268.00**  
Cat. No. 1987

### TYPE A-67

Three-Stage Main Amplifier

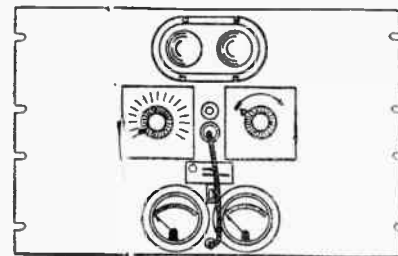


This panel is ideal in installations where only a moderate volume of sound (4.5 watts) is required. It works out of a 500-ohm input source (usually Type C-93 or C-94) and is used in conjunction with Type C-95 output control, or it may be connected directly to the line-to-speaker output auto-transformers. Its source of power is Type P-63. Gain: 75 dB; output: 28 dB (4.5 watts); input imped.: 500 ohms; output imped.: 500 ohms; 1st stage: one 227; 2nd stage: two 227's p/p; 3rd stage: two 245's p/p; 0-10/100 mA. d. c. meter, with plug for measuring plate and grid current of each tube; 0-3 v. a. c. meter for indicating filament voltage; two output jacks; dimensions: 19" w., 17 1/2" h., 8 1/4" d. (Without tubes.)

**\$266.00**  
Cat. No. 1986

### TYPE A-80

Two-Stage Input Amplifier



It is the function of this unit to raise the volume of low-level signals so that they may be used for excitation of the main amplifier, it being connected between a 200-ohm input source and the master control (Type C-93 or C-94) which in turn feeds into the main or intermediate amplifier. The "B" power (90 v.) is obtained from the power supply of the main amplifier and the "A" voltage (12 v. d. c.) may be furnished either by a storage battery or a Type P-102 Power Supply. Gain: 40 dB; output: 10 dB; input: 500 ohms; output imped.: 500 ohms; 1st stage: one 227; 2nd stage: one 227; gain control (16 steps: 3 dB per step); filament current regulator; on-off switch; 0-10 mA. d. c. meter with plug for measuring plate current of each tube; 0-2 amp. d. c. meter for indicating filament current output jacks; dimensions: 19" w., 12 1/4" h., 8 1/4" d. (Without tubes.)

**\$260.00**  
Cat. No. 1988

### TYPE A-80-B

Three-Stage Input Amplifier

Where a precision, high-gain unit is required for amplifying low-level signals, or as an intermediate amplifier feeding into a 50- or 100-watt output amplifier, Type A-80B is frequently specified, it being particularly useful when a better control, of attenuation, is apt to be required than is provided by the master control, such as C-129, C-93 or C-94. Its tube filaments are all heated with d. c. to reduce a. c. hum to an absolute minimum, and all power required for its operation is obtained from P-63B. Gain: 75 dB; output: 28 dB (4.5 watts); input imped.: 500 ohms; output imped.: 500 ohms; 1st stage: one 227; 2nd stage: two 227's p/p; 3rd stage: two 245's p/p; 0-10/100 mA. d. c. meter, with plug for measuring plate and grid current of each tube; 0-2 amp. d. c. meter for indicating filament current; filament current regulator; gain control (16 steps, 3 dB per step); two output jacks; dimensions: 19" w., 17 1/2" h., 8 1/4" d. (Without tubes.)

**\$372.00**  
Cat. No. 1989

## AMERTRAN EQUIPMENT is being used in—

- Auditoriums
- Schools
- Hotels
- Dance Halls
- Fair Grounds
- Hospitals
- Skating Rinks
- Ocean Liners
- Amusement Parks
- Club Houses
- Civic Centres
- Restaurants
- Air Ports
- Sound Trucks

Many more types of Amertran panel combinations can be supplied. Send us your specifications on any sound installation, for broadcast or public address work.

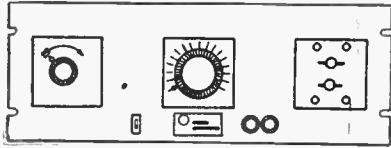


We offer free consultation on public address inquiries.



**AMERTRAN AMPLIFIER AND SOUND EQUIPMENT—continued**

**TYPE C-94**  
Master Control



This panel is designed to select signals from four sources (three of 500 ohms imped., and one of 200 ohms imped.), control volume, adjust button current to the 200-ohm input source, and permit superimposing a signal from the 200-ohm source upon an existing program. Input: three 500-ohm, and one 200-ohm circuits; two two-way selector switches equipped with signal lights; constant-impedance master volume control (16 step, 3 dB. per step); current regulator for adjusting button current to the 200-ohm source; jacks for insertion of meter to measure button current in each half of the circuit; output impedance: 500 ohms—works into Type A-36, A-36B, A-67, A-67B, or A-80 B; dimensions: 19" w., 7" h., 8 1/4" d.

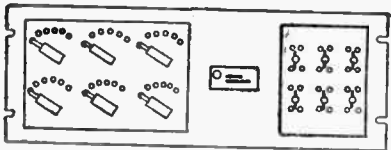
**\$195.00**  
Cat. No. 2001

**TYPE C-93**  
Master Control

Master Volume Control Type C-93 will permit the selection of signals from four 500-ohm input sources and will control volume. Signal lights are included to indicate the circuits in use and the switching arrangement is such that it is possible to superimpose a second signal upon an existing program. Input four 500-ohm circuits; two two-way selector switches; constant-impedance master volume control (16 step, 3 dB. per step); output imped. 500 ohms—works into A-36, A-36B, A-67, A-67B, or A-80 B; dimensions: 19" w., 5 1/4" h., 8 1/4" d.

**\$154.00**  
Cat. No. 2000

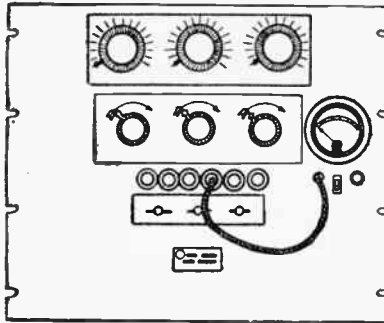
**TYPE C-95**  
Output Impedance Compensator



In sound installations where the output amplifier works into several distribution lines, a Type C-95 Output Control is needed to compensate the impedance of the various lines so that all loud speakers may be operated at maximum efficiency. This panel has been designed to control up to six lines from one output stage, the arrangement being such that any or all lines may be operated at one time. Input imped.: 500 ohms; output: six circuits each, with impedance adjustable as follows: tap No. 1, 84 ohms; tap No. 2, 100 ohms; tap No. 3, 125 ohms; tap No. 4, 168 ohms; tap No. 5, 250 ohms; tap No. 6, 500 ohms; six impedance-compensating switches; six on-off switches (one for each output circuit); dimensions: 19" w., 7" h., 8 1/4" d.

**\$142.00**  
Cat. No. 2002

**TYPE C-90**  
Three Channel Mixer Control



Type C-90 has been designed to satisfy the demand for a microphone mixer control of the finest quality obtainable and of very flexible design. It may be used for mixing signals from six 200-ohm input sources, three of which may be used at one time. Mixing is accomplished by the use of T-pad attenuators, which are logarithmically designed to control gain in decibels. The equipment also includes potentiometers to control button current. Input six 200-ohm circuits; three two-way selector switches; three mixing channels; output impedance: 500 ohms—feeds into Type A-80; three attenuators (each 16 steps, 3 dB. per step); three potentiometers (one for each mixing channel); 0-100 m.A. d.c. meter, with plug for measuring button current in each half of each circuit in use; on-off switch for button current; input power: 12 v. pure d.c. from battery or suitable power supply; dimensions: 19" w., 15 1/4" h., 8 1/4" d.

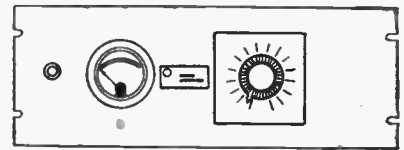
**\$450.00**  
Cat. No. 1999

**TYPE C-129**  
Four Circuit Mixer with Master Control

Type C-129 is a four-circuit mixer of the finest quality obtainable and of very flexible design. It has been designed for use with condenser transmitters or for mixing other input sources of 500 ohms impedance. Its circuits are so arranged that any or all of the four input sources may be selected and mixed simultaneously, as a separate constant-impedance attenuator is provided for each input circuit and the selector switches are arranged so that compensating impedances are included in the circuit when one or more input sources are not being used. The equipment also includes pilot lights to indicate the circuits being mixed and a master volume control of the constant-impedance type. Input, four 500-ohm circuits; output imped.: 500 ohms—works into Type A-80B; four mixing attenuators; four selector switches; master volume control; 12 v. d.c. required for lighting pilot lamps; dimensions: 19" w., 10 1/2" h., 8 1/4" d. (Without tubes.)

**\$560.00**  
Cat. No. 2010

**TYPE C-99**  
Volume Indicator



Panel Appearance Similar to C-90  
Where best possible results are desired from a sound distribution system, the importance of a Type C-99 Volume Indicator cannot be over-estimated. This instrument is connected to the output circuit of the power stage and permits a constant check on the signal amplitude. The equipment includes an indicating galvanometer (calibrated in dB.) preceded by an L-type attenuation network which serves as a multiplier. Range: -4 dB. to + 34 dB.; multiplier for indicator: 15 step, 3 dB. per step; input jack; dimensions: 19" w., 8 1/4" h., 8 1/4" d.

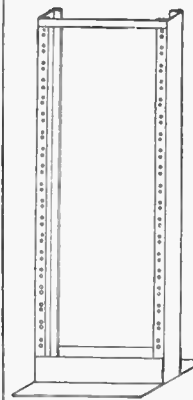
**\$95.00**  
Cat. No. 2004

**TYPE C-96**  
Line Voltage Compensator

Although every AmerTran power panel contains a line-adjusting switch mounted on the transformer (inside the dust cover), in locations where the supply voltage varies to a noticeable extent, the Type C-96 Power Control proves a valuable accessory. It is connected in the main power circuit and has sufficient capacity for the largest of sound systems. The equipment includes an auto-transformer with taps for reducing or increasing the voltage (range 90 to 130 v. at 50/60 cycles) in five-volt steps so that 110 volts is always available at all panels. It also includes a meter (0-150 v. a.c.) for indicating the voltage supplied. Rating: 1 kva; dimensions: 19" w., 8 1/4" h., 8 1/4" d.

**\$88.00**  
Cat. No. 2003

**Standard AmerTran Mounting Back**



All standard AmerTran Sound System Panels have been designed so that they may be assembled easily on standard AmerTran mounting racks. Panels are of standard (19") width and vary in height in 1 3/4" multiples, being notched at the side to facilitate assembly in the most convenient position on the rack. The racks on which the panels are mounted have a standard height of six feet and provide a space of 60 in. for the mounting of panels—they comprise two three in. channel irons spaced 17 1/2 in. apart and mounted vertically on a steel base 18 in. by 20 in. Racks have an overall width of 20 in. and are drilled and tapped to permit mounting of panels in any desired position. Although racks can be cut to any desired size, it is recommended that the standard size be used with blank panels to fill vacant spaces, as this method permits of flexibility. (Standard 6 ft. size.)

Racks which must be cut to a special size, \$30.00.

**\$25.00**  
Cat. No. 2011



**SOUND SYSTEM**



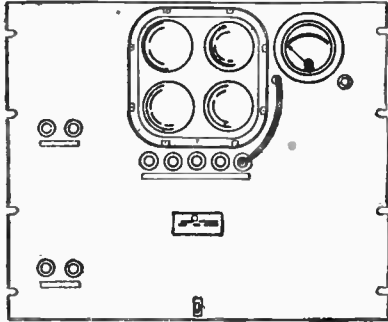
The American Transformer Company (Amertran) have advised us that shortly\* a new line of 2 and 3 stage, 4.5 and 12 watt amplifiers, with many excellent refinements will be placed on the market. In view of the pre-announcement of this equipment, we feel it is unnecessary to list the present line of amplifiers which will be discontinued. Write for the new descriptive literature and prices.

\* Denotes May, 1932.

**What Are Your Needs For Public Address Equipment**

Amertran Amplifier and Sound Equipment—Continued

**TYPE PA-39**  
Output Amplifier and Power Supply

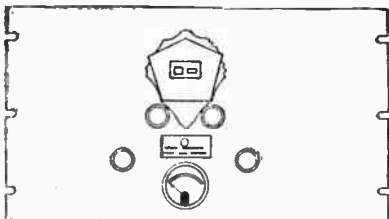


Type PA-39 is specified for sound systems of average size in which a Type A-36 Intermediate Amplifier is used. When connected singly and energized at full capacity this panel provides an undistorted output of 12.5 watts, but, by connecting two panels with inputs in parallel and outputs in double channel, 25 watts output may be obtained. It includes a self-contained power supply circuit. Gain: 22dB; output: 33 dB (12.5 watts); input imped.: 30000 ohms—works out of Type A-36; output imped.: 500 ohms—works into Type C-95; tubes: two 250's p/p; two 2S1 full-wave; 0-100 mA. d.c. meter, with plug for measuring plate and grid current of each tube; 4-point primary switch for compensating line voltages; on-off switch; C-bias compensation; input voltage: 100 to 125 v. at 50/60 cycles; rating: 163 va.; dimensions: 19" w., 15 3/4" h., 8 1/4" d. (Without tubes). **\$240.00** Cat. No. 1996

**TYPE PA-39B**  
Output Amplifier and Power Supply

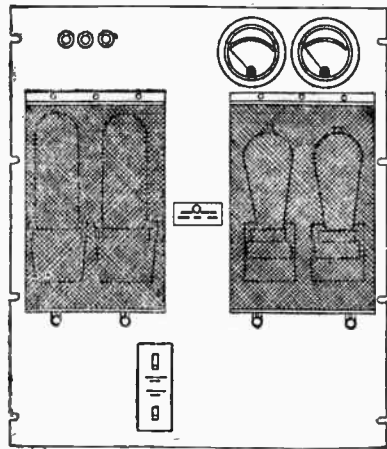
This panel is used in conjunction with Intermediate Amplifier Type A-36B and the combination, when energized at full capacity, provides an undistorted output of 12.5 watts. Where greater power is desired, two of these panels may be connected with inputs in parallel and outputs in double channel, thus providing a maximum of 25 watts. Each PA-39B has its own self-contained power supply circuit. Gain: 22 dB; output: 33 dB (4.5 watts); input imped.: 500 ohms—works out of Type A-36B; output imped.: 500 ohms—works into Type C-95; tubes: two 250's p/p; two 2S1's full-wave; 0-100 mA. d.c. meter, with plug for measuring plate and grid current of each tube; 4-point primary switch for compensating line voltages; on-off switch; C-bias compensation; input and output jacks; input voltage: 100 to 125 v. at 50/60 cycles; rating: 163 va.; dimensions: 19" w., 15 3/4" h., 8 1/4" d. (Without tubes). **\$248.00** Cat. No. 1997

**TYPE RT-74—Radio Tuner**



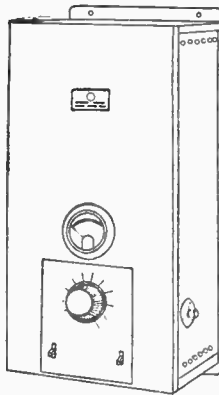
In cases where it is desired to reproduce radio programs through a sound system, a specially designed radio tuner is required to provide the source of signal. Tuner Type RT-74 possesses unusually satisfactory sensitivity and selectivity characteristics and has been especially designed to operate efficiently with standard Amertran panels. 10 k.c. selectivity; 6 microvolt (1.5 microvolts per meter) sensitivity; output impedance: 500 ohms—works into Type C-93 or C-94; 3-stage pre-selector, 2 stages of tuned r.f., 1 stage semi-tuned r.f., 227 detector, automatic volume control, local-distance switch, light-automatic tuning; on-off switch; power required for its operation available from any of the following panels—P-32, P-32B, P-63, or P-63B; tubes: three 224's, two 227's; dimensions: 19" w., 10 1/2" h., 13" d. (Without tubes). **\$220.00** Cat. No. 2009

**TYPE PA-64**  
Output Amplifier and Power Supply



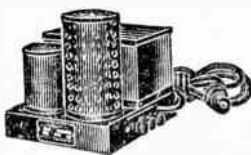
TYPE PA-64 is a 50-watt output amplifier with self-contained power supply circuit which has been designed to work out of a three-stage intermediate amplifier, such as Type A-67B or A-80B. Two of these panels may also be connected with their inputs in parallel, and outputs in double channel when undistorted outputs of up to 100 watts are required. Gain: 18 dB; output: 39 dB (50 watts); input imped.: 500 ohms—works out of Type A-67B or A-80B; output imped.: 500 ohms—works into C-95; tubes: two 545's p/p, two 566's full-wave; two 0-100 mA. d.c. meters for measuring plate current; plugs for connection of external meter to measure grid current; 4-point primary switch for compensating line voltages; on-off switch; C-bias compensation; input voltage: 100 to 125 v. at 50/60 cycles; rating 440 va.; dimensions: 19" w., 21" h., 8 1/4" d. (Without tubes). **\$500.00** Cat. No. 1998

**TYPE P-108**  
Dynamic Field Supply



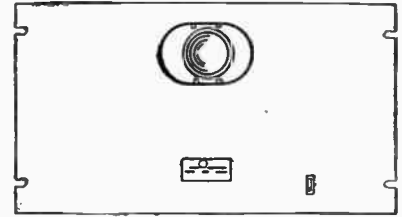
This Rectifier unit has been designed to supply filtered d.c. of the proper value to energize the field windings of dynamic type loud speakers used in a large installation where as many as nine units are sometimes required. It is arranged so that the output may be adjusted accurately and quickly to the number of speakers actually in use. Input voltage: 100 to 125 v. at 50/60 cycles; output voltage adjustable from 7.5 to 60 v. d.c. at 1.5 amps.; rectifier: one Amertran 5B; 4-point primary switch to compensate line voltages; voltage regulator of sufficient size and range to permit accurate adjustment of output; 0-3 amp. d.c. meter for measuring output voltage; on-off switch; rating: 205 va.; sheet steel box (designed for wall mounting); 21" h., 11" w., 7 1/2" d. (Including rectifier tube). **\$154.00** Cat. No. 1995

**TYPE P-101**  
Dynamic Speaker Supply



Will energize the fields of 1 to 2 dynamic speakers that require 7.5 volts. Will supply 7.5 to 15 volts at 1.5 amperes of pure D.C. Uses a special Amertran EL-22.5 full-wave rectifier. Operates from 110 volt, 50-60 cycle A. C. line. **\$32.93** Cat. No. 2579 with rectifier tube

**TYPE P-32**  
Power Supply for A-36



Sound systems in which the Type A-36 Intermediate Amplifier is used require this power unit to supply the necessary filament and plate voltages. In addition, this unit will also furnish plate and filament voltage for RT-74 and plate current for A-80. Input voltage: 100 to 125 v. at 50/60 cycle; "B" voltages: 200/150/90/45; "A" voltages: 2.5 v. at 2 amps., 2.5 v. at 9 amps., 1.5 v. at 3 amps.; rectifier: one 280; 4-point primary switch for compensating line voltages; on-off switch; rating: 55 va.; dimensions: 19" w., 8 3/4" h., 8 1/4" d. (Without tubes). **\$120.00** Cat. No. 1990

**TYPE P-32B**  
Power Supply for A-36B

In all cases where the A-36B Intermediate Amplifier is used this power supply is needed to supply the voltages required. It will also furnish plate and filament voltages to a radio tuner and plate voltage to Type A-80. Input voltage: 100 to 125 v. at 50/60 cycles; "B" voltages: 250/180/135/90; "A" voltages: 2.5 v. at 6 amps., 2.5 v. at 10 amps.; rectifier: one 280; 4-point primary switch for compensating line voltages; on-off switch; rating: 55 va.; dimensions: 19" w., 8 3/4" h., 8 1/4" d. (Without tubes). **\$130.00** Cat. No. 1991

**TYPE P-63**  
Power Supply for A-67

It is the purpose of Power Supply Type A-67 to furnish all voltages (plate and filament) required for the operation of Amplifier Type A-67 and Radio Tuner Type RT-74. In addition, it will also supply plate voltage for the operation of A-80. Input voltage: 100 to 125 v. at 50/60 cycles; "B" voltages: 300/200/150/90/45; "A" voltages: 2.5 v. at 5 amps., 2.5 v. at 9 amps., 2.5 v. at 3 amps.; rectifier: one 280; 4-point primary switch for compensating line voltages; on-off switch; rating: 130 va.; dimensions: 19" w., 8 3/4" h., 8 1/4" d. (Without tubes). **\$160.00** Cat. No. 1992

**TYPE P-63B**  
Power Supply for A-67B or A-80B

Power Supply Type P-63B is similar to Type P-63, except that it furnishes 12 v. pure d.c. at 2 amperes in addition to the voltages provided by the latter. Therefore, it supplies all voltages (plate and filament) required for the operation of A-67B or A-80B, plus plate and filament current for a radio tuner and plate current for A-80. Input voltage: 100 to 125 v. at 50/60 cycles; "B" voltages: 300/200/150/90; "A" voltages (a.c.) 2.5 v. at 9 amps.; "A" voltages (d.c.): 12 v. at 2.5 amp.; rectifier: one 280 and one Amertran 22.5; 4-point primary switch for compensating line voltages; on-off switch; rating 200 va.; dimensions: 19" w., 14" h., 8 1/4" d. (Including Amertran 22.5 rectifier). **\$210.00** Cat. No. 1993

**TYPE P-102**  
Filment Supply for A-80

This panel is a precision rectifier providing absolutely pure d.c. filament current of characteristics which are entirely satisfactory for the operation of low-level amplifiers, such as A-80. In addition, it may also be used for other purposes where batteries were previously considered essential; for example, it may be used to supply button current to Type C-90 Mixer Control. Input voltage: 100 to 125 v. at 50/60 cycles; output voltage: 12 v. pure d.c. at 2 amps.; rectifier: one Amertran 22.5; 4-point primary switch for compensating line voltage; on-off switch; rating: 93 va.; dimensions: 19" w., 10 1/2" h., 8 1/4" d. (Including tube). **\$168.00** Cat. No. 1994

### INTERSTAGE AUDIO TRANSFORMERS

Cat. No.	Description	Price
2478	AmerTran De Luxe for 1st-stage use, ratio 3:1 (Fig. 1)	\$ 4.71
2479	AmerTran De Luxe for 2nd-stage use, ratio 4:1 (Fig. 1)	4.71
2480	Between single tubes (1st or 2nd-stage), ratio 3.5:1 (Fig. 2)	2.94
2481	Between output of 1 tube and 2 grids, ratio 2.5:1 (Fig. 1)	7.05
2482	Between output of 2 tubes and 2 grids, ratio 1.75:1 (Fig. 3)	11.75

### OUTPUT TRANSFORMERS (Fig. 1)

2483	Two 210-type tubes to 2,000-4,000-ohm magnetic speaker	7.05
2484	Two 210-type tubes to 10-15 ohm dynamic speaker	7.05
2485	Two 245- or 171-type tubes to 2,000-4,000-ohm speaker	7.05
2486	Two 245- or 171-type tubes to 10-15-ohm dynamic speaker	7.05
2487	One 250-, 210-, 245-, or 171-type tube to 10-15-ohm speaker	8.82
2488	Two 250- or 245-type tubes to 1-9 15-ohm dynamic speakers in series parallel or 200-ohm line (Fig. 3)	12.94

### PENTODE OUTPUT TRANSFORMERS (Fig. 1)

2489	Two 247-type tubes to 500-ohm line	8.82
2490	Two 247-type tubes to 2,000-4,000-ohm magnetic speaker	8.82
2491	Two 247-type tubes to 10-15-ohm dynamic speaker	8.82

### DETECTOR-TO-LINE TRANSFORMERS (Fig. 1)

2492	Detector to 500-ohm line—level 10 db.	8.82
2493	Detector to 200-ohm line—level 10 db.	8.82

### PHONOGRAPH PICK-UP TRANSFORMERS (Fig. 1)

2494	5,000-, 6,000-, or 8,000-ohm pick-up to 1st stage DeLuxe	4.71
2495	500-, 1,000-, or 2,000-ohm pick-up to grid of tube	8.82
2496	500-, 1,000-, or 2,000-ohm pick-up to 200- or 500-ohm line	10.59

### LINE-TO-GRID TRANSFORMERS (Fig. 1)

2497	500-ohm line to grid of tube (150,000 ohms)—level 0 db.	8.82
2498	200-ohm line to grid of tube (150,000 ohms)—level 0 db.	8.82
2499	500-ohm line to two grids (2 x 75,000 ohms)—level 0 db.	11.75
2500	500-ohm line to two 50,000-ohm grids (211- or 845-type tubes)—level +20 db. (Fig. 3)	12.94

### TUBE-TO-LINE TRANSFORMERS

2501	Two 250- or 245-type tubes to 200-ohm line or 1-9 15-ohm dynamic speakers in series parallel (Fig. 3)	12.94
2502	Two 250- or 245-type tubes to 500-ohm line—15-ohm monitor winding (Fig. 3)	12.94
2503	Two 210- or 112 type tubes to 500-ohm line—15-ohm monitor winding (Fig. 3)	12.94
2504	20,000 ohms to 500-ohm line, 2mA. dc. in pri., low level (Fig. 1)	7.05
2505	Two 211-type tubes to 500-ohm line (Fig. 4)	39.98
2506	Two 845-type tubes to 500-ohm line (Fig. 4)	39.98
2507	Two 247-type tubes to 500-ohm line (Fig. 1)	8.82

### LINE-TO-SPEAKER AUTO TRANSFORMERS (Fig. 3)

2508	500-ohm line to \$10-16 ohms (12 steps)—12 watts	16.50
2509	500-ohm line to 4,000-333 ohms (12 steps)—12 watts	16.50
2510	500-ohm line to 500-83 ohms (6 steps) 12 watts	16.50
2511	500- or 200-ohm line to 3.75-60 ohms (6 steps)—4.5 watts	11.75
2512	4,000- or 500-ohm line to 3.75-15 ohms (4 steps)—4.5 watts	14.70

### MIXER TRANSFORMER (Fig. 1)

2513	200 ohms to 200 ohms—level —20 db.	8.82
2514	200 ohms to 200 ohms—level 0 db.	8.82
2515	200 ohms to 500 ohms—level 0 db.	8.82
2516	500 ohms to 500 ohms—level 0 db.	8.82
2517	47 ohms to 200 ohms—level 0 db.	8.82
2518	100 ohms to 200 ohms—level 0 db.	8.82

## AmerChokes—AmerTran Reactors

Amer-Choke is the name identifying a complete line of impedances (choke coils) manufactured by the American Transformer Company. The seventeen standard models available are of three types—audio, filter, and modulation—and satisfy practically every requirement in the circuits of radio receivers, amplifiers, power-supply devices, and radio transmitters.

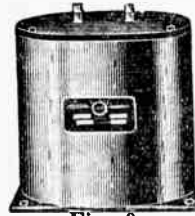


Fig. 9

Cat. No.	Henries	Amps. D. C.	D. C. Ohms	Test Volts	Illustration	Price
<b>PLATE FILTER AMERCHOKES</b>						
2519	8	0.320	65	2,500	Fig. 7	\$10.59
2520	10	0.120	105	2,500	Fig. 6	4.71
2521	15	0.250	130	2,500	Fig. 7	10.59
2522	15	0.120	210	2,500	Fig. 6	4.71
2523	45	0.060	625	2,500	Fig. 6	4.71

### "A" FILTER AMERCHOKES

2324	0.16	2.5	0.5	2,500	Fig. 6	4.71
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### PARALLEL-FEED AMERCHOKES

2525	140	0.005	674	2,500	Fig. 6	5.88
2526	300	0.003	6000	2,500	Fig. 1	4.71
2527	650	0.005	3180	2,500	Fig. 6	11.76

### OUTPUT AMERCHOKES

2528	40	0.06	674	2,500	Fig. 6	5.88
2529	400	0.06	674	2,500	Fig. 6	5.88

### GRID IMPEDANCE AMERCHOKES

2530	1500	...	6,000	2,500	Fig. 1	4.71
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### DOUBLE "B" AMERCHOKES

2531	{15 45}	{0.120 0.060}	{210 625}	2,500	Fig. 8	8.82
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## AmerTran Power-Supply Transformers

A copper ground shield is placed between the primary and all secondary windings. The primary winding has a switch to permit compensation of voltage variations and the two secondary windings which provide filament current to the power and rectifier tubes have center-tap connections.

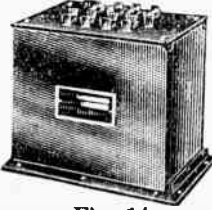


Fig. 14



Fig. 10

(ALL TRANSFORMERS HAVE 100/108/115/125-VOLT, 60 CYCLE PRIMARIES)

Cat. No.	Va. Rating	A. C. Plate	Rec. Fil.	Power Fil.	R. F. and A. F. Fil.	Det. Fil.	Type No.	Price
2532	100	600/300 v 0.100 a	7.5 v 2.5 a	7.5 v 2.5 a	...	...	PF-52A**	\$12.94
2533	118	600 v 0.100 a	7.5 v 2.5 a	7.5 v 2.5 a	2.5 v 5.25 a	2.5 v 1.75 a	PF-281A†	\$14.70
2534	100	730/365 v 0.110 a	5 v 2 a	2.5 v 3 a	2.5 v 7 a	2.5 v 1.75 a	PF-245A‡	\$14.10
2535	165	1200/600 v 0.100 a	7.5 v 2.5 a	7.5 v 2.5 a	...	...	PF-250A†	\$16.46

\* Center-tapped winding. † Fig. 10. ‡ Fig. 11.

\*\* Similar to Fig. 10, but with flexible secondary leads.

## AmerTran Power Blocks

AmerTran Power Blocks consist of a standard AmerTran Power Transformer and two standard AmerChokes mounted in a compact metal case. Thus one of these units is the essential part of a power-supply unit for a radio receiver or amplifier, the only additional parts required being a rectifier tube and filter condensers.

Type 245 Power Block requires a 280-type full-wave rectifier and provides all voltages required by the conventional 8-tube receiver with two 245-type output tubes. Type 250 requires two 281-type tubes in a full-wave circuit and provides plate voltage for the entire receiver plus filament current for two 250-type power tubes and the rectifier.

Va. Rating	100	Type 245	165	Type 250
Primary Volts (60 cy.)	100/108/115/125		100/108/115/125	
Secondary windings:				
Plate	730/365 v, 110 mA.		1200/600 v, 160 mA.	
Rectifier Fil.	5/2.5 v, 2 a		7.5/3.75 v, 2.5 a	
Power Tube Fil.	2.5/1.25 v, 3 a		7.5/3.75 v, 2.5 a	
R. F. and A. F. Fil.	2.5 v, 7 a		...	
Detector Fil.	2.5 v, 1.75 a		...	

### Choke Coils:

706 (at 0.120 mA.)	15 henries, 210 ohms	15 henries, 210 ohms
854 (at 0.060 mA.)	45 henries, 625 ohms	45 henries, 625 ohms

\$23.52 Cat. No. 2536 \$25.87 Cat. No. 2537

## AmerTran Filament Transformers

Cat. No.	Va. Rating	Line Volts	Sec. Volts	Sec. Amps.	Test Volts	Illustration	Type* No.	Price
2538	12.5	200/230	2.5/1.25	5	12,000	Fig. 14	II-4618†	\$ 8.23
2539	25	100/115	2.5/1.25	10	12,000	Fig. 14	II-66A†	9.40
2540	30	100-125	3-2.5 v.	3, 3, 7	2,500	Fig. 14	II-45A†	10.59
2541	37.5	200/230	2.5/1.25	15	12,000	Fig. 15	II-4640†	11.17
2542	50	100/115	5/2.5	10	12,000	Fig. 15	II-4650†	12.75
2543	50	200/230	5/2.5	10	12,000	Fig. 15	II-4651†	12.75
2544	65	100/115	10/5	6.5	2,500	Fig. 15	II-6102†	12.94
2545	90	100/115	{10/5 {2.5/1.25	{6.5 {6.5	5,000	Fig. 15	II-6110†	14.70
2546	100	100/115	5/2.5	20	12,000	Fig. 15	H-4652†	14.11
2547	100	200/230	5/2.5	20	35,000	Fig. 16	H-4653†	15.88
2548	150	200/230	5/2.5	30	12,000	Fig. 15	II-4653†	23.50
2549	300	200/230	5/2.5	60	35,000	Fig. 16	II-4653†	29.40

\* Small figures indicate type of tube which may be heated—1, type—66; 2, type—72; 3, type—66 and type—45 or —11; 4, type—45 or —11; 5, type—69; 6, type—37; 7, small receiving and rectifier tubes.



Fig. 1



Fig. 2

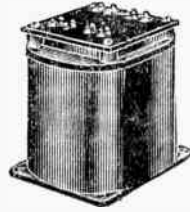


Fig. 3



Fig. 4



Fig. 5



Fig. 6

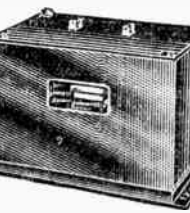


Fig. 7



Fig. 8

# Racon Public Address and Theatre Speaker Equipment

The Racon line of public address equipment has been the leader in its field for many years. This apparatus is known the world over for its durability and service. All horns, baffles and trumpets are made of a patented special composition made to withstand the wear and tear of public address work. The speaker units are excellently designed to give real reproduction of both the human voice, and music. No effort has been spared in making this the most widely used efficient equipment of its type.

## Super Giant Horn Unit

**ELECTRO-DYNAMIC HORN UNIT**  
6-8 volt field excitation. 1.0 ampere consumption at 6 volts. Voice coil impedance: 15 ohms. Continuous operation capacity: 8 watts. Peak load capacity: 25 watts. Practically adapted for theatre and auditorium use where the finest quality reproduction is required. Has widest frequency range of any horn unit ever made. Weight: 20 lbs.



**\$49.98**  
Cat. No. 2607

## GIANT HORN UNIT

Electrodynamic, 6-8 volt field excitation at 1.1 amp. consumption. 15 ohm voice coil impedance. Peak load capacity is 25 watts. Weight: 20 lbs.



**\$41.15**  
Cat. No. 1861

## MASTER HORN UNIT

Electrodynamic. 6-8 volt field excitation. 1.1 amp. consumption. 15 ohm voice coil impedance. Peak load capacity is 20 watts. Weight: 13 1/2 lbs.



**\$35.25**  
Cat. No. 1862

## JUNIOR HORN UNIT

Electrodynamic. 6-8 volt field excitation. 1.1 amp. consumption. 15 ohm voice coil impedance. Peak load capacity is 15 watts. Weight: 11 lbs.



**\$23.50**  
Cat. No. 1863

## BABY HORN UNIT

Electrodynamic. 6 volt excitation. 1 1/4 amp. consumption. 15 ohm voice coil impedance. Peak load capacity is 10 watts. Weight: 6 1/4 lbs.



**\$14.70**  
Cat. No. 1864

Any of the above Dynamic units can be supplied for 110 and 220 volt D. C. operation at no additional charge. For 32 volt operation add \$2.50.

## HIGH POWER MAGNETIC UNIT

Continuous operating capacity is 2 watts. Impedance is 2000 ohms. Reproduces without blasting and is recommended for public address use where great volume and projection are required. Weight: 4 lbs.



**\$14.70**  
Cat. No. 1865

## 3 1/2 FOOT TRUMPETS



Bell, 22"; length, 3 1/2'. This size is very popular for sound truck work and where room is a consideration.

**STORMPROOF.** Equipped with metal beaded edge, cast aluminum ferrule and suspension ring. Can be used in all climates and under any weather condition.  
Cat. No. 1869..... **\$23.52**

**DE LUXE.** Equipped with metal beaded edge, cast aluminum ferrule and suspension ring. For indoor or temporary outdoor use.  
Cat. No. 1870..... **\$14.70**

**REGULAR.** Equipped with metal beaded edge, metal ferrule and suspension ring. For indoor use only.  
Cat. No. 1871..... **\$11.76**

## 6 FOOT TRUMPETS

Bell: 30". Length: 6'. Equipped with metal beaded edge, cast aluminum throat and 4" suspension ring. For indoor use only in all climates. Weight: 17 lbs.



**\$29.40**  
Cat. No. 1872

**STORMPROOF.** Same as above but for outdoor use in all climates and weathers.  
Cat. No. 1873 **\$38.22**

## PORTABLE SIX FOOT TRUMPET



Same specifications as 6-foot trumpet above, except that it is demountable in three sections for easy storage and portability. Storm-proofed.

Weight: 27 lbs.

**\$47.00**  
Cat. No. 1874

## TRIPLE CONNECTOR

For using three horns with one unit. Distributes output of unit equally through each without choking or reducing the efficiency of same. Dispersion angle, 90°.



**\$11.75**  
Cat. No. 1875

## DOUBLE CONNECTOR

Where two horns are desired to operate from a single unit, this Double Connector is a necessity. Built acoustically correct. Equipped with a loose coupling for each horn and unit.

**\$8.82**  
Cat. No. 2605

Connectors will be supplied only where Racon Horns are being used.

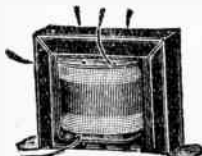
## FIELD EXCITERS

Delivers 6-8 volts D. C.

Units	Cat. No.	
1	2780	\$11.76
2	1867	20.58
4	1868	35.28

## MATCHING TRANSFORMERS

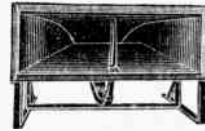
A low priced matching transformer to match the voice coil of Racon Dynamic trumpet units having a voice coil impedance of 15 ohms.



**\$3.25**  
Cat. No. 1866

## THEATRE REPRODUCERS

### No. 6320 HORN



Bell 76"x25". Depth 37". Air column greater than 10 feet. Equipped with cast aluminum throat, patented self-supporting frame and bronze coupling.

A wide angle horn, particularly adapted to distribute sound in theatres of extreme width — fifty feet or greater. Weight: 60 lbs.  
**\$102.90**  
Cat. No. 1886

### DeLUXE No. 4325 HORN

Bell: 44 x 44". Depth: 35". Air column: 10 feet. Equipped with cast aluminum throat, patented self-supporting frame and bronze coupling. Weight: 70 lbs., including frame.



**\$79.38**  
Cat. No. 1887

### REGULAR No. 4320 HORN

Bell: 44 x 44". Depth: 35". Air column: 10 feet. Equipped with cast aluminum throat, patented self-supporting frame and bronze coupling. Weight: 55 lbs., including frame.

**\$70.55**  
Cat. No. 1888

### No. 5325 HORN

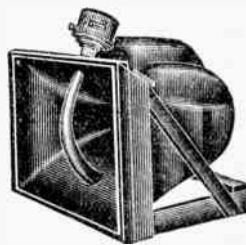
Bell: 34 x 44". Depth: 30". Air column slightly less than ten feet. Equipped with cast aluminum throat, patented self-supporting frame and bronze coupling.

Particularly adapted for theatres where there is a limited space behind the screen. Weight: 55 lbs., including frame.  
**\$58.80**  
Cat. No. 1889

### No. 2115 HORN

Bell: 18 x 24". Depth: 23 1/2". Air column: 7 1/2'. Equipped with cast aluminum throat, patented self-supporting frame, bronze loose coupling.

Particularly adapted for small theatres, portable "talkie" equipment, public address and sound truck use where weight and size is a factor. Weight: 23 1/2 lbs., including frame. Regular type, less speaker unit.  
**\$35.28**  
Cat. No. 2608



Stormproof Type, less speaker unit.  
**\$44.10**  
Cat. No. 2609

## BAFFLE HORNS FOR DYNAMIC CONE SPEAKERS

These are made with standard openings for the standard type dynamic cones. Bell: 18 x 30". Depth: 10"



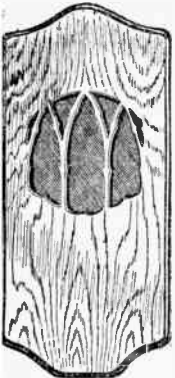
Cat. No.	Opening	Depth	
1881	18 x 30"	10"	\$ 7.00
1882	27 x 27"	24"	17.00
1883	44 x 44"	24"	26.40



# OPERADIO—Public Address Speakers of Distinction

Ideal for Installation in Hotels, Restaurants, Clubs, Schools, Dance Halls, and Homes

Magnetic Little Jack Horner



30" high  
14" wide

This "Little JACK HORNER" is equipped with a 12" Electro Magnetic unit. Capable of handling a maximum of one watt. Can be secured with volume control or with volume control and selector switch. Walnut finish.

The electro magnetic unit should not be confused with ordinary magnetic units, as it has been designed for a wide frequency response.

with Volume Control only

**\$20.58**

Cat. No. 1552

with Volume Control and Selector Switch

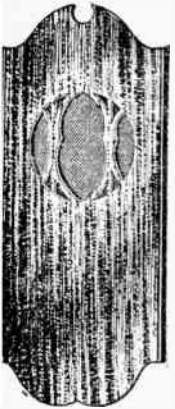
**\$23.52**

Cat. No. 1553

The Jack Horner speaker uses a dynamic speaker unit and a large baffle-board. Will handle a vast amount of power. Speaker unit is equipped with special matching transformer for single, push-pull of 500 ohm primary.

Please specify type output desired.

Dynamic Jack Horner



40" Baffle

A. C. Speakers for 110 volt, 60 cycle A. C.

D. C. Speaker on 4—1,300-5,000 ohms

— Specify when ordering —

If output transformer is not desired, \$3.00 may be deducted.

with AC-6 Chassis—  
Voice Coil, 3.5-5 ohms  
less tube

**\$32.34**

Cat. No. 1534

with L-8-AC Chassis—  
Voice Coil, 2.5 ohms  
less tube

**\$23.52**

Cat. No. 1555

with No. 6-DC Chassis—  
Voice Coil 3.5-5 ohms

**\$23.52**

Cat. No. 1556

with L-8-DC Chassis—  
Voice Coil, 2.5 ohms

**\$14.70**

Cat. No. 1557

Similar to Jack Horner speaker, except that there are two dynamic units for better distribution of sound when volume is low. The ideal speaker for the fashionable club or fraternity house. A. C. speakers are for operation on 110 volt, 60 cycle A. C. All speakers are equipped with special matching transformers similar to those used with Jack Horner speakers. Specify Type desired.

with 2-AC-6 Speaker Units  
less tubes

**\$64.68**

Cat. No. 1558

with 2-AC-7 Speaker Units  
less tubes

**\$64.68**

Cat. No. 1559

with 2-L-8-AC Speaker Units  
less tubes

**\$47.04**

Cat. No. 1560

D. C. Speaker Units can be had in 4—1,300-5,000 ohms.

— Specify when ordering —

with 2-DC-6 Speaker Units

**\$49.98**

Cat. No. 1561

with 2-DC-7 Speaker Units

**\$49.98**

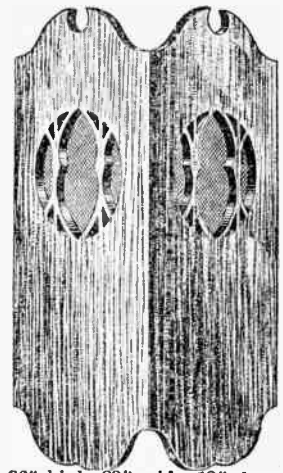
Cat. No. 1562

with 2-L-8-DC Speaker Units

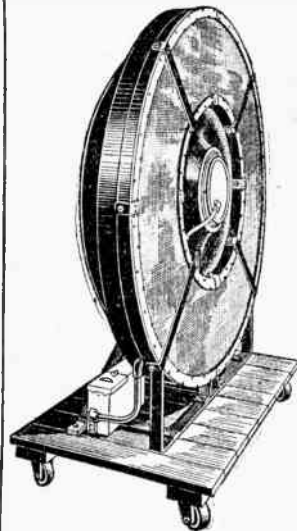
**\$32.34**

Cat. No. 1563

Dynamic Dual Jack Horner



If matching transformers are to be omitted, deduct \$6.00 for two units 36" high, 22" wide, 12" deep



## Uni-Directional Parabolic Speaker

All Curtis Fields, Notre Dame, and Northwestern University Stadium are Typical Installations

The response curve affords reproduction of the spoken voice or music, either indoors or outdoors, with excellent fidelity and pleasing naturalness of timbre. Operadio Bowl Type Speakers are widely used in parks, baseball and football fields, hockey rinks, bandstands, camp meetings, convention halls, large dining rooms, and theatres.

By properly locating sufficient Bowl type units, each of which will handle a maximum input of 15 watts, any area, either indoor or outdoor, may be adequately "flooded with sound." Because of the high efficiency and great carrying power of these units, comparatively smaller sound input may be necessary to adequately fill a given area than when either the air-column or baffle-board dynamic types of reproducers are used.

The Operadio Bowl Type Uni-Directional Speaker has been widely installed in theatres for use with sound picture equipment. Its pleasing naturalness of reproduction and unusual carrying power have caused it to replace the baffle and horn types in some of the country's leading theatres.

For 110 volt, 60 cycle operation

FOR INDOOR  
USE ONLY

**\$216.00**

Including Rectifier Unit  
Cat. No. 3703

FOR OUTDOOR  
USE

**\$276.00**

Including Rectifier Unit  
Cat. No. 3704

## Heavy Duty

### Dynamic Speaker Chassis



Type 6

Type 6 is designed primarily for heavy duty work. The cone is 10" and frame is 12" in dia. Equipped with matching transformer.\* Specify A. C. models are for 110 volt, 60 cycle operation, and uses a 280 tube for a rectifier.

Due to excellent material used in the cone, it is ideally adapted for outdoor installation, where there is an extreme amount of moisture present. Voice coil impedance is 3.5 to 5 ohms. Size of speaker: 12" x 5 3/8" deep. Novel field suspension. less tube

**\$32.34**

Cat. No. 1564

**\$20.58**

Cat. No. 1565

Type 6 for D. C. operation with matching transformer.

Transformers can be supplied for single or push-pull output, specify type of tubes. 500 or 4000 ohm impedance. D. C. field resistance can be supplied in 4—1300 or 5000 ohms. Specify.

### Type L-8 Dynamic Speaker Chassis



Type L-8

An excellent speaker having a wide frequency range. The A. C. model is designed for 110 volt, 60 cycle operation and uses a 280 tube for a rectifier.

Overall dimensions: 12" dia. x 4 1/2" deep. Equipped with a 10 1/2" cone. Voice coil impedance: 2.5 ohms. Speaker equipped with output transformer made to your specifications. If transformer is not desired, deduct \$1.75. less tube

**\$19.40**

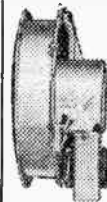
Cat. No. 1566

Type L-8 for D. C. operation, with matching transformer. **\$10.60**

Cat. No. 1567

D. C. Field in 4—1,300 or 5,000 ohms. Specify.

### Type B-4 Dynamic Speaker Chassis



B-4

This electro dynamic chassis has been designed for use with small midget sets. The A. C. model is designed for operation from 110 volt, 60 cycle line. A 280 tube is used for rectification.

Overall Dimensions: 6" dia. x 3 3/8" deep. Equipped with a 5" cone. Voice coil impedance: 2.5 ohms. Speaker equipped with output transformer made to your specifications. If transformer is not desired, deduct \$1.50. less tube

**\$14.70**

Cat. No. 1568

Type B-4 for A. C. operation, with matching transformer.

Type B-4 for D. C. operation, with matching transformer. **\$5.90**

Cat. No. 1569

D. C. Field in 4—2,000 or 8,000 ohms. Specify.

**A Competent Technical Department is Always at Your Service**

# WRIGHT-DE COSTER REPRODUCERS



Where consistent, dependable operation has been required, the Wright De Coster has "filled the bill" for years. Quality before price has always been their motto. Used in most of the stadium and airport installations in the country. All Speaker Chassis are equipped with Output Transformers. Specify type desired. Voice Coil Impedance: 9 ohms.

## A. C. Dynamic Speaker Chassis

Operates from 110-120 volts, 50-60 Cycle A. C.



REGULAR TYPE  
No. 207

Model 207 A. C.—Regular Dynamic Speaker Chassis W-12", H-12½", D-9½". Cone: 10" diameter. **\$42.63**  
Cat. No. 2705

Model 217 A. C.—Regular Dynamic Speaker Chassis W-12½", H-12¼", D-8⅞". Cone: 10" diameter. **\$29.40**  
Cat. No. 2706

Model 227 A. C.—Juvenile Dynamic Speaker Chassis H-12½", D-8⅝". Cone: 10" diameter. **\$19.99**  
Cat. No. 2707

Model 237 A. C.—Infant Dynamic Speaker Chassis H-8¼", D-4⅝". Cone: 6" diameter. **\$11.17**  
Cat. No. 2708

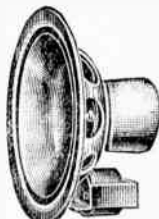
## D. C. Dynamic Speaker Chassis

Model 205 D. C.—(Same as 207)—2500 ohm field for 110 volt, D. C. operation. **\$30.58**  
Cat. No. 2709

Model 215 D. C.—(Same as 217)—2500 ohm field for 110 v. or 220 v. D. C. operation. Specify voltage. **\$17.64**  
Cat. No. 2710

Model 225 D. C.—(Same as 227)—2500 ohm field for 110 v. D. C. operation. **\$9.70**  
Cat. No. 2711

Model 235 D. C.—(Same as 237)—2500 ohm field. **\$5.29**  
Cat. No. 2712

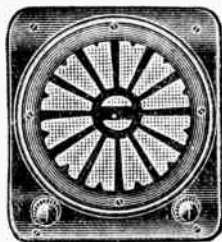


INFANT TYPE

## Hy-Flux Wall Type Speaker

(Magnetic Type)

Excellent for the home, schools, hospitals, monitors for movie projector rooms, etc.



FLUSH TYPE

Hyflux-Surface Wall Mounting Type 18" high, 12½" wide, 8" deep. Wood walnut cabinet. **\$18.23**  
Cat. No. 2718

Hyflux-Flush Wall Mounting Type Conduit Box: 9½ x 11¼". Wall depth, 4". Front plate: 12 x 14". **\$16.47**  
Cat. No. 2719

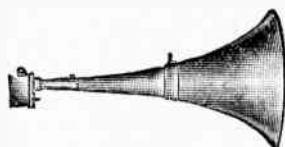
Hyflux-Wall Monitor Equipped with constant impedance volume control. **\$13.23**  
Cat. No. 2720

The Surface and Flush Type Speakers can be supplied with constant impedance volume control at \$3.50 extra. Five Channel Switch: \$2.80 extra.

## Hy-Flux Trumpet

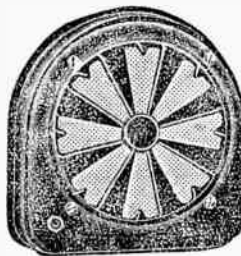
With 3 Watt Magnetic Unit

Exceptionally powerful Magnetic Speaker. Excellent for portable work or where field supply is not always available. Equipped with mounting rings for suspension. Completely weather-proof. Complete Trumpet and Speaker Unit Only **\$35.28**  
Cat. No. 2721



Speaker Unit Only **\$20.58**  
Cat. No. 2722 Length: 3 ft. 9½ in.  
Opening at Bell: 20 in.

## Automobile Speaker



9½" h., 9¾" w., 5" d.

Makes for easy mounting in your car or motor boat. Stamped sheet metal case. Black, crinkley baked finish. Scratch-proof.

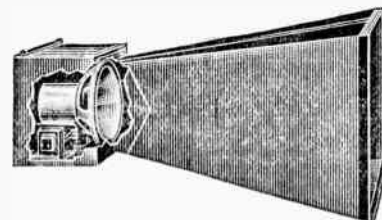
Complete Speaker in Case. **\$6.76**  
Cat. No. 2713  
Chassis Only. **\$5.29**  
Cat. No. 2714

## Baffle Horns

For use in Public Address installations for stadium, airports, theatres, and sound trucks. No. 6 Horn—Overall length: 48". Bell opening: 23" x 22".

Horn Only **\$22.34**  
Cat. No. 2715

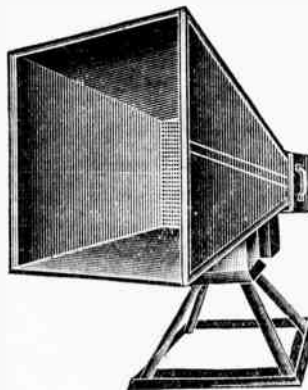
No. 10 Horn—Overall length: 48". Bell opening: 30" x 21½". Horn Only **\$22.34**



No. 10 Horn—Side View

NOTE—No. 6 Horn is more directional than No. 10 Horn. Further distance is covered by No. 6 Horn.

## No. 75 Directional Horn



Mounted on a swivel and turntable, the Wright De Coster "75" may be turned raised or lowered in any direction. Highly recommended for college stadiums and airports.

Equipped with a Model 207 chassis with a special weather-proof cone, which is protected by a copper screen. When operating this unit with 15 to 30 watts the horn can easily be heard for two or three miles.

An inside control which enables the operator to turn the horn in any direction from the room below is furnished free. All that is necessary is to connect a pipe of the correct length for the operating room.

Length of horn: 7 feet; height from bottom of base to top of horn: 6 feet; width of opening: 4 feet 1 in; width of back: 16 in.

No. 75 Horn—Complete with Steel Turntable and Special 207 A. C. Speaker Chassis. **\$132.30**  
Cat. No. 2778

Same as Cat. No. 2717, but without Turntable, and Speaker Unit. **\$73.50**  
Cat. No. 2779

## Special Theatre Reproducer and Horn

Type 109

Designed for theatre work. Comes equipped with a specially constructed dynamic reproducer similar to Model 207 Speaker Chassis, with an adjustable "Shutter" arrangement, which is used where acoustics are poor and must be corrected. Horn is similar in appearance to Model 10, except that it is designed for "wide-angle" projection. Dimension of Horn Bell opening: 43" long, 26" high, depth of horn overall, 36".

Horn comes complete with Reproducer Chassis and Field Exciter, which operates from 110 v., 60 cycle A. C. **\$73.50**  
Cat. No. 2723

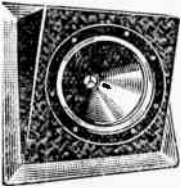
Horn Rack for 109 Theatre Horn.—Will raise horn to a height of 7 feet maximum at any angle. **\$10.00**  
Cat. No. 2724

The above prices are for the United States and the Dominion of Canada only

**Genuine**



**12 in. D. C.**



**Dynamic Speaker Chassis**

This large heavy duty Speaker is the standard Speaker used in all RCA Photophone theatres. Excellent for use in conjunction with public address installations and sound equipment. Used where very high class sound reproduction is required. 12 in. cone, large pot coil enclosed in heavy cast iron casting. Operates on 110 volts D. C. Field resistance, 1000 ohms. Voice coil, 8 ohms at 1000 cycles. Peak capacity, 30 watts. Weight, 35 lbs. List: \$110.



**\$7.50**  
Less Baffle  
Cat. No. 1131-A

**ROLA DYNAMIC SPEAKER CHASSIS**

Practically 70% of the Radio receivers and public address manufacturers use and recommend "Rola" Dynamic Speakers. No further introduction is necessary.



**MODEL F**  
6" Cone  
8" Overall

**Type F-Midget**  
The type F Rola Speaker is considered a "Giant" in the midget speaker class. This chassis can be supplied with single or push-pull output transformer to match any type of tube. Please specify when ordering. Standard field resistance, 2500 ohms; however, we can supply on order 1000 to 5000 ohms field coils to fit your requirements.

**\$4.75**  
Cat. No. 2118

Specify field resistance when ordering.

**Type K Series—Regular**

As in the Type F Rola Speaker, any type of output transformer and field coil resistance can be supplied. Do not fail to send specifications when ordering.

Type	Overall	Cone	Cat. No.	
K-7-F	9 1/2 x 5 1/2"	8"	2109	\$4.50
K-9-F	11 x 5 1/2"	10"	2110	4.95
K-7	9 1/2 x 5 1/2"	8"	2111	5.25
K-9	11 x 5 1/2"	10"	2112	3.95

Type K has slightly more wire on the field coil than F.

**AUDITORIUM DYNAMIC SPEAKERS**

Type R-AC Oxide Type Rectifier can be used on 25-40-60 cycles, 110 volts. Can be had in any type of output transformer. Specify when ordering. Voice coil impedance: 12 ohms. Overall dimensions: 11 1/2 x 9 1/2". Cone: 10 1/2".

Strong centering apparatus to withstand high-powered public address equipment. Will withstand up to 15 watts output without rattling.

**\$35.50**  
Cat. No. 2113



Type R-AC, tube 250 rectifier type for 60 cycle operation only. Same specifications as R-AC Oxide Type. Specify type of output transformer desired. Voice coil impedance: 12 ohms. Physical dimensions same as Oxide Type above.

**\$32.25**  
Cat. No. 2114

Type R-225, for D. C. Operation Only. Overall and cone dimensions same as Type R-AC. 2500 ohm field standard; however, if other sizes are desired, specify and we can deliver. Complete with output transformer. Specify type of tube or tubes to be used with this speaker. Voice coil impedance: 12 ohms.

**\$22.05**  
Cat. No. 2115

Type R-225-M for D. C. Operation Only. Field specifications same as Type R-225. Overall and cone dimensions, same as Type R-AC. This speaker is supplied, less mounting stand and output transformer. Voice coil impedance: 12 ohms.

**\$17.65**  
Cat. No. 2116

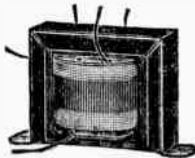


**CABINET TYPE**

**Output Transformers**

This transformer is designed to handle up to two 0 tubes in push-pull and as an 8 ohm secondary. May be used for any other speaker where voice coil matches specifications. Excellent characteristics.

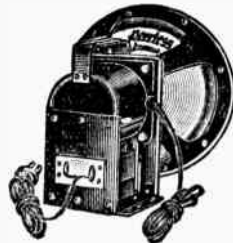
For Photophone Speaker



Push-Pull—Cat. No. S-1132  
**\$3.25**

Single—Cat. No. S-1133  
**\$3.25**

**Peerless Dynamic Speaker Chassis**



A.C. and D.C. Types

The A. C. Models use Elkon Double Dry Disc Rectifiers and large A Condensers.

All speakers can be supplied with single or push-pull transformers for pentode, 245 or 250 tubes. Please specify. Voice coil impedance 8-10 ohms.

**A. C. Models**

No. Cat.	Diam. Outside	Cat. No.	Outside Diam.	
1769	9"	1771	12"	\$8.50 \$11.25
1770	11"	1772	15"	10.75 13.50

**D. C. Models**

In any of the following ohmages: 575, 1000, 1500, 2000, 2500

No. Cat.	Diam. Outside	Cat. No.	Outside Diam.	
1773	9"	1775	12"	\$6.50 \$9.50
1774	11"	1776	15"	7.50 11.25

**6 Volts D. C.**

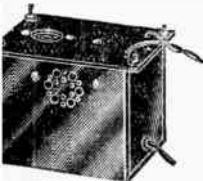
No. Cat.	Inside Diam.	
1777	7"	\$5.50
1778	9"	6.25

**Field Exciter for Photophone or Other Dynamic Speakers**

110 Volts—100 Mills.

Uses only one 280

This unit allows the use of D. C. speakers to be operated on 110 volt, 60 cycle A. C. Uses a 280 cycle A. C. Equipped with cord and plug for A. C. Completely filtered by 8 mfd. condenser.



less tube  
**\$4.95**

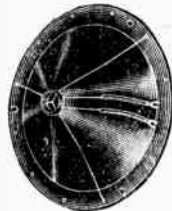
Humless Cat. No. S-1130

Will operate a 1000 or 2500 ohm field of a dynamic speaker

**Genuine Photophone 12 in. Cone**

WITH 8 OHM VOICE COIL

These are the original cones used in R. C. A. Photophone Speakers. Complete with tension rods for centering.



**\$2.95**

Cat. No. S-1134

**Genuine Peerless Dynamic Cone Replacements**

With Voice Coils

Measurements are for diameter of cone only

Cat. No.	Cone Diam.	Speaker Diam.	
2620	7"	9"	\$1.25
2621	9"	11"	1.40
2622	10"	12"	1.95
2623	12"	15"	2.35

Cones can be supplied with 1/1000 ohm single turn voice coil or 8-10 ohm voice coil. Specify when ordering.

**CROSLEY DYNAMIC SPEAKERS**

Part No. 241. 9" Chassis, 900 ohm field. With Output Transformer for one 171 or 245 tube. Cat. No. 2558

Part No. 242. 7" Chassis, housed in attractive metal cabinet. With Output Transformer. Cat. No. 2559

Part No. 253. Chassis only, same as No. 242. Cat. No. 2560

Part No. 243. 9" Chassis, 725 ohm field. With Push-Pull Output Transformer. Cat. No. 2561

Part No. 247. 6 volt Chassis to operate from storage battery. 85 ohm field with Push-Pull Output Transformer. Cat. No. 2562



**CHASSIS**

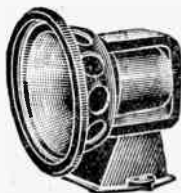
Any of the Above Speakers **\$4.50** each

**20% Deposit Must Accompany All C. O. D. Orders**



### Victor D. C. Dynamic Speaker

Victor Replacement No. 2302



With Plug and Cable type receiver for fine tone quality and volume.

Used in Victor Receivers Nos. RE-75, RE-45, R-32, and R-52, in conjunction with Victor 245 Push-Pull Amplifier listed on page 62.

Voice coil impedance 15 ohms, D. C. field resistance, 2500 ohms. Diameter over all, 9". Diaphragm, 7". Mounted on cast iron frame. An excellent speaker which can be used with any type receiver for fine tone quality and volume.

**\$4.75**  
Cat. No. S-2445

### Sonochorde

#### A. C. Dynamic Speaker

8" Diameter



Operates on 110 volt, 60 cycle A. C. Equipped with output transformer.

This speaker has been tested by the Fox Movietone Laboratories and their report was that it had a flat curve from 25 to 10,000 cycles.

Without flinching, it withstood a 50-watt theatre amplifier. Just because the speaker is not auditorium size it should not be misjudged. The A. C. speaker uses a 20 mfd. condenser making speaker humless. Uses a 280 tube rectifier.

**\$9.50**  
less tube Cat. No. 1164

#### Sonochorde D.C. Speakers

Same as above, but for D. C. operation

Cat. No. 1165—2500 ohm field ..... **\$3.95**  
Cat. No. 1166—1800 ohm field .....  
Cat. No. 1167—2500 tapped at 300 ohms  
Cat. No. 1168—1800 tapped at 300 ohms each  
Specify type of output transformer desired on any above speakers.

### Jensen 10" D. C. Concert Dynamic Speaker Chassis

Model D7DC

2500 ohm field, 8 ohm voice coil, 10" cone. Made to operate from a stage of push-pull amplification. Equipped with push-pull output transformer. Illum-free.



**\$8.75**  
Cat. No. 3751 List: \$27.50  
2 for \$16.00

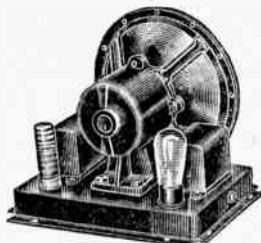
### Operadio Dynamic Speaker Chassis



This Eight inch D. C. dynamic speaker, having a 2,500 ohm field and a seven-inch cone is excellent for replacement or with new sets. Has a wide frequency range. Equipped with output transformer to your specifications, i. e.: push-pull or single. When ordering please specify output transformer desired. The American "field exciter" listed in this catalogue will convert this speaker for A. C. operation.

**\$2.95**  
Cat. No. 3332

### Kolster Auditorium Type A. C. Dynamic Speaker



The famous Kolster 10 in. Dynamic Speaker is now available for A. C. operation. No hum due to proper shielding and the use of a 8 mfd. condenser.

Equipped with an output transformer having a 500 ohm separate winding on primary, also a center-tapped push-pull primary for use with 245, or 250 tubes. Primary so designed that each half of push-pull winding is 4000 ohm impedance. Secondary impedance, 50 ohm for voice coil. Field energized by 415 volts, giving 20 watts dissipation, which gives an exceptionally strong field.

This speaker is ruggedly built, mounted on heavy gauge steel deck, with four flange supports. Finished in black enamel. Will withstand excessive abuse. For operation on 110 volts, 60 cycle A. C.

**\$16.50**  
Cat. No. S-1135

Kolster same as S-1135, but for 25 cycle operation. **\$19.75**  
Cat. No. S-1136

Above Prices are less 280 Rectifier Tube

### Kolster D.C. Dynamic Speaker Chassis

Used in the K-5 Reproducer, 6-If and 6-M Receivers

Here is a chance to buy a high grade 10" Auditorium Kolster, D. C. dynamic speaker chassis, at less than one-tenth the original cost. Equipped with a genuine leather spider to hold cone centered.

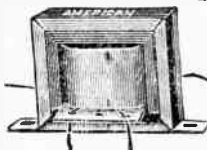
As much as 25 watts can be safely dissipated by the oversized field coil. Magnetically shielded by heavy cast iron casing. The specifications are:

Field Resistance.....9000 ohms **\$4.50**  
Field Voltage.....370 to 450  
Field Current.....40 to 60 mils.  
Voice Coil....50 ohm impedance. Cat. No. S-3175



List: \$55.00

### Matched Transformer for Above Kolster Speaker Chassis



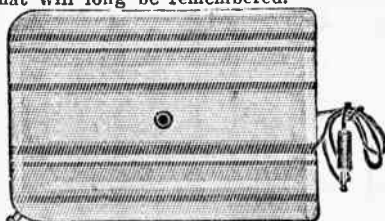
Cat. No. B-59

Couples two 245 or two 250 tubes in push-pull to voice coil of speaker. Secondary impedance 50 ohms. If single output is required, use center-tap and one plate lead. Especially designed heavy current carrying primary.

**\$3.50**

### Radio Speaker Pillow

For Use in Hospitals, or for the Invalid at Home. Comfort for the sick or for the convalescent. A gift that will long be remembered.



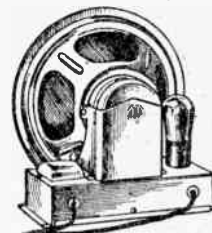
Equipped with special unit. Pillow is air inflated. Equipped with speaker plug and bulb inflator.

**\$5.75**  
Cat. No. 1112

### Utah Dynamic Speakers

A. C. Models

These Speakers will handle enormous volume with absolute tone fidelity. Adaptable for use in home, theatre, large hall, and outdoor service.



#### Model 10-A—A. C.

Overall diameter: 10 in. Weight: 9 lbs. Frequency response: 50-6000 cycles.

**\$12.50**

with Raytheon B. H. Tube.

Cat. No. 1203

#### Utah Model 8-A—A. C.

Overall diameter 8 in. Weight 8 3/4 lbs. Frequency response: 75-6000 cycles.

**\$10.75**

With Raytheon B. H. tube

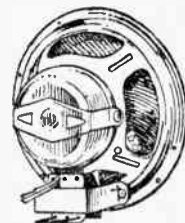
### Utah D. C. Speakers

MODEL 10A

Overall diameter: 10 in. Can be supplied in field resistances of 575, 750, 1000, 1800, 2500 or 7000 ohms. Frequency response: 50-6000 cycles.

**\$6.50**

Cat. No. 1205



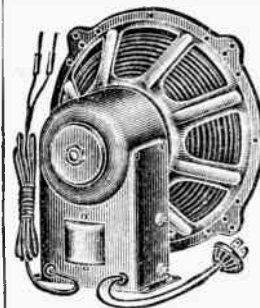
6 1/4" diameter overall, Cub Model..... **\$3.60**  
Cat. No. 3701

8" diameter overall, Model 8-S..... **\$3.95**  
Cat. No. 3702

The above Speakers can be supplied for all standard output tube arrangements. When ordering specify type and No. of output tubes used. A. C. Speakers operate on 110 v., 60 cycle A. C. Voice Coil impedance: 6 ohms.

### Utah 12" Stadium A. C. Dynamic Chassis

Model 66B



List: \$30.00

A superior heavy duty unit for home theatre, large dance hall or outdoor use. Capable of handling extreme volume without distortion. Contains output matching transformer. Made for use of a Westinghouse Rectifier. Operates from 110 Volts, Cycle A. C. Current (for field excitation) individually packed. Shipping weight 24 lbs.

**\$8.95**

Cat. No. S-1128

For 110 volt D. C. operation

MODEL No. 76—DP

Same specifications as above except that field has a resistance of 2500 ohms, and is equipped with push-pull output transformer.

**\$6.45**

Cat. No. S-1111

Victor Replacement  
No. A-2302



**Victor D. C. Dynamic Speaker**

USED IN VICTOR RECEIVERS No. R-32, R-52, RE-45, RE-75 in conjunction with Victor Push-Pull Input and Output transformer listed below.

This famous Victor Speaker which gave the Victor Receivers their sonorous tone is now available to you and may be used with any receiver that requires a 2500 ohm field and a 15 ohm voice coil.

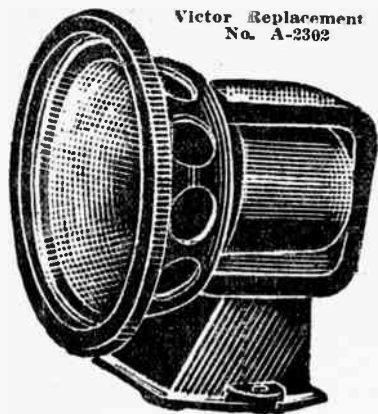
Diameter over all: 9"  
Diaphragm: 7"

Mounted on cast iron frame with cast iron mounting bracket.

**\$4.75**

Cat. No. S-1137

Equipped with Cord and Plug



**Royal Cone Magnetic Speaker**

Excellent for use with air-cell, 2-volt receivers

Handsome two-tone walnut-finished Gothic Cabinet, with a fine piano finish.

Speaker employs the famous genuine Amplion Magnetic Chassis, Model GW, known for its marvelous tone and volume. Has a 9-inch Buckram Cone with filter condenser.



Size: 12 1/2 x 11 x 7"  
List: \$18.00

Its clear notes and wide frequency range make this a very desirable speaker. Designed for use with any type of receiver and will stand weak or powerful signals.

**\$2.75**

Cat. No. S-1129



**Field Coil for Victor Dynamic Speaker**

2500 Ohms

For Victor Speaker used in Models R-32, 52, RE-75, 45

**\$2.45**

Cat. No. B-22



Replacement Part No. 10792



**Victor Dynamic Speaker Cone**

WITH VOICE COIL

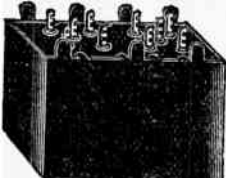
Replacement in Victor Dynamic Speakers used in R-32, 52, RE-75, 45. 15 ohm voice coil.

**\$1.75**

Cat. No. S-1138



Replacement Part No. 10801



**Victor Push-Pull Input and Output Transformer**

This transformer is matched with the above dynamic speaker, however, it may be used with most any other dynamic speaker voice coil.

Input-primary for a single tube and secondary for two grids of a push-pull stage.

Output-primary for two 245 plates and secondary for a 15 ohm voice coil.

Encased in heavy metal case.

**\$1.50**

Cat. No. B-75



**Vitalitone**

**36 Inch Cone Speaker Kit Complete**

WITH GENUINE VITALITONE POWERFUL MAGNET CONE UNIT

Can be easily assembled by anyone in a very short time with only a screw-driver.

All parts complete—nothing else to buy.

**95c**

Cat. No. S-3710



**Magnetic Speaker Model 103**

This Speaker reproduces with wonderful tone quality. The frame and pedestal are made to resemble hand-carved oak, while the beautiful tapestry conceals the mechanism and completes the decorative design.

**\$3.43**

Cat. No. S-3258



Size: 15 x 13 1/4 x 6 1/4"  
List: \$18.00

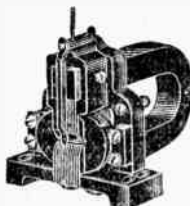
**Genuine BBL Magnetic Speaker Units**

Wire large enough to carry any required current. Pole pieces are laminated and tapered. Will drive any type speaker: Magnetic Cone, Airplane, 30" Double Cone, Balsa, etc. Dimensions: 4 1/2 x 3 x 3". Does not chatter. Ideal for replacement purposes. Sparton Replacement No. B-2088 as used in Sparton Speakers. Shipping weight: 4 lbs.

**\$1.50**

Cat. No. F-95

List: \$7.50



Also Radio Foundation and Ansonia Units. Same design as above. Cat. No. F-96 **95c**

**Nathaniel BALDWIN Rival Units**

The Rival Unit is one of the finest units built. May be used in exponential horns and automobile receivers.

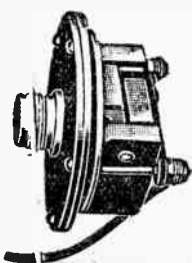
**40c**

Cat. No. F-97

With Shell

**50c**

Cat. No. F-98 Individually boxed



**Field Coil for 104 Speaker**

1000 Ohms  
Replacement No. 5338

**\$1.50**

Cat. No. B-23



**Replacement Dynamic Field Coils**

Midget Type

Dia. of Hole	Dia. of Coil	Length of Coil	
3/4"	2"	1 1/2"	<b>\$3.90</b>
7/8"	2 1/4"	1 3/4"	
1"	2 1/2"	2"	

Medium Size

1 1/4"	2 3/4"	2 1/2"	<b>\$5.28</b>
1 1/2"	3"	2 3/4"	
1 3/4"	3 1/4"	3"	

Large Size

1 1/2"	3"	3 1/4"	<b>\$7.20</b>
1 3/4"	3 1/4"	3 1/2"	
1 3/4"	3 1/2"	4"	
2"	4"	4 1/2"	

Slight deviations from above sizes no additional cost, requiring two days more for delivery. Available in any resistance from 5 ohms to 7000 ohms. For all coils wound to resistances above 3500 ohms add 20% to the above prices.

These specifications will cover 95% of all dynamic fields. If you should have any field that does not conform to the above sizes, return to us for duplication.

**We Do Not Sacrifice Quality for Price**

5 meters to 170 meters. The finest is of metal finished in deep walnut color. Less tubes

**\$20.50**  
Cat. No. 4188  
110 V. 60 Cycle

carry, 9-15, 9-25, 9-40, 9-50, Brunswick BR-18, Cordova S, 2-0, BRP-4, BRP-4A. (8 tubes using U. X. 199 tubes.)

**\$3.85**

Cat. No. S-2231

switch, 1 adapter. Compact size, 12 x 6 x 4". Simple to install. Ideal for hospitals, homes, schools, theatres, etc.

**\$20.58**

Cat. No. 2399

American

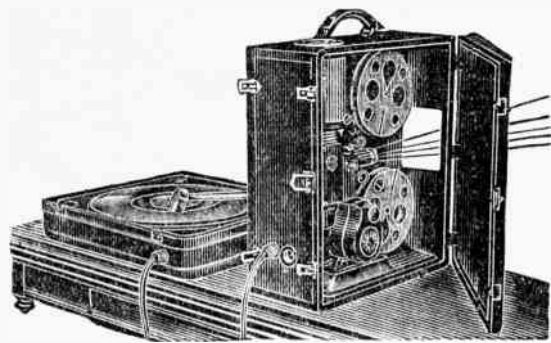
American

Bosch Two-Stage 245

Talkie Projectors and Beaded Screens

AMPRO 16 M.M. "TALKIE" MOVIE PROJECTOR

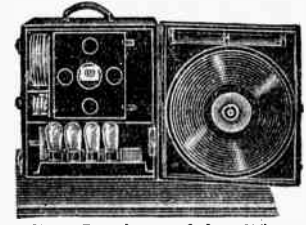
Excellent for homes, clubs, schools, universities, industrials or communities where there is an absence or a movie house. A full-fledged commercial type 16 milliammeter "Sound on Record" talkie projector. Gives lifelike reproduction. Results equivalent to your local theatre. The Ampro Sound System is contained in two cases, both nearly alike in size and weight. One contains the projector and turntable unit. The other, the amplifier and speaker, with accommodation for six reels, six records and the necessary connecting cords. The following features distinguish the Ampro Sound System.



Projector and Turntable

**FLEXIBILITY**—The Ampro Sound System may be used in a variety of ways:

- 24 frames per second film speed with 33-1/3 r. p. m. turntable speed.
- 16 frames per second film speed with 33-1/3 r. p. m. turntable speed.
- 16 frames per second film speed with 80 r. p. m. turntable speed.
- 16 frames per second film speed without sound accompaniment.
- Electrical sound reproduction at 33-1/3 r. p. m. turntable speed.
- Electrical sound reproduction at 80 r. p. m. turntable speed.



Rola Speaker and Amplifier

**PROFESSIONAL RESULTS**—Pictures up to 9 x 12 feet can be shown with the Ampro Sound System at distances up to 100 feet. The amplifier will easily take care of a hall holding 1,000 persons. Equipped with 2 in. lens. Has a 16 in. turntable. If a greater distance than 100 feet is desired, we can supply a 4 in. lens in substitution for the standard 2 in. lens at an additional cost of \$6.00. Four inch lens only \$16.00. Uses a 250 watt 20 volt lamp.

**CONSTANT SPEED**—There is no fussing with speed regulators on the Ampro Sound System. The motor has been especially designed for constant speed over a range between 110-125 volts. This uniformity of speed is largely responsible for the exceptional tone quality obtained. This projector, adapted for sound. Rather it has been designed from the ground up for the higher end of the range.

**RUGGEDNESS**—The Ampro Sound System is not a silent projector, adapted for sound. Rather it has been designed from the ground up for the higher end of the range.

**EASE OF OPERATION**—One button controls volume. A switch stops and starts the projector. Two automatic pilot lights—one over the turntable and one on the projector—eliminate the necessity for turning on lights for rethreading after each reel.

**QUICK SET-UP**—Approximately three minutes are sufficient to set up the apparatus and have the show on the screen. No ground wires to connect. Three cords to plug in and the show is on.

**MUSIC WHILE THREADING**—The turntable load is entirely segregated from the projector, so that the latter's mechanism is not subjected to additional wear. This also makes it possible to have the turntable operating and to give the audience musical entertainment while the projector is being threaded. Amplifier is a Webster 2-stage using 1-227, 2-245 and 1-280.

**STARTING**—The film is threaded in the usual way and a knob is provided which is rotated until the starting frame is projected on the small screen within the projector case. The audience is not annoyed by the operator having to find the starting frame on the screen. Has a safety shutter.

**PORTABILITY**—The combined weight of both units is approximately 85 lbs. Complete with 100 feet of amplifier cord, rainproof slip-covers and microphone jack. With R. C. A. tubes.

**\$575.00**  
Cat. No. 1243

PROJECTOR and TURNTABLE ONLY, less Amplifier-Speaker Case.

**\$400.00**  
Cat. No. 1244

We can quote on new Ampro models A. S. and A. D. Silent Projectors. Write for literature and prices.

RAY-FLEX BEADED SCREENS

RAY-FLEX Beaded Screens are considered about the finest popular priced screens on the market. Excellent for schools, universities, fraternal orders, homes and communities.

If you already have your projector, the use of Ray-Flex Screen will produce an exceptionally clear and more distinct picture.

ROLLER WALL TYPE  
(Mounted on Metal Housing)



RAY-FLEX Beaded Screens are made in a variety of sizes, the widest range being found in the wall type, mounted on heavy Hartzhorn spring rollers and wood backboards. Sizes 30 x 22" to 72 x 48" are furnished mounted in metal housings—larger sizes are mounted on a backboard—each equipped for hanging.

Size	Beaded
22" x 30" .....	\$ 8.00
30" x 40" .....	10.00
39" x 52" .....	15.00
48" x 72" .....	25.00

ROLLER WALL TYPE  
(Mounted on Backboard)

The Backboard is equipped with screw eyes, ready for hanging. If the screen is to be attached to ceiling, please specify ceiling bracket.

Size	Beaded
22" x 30" .....	\$ 7.00
30" x 40" .....	10.00
39" x 52" .....	15.00
48" x 72" .....	24.00
6' x 8' .....	45.00
8' x 10' .....	70.00
9' x 12' .....	125.00
12' x 12' .....	180.00

For sizes not listed write for quotations.

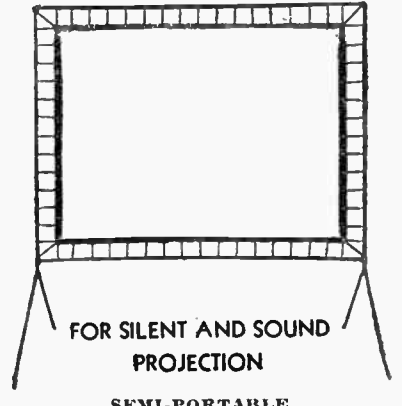


TRIPOD TYPE  
(Beaded)

TRIPOD TYPE

RAY-FLEX, being the originator of the collapsible tripod type screens, has always led in home movie screen development. Tripod feet are tipped with rubber toes to avoid marring. When not in use, hang it up as you would an umbrella. The metal housing is equipped with a spring tension tightening screw.

Model	Size	Beaded
0	22" x 30" .....	\$18.00
1	30" x 40" .....	25.00
2	39" x 52" .....	30.00



FOR SILENT AND SOUND PROJECTION

SEMI-PORTABLE

This screen, furnished both in the non-perforated and perforated beaded, answers a real need. The framework of metal tubing, nicely finished black, is not only light in weight as compared with bulky wood frames, but is equally as sturdy. By removing the legs the frame may be hung on the wall permanently. The highly reflective and efficient projection surface is fastened to the frame-work by the aid of springs—the complete assembly of the unit can easily be made in ten minutes and dismantled in the same length of time. The screen surface does not have to be overly stretched to keep it taut—no adjusting necessary now—the surface will always stay like a drumhead. Approximately 15 days required to make shipment—Glad to quote on specials.

Size	Beaded
6' x 8' .....	\$75.00

Victor Replacement  
No. A-2302



**Victor D. C. Dynamic Speaker**

USED IN VICTOR RECEIVERS No. R-32, R-52, RE-45, RI-75 in conjunction with Victor Push-Pull input and output transformer listed below.

This famous Victor Speaker which gave the Victor Receivers their sonorous tone is now available to you and may be used with any receiver that requires a 2500 ohm field and a 15 ohm voice coil.

Diameter over all: 9"  
Diaphragm: 7"

Mounted on cast iron frame with cast iron mounting bracket.

**\$4.75**

Cat. No. S-1137



**Royal Cone Magnetic Speaker**

Excellent for use with air-cell, 2-volt receivers

Handsome two-tone walnut-finished Gothic Cabinet, with a fine piano finish.

Speaker employs the famous genuine Amplion Magnetic Chassis, Model G.W., known for its marvelous tone and volume. Has a 9-inch Buckram Cone with filter condenser.



Size: 12 1/2 x 11 x 7"  
List: \$18.00

Its clear notes and wide frequency range make this a very desirable speaker. Designed for use with any type of receiver and will stand weak or powerful signals.

**\$2.75**

Cat. No. S-1129

Equipped with Cord and Plug

**Field Coil for Victor Dynamic Speaker**

2500 Ohms

For Victor Speaker used in Models R-32, 52, RE-75, 45

**\$2.45**

Cat. No. B-22



Replacement Part No. 10792

**Victor Dynamic Speaker Cone**

WITH VOICE COIL

Replacement in Victor Dynamic Speakers used in R-32, 52, RE-75, 45. 15 ohm voice coil.

**\$1.75**

Cat. No. S-1138



Replacement Part No. 10801

**Victor Push-Pull Input and Output Transformer**

This transformer is matched with the above dynamic speaker, however, it may be used with most any other dynamic speaker voice coil.

Input-primary for a single tube and secondary for two grids of a push-pull stage.

Output-primary for two 245 plates and secondary for a 15 ohm voice coil.

Encased in heavy metal case.

**\$1.50**

Cat. No. B-75



**New Algonquin Cone Speaker**



Will stand powerful or weak signals equally well and reproduce with wonderful tone quality and volume.

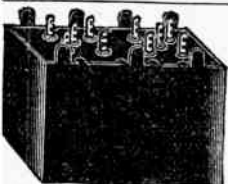
Has a full-floating large 18-inch Cone.

Equipped with an extremely sensitive electro-magnetic cone unit with direct drive to cone and is exact to the highest degree.

**\$1.25**

Cat. No. S-1128

List Price: \$15.00



Replacement No. 10418

**Vitalitone**

**36 Inch Cone Speaker Kit Complete**

WITH GENUINE VITALITONE POWERFUL MAGNET CONE UNIT

Can be easily assembled by anyone in a very short time with only a screw-driver.

All parts complete—nothing else to buy.

**95c**

Cat. No. S-3710

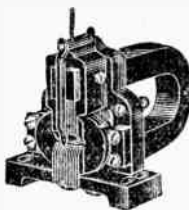


**Genuine BBL Magnetic Speaker Units**

Wire large enough to carry any required current. Pole pieces are laminated and tapered. Will drive any type speaker: Magnetic Cone, Airplane, 36" Double Cone, Balsa, etc. Dimensions: 4 3/4 x 3 x 3". Does not chatter. Ideal for replacement purposes. Sparton Replacement No. B-2088 as used in Sparton Speakers. **\$1.50** Shipping weight: 4 lbs.

Cat. No. F-95

List: \$7.50



Also Radio Foundation and Ansonia Units. Same design as above. Cat. No. F-96 **95c**

**Nathaniel BALDWIN Rival Units**

The Rival Unit is one of the finest units built. May be used in exponential horns and automobile receivers.

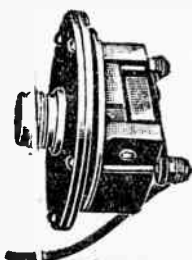
**40c**

Cat. No. F-97

With Shell

**50c**

Cat. No. F-98 Individually boxed



**RCA Field Coil for 104 Speaker**

1000 Ohms

Replacement No. 5338

**\$1.50**

Cat. No. B-23



**Replacement Dynamic Field Coils Midget Type**

Dia. of Hole	Dia. of Coil	Length of Coil	
3/4	2	1 1/2	<b>\$3.90</b>
7/8	2 1/4	1 3/4	
1	2 1/2	2	
1 1/8	2 3/4	2 1/4	

Dia. of Hole	Dia. of Coil	Length of Coil	
1	2 3/4	2 1/2	<b>\$5.28</b>
1 1/4	3	2 3/4	
1 1/8	3 1/8	3	

Dia. of Hole	Dia. of Coil	Length of Coil	
1 1/4	3	3 1/4	<b>\$7.20</b>
1 3/8	3 1/4	3 3/4	
1 1/2	3 3/8	4	
2	4	4 1/2	

Slight deviations from above sizes no additional cost, requiring two days more for delivery. Available in any resistance from 5 ohms to 7000 ohms. For all coils wound to resistances above 3500 ohms add 20% to the above prices.

These specifications will cover 95% of all dynamic fields. If you should have any field that does not conform to the above sizes, return to us for duplication.

**RCA Magnetic Speaker Model 103**



This Speaker reproduces with wonderful tone quality. The frame and pedestal are made to resemble hand-carved oak, while the beautiful tapestry conceals the mechanism and completes the decorative design.

**\$3.43**

Cat. No. S-3258

Size: 15 x 13 1/2 x 6 1/4"  
List: \$18.00

### American

Completely Wired

## Loftin-White Direct Coupled Amplifiers

Licensed by Loftin-White

Direct coupled amplifiers of the latest designs, these Amplifiers embody all the features looked for. A phonograph pick-up can be connected directly into the input terminals. A microphone can be fed through the proper microphone transformer and used in conjunction with a small dry cell for public address work. Any type of tuner can be connected to the input terminals without loss of energy. These amplifiers are made to be used with dynamic speakers. These amplifiers supply field current to D. C. dynamic speakers at 2500 ohms. Resistor furnished when A. C. speaker is used. All amplifiers operate from 110 volt, 60 cycle A. C.



### Model 245

Uses: one 224, one 245, and one 280 tubes. Output is rated at 3 watts.

**\$13.95**

less tubes  
Cat. No. S-2099

List: \$65.00

Same amplifier but using a Power Pentode in place of the 245 tube. Output: 4 watts. less tubes

**\$15.00**

Cat. No. S-2100

### Model 250

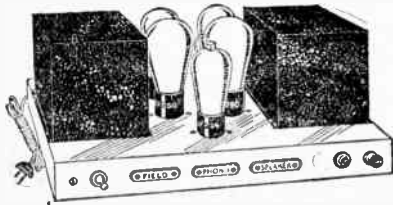


A 250 amplifier using one 224, one 250 and one 281. Power consumption: 85 watts. Maximum undistorted output: 6 watts. Rated gain at 1000 cycles: 55 db. Gain at 1000 cycles: 52.5 db. Rated gain at 10000 cycles: 51.5 db. Input direct to 224 control grid. Output direct from 250 plate.

**\$22.50**

Cat. No. S-2101

### Model PP-250



A push-pull 250 amplifier using one 224, two 250's and two 281's. Power consumption: 160 watts. Maximum undistorted output: 12.78 watts. Rated gain at 1000 cycles: 60 db. Rated gain at 50 cycles: 56 db. Gain at 10000 cycles: 56 db. Input direct to 224 control grid. Output direct from plates of 250 and plate supply.

**\$47.50**

Cat. No. S-2102

### Loftin-White Double Push-Pull 247 Amplifier

Two 224's in push-pull feeding into two 247 Pentode tubes in push-pull circuit. Undistorted output: 7.5 watts. Gain at 1000 cycle: 80 db.

**\$37.50**

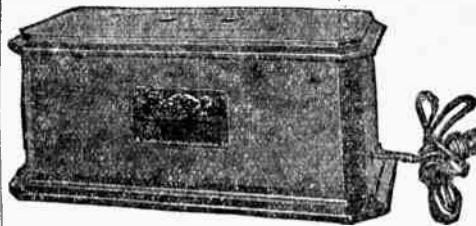
Uses two 224's, two 247's, and one 280. less tubes

Cat. No. S-2103

### American

## De Luxe Direct Coupled Pentode Amplifier

Licensed by Loftin White



Excellent for small public address systems, inter-office communicators, phonograph amplifiers, etc. Uses one 224 "shielded," one 247 pentode, and one 280 rectifier. The gain is exceedingly high with a 3 1/2 watt output. Output transformer is included with a 4000 ohm impedance secondary.

Housed in beautiful metal case, equipped with input, output, ground binding posts, and A. C. switch. Operates on 110 volt, 60 cycle A. C.

**\$18.75**

Cat. No. S-1661

### American

## De Luxe Direct Coupled Push-Pull Pentode Amplifier

Licensed by Loftin White

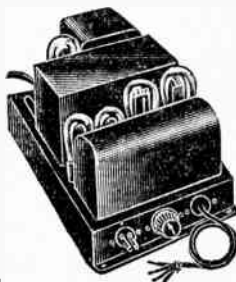
Same as above, except that it employs Push-Pull Pentode, delivering a 7 watt output. Equipped with a push-pull output transformer with a 4000 ohm secondary. Uses one 224, two 247's, one 280. For 110 volt, 60 cycle A. C. operation.

**\$23.85**

Less Tubes Cat. No. S-1662

## The Webster

### 3 Stage Push-Pull Power Amplifier



This Power Amplifier uses two 210's in push-pull in the final power stage, and two 226 tubes in the first two audio stages. A 281 tube is used to rectify the high voltage. Produces wonderful volume and tone and is practically humless since it contains a hum minimizer. With volume control. Suitable for homes, dance halls, amusement places.

Has a gain of 58 d. b., therefore it is excellent for microphone use. All that is required is a microphone transformer, a speaker, and a good double-button microphone to produce a low cost, good quality public address system. Excitation for a 2500 ohm dynamic speaker. For use on 110 Volts, 60 Cycle A. C.

**\$19.50**

less tubes Cat. No. S-3765

## Bosch Two-Stage 245 Push-Pull Amplifier

With Matched Bosch Dynamic Speaker



Ideal for inter-office communication systems by using a microphone and MICROPHONE TRANSFORMER may be used for "short order

disturb" for Restaurant Installation. This genuine Bosch Two-Stage Amplifier makes use of a 1-227 tube in a first Audio Stage, 2-245 tubes in a Power Stage of Push Pull and 1-284 tube in full wave rectification. The genuine matched Bosch Dynamic Speaker has a 9" cone and is ideally suited for use with this amplifier. Sufficient volume can be obtained to fill up the average size ballroom or dancehall with a phonograph pick-up connected to the input. By connecting a microphone through a suitable coupling transformer into this amplifier, it becomes a good quality public address unit. Of course, it can also be used for ordinary radio purpose. Operates on 50-60 Cycle, 110-130 Volts A. C. Current. Variable primary control.

**\$19.50**

less tubes  
Cat. No. S-3163

### THORDARSON

## Two Stage 250 Amplifier

and "B" SUPPLY UNIT

Uses 1-227, 1-250 and 2-281 Tubes



A genuine Thordarson Power Amplifier is licensed under patents owned or controlled by C. A., G. E., Westinghouse and Thordarson.

It uses a 227 tube in the first stage, a 250 power tube in the second, and 2-281 half-wave rectifiers. It has an output of 4,650 milliwatts. Does not contain a speaker coupling transformer, but it has a field supply for a 2500 ohm speaker field "B" voltages are brought out to convenient tap for connection to any type of tuner. Delivers 45, 67, 90, 112, 135, and 150 volts.

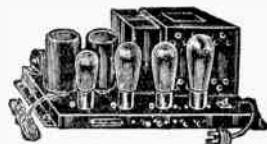
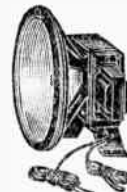
This amplifier was designed primarily for connection at the detector tube of any receiver. With each amplifier is furnished two adapters, one for four-prong tubes and another for five-prong tube. The detector tube is inserted in the adapter which is placed in the detector socket. However, this amplifier may be used in a small public address system or for a phonograph amplifier.

**\$22.50**

less tubes  
Cat. No. 2029

Operates on 110 volts, 60 cycle A. C.

## KOLSTER 245 Power Amplifier and Matched Dynamic Speaker



List: \$98.00

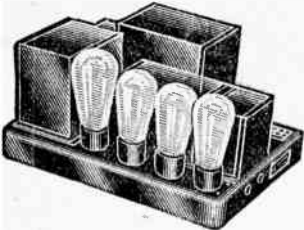
For radio, phonographs, public address system for lecture and concert halls, and small auditoriums. Reproduces speech and music with marvelous fidelity of tone. The amplifier has two stages using the 227 in the first and two 245 tubes in the push pull stage with a 280 rectifier, Kolster Dynamic Speaker to match.

**\$13.95**

less tubes  
Cat. No. S-2097



**Victor 2-Stage 245 Push-Pull Amplifier**  
For Receivers R-32, 52 and RE-75, 45



Uses one 226, two 245's (push pull) and 1-280.

Amplifier matched for 15 ohm voice coil and 2500 ohm field resistance. Supplies dynamic speaker field of 110 v. D.C. at 50 mils. Undistorted output at 4 watts. Fine for use with phonograph pick-up or radio set. Operates on 110 volts, 60 cycle A. C. current. Less tubes

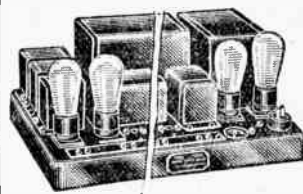
**\$9.75**

Cat. No. S-2446

Above Amplifier for 25 cycle operation. Cat. No. S-2447 **\$13.50**  
Victor D. C. Dynamic Speaker matched for use with this Amplifier. (Note speaker on page 127.) Cat. No. S-2445—\$4.75

**Victor 2-Stage 250 Power Amplifier**

R. C. A. Model AP-736 (S. P. U. 24)



Uses one 226, one 250 and two 281's. Used with Victor Electric Orthophonic Phonograph No. 12-15 Electroila and the R. C. A. No. 105 Speaker.

Output transformer in amplifier matched for 11 ohm voice coil impedance with 1000 ohm field resistance. Supplies Dynamic Speaker Field of 110 v. D. C. at 110 mils. Undistorted output 5 watts which is enough to handle at least three Dynamic Speakers. Amplifier operates on 110 volt, 60 cycle A. C. current. Excellent Power Amplifier for use with Phonograph Pick-Up less tubes

**\$19.50**

Cat. No. S-2444

**Uni-Rectron 210 Power Amplifier or Transmitter Power Supply**



AC Model AP-935

List: \$88.50

**IDEAL FOR USE WITH DYNAMIC SPEAKERS**  
As the Uni-Rectron stands, it is one-stage 210 super-power amplifier, which can be used in connection with any radio set and speaker. Binding posts are provided for input to the Uni-Rectron and output to a loud speaker. Operates entirely from 110 volts, 60 cycle, A. C. Tubes required are: one 210 power tube; one 216 B or 281 half wave rectifier. less tubes

**\$7.50**

Cat. No. S-1956

This unit, if connected properly, will serve well as a power supply for a low-powered amateur transmitter. It delivers 400 volts of pure, filtered D. C.

**POWERIZER PX-Y-1, Model R-20**

COMPLETE "A, B, and C" ELIMINATOR AND 210 POWER AMPLIFIER



This is the new, improved Powerizer. Exceptionally fine for use in conjunction with dynamic or cone speakers which require the use of a 210 power tube to bring out their best tone qualities.

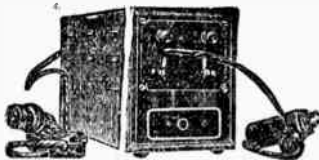
It is a "B & C" Eliminator furnishing "B & C" current to the entire radio set, also a Super-Power Amplifier furnishing "A, B, and C" current to the 10 power amplifying tube. Simple to connect, no rewiring necessary in the set. Comes equipped with an adapter plug, which is inserted in the last audio tube socket. Has filament windings which will also supply A. C. current for the A. C. tubes, if desired. Uses the UX-210 and the UX-280 tubes. Operated direct from light socket 110 volt, 60 cycle A. C. current.

**\$9.50**

Cat. No. S-3169

List Price: \$59.00

**Timmons 210 Power Amplifier**



List Price: \$45.00

Excellent for use with Dynamic Speakers

An absolute necessity with any radio set for getting full tone quality from dynamic speakers, which only can be done with a Power Amplifier. The adapter plug is inserted into the last audio socket of any type of Battery or electric radio set, thus supplying a stage of amplification employing the super-power tube. No rewiring necessary in the set and no additional parts are needed.

Uses the 281 rectifying tube and the UX-210 super-power audio tube. Operates from 110 volt, 60 cycle A. C. current. These units have been approved by "Popular Radio" and "Popular Science" laboratories. Less tubes

**\$4.50**

Cat. No. S-3711

We can also supply this unit furnishing "B" supply current at \$9.50 each, less tubes.

Cat. No. S-3712

**Samson**

We are pleased to announce that we are official distributors of Samson "PAM" amplifiers, sound systems, Pam-O-graph recording phonograph, and transformers. If there is any Samson equipment you desire, write, stating your requirements and we will be glad to quote you.

We have a limited supply of various Samson "Pam" amplifiers on hand, at "give-away" prices. Write for special list.

**Short Wave Super-Het. Converter**

Uses 1-UY-224 and 2-UY-227 Tubes

transforms any receiver into a short-wave Super-heterodyne. The three tubes as used in this converter are a 224 R. F. stage, 227 oscillator and a 227 detector. The detector in receiver becomes the cond detector of the super-heterodyne. No changes are necessary in the broadcast receiver. The output of this converter is hooked into the antenna circuit of the broadcast set. A booklet of instructions by R. C. A. is furnished with each unit. Very simple to install and operate. Supplies its own filament current and obtains "B" supply from receiver. A set of eight plug-in coils give it a range of from 1.5 meters to 110 meters. The binet is of metal finished in deep, walnut color. less tubes

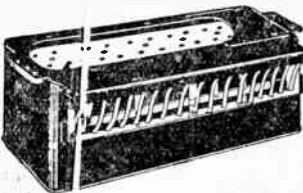


**\$28.50**

Cat. No. 4188  
110 V. 60 Cycle

**Genuine RCA-Victor Catacombs**

Rep'lacement Nos. 8150, 8111, and 8118. Used in Radiolas 24, 25, 26 and 28 Also Victor and Brunswick Receivers



These Catacombs contain all the parts for a complete 6 or 8 tube "second harmonic" super-het, receiver, with the exception of the tuning coils and condensers. Permanently sealed in a metal

case. Size: 11½ x 3¼ x 3½". May be adapted to use two-volt tubes, including two-volt Pentode, by making slight changes. For Radiolas 24, 25, 26; Victor Alhambra 11; Florenz 4, Brunswick 1-B, 1-C; Cordova 6, (6 tube sets using U-X and U-V-199 tubes).

**\$3.35**

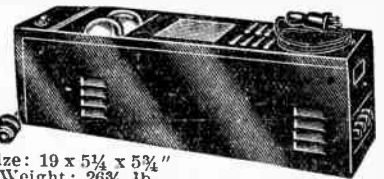
Cat. No. S-2230

For Radiola 28, 28 A. C., 30, 30-A, 30 A. C., 32 A. C. Victor Hyperion, Borgia, Cromwell, Tuscarry, 9-15, 9-25, 9-40, 9-55, Brunswick BR-18, Cordova 1, 2-0, BRP-4, BRP-4A. (8 tubes using U. X. 199 tubes.)

**\$3.85**

Cat. No. S-2231

**POWERIZER "A, B & C" Eliminator and Power Amplifier for Radiolas 25 or 28**



Size: 19 x 5¼ x 5¼" Weight: 26¾ lb. List: \$84.00

You can now convert at very little cost Radiola 28's and 25's to modern power amplified all-electric receivers by using this Powerizer Power Pack. This pack is a double action unit when used with these receivers. It does away with all batteries, supplying complete A, B, and C current for all the 190-tubes in the set in addition to supplying a stage of 210 power amplification in place of the 120-tube, giving unsurpassed tone and tremendous volume. It is a revelation.

This Powerizer is approved by RCA. Very simple to connect. Uses the UX-210 and 280 tubes. Operates on 110 volts, 60 cycle A. C. current. Complete.

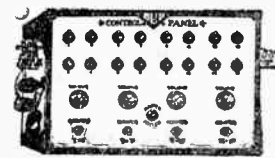
**\$16.50**

Radiola No. 28—Cat. No. 3170

Radiola No. 25—Cat. No. 3171

State whether wanted for Radiola 28 or 25

**Bud Public Address Control Panel**



Simplified and inexpensive centralized radio or public address distribution system. Enables the operation and complete control of 1 to 16 speakers from one

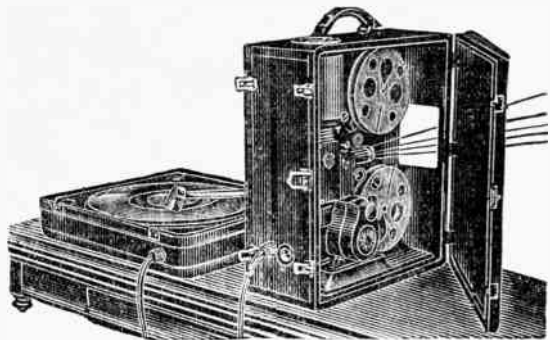
radio set or amplifier. Has 4 Monitor jacks (one for every 4 speakers), 4 volume controls, 16 speaker toggle switches, 1 master switch, 1 adapter. Compact size, 12 x 6 x 4". Simple to install. Ideal for hospitals, homes, schools, theatres, etc.

**\$20.58**

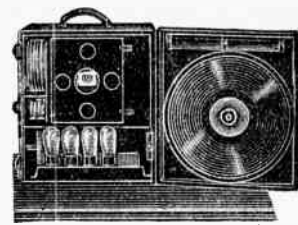
Cat. No. 2399

# AMPRO 16 M. M. "TALKIE" MOVIE PROJECTOR

Excellent for homes, clubs, schools, universities, industrials or communities where there is an absence or a movie house. A full-fledged commercial type 16 millimeter "Sound on Record" talkie projector. Gives lifelike reproduction. Results equivalent to your local theatre. The Ampro Sound System is contained in two cases, both nearly alike in size and weight. One contains the projector and turntable unit. The other, the amplifier and speaker, with accommodation for six reels, six records and the necessary connecting cords. The following features distinguish the Ampro Sound System.



Projector and Turntable



Rola Speaker and Amplifier

**FLEXIBILITY**—The Ampro Sound System may be used in a variety of ways:

- 24 frames per second film speed with 33-1/3 r. p. m. turntable speed.
- 16 frames per second film speed with 33-1/3 r. p. m. turntable speed.
- 16 frames per second film speed with 80 r. p. m. turntable speed.
- 16 frames per second film speed without sound accompaniment.
- Electrical sound reproduction at 33-1/3 r. p. m. turntable speed.
- Electrical sound reproduction at 80 r. p. m. turntable speed.

**PROFESSIONAL RESULTS**—Pictures up to 9x12 feet can be shown with the Ampro Sound System at distances up to 100 feet. The amplifier will easily take care of a hall holding 1,000 persons. Equipped with 2 in. lens. Has a 16 in. turntable. If a greater distance than 100 feet is desired, we can supply a 4 in. lens in substitution for the standard 2 in. lens at an additional cost of \$6.00. Four inch lens only \$16.00. Uses a 250 watt 20 volt lamp.

**CONSTANT SPEED**—There is no fussing with speed regulators on the Ampro Sound System. The motor has been especially designed for constant speed over a range between 110-125 volts. This uniformity of speed is largely responsible for the exceptional tone quality obtained. The projector, adapted for sound. Rather it has been designed from the ground up for the higher speeds of sound pictures and for the more intense usage to which a sound unit is put in industrial and educational work.

**RUGGEDNESS**—The Ampro Sound System is not a silent projector, adapted for sound.

**EASE OF OPERATION**—One button controls volume. A switch stops and starts the projector. Two automatic pilot lights—one over the turntable and one on the projector—eliminate the necessity for turning on lights for rethreading after each reel.

**QUICK SET-UP**—Approximately three minutes are sufficient to set up the apparatus and have the show on the screen. No ground wires to connect. Three cords to plug in and the show is on.

**MUSIC WHILE THREADING**—The turntable load is entirely segregated from the projector, so that the latter's mechanism is not subjected to additional wear. This also makes it possible to have the turntable operating and to give the audience musical entertainment while the projector is being threaded. Amplifier is a Webster 2-stage using 1-227, 2-245 and 1-280.

**STARTING**—The film is threaded in the usual way and a knob is provided which is rotated until the starting frame is projected on the small screen within the projector case. The audience is not annoyed by the operator having to find the starting frame on the screen. Has a safety shutter.

**PORTABILITY**—The combined weight of both units is approximately 85 lbs.

Complete with 100 feet of amplifier cord, rainproof slip-covers and microphone jack. With R. C. A. tubes.

**\$575.00**  
Cat. No. 1243

**PROJECTOR and TURNTABLE ONLY, less Amplifier-Speaker Case.**

**\$400.00**  
Cat. No. 1244

We can quote on new Ampro models A. S. and A. D. Silent Projectors. Write for literature and prices.

## RAY-FLEX BEADED SCREENS

RAY-FLEX Beaded Screens are considered about the finest popular priced screens on the market. Excellent for schools, universities, fraternal orders, homes and communities.

If you already have your projector, the use of Ray-Flex Screen will produce an exceptionally clear and more distinct picture.

### ROLLER WALL TYPE

(Mounted on Metal Housing)



RAY-FLEX Beaded Screens are made in a variety of sizes, the widest range being found in the wall type, mounted on heavy Harzborn spring rollers and wood backboards. Sizes 30 x 22" to 72 x 48" are furnished mounted in metal housings—larger sizes are mounted on a backboard—each equipped for hanging.

Size	Cat. No.	Beaded
22" x 30"	1245	\$ 7.00
30" x 40"	1246	10.00
39" x 52"	1247	15.00
48" x 72"	1248	25.00

### ROLLER WALL TYPE

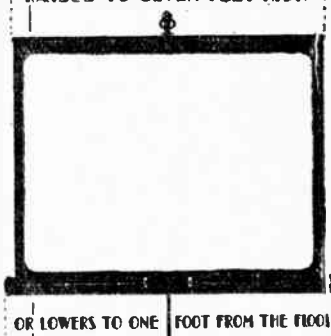
(Mounted on Backboard)

The Backboard is equipped with screw eyes, ready for hanging. If the screen is to be attached to ceiling, please specify ceiling bracket.

Size	Cat. No.	Beaded
22" x 30"	1249	\$ 7.00
30" x 40"	1250	10.00
39" x 52"	1251	15.00
48" x 72"	1252	24.00
6' x 8'	1253	45.00
8' x 10'	1254	70.00
9' x 12'	1255	125.00
12' x 12'	1256	130.00

For sizes not listed write for quotations.

RAISES TO SEVEN FEET HIGH

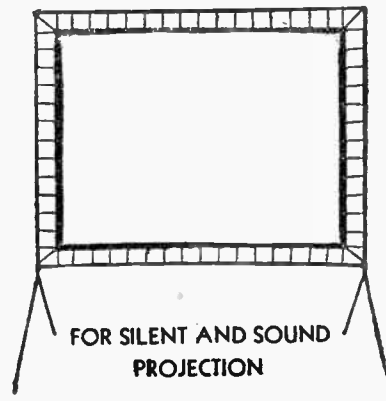


TRIPOD TYPE (Beaded)

### TRIPOD TYPE

RAY-FLEX, being the originator of the collapsible tripod type screens, has always led in home movie screen development. Tripod feet are tipped with rubber toes to avoid marring. When not in use, hang it up as you would an umbrella. The metal housing is equipped with a spring tension tightening screw.

Model	Size	Cat. No.	Beaded
0	22" x 30"	1257	\$18.00
1	30" x 40"	1258	25.00
2	39" x 52"	1259	30.00



FOR SILENT AND SOUND PROJECTION

SEMI-PORTABLE

This screen, furnished both in the non-perforated and perforated beaded, answers a real need. The framework of metal tubing, nicely finished black, is not only light in weight as compared with bulky wood frames, but is equally as sturdy. By removing the legs the frame may be hung on the wall permanently. The highly reflective and efficient projection surface is fastened to the frame-work by the aid of springs—the complete assembly of the unit can easily be made in ten minutes and dismantled in the same length of time. The screen surface does not have to be overly stretched to keep it taut—no adjusting necessary now—the surface will always stay like a drumhead. Approximately 15 days required for make shipment—Glad to quote on specials.

Size	Cat. No.	Beaded
6' x 8'	1260	\$75.00

# KEYSTONE 16 M. M. MOVIE PROJECTORS and CAMERAS

## MODEL D-62 (with Motor)

Be sure to Specify A. C. or D. C. Current, 115 Volt Illumination — For alternating current — furnished with 6-volt double concentrated filament 32-candlepower bulb connected in series giving a total of 64-candlepower, connected with transformer. For direct current — furnished with 12-volt double concentrated filament 21-candlepower. **Lens** — 2 1/4 in. focus plano-convex projection type. **Construction** — Cast aluminum body with steel base; attractive baked enamel finish. **Framer** — Automatic — requires no adjustment. **Reel Capacity** — 400 foot; two 200 foot empty spools are furnished. **Simple Threading** — Special aperture plate and lever controlled by one finger. **Rewind Gear** — Equipped with high speed rewind gear and pinion. **Precision** — Precision film motion by two claw movement with grip two sprocket holes instead of one. **Advance Feed** — Has advanced feed sprocket and take-up spools. **Angle Projection** — By swivel between base and body any angle may be obtained. **Size of Picture** — Up to 20 in. x 26 in. at a distance of about 24 feet; smaller pictures at shorter distances. **Ventilation** — Perforated lamp house top with light deflector.



**\$19.50**  
Cat. No. 1631

## MODEL D-61 (Hand Crank)

Similar to D-62, but furnished with hand crank instead of motor.

**\$13.25**  
Cat. No. 1632

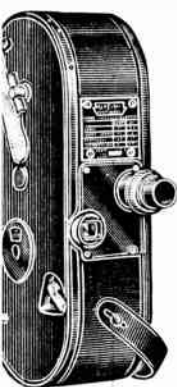
Models D-61 and D-62.

**\$4.40**

Carrying Case Only.....

Cat. No. 1643

## MODEL A CAMERA (Spring Motor)



**Convenient size** — 2 3/4 in. thick x 9 in. long x 4 in. wide, with 1 1/2 in. lens extension. Symmetrical shape, making camera easy to carry and permitting firm grip while operating. **Light Weight** — Keystone "Model A" camera weighs only 3 1/2 pounds. **F3.5 Lens** — universal focus with adjustable mechanical iris. **Monocular View-Finder** — Built right into camera. Enables you to sight quickly and accurately the desired action or scene exactly as you want it to appear on the screen. **Tripod Connection** provided for, but tripod not necessary to obtain steady pictures. **Spring Motor** — Designed to withstand severe use. **Easy Winding** — Winds very easily. Similar to winding a clock. About 20 feet of film can be taken with each winding. **Capacity** — 100-foot, or 50-foot. **Daylight Loading** — Camera may be safely used in broad daylight. **Film Register** — Automatically indicates the amount of film left after each scene. **Audible Film Footage Signal** — every two feet of film a sound like a faint bell heard so that without removing camera from eye you will know the amount of film you are taking on a particular subject. **Precision Movement** — Finger type movement feeds film steadily and accurately.

**\$28.00**  
Cat. No. 1639

## MODEL C CAMERA (Hand Crank)

Same as Model A—Camera above, but is hand crank driven. Film capacity identical to above.

**\$9.95**  
Cat. No. 1640

## CAMERA CARRYING CASE

Model PE 614—Camera Carrying Case with shoulder strap can be used with either Models "A" or "C."

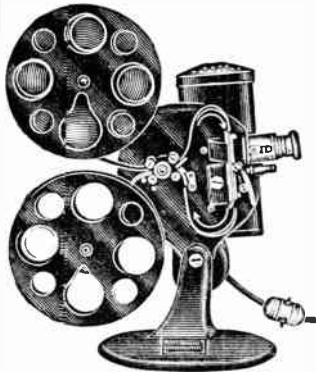
**\$3.15**  
Cat. No. 1641

TRIPOD FOR CAMERA—Models "A" or "C."

**\$1.60**  
Cat. No. 1642

The quality and smoothness of picture that Keystone Projectors will show, the fundamental construction features under which they operate, the concentrated illumination, the high power lens system, and the precision movement are equal to machines at much higher prices. Each machine is thoroughly tested before leaving the factory.

## MODEL A-74



**200 Watts Equipped**

With a 200-watt special concentrated filament pre-focused projection lamp as well as a ventilating fan connected to motor which forces cool air through lamphouse thereby cooling lamp-house and mechanism.

**Universal Motor Drive**

For direct current or alternating current (special Rheostat for controlling speed). **Lens**—2" focal length double achromatic; same lens system as used on very high priced machines. Large, polished and ground, high quality silvered reflector which increases illumination. **Construction**—Cast aluminum alloy main body construction with cast iron base. Baked black crystal enamel finish. **Framer** — Automatic — requires no adjustment. **Capacity**—400 foot empty spools—furnished. **Simple Threading**—Special aperture plate and lever controlled by one finger. **Precision Motion Movement**—By two claw movement with grip on two sprocket holes instead of one. **Angle Projection**—By a swivel between base and body any angle may be obtained. **Size of Picture**—Up to 40" x 52" at a distance of about 24 feet. **Rewinding Mechanism**—High speed rewind gearing arrangement with crank handle. **Ventilation**—By perforated casing around and at top of light housing. **Guide for Film Threading**—Designed in cast body. **Oiling System**—At all important friction points. Equipped with Automatic Fire Door for still pictures.

**\$40.00**

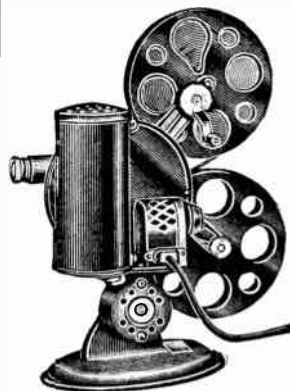
Cat. No. 1629

**\$4.40**

Cat. No. 1643

Carrying Case Only.....

## MODEL B-63



**Motor Driven For 16 M.M. Film**

**Illumination** — 100 watt special concentrated filament pre-focus projection lamp. **Universal Motor Drive**—For direct or alternating current (special rheostat for controlling speed and stop). **Lens** — projection type, fine ground and polished. **Construction** — Cast aluminum alloy main body construction with steel base. **Framer** — Automatic — requires no adjustment.

**\$25.00**

Cat. No. 1630

**\$4.40**

Cat. No. 1643

**Capacity**—400 foot empty spools—furnished. **Simple Threading**—Special aperture plate and lever controlled by one finger. **Precision Motion Movement**—By two claw movement with grip on two sprocket holes. **Angle Projection**—By a swivel between base and body any angle can be obtained. **Size of Picture**—Up to 30 x 38" at a distance of about 24 feet. **Rewinding Mechanism**—High speed gearing arrangement with crank handle. **Ventilation**—Perforated top. **Guide for Film Threading**—Designed in cast body. **Oiling System**—At all important friction points.

**\$25.00**

Cat. No. 1630

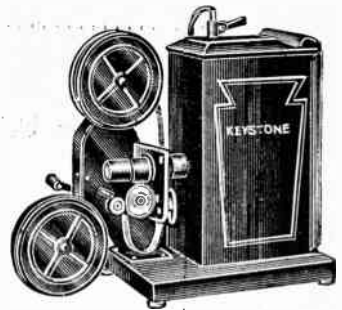
**\$4.40**

Cat. No. 1643

Carrying Case Only.....

## MODEL E-37 (Hand Crank)

With Professional Type 3-Blade Shutter and Automatic Threading Attachment



**Illumination**—Furnished by 100 watt, 110 volt standard bulb with concentrated light that may be furnished by any electrical supply store; bulb furnished with each machine. **Reflector**—Highly polished. **Lens**—2 1/4 in. focus projection type. **Construction**—Steel lamp house, attractive baked enamel finish; steel base with rubber tips at bottom. **Framer**—Automatic—requires no adjustment. **Reel Capacity**—Model E-37, 150-foot; Model E-39, upper and lower arms adjustable for either 150-foot or 400-foot spools by simple thumbscrew adjustment. Two 150-foot empty spools furnished with machine. **Simple Threading**—Special aperture plate and lever controlled by one finger. **Rewind Gear**—Equipped with high speed rewind gear and pinion. **Precision**—Precision film motion by two claw movement with grip on two sprocket holes instead of one. **Advance Feed**—This model is equipped with an advance feed sprocket which tends to give improved projection same as professional projectors. **Size of Picture**—Up to 20 in. x 26 in. at a distance of about 10 feet; smaller pictures at shorter distances. **Ventilation**—From the rear.

Furnished with Silver Screen Theatre Stage and Practice Reel of Film.

**\$9.25**  
Cat. No. 1633

## MODEL E-39

Same as E-37, but is motor-driven, with speed control.

**\$13.95**  
Cat. No. 1634

**MODEL E-35 (Hand Crank)**, 2 1/4 in. lens; reel capacity: 150 foot; two empty spools furnished. **Picture**—up to 20 x 26" at a distance of 10 feet. **Illumination**—furnished by 100 watt, standard incandescent bulb; supplied with machine. No screen furnished.

**\$6.75**

**MODEL E-36**—Same as E-35, but is motor-driven, with speed control. Specify either A. C. or D. C.

**\$12.25**

**MODEL E-32 (Hand Crank)**, double convex projection type. **Reel Capacity**—100 foot; two empty spools supplied. **Picture**—up to 18 x 24" at a distance of about 10 feet. **Illumination**—Furnished by 60 watt, 110 volt lamp; supplied with machine. No screen furnished.

**\$5.00**  
Cat. No. 1637

**MODEL E-33**—Same as E-32, but is motor-driven with speed control.

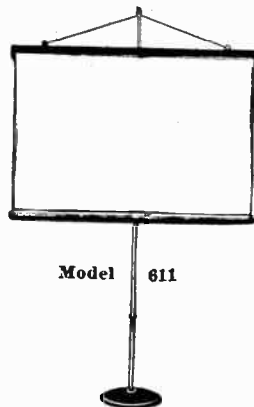
**\$9.95**  
Cat. No. 1638

## CARRYING CASE AND SCREEN

No. 619—Combination carrying case and projection screen for all Model "E" Projectors.

**\$2.40**  
Cat. No. 1644

## SILVER SCREENS



**Type 611**—On spring roller in "Metal" case, with stand. 30 x 24".

**\$4.35**  
Cat. No. 1645

**Type 609**—On spring roller in metal case, without stand. 30 x 24".

**\$2.95**  
Cat. No. 1646

**Type 607**—with metal easel. 30 x 24".

**\$1.95**  
Cat. No. 1647

City of New York Commission  
for the Celebration of the Two Hundredth Anniversary of the Birth of  
**George Washington**

HONORARY CHAIRMAN  
JAMES J. WALKER

1732



1932

CHAIRMAN  
GROVER A. WHALEN

City of New York to Stage Gigantic  
Washington Bicentennial Celebration

The City of New York Bicentennial Commission, recently appointed by Mayor James J. Walker and having as its chairman, former Police Commissioner Grover A. Whalen, has mapped out the most elaborate program of civic celebration ever attempted in this country.

The Bicentennial Celebration which is being carried out throughout the United States was officially opened on February 22nd, and will continue to Thanksgiving Day, November 24th. The City of New York Bicentennial was opened with appropriate ceremonies at the Memorial Arch in Washington Square when Mayor Walker and Grover Whalen unfurled the American flag and two banners bearing the figures 1732-1932. Since then, several events have taken place throughout the five boroughs of New York in commemoration of the birth of our first President.

The program of the City of New York Commission is being developed and will reach its full growth upon the completion of the two magnificent replicas which are now being constructed. One of these is a copy of Mount Vernon, the home of George Washington, in Prospect Park, which will duplicate in exact detail and furnishings Mount Vernon on the Potomac. The other is to be a replica of old Federal Hall where George Washington took his presidential oath of office on April 30, 1789. This is being constructed in Bryant Park in back of The New York Public Library. Much of the celebration will be centered around these two beautiful buildings.

In addition to the ceremonies, pageants, fetes, and other forms of celebration to be conducted at these points, the New York program calls for a parade of historic floats, the re-enacting of the inauguration of George Washington, an inaugural ball of tremendous proportions, and a bicentennial banquet which it is said by its sponsors, will be the largest banquet ever held in the United States.

The entire program is expected to attract hundreds of thousands of visitors to New York during the next eight months and it will provide people of the Greater City with a patriotic celebration, the educational value and splendor of which has never before been equaled in an affair of this nature.

The celebration is to be truly an affair of the people and all commercial as well as other types of organizations are invited to cooperate with the City of New York Commission in making the celebration the success which it is planned to be, and which the entire nation and the rest of the world expects from America's largest city.

*The above message has been released to us by The City of New York Commission for exclusive publication.*

Our executive, Mr. H. Klepper, has been appointed to the City of New York Bicentennial Commission, by the Honorable James J. Walker, Mayor of the City of New York, which Commission has as its chairman, the former Police Commissioner, Grover A. Whalen.

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