“CAMWELL”
SHIELDED
SIX

Your Price $38.90

Single Control Receiver

Our Special Offer

Retail Price $70.00

SENSATIONAL
Tone Quality — Power — Selectivity — Range

Write for Exclusive Dealers’ Franchise

In presenting this magnificent Radio Receiver we are placing at your disposal the result of years of study and labor by some of the most efficient radio engineers in the United States. Public demand calls for COMPLETE SHIELDING, EASE OF CONTROL, maximum SELECTIVITY, and NATURAL TONE at a POPULAR PRICE.

This CAMWELL Receiver uses six tubes, and the circuit includes three stages of radio frequency amplification, a detector and two stages of audio amplification.

Where Can You Find All These Features at This Low Price

Illuminated single dial control.
Cushioned detector socket.
All metal shielding.
Space wound coils on threaded Bakelite.
Power tube operation without alteration.
Focalizer bringing hair-line selectivity.
Extra size audio transformers shielded.
Rugged construction—transportation proof.
Beautiful walnut two-toned cabinet with inlaid gold striping.

In this "CAMWELL" Set you have KEEP SELECTIVITY for the city, POWER and VOLUME for the country. The rugged strength built into this receiver prevents damage while shipping and keeps every working part in perfect alignment.

PANEL is of heavy metal, beautifully decorated in gold, size 7x18, Vertical, which provides interchanging chassis at will to console if occasion arises. All connections firmly soldered, all holes in panel where wires pass are bushed, snap type switches are used and all connections, including audio transformers, are clearly marked.

Manufactured under R. C. A. License.

The Kind of Radio the People Want
— At What They Want to Pay

1X5000—Set in cabinet.
List price, $70.00. Net, each. $38.90
1X5001—Chassis only.
List, price, $60.00. Net, each. 33.30

Recommended Accessories

We offer the following necessary equipment at a very low figure to accomplish our desire to assist you in getting the greatest amount of sales and resulting profit.

CHASSIS ONLY

List COMPLETE $60.00

Price $33.30

(1)all-enclosing shield, all parts thoroughly protected.
(2) the power tube socket.
(3) cushioned detector socket.
The attached cable in color code is also shown.

Accessories.
Your net cost, $24.80

MILLER-WELLES CO., Chicago, Ill.
OUR SERVICE
Merchandise as Advertised or Immediate Replacement

YEARS OF EXPERIENCE in mail order selling have taught us the value of SATISFIED CUSTOMERS; also our experience in handling radio merchandise has taught us the necessity for QUICK SHIPPING.

Practically every item listed in this catalogue is ACTUALLY CARRIED IN STOCK and exceptions to this fact will be due to no fault of our own or, as in the case of heavy items such as batteries, for example, we have arranged to ship direct from warehouses throughout the United States in order to SAVE YOU TIME AND MONEY.

It is therefore our earnest endeavor to SHIP YOUR ORDER COMPLETE THE SAME DAY IT IS RECEIVED.

If for any unavoidable reason we are unable to make shipment the same day your order is received a card of advice will be mailed to you stating just when shipment will be made and if the time required will cause you inconvenience YOUR MONEY WILL BE PROMPTLY REFUNDED.

We catalog standard advertised radio merchandise and you will receive it as it is packed by the manufacturer in every case where it is possible to store it in stock bins in that manner. We stand squarely behind every item offered for sale and GUARANTEE COMPLETE SATISFACTION.

Among our employees are young men thoroughly trained in the technical requirements of Radio and we earnestly invite you to submit any problem concerning Radio Receiver Construction, or trouble you are having with your customers' sets, to us and we will assist you in solving that problem. On our correspondence staff also we have a licensed operator who will gladly assist you with transmitting problems.

Due to the great variety of Radio items manufactured today we have not deemed it advisable to attempt to list every item available but have shown herein the Items we consider to be the MOST POPULAR ITEMS—but we wish you to ask us for any item you desire whether it is listed or not, as we have access to an enormous market in Chicago and can procure it for you at standard wholesale prices.

THIS IS A WELL ESTABLISHED COMPANY and our sole ambition is to succeed and prosper through helping our customers to succeed and prosper.

YOU TAKE NO RISK in sending your remittance with your order to avoid unnecessary C. O. D. charges as the United States Government also guarantees you protection.

We solicit your continued patronage on the basis of continual and complete satisfaction.

HOW TO ORDER

For your convenience an order blank is placed in this catalog. Use it, or your letterhead, or requisition form. Write plainly to eliminate any possibility of error, giving item number, quantity desired, name of item and total net price. Total the price column, add a sufficient amount for postage, if shipment is to be by parcel post, mail order to us and we will do the rest.

We will ship C. O. D. to our old customers but ask new customers desiring C. O. D. shipment to remit approximately one-quarter of the total amount of the order along with the first order.

Please assist us to serve you well by clearly indicating just how shipment is to be made—FREIGHT, EXPRESS, or PARCEL POST. If by freight, indicate any preference as to routing. If by parcel post, specify whether you desire the package registered or by special delivery or by air mail and be sure to include all parcel post charges. It is not necessary to request insurance as we insure all parcels valued over five dollars by private insurance. If no special instructions are given we will use our best judgment as to method of shipping as indicated by size and weight of package. We will always ship the quickest, safest and most economical way. Any excess postage you may have remitted will be returned to you.

MILLER-WELLES CO., Chicago, Ill.
The Season's Biggest Radio Offer

This set will please and delight the most exacting Radio Fan. It is selective enough for the most congested districts and powerful enough for the most remote parts of the country.

It has great volume and good full flowing tone, and is capable of great distance reception on the loud speaker. The circuit is balanced tuned Radio Frequency, two stages of Tuned R. F. detector, and two stages of audio being employed. The "CAMWELL FIVE" is designed to operate with the 171 Power tubes. Also a 300 A detector tube may be used in the construction of this set. Filaments are controlled by two Rheostats. Solinoid R. F. Coils are used as well as S. L. F. low loss condensers and Super Audio Transformers. The outward appearance of this remarkable set is absolutely unequalled in any set on the market at any-where near the price. Fine mahogany finished cabinet with gold engraved bakelite panel, bearing three 4-inch mahogany dials. The latter are made purposely large to make tuning easier and more accurate. If you give this set a trial you should make hundreds of sales, as you can offer your customer an elegant high class radio receiver at a figure your competitors cannot meet and still you can realize the wide margin to which you are entitled. Consider it! A real high class radio receiver with the appearance of a set selling at many times the price for only $19.55, or complete with tubes, batteries and high grade drum speaker, and aerial for the remarkably low price of $59.48.

DEALERS:

Buy and sell this receiver complete with all accessories. Install it ready to go just as it reaches you. No necessity for carrying quantities on hand as we ship complete and quickly. You should have, of course, a demonstrator on hand at all times. Send for it today and let us enjoy a real rush season together.

WRITE FOR EXCLUSIVE "CAMWELL" TERRITORY

We want more exclusive dealers. If you push our line in your city or county we will back you. Attractive offer on request if territory is still open.

ACCESSORIES SUPPLIED

<table>
<thead>
<tr>
<th>Item</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 20A Tubes</td>
<td>$7.00</td>
</tr>
<tr>
<td>1 171 Power Tube</td>
<td>$4.50</td>
</tr>
<tr>
<td>5 Lead Battery Cable</td>
<td>$0.60</td>
</tr>
<tr>
<td>4 45 V. Diamond &quot;B&quot; Batteries</td>
<td>$1.25</td>
</tr>
<tr>
<td>1 200 V. &quot;C&quot; Battery</td>
<td>$1.50</td>
</tr>
<tr>
<td>1 100 A.H. Radio &quot;A&quot; Battery</td>
<td>$1.50</td>
</tr>
<tr>
<td>1 Operetta Drum Speaker</td>
<td>$20.00</td>
</tr>
<tr>
<td>Complete Aerial Outil</td>
<td>$2.50</td>
</tr>
</tbody>
</table>

Total List Value Set and Accessories $102.35

1K5004—Set complete. Your net cost: $59.48

THE "OPEKETTA"

At Last—A Drum Speaker that is far superior in tone to any Cone Speaker on the market. The grill is beautifully designed with hand scrolled work and is set in an Aluminum Drum with attractive brown finish. High Grade Unit.

List price, $20.00. Net, etc., $11.76
DISTANCE — SELECTIVITY
TONE QUALITY

In the two beautiful models shown here, we have attempted to offer extremely popular designs at prices we know will produce a large volume of sales. The chassis of these "Camwell" models is constructed with expert workmanship. Gold decorated mahogany, bakelite panel, black polished bakelite sub-panel with direct panel mount push type sockets and spring detector socket. All transformers, coils, fixed condensers, etc., are mounted beneath the sub-panel so that all wiring is concealed. The attractive Kurz-Kasch mahogany dials are used, and two controls for clarity and one for volume assure maximum results.

"THE CIRCUIT" employs two stages of tuned radio frequency, detector, one stage of audio frequency and one stage of push pull amplification. Has two low loss condensers, one single gang in the antenna circuit and the other a two gang is used in tuning the R. F. circuits. Very high grade R. F. transformers. The last two tubes working together as one, eliminate any possibility of overloading. Thus doing away with high priced power tubes and giving better results.

"THE CABINET" is the beautiful two-tone Walnut model with full length p[iano finish] as described on page 46 of this catalog.

"THE CONSOLE" is the well made "High Boy" Speaker model, as described on page 48. Beautiful ply mahogany top and front with Adam Brown mahogany finished sides. Front is decorated by inlaid gold striping. Speaker horn and unit included. Ample room for batteries or eliminators. Complete with "UTAH" unit.

DEALERS: Here is Real Value. Make Big Profits. Your Customers will be more than Satisfied. No Service Problems. Order Your Demonstrator Now. Write for Exclusive Territory at Once.
"CAMWELL"

SINGLE CONTROL -- SIX-TUBE -- CONSOLE SPEAKER

Completely Shielded
Newcombe-Hawley Aircolumn Horn
Baldwin Unit

In The "Intermezzo" Console

$125.00

Your

Net Price

2% CASH DISCOUNT DEDUCTED--PRICES NET.

This is our finest offering in "CAMWELL" up-to-date Radio Receivers. The chassis is described in detail on the front inside cover of this book. The console speaker is the famous "Intermezzo" as described in detail on page 45 in this catalog. We have put together here the best chassis and console speaker we have to offer. In this set you will have what the customer wants and at a price he is willing to pay. And you can realize not only the satisfaction of selling a real high class outfit but also a net profit of $60.00 for each sales effort. This is a long but clean profit and every "CAMWELL" Set is guaranteed to satisfy. What more could you demand?

We would not offer a poor receiver in such a fine console speaker and you will find here keen selectivity for the city, power and volume for the country.

The COMPLETELY SHIELDED CHASSIS contains extra size audio transformers, space wound coils, localized for hair-line selectivity. Cushioned detector socket provides for power tube operation without alteration, and is controlled by an illuminated one-dial control. These and many other unusual features go to make this a receiver worthy of the praise it has received.

The BEAUTIFUL WALNUT CONSOLE contains behind the carved scroll the famous Newcombe-Hawley air column horn, with Baldwin unit, which produces faithfully all the high or low notes of the scale. The console is elegantly and solidly constructed of walnut, the front being of matched American butt walnut. Ample space is provided herein for power units, eliminators or batteries.

DEALERS: WRITE FOR EXCLUSIVE "CAMWELL" TERRITORY.

The "Baritone" Cone Speaker

The Baritone Cone Speakers embody all the latest scientific developments. They are noted for their deep natural tone and their ability to reproduce faithfully all that enters the microphone from the highest to the lowest notes. Further they will stand more than usual volume without distortion or blasting and at no sacrifice of tone quality. Added to all this, they have a grace and harmony of design that makes them blend perfectly with home surroundings.

<table>
<thead>
<tr>
<th>Cone Type</th>
<th>List Price</th>
<th>Net Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2E5135-20&quot;</td>
<td>$25.00</td>
<td>$14.70</td>
</tr>
<tr>
<td>2E5140-38&quot;</td>
<td>$39.00</td>
<td>$22.94</td>
</tr>
</tbody>
</table>

Shipping weight 100 lbs.

The "Temple" Drum

The Temple Speaker represents the most important advance yet made in Radio tone reproduction. It is sensitive beyond comparison and reproduces the entire musical scale with a tonal brilliancy that will enchant you.

The Temple is not just "another speaker"—it is not a cone, but rather a unique musical instrument of the long compensated exponential air column design, co-ordinated with a recently developed unit—and built to precision with acoustical qualities of an unusual character.

You can fit your console with a Temple Drum Tone Chamber. Write for prices, stating space size.

<table>
<thead>
<tr>
<th>Drum Type</th>
<th>List Price</th>
<th>Net Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2E5145-13&quot;</td>
<td>$29.00</td>
<td>$17.06</td>
</tr>
<tr>
<td>2E5150-18&quot;</td>
<td>$48.50</td>
<td>$28.52</td>
</tr>
</tbody>
</table>

DEALERS: WRITE FOR EXCLUSIVE "CAMWELL" TERRITORY.

MILLER-WELLES CO., Chicago, Ill.
**Hi-Q Foundation Unit**

Contains drilled and engraved Westinghouse Bakelite Micarta panel, completely finished Van Doorne chassis, four complete heavy aluminum shields, extension shafts, screws, cams and all necessary hardware required for Hi-Q Six receiver.

3X1051 - List, $15.50. Net, $9.87

**Hammarlund Shields**

Heavy sheet aluminum sides which slide into grooved aluminum posts are held firmly together by screws, designed specifically for new Hi-Q Six receiver.

3X1052 - List, $6.00. Net.... $3.83

**Midline Condenser**

The Hammarlund 'Midline' condenser has proved its worth during the past seasons. Its new recognition throughout the radio world as a precision product without a peer. The special shape avoids crowding of stations in either upper or lower bands. The new model is very compact and reliable.

3X1053 - List, $2.00. Net..... $1.28

**List of Parts**

These parts are required for the New Hammarlund-Roberts Hi-Q Six: 2 Samson Symphonic Transformers; 4 Hammarlund .0005 Midline Condensers, 4 Hammarlund Hi-Q Six Auto Couple Coils, 1 RFC-85 Radio Frequency Choke Coil, 1 Hammarlund Illuminated Drum Dial, 1.00 Mfd. Bakelite Condenser, 1 Hammarlund .0025 mfd. Bakelite grid cond. with clips, 1 Carter Imp 6-ohm rheo, 1 Carter Imp. battery switch with knob, 1 Durham metalized resistor, 2 meg.; 3 Parbolt ½ mfd. series A Cond., 2 Amperites 1-A, 1 Ampere 112.6 Eby Clipper, 1 Xavley Cable Connector and Cable, 1 Hammarlund-Roberts Hi-Q Foundation Unit.

3X1050 - Complete ready to build. List, $96.00. Net...

**Illuminated Drum Dials**

An entirely new Hammarlund product developed by the large demand for drum dials. For use with all condensers. Station may be tuned in with a simple movement of the finger. Wavelength scales are of translucent celluloid with small light back of them. Adaptable to all standard panel proportions.

3X1054 - Template, mounting screws and complete instructions included. List, $6.00. Net..... $3.83

**Hammarlund Midget**

Most popular midget condenser on the market today. Soldered brass plate, bakelite dial tract, one-hole mounting, specified in many popular circuits.

3X1061 - 16 mfd. List, $1.50. Net..... $0.96

3X1062 - 32 mfd. List, $1.50. Net..... $0.96

3X1063 - 50 mfd. List, $1.75. Net..... $1.11

3X1064 - 85 mfd. List, $2.00. Net...

3X1065 - 100 mfd. List, $2.25. Net...

**Hammarlund R. F. Choke**

This choke coil is a new Hammarlund product. A genuine helical winding.

3X1074 - 85 millihenries, three mands and resistance of 215 ohms. List, $2.06. Net...

3X1075 - 250 millihenries, capacity of 2 mands. List, $2.25. Net...

**U. S. L. Condensers**

Small Especially suited for small work. Very low loss.

3X1066 - Single cond. .0025 mfd. List, $1.75. Net..... $1.05

3X1067 - Single cond. .005 mfd. List, $1.75. Net..... $1.11

3X1068 - Single cond. .00025 mfd. List, $2.00. Net..... $1.28

3X1069 - 2-gang. .00035 mfd. List, $2.50. Net..... $2.23

3X1070 - 2-gang. .0005 mfd. List, $2.50. Net..... $2.55

3X1071 - 3-gang. .00035 mfd. List, $3.75. Net..... $3.66

**Hammarlund "Strobodyne" Coils**

These sets of coils are made up of standard and special Hammarlund coils; officially specified for the popular "Strobodyne" circuits.

3X1072 - Set of 3 coils. List, $10.80. Net..... $6.37

**Hammarlund Equalizer**

Another new Hammarlund product. Small neutralizing condenser having wide capacity range. Well constructed and essential in many popular circuits. Range 35 to 2 mfd.

3X1073 - List, $0.60. Net..... $0.32

MILLER-WELLES CO., Chicago, Ill.
ENJOY IT AT HOME
No Wires To String
About
Single Dial Control

The TRAV-LER is the answer to the question of "Portability" in Radio Receiving Sets. Weighs only 24 lbs, completely equipped and has the volume and quality of reproduction which puts it far in the lead in this type of receiver.

ACCESSORIES—5 UX199 or C299 tubes, 2 small 45-volt "B" Batteries or 4 small 22½-volt Batteries, 3 "A" Battery dry cells.

The TRAV-LER Portable is the result of exhaustive tests and experimenting and no expense has been spared to produce a high class receiving set. Has loop aerial contained in cover. Place it on top of set. Turn on switch and receiver is ready to operate. Equipped with D-X Coupler for use with long aerial and ground connection.

A radio so small and compact it can be carried like a hand bag. A powerful selective, clear-toned receiver at a price unbelievably low.

TK5008—List price, $65.00.
Net price, without accessories... $38.22

TK5009—List price, $84.25.
Net price, completely equipped... 48.02

THE NEW AERO-SEVEN

Ten kilocycle separation between stations is accomplished by the Aero Seven, the one drum dial set which is having a sensational sale. It employs Hi-Mu tubes in the Radio Frequency and tubes which have 1.6 the efficiency of 201A tubes, and make the performance of this set stand out. In all, it employs 5 of the new 240 (or 340), one 201A and one 171. In a new manner the antenna circuit is so compensated for in the Aero Seven that selective tuning is accomplished with one drum dial. Volume and tone quality of the highest degree.

LIST OF PARTS REQUIRED

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—Aero Seven Foundation Unit</td>
<td>$12.00</td>
</tr>
<tr>
<td>1—Aero TRF Kit, Code U-12 (2 coils)</td>
<td>12.00</td>
</tr>
<tr>
<td>1—Aero Choke No. 60</td>
<td>1.50</td>
</tr>
<tr>
<td>1—Silver-Marshall Drum Dial</td>
<td>3.00</td>
</tr>
<tr>
<td>1—Carter Battery Switch D</td>
<td>.65</td>
</tr>
<tr>
<td>1—Carter 6-ohm &quot;TMP&quot; Potentiometer</td>
<td>1.25</td>
</tr>
<tr>
<td>1—Carter 6-ohm &quot;TMP&quot; Rheostat</td>
<td>1.00</td>
</tr>
<tr>
<td>1—Carter H-1000 Resistor</td>
<td>.30</td>
</tr>
<tr>
<td>1—Carter H-1 Resistor</td>
<td>.25</td>
</tr>
<tr>
<td>1—Carter 0600 MFD Condenser</td>
<td>.40</td>
</tr>
<tr>
<td>1—Carter .001 MFD Condenser</td>
<td>.50</td>
</tr>
<tr>
<td>1—Carter ¼ MFD Bypass Condenser</td>
<td>1.80</td>
</tr>
<tr>
<td>10—X-L Binding Posts, Lettered Aerial, Ground, Ax, AC, 2C, B90, Amplifier Bx, Speaker x, Speaker C</td>
<td>1.50</td>
</tr>
<tr>
<td>1—Amsco Floating Socket</td>
<td>1.00</td>
</tr>
<tr>
<td>6—Amsco Plain Sockets @ $0.50</td>
<td>3.00</td>
</tr>
<tr>
<td>1—Amsco .000 MFD Triple Condensers</td>
<td>11.25</td>
</tr>
<tr>
<td>1—Amsco Grid Gate Mounting</td>
<td>.30</td>
</tr>
<tr>
<td>1—Amsco &amp; Meg. Grid Gate</td>
<td>.50</td>
</tr>
<tr>
<td>1—Kit AMSCO Aero Seven Resistance Coupled Audio</td>
<td>7.00</td>
</tr>
</tbody>
</table>

Total list price... $59.20
Net... $34.79
Aero Short Wave Kit

This Kit consists of three interchangeable coils units comprising a grid and plate inductance. A base is provided on which is mounted a grid and plate inductance. Changeable coils, each unit comprising the coils No. 4 and 5 shown at the left as they fit the base and use the same condensers.

3K901- Coll. No. 4. Range 125 to 240 meters. List, each $1.50. Net. each $2.36

3K902 - Coll. No. 5. Range 235 to 550 meters. List, each $4.00. Net, each $8.82

15 to 135 Meters Aero R. F. Regenerative Kit

A highly efficient low-loss Antenna coupler with Variable primary. Incorporates the famous aero principles adaptable to 201A, 199, 112, and the new A.C. tubes. (For Aero Four.)

3K907- For .0005 Condenser. $3.00

3K908- For .0005 Condenser. 8.00

Net price, each kit $4.71

Aero Interchangeable Coils No. 4, 5 and 0

By using these coils the range of your short wave tuner may be increased from 13 to 725 meters. These should be used interchangeably with the kit shown at the left as they fit the base and use the same condensers.

3K901- Coll. No. 4. Range 125 to 240 meters. List, each $1.50. Net. each $2.36

3K902- Coll. No. 5. Range 235 to 550 meters. List, each $4.00. Net, each $8.82

New Aero Universal 3-Circuit Tuner

This is the Aero coil in the form of a three-circuit tuner and is in this form a most efficient instrument. The 3-circuit tuner set may be made more efficient by many times when the 3-circuit tuner is used. Equipped with Va. C. tubes. Primary. Adaptable to 201A, 199, 112 and new A. C. Tubes.

List $15.00

3K906- For .0005 Condensers. $4.00

3K907- For .0005 Condensers. 8.00

Net, each $2.36

Aero Tuned R. F. Kit

For Aero-Dyne Six

Kit consists of four twice-matched units, one aeroc antenna inductance with variable primary and three aeroc R. F. Transformers adaptable to 201A, 199, 112 and the new 240 tubes and new A. C. Tubes. Tuning range 200 to 550 meters, for use with .0005 M. F. D. condenser or any .0005 condenser. Each kit carefully matched at both ends of broadcast range before packing.

3K903- For .0005 Condenser. List $15.00

3K904- For .0005 Condenser. List $8.82

Kit of 3 coils for Aero Seven

3K905- For .0005 Condenser. $12.00

3K906- For .0005 Condenser. $7.06

New Aero Dyne 6

The Improved AERO Dyne Six is a set with a national reputation for performance. It is easy to construct with the new AER0 Universal Coils because shielding is made unnecessary. Only parts of proven merit and of nationally known manufacturers are used in the set. Actual size blueprints are packed with AERO foundation unit, drilled and punched and engraved by Westinghouse Micarta. It consists of front panel and sub-panel. It is artistically set off with two drum dials. Front panel 24 inches.

LIST OF PARTS REQUIRED

1 Aero Foundation Unit. $12.50

1 Aero U16 kit of coils. 15.00

2 Silver-Marshall Drum Dials. 6.00

2 Silver-Marshall Type 220 Audios. 16.00

4 Hammerlind .0005 Condensers. 20.00

1 Benjamin Switch. 75

5 Silver-Marshall No. 611 Sockets. 2.50

3 Tobe 1 mf. condenser. 1.50

3 Tobe 250 Sockets. 2.00

1 Tobe 2 meg. Grid Leak Tapon. 60

1 Carter 601 Condenser. 40

1 Yaxley Switch Rheostat, 6-ohm. 1.65

1 Yaxley Potentiometer (300-ohm). 1.75

1 Yaxley Fixed Resistance, 1-ohm. 15

1 Polymat E Z Grid Leak Mounting. 15

1 X-L Binding Posts, lettering. Aerial Grid, Ground, A. C. Bat. +, B. C. Bat.-- (2) B 45+, B 90+, Amplifier D +, Speaker Pos., Speaker Neg. 1.65

Screw assortment and bus bars. 3.00

Total list price. $81.85

5K920- Your net cost $48.13

OPTIONAL TO B ELIMINATORS

1 Silver-Marshall "Unipack." See Page 14

1 Yaxley Cable No. 670. See Page 29.
LATEST NINE-IN-LINE

Tremendous Power
Maximum Selectivity
Ease of Construction

As Specified in the Citizens Radio Call Book

The efficiency of this powerful receiver has been repeatedly demonstrated here in Chicago. With many powerful locals on the air, scores of out of town stations were brought in with tremendous volume as well as super quality.

In this new model, which is a marked improvement over that of last year, there is a remarkable change which insures quiet operation as well as hair sharp selectivity.

The use of the New Audio Transformers, one of H. F. L.'s latest developments, coupled with the new output transformer and embodying the use of the 171 power tube, makes distortion practically impossible.

Four stages of intermediate frequency has successfully been designed, insuring great volume and selectivity. The great improvement in the audio circuit of this receiver has successfully overcome the tendency for the I. F. to feed into the audio stages. This has been one of the greatest disadvantages in superheterodyne operation.

By so arranging the various parts and using sub-panel mounting sockets the wiring of this set has been made extremely simple, and the appearance made equal to that of any factory built receiver by the use of the Remler drum dials.

The entire wiring being done under the panel all leads are therefore made extremely short, a very desirable feature in this type of set.

The new C-16 and C-25 H. F. L. Transformers will give you audio amplification of almost unbelievable purity. Build this set and you will get every note and overtone on the entire musical scale.

List of Parts Required


5K100—TOTAL LIST PRICE, $129.40.
YOUR NET PRICE $76.68

H. F. L. UNITS


Designed for boardbase or invisible panel mounting. All enclosed and sealed in uniform size genuine bakelite mounting. H-210—Iron core transformer, high amplification factor, Range 32,000 to 42,000 cycles.

3K1001—List price $4.71
$8.00. Net

H-215—Air core transformer, tuned stage, designed to amplify signals at maximum efficiency of 37,000 cycles.

3K1002—List price $4.71
$8.00. Net

L-425-Radio Frequency Choke Unit.

3K1003—List price $3.24
$5.50. Net

L-430—Low Loss Radio Frequency Transformer.

3K1004—List price $3.24
$5.50. Net

C-16 AND C-25

The new H. F. L. Audio Frequency Transformer (C-16) and the H. F. L. Output Transformer (C-25) together, are now introduced to the radio set builders as the most perfect means of Audio Amplification known to the science of radio. These new products are the final achievement of nationally known acoustical experts and electrical scientists. Their work has been enthusiastically endorsed by the most critical and skeptical of listeners.

3K1005—C-16, List $4.71
$8.00. Net

3K1006—C-25, List $4.71
$8.00. Net
Using the Famous Rusco Band Pass Filter

The Most Sensitive and Selective Circuit Ever Developed

Embodying many new features, outstanding among these features is the use of the famous Rusco Band Pass Filter in the intermediate frequency amplifier. This filter is designed to pass a band of frequencies 10 kilocycles wide. The amplification over this band is uniform and the cut-off on either side is extremely sharp. The result is perfect selectivity between wave bands of only 10 kilocycle separation in frequency.

LIST OF PARTS REQUIRED

1 Camfield 60025 Equaltune Variable Condensers ........................ $ 5.50
1 Camfield 60035 Equaltune Variable Condensers ........................ 5.75
1 Camfield 60035 Equaltune Variable Condensers (2-gang) .......... 10.50
1 Camfield Kit of 3 Camfield Duofomers ................................. 10.00
1 Camfield Electric Coupling Unit ....................................... 3.50
1 Rusco Band Pass Filter .................................................. 15.00
2 Rusco I. F. Transformers .............................................. 12.00

New Victoreen Universal Super 8

with the New Master Control Unit

LIST VALUE $11755
YOUR NET PRICE $69.12

EASY TO BUILD—EASY TO OPERATE

The Victoreen Universal Circuit is the concentrated result of laboratory experiment—an exhaustive study of Superhetrodyne requirements. It has been designed for those fans who will never be satisfied with anything except the best in radio reception. This circuit combines all those features which the radio fan demands—faithful reproduction of quality programs, careful consideration of selectivity, and the ability to get distant stations through local interference.

LIST OF PARTS REQUIRED

1 Lignole Front Panel, 7x26x3/16 in. ................................. $ 6.00
1 Victoreen 2-Ohm Rhoestat (use 6-Ohm Rhoestat for dry cell tubes) 1.20
1 Yaxley No. 10 Battery Switch ....................................... .50
1 Victoreen No. 400, 400-Ohm Potentiometer ...................... 1.50
1 Jewel, Pattern No. 135 Voltmeter (0-5 volt for storage battery tubes; 0-6 volt for dry cell tubes) .......... 7.00
1 Victoreen 6-Ohm Rhoestat (use 20-Ohm Rhoestat for dry cell tubes) 1.20
1 Victoreen Master Control Unit ..................................... 19.50
1 Yaxley No. 60 Jack Switch ......................................... 1.25

1 Victoreen Audio Control Unit (for power tubes in last audio stage, use a 10-Ohm Rheostat in the last stage) $ 4.50
1 Victor No. 7001 Mfd. Condensers with 1.00
1 Formica 10x29x3/4 drilled Sub-panel .............................. 7.50
1 Formica 10x29x3/4 drilled Sub-panel .............................. 7.75
3 Eby Binding Posts ...................................................... .75
1 Jones Type F. M. Multiplug Sub-Panel with 8-ft. battery cable .... 2.50
1 PolyTrol (Automatic Rheostat) ..................................... 1.00
1 Formica 14x8x3/8 drilled and eng. Panel ........................... 7.50
1 Formica 14x8x3/8 drilled and eng. Panel ........................... 7.75
Complete set of Actual Size Blue Prints ............................. 1.50
Miscellaneous lugs, wire, screws, etc ................................. 1.50

Total list price .......................................................... $123.35

See next page for Camfield Parts.
Tyman Transformers

A New Achievement in Tone and Volume

Reproduction—amplified in life-like volume—all the notes, round, clear, full—from the deepest organ base to the highest piccolo in the acoustic achievement of the New Tyman Audio Transformers. You will recognize them as masterpieces of transformer construction. Their amplification curve is ideal for reproduction no matter what speaker should be employed as their interpreter.

The combination of three units is recommended, where greatest volume is to be obtained with most faithful reproduction.

3X1101—Type 4-30 A-1 ratio Transformer. List, $8.00. Net, $5.88.
3X1102—Type 3-50 Power Input Transformer. List, $8.00. Net, $5.88.
3X1103—Type 6-61 Power Output Transformer. List, $10.00. Net, $5.88.

Camfield Duofomer Kit

A radio frequency transformer, especially designed to avoid oscillation trouble. Sets and units built with this transformer are both sensitive and selective, and free from disturbing oscillations without the necessity of neutralizing.

Camfield Duoformers are packed in kits of three, one antenna coupler and two radio frequency transformers, and are especially tested and matched.

3X1701—Kit of 3 sets. List, $5.88. Net, $10.00.

Tyman Shielded Sockct

Is the first practical and successful design of its kind. Suits proper functioning of each tube under the influence of static and magnetic fields.

Shielding is of heavy aluminum—the best heat conductor of any available material which radiates uniformly and keeps tube temperature constant.

Constructed to allow panelboard mounting or sub-panel wiring.

3X1104—List prices, $1.25. Net, each, 74c.

Camfield Coupling Unit

Type 200, wound of green silk on black bakelite tubing. Designed for hardboard, sub-panel placement.

The terminals of the primary or rotor winding are connected to the secondary frame through flexible leads. The secondary winding is split in the center and four terminals are provided. This gives flexibility and makes the coupling adaptable for use in many different circuits.

3X1715—List, $3.50. Net, each, 2.06c.

Single and Double Rotor Couplers

Wound with silk covered wire on bakelite tubing.

3X1350—Double Rotor Coupler, No. 31, List, $7.50. Net, $4.78.

30 HENRY CHOKE

For requirements of "T" Eliminator and other circuits carrying up to 80 m. where choking need be infinitesimal. 30 henrys D.C. Resistance 200 v. Insulated Binding Posts for connections. Efficiency very high. Voltage drop very small.

3X1353—Choke No. 30, List price, less 35% and 2%.

CAMFIELD CONDENSERS

Beautifully constructed. Rotor and Stator plate bright dipped brass. Other parts hard buffed and nickel plated. Shaft may be shortened, lengthened or removed altogether. Many condensers may be connected and operated by one dial rotor mounted on ball bearings. Special adjustment eliminates necessity for trimmer and condensers. Brackets for hardboard or sub-panel mounting at slight additional cost. All condensers supplied with tuning tool with all double and triple condensers.

3X1370—Capacitor values available.
3X1371—Capacitor values available.

SAMBON "B" ELIM. TRANSFORMER

Built at 46 watts. Furnishes 200 V. Plate supply at 80 M. From 0 up. Powered to furnish filament supply for 1, 2 or 3 tubes or CX 360 Tube and another winding for one or two 117 tubes.

3X1355—Transformer No. 185, price, Less 35% and 2%.

R. F. CHOKE COIL

Bakelite end plates and tubing. Inductance 50 M.H.

3X371—Choke coil No. 85, List, $2.00. Net, 95c.

3X1362—Plate Imped. Type P.
3X1363—Field Imped. Type O.
3X1364—Dual Imped. Type D.
3X1365—Out Put Imped. Type O.
3X1366—Henry Choke 200 M.A.
3X1367—Speaker Filter No. 304.

List Less 35% and 2%.

3X1363—Antenna Coil No. 71, List, $2.85. Net, $1.92.

OTHER SAMBON ITEMS

List Net
3X1364—Antenna Coil No. 304, $2.87.
3X1365—Antenna Coil No. 304, $2.87.
3X1366—Antenna Coil No. 304, $2.87.
3X1367—Antenna Coil No. 304, $2.87.

CASH DISCOUNT DEDUCTED—PRICES NET.
Powerful Coast to Coast Receiver

"You Can Duplicate It"

Described in September Citizen's Radio Call Book

Compare this Tyrman one-spot Ten with any other receiver in the world for selectivity—tone quality—stability and beauty in appearance.

This Tyrman masterpiece of radio engineering was designed for those who demand the ultimate in radio receiving.

It has been tested and proved under the most severe receiving conditions.

Duplication of laboratory performance is guaranteed and insured by the Kurz-Kasch Capacity Connector which stabilizes the circuit, acts as a by-pass condenser and eliminates 90 per cent of wiring and soldering.

With beautifully decorated Panel and Ivory Bakelite Sub-Panel it presents an appearance not heretofore attained.

Kurz-Kasch Capacity Connector

This apparatus is destined to revolutionize radio set building. Invented by an outstanding pioneer, Mr. E. T. Flewelling, and made by the Kurz-Kasch Company for exclusive use with high grade receivers built of apparatus of Tyrman quality.

It will eliminate the greatest part of wiring with all its distributed capacities and fields where pick-up of signals within the receiver should be avoided. Speed of assembly is combined with surety, which prescribes conditions under which component parts of the circuit would operate. It automatically will make every receiver a duplicate of the laboratory model.

Kurz-Kasch Capacity Connectors enable the set builder to construct his receiver regardless of number of tubes in a fraction of time he needed heretofore. It combines rigidity, cleanliness with lack of opportunity for errors in wiring, lack of troublesome feedback of wiring, without a single constructive criticism. Finally, it stabilizes the circuit to an extent where a great number of by-pass condensers are eliminated.

All TYRMAN TRANSFORMERS are constructed in conformity with the terminal arrangement of this outstanding patented device.

LIST OF PARTS REQUIRED

<table>
<thead>
<tr>
<th>Description</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Tyrman Type 8-70 R. F. Transformers</td>
<td>$8.00</td>
</tr>
<tr>
<td>1 Tyrman Type 8-71 R. F. Transformer</td>
<td>$4.00</td>
</tr>
<tr>
<td>4 Tyrman Type 8-80 R. F. Transformers</td>
<td>$28.00</td>
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<tr>
<td>1 Tyrman Type 3-20 Audio Transformer</td>
<td>$8.00</td>
</tr>
<tr>
<td>1 Tyrman Type 3-50 Power Input Transformer</td>
<td>$10.00</td>
</tr>
<tr>
<td>1 Tyrman Type 3-51 Power Output Transformer</td>
<td>$10.00</td>
</tr>
<tr>
<td>1 Tyrman Vernier Drum, double</td>
<td>$10.00</td>
</tr>
<tr>
<td>10 Tyrman Shielded Sockets</td>
<td>$12.50</td>
</tr>
<tr>
<td>1 Kurz-Kasch Capacity Connector</td>
<td>$7.50</td>
</tr>
<tr>
<td>1 7 x 26&quot; Front Panel, drilled and decorated Bakelite</td>
<td>$6.90</td>
</tr>
<tr>
<td>1 7 x 26&quot; Sub Panel, Ivory Bakelite</td>
<td>$6.20</td>
</tr>
<tr>
<td>2 Benjamin Brackets</td>
<td>$.70</td>
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<tr>
<td>1 Carter 1 mfd. Condensers</td>
<td>$2.50</td>
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<tr>
<td>1 Carter 4 mfd. Condenser</td>
<td>$.90</td>
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<tr>
<td>1 Carter .00025 Mica Condenser</td>
<td>$.40</td>
</tr>
<tr>
<td>1 Carter .001 Mica Condenser</td>
<td>$.50</td>
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<tr>
<td>1 Yaxley No. 669 Cable Connector, complete</td>
<td>$3.75</td>
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<tr>
<td>1 Polyvynol 3 Meg Resistance with mounting</td>
<td>$.28</td>
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<tr>
<td>1 Yaxley 6L Filament Resistance 1/2 amp, 5 volts</td>
<td>$.15</td>
</tr>
<tr>
<td>1 Yaxley 5L Filament Resistance 1/4 amp, 5 volts</td>
<td>$.15</td>
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<tr>
<td>1 Yaxley 80 ohm Potentiometer</td>
<td>$1.75</td>
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<tr>
<td>2 Silver 50 mnf. Midget Condensers</td>
<td>$3.00</td>
</tr>
<tr>
<td>1 Yaxley 25 ohm Rheostat with Switch</td>
<td>$1.75</td>
</tr>
<tr>
<td>2 Eby Binding Posts</td>
<td>$.30</td>
</tr>
<tr>
<td>1 Type 351 Camfield .00025 Condenser</td>
<td>$6.00</td>
</tr>
<tr>
<td>1 Type 352 Camfield .00005 Two-Gang Condenser</td>
<td>$10.00</td>
</tr>
<tr>
<td>1 Yaxley No. 7200 Grid Resistance</td>
<td>$.25</td>
</tr>
</tbody>
</table>

Total list price: $142.48

5 X $1000 = Your Net Price: $84.41
S-M Plug-In Coils

Interchangeable coils covering a range from 18 to 3000 meters. Space wound on moulded bakelite provides practically air-supported inductance. All coils designed for .0085 mfd. Variable condensers except No. 117 which requires the .00114 S-M No. 517 condenser, and have six contacts to fit S-M 515 socket.

Coil ranges are as follows:
- Type A—190-550 meters.
- Type B—18-200 meters.
- Type C—20-75 meters.
- Type D—500-1500 meters.
- Type E—1400-3600 meters.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>List price (S)</th>
<th>Net price (S)</th>
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<tbody>
<tr>
<td>3K800-110A</td>
<td>List, 52.50</td>
<td>$52.50</td>
<td>$52.50</td>
</tr>
<tr>
<td>3K801-111A</td>
<td>Net, each</td>
<td>$2.50</td>
<td>$2.50</td>
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<tr>
<td>3K802-114A</td>
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<tr>
<td>3K803-115A</td>
<td>$1.47</td>
<td>$1.47</td>
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<tr>
<td>3K804-116A</td>
<td>Net, each</td>
<td>$2.94</td>
<td>$2.94</td>
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<tr>
<td>3K805-118A</td>
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<td>$2.94</td>
</tr>
<tr>
<td>3K806-110F</td>
<td>$2.94</td>
<td>$2.94</td>
<td></td>
</tr>
<tr>
<td>3K807-117B</td>
<td>Net, each</td>
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<td>$2.94</td>
</tr>
<tr>
<td>3K808-110C</td>
<td>$1.47</td>
<td>$1.47</td>
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<tr>
<td>3K809-111C</td>
<td>Net, each</td>
<td>$1.47</td>
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<tr>
<td>3K810-110D</td>
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<td>3K811-111D</td>
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<tr>
<td>3K812-113D</td>
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<tr>
<td>3K813-116D</td>
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<tr>
<td>3K815-116E</td>
<td>$1.47</td>
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<tr>
<td>3K816-117M</td>
<td>Net, each</td>
<td>$1.47</td>
<td>$1.47</td>
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<tr>
<td>3K817-117N</td>
<td>Net, each</td>
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<td>$1.47</td>
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<tr>
<td>3K818-117O</td>
<td>$1.47</td>
<td>$1.47</td>
<td></td>
</tr>
<tr>
<td>3K819-117P</td>
<td>Net, each</td>
<td>$1.47</td>
<td>$1.47</td>
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<tr>
<td>3K820-117</td>
<td>List, $14.00</td>
<td>$14.00</td>
<td>$14.00</td>
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<tr>
<td>3K821—Coil Socket. All Coils.</td>
<td>List, $1.00</td>
<td>$1.00</td>
<td>$1.00</td>
</tr>
<tr>
<td>3K822—101 B Coupler 150-550 Meters with .0085 Cond.</td>
<td>List, $5.00</td>
<td>$5.00</td>
<td>$5.00</td>
</tr>
<tr>
<td>3K823—105 Coupler, Range 190-550 with .0085 Cond.</td>
<td>List, $5.00</td>
<td>$5.00</td>
<td>$5.00</td>
</tr>
<tr>
<td>3K824—205 Antenna Coil, 190-550 .0085 Cond.</td>
<td>List, $2.50</td>
<td>$2.50</td>
<td>$2.50</td>
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<tr>
<td>3K825—Cap. .000004 to .000076</td>
<td>Net, each</td>
<td>$2.94</td>
<td>$2.94</td>
</tr>
<tr>
<td>3K826—Cap. .000003 to .000026</td>
<td>Net, each</td>
<td>$2.94</td>
<td>$2.94</td>
</tr>
</tbody>
</table>

Midget Condensers

For compensating, balancing, antenna, coupling, etc. Brackets mounted on bakelite end plate for Panel or Sub-base mounting complete with knob.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>List price (S)</th>
<th>Net price (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K826—Cap. .000003 to .000026</td>
<td>No. 342</td>
<td>$3.00</td>
<td>$3.00</td>
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<tr>
<td>3K827—Cap. .000004 to .000076</td>
<td>No. 342</td>
<td>$3.00</td>
<td>$3.00</td>
</tr>
</tbody>
</table>

| Net, each | $1.50 | $1.50 |

List, $3.00. Net, each $3.00

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>List price (S)</th>
<th>Net price (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K828—Cap. .0000005 to .0000014</td>
<td>No. 343</td>
<td>$1.47</td>
<td>$1.47</td>
</tr>
</tbody>
</table>

Push-Pull Transformers

3K829—Push-Pull input No. 230
3K828—Push-Pull output No. 231
List price, $10.00. Net each $5.88
No. 230 suitable for highest quality Power amplifier or as a variable ratio straight audio 0.5 to 5.000 cycles. Ra- tio 3:1 for both first and second-stage opera- tion with standard tubes. Primary inductance 100 Henries. Secondary, 900 Henries.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>List price (S)</th>
<th>Net price (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K829—S-M No. 231</td>
<td>List, $7.50</td>
<td>$7.50</td>
<td>$7.50</td>
</tr>
<tr>
<td>3K830—S-M No. 221</td>
<td>List, $8.00</td>
<td>$8.00</td>
<td>$8.00</td>
</tr>
<tr>
<td>3K831—S-M No. 316A</td>
<td>No. 230 A.W. at 30 cycles</td>
<td>$4.41</td>
<td>$4.41</td>
</tr>
<tr>
<td>3K832—S-M No. 316B</td>
<td>No. 221 above</td>
<td>$4.41</td>
<td>$4.41</td>
</tr>
<tr>
<td>3K833—S-M No. 317</td>
<td>with 4 phone tip jacks and 5 ft. extension cord.</td>
<td>$4.41</td>
<td>$4.41</td>
</tr>
</tbody>
</table>

Audio Transformers

Sold under a money back guarantee. Provides straight-line amplification from 50 to 5,000 cycles. Ra- tio 3:1 for both first and second-stage op- eration with standard tubes. Primary inductance 100 Henries. Secondary, 900 Henries.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>List price (S)</th>
<th>Net price (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K837—S-M No. 220</td>
<td>List, $8.00</td>
<td>$8.00</td>
<td>$8.00</td>
</tr>
<tr>
<td>3K838—S-M No. 325 Step-down Trans.</td>
<td>List, $1.00</td>
<td>$1.00</td>
<td>$1.00</td>
</tr>
<tr>
<td>3K839—S-M No. 329A Power Trans.</td>
<td>List, $1.00</td>
<td>$1.00</td>
<td>$1.00</td>
</tr>
<tr>
<td>3K840—S-M No. 330A Power Trans.</td>
<td>List, $1.00</td>
<td>$1.00</td>
<td>$1.00</td>
</tr>
</tbody>
</table>

Drum Dial

Vernier drum dial furnished with attractive oxidized brass panel bezel. Simple to mount, suitable for any standard shaft condenser, either panel or sub base mounting. Universal, either right or left hand position. Can be illuminated. Lamp bracket supplied.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>List price (S)</th>
<th>Net price (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K841—S-M No. 221</td>
<td>List, $5.85</td>
<td>$5.85</td>
<td>$5.85</td>
</tr>
</tbody>
</table>

Long Wave Transformers

3K842—S-M No. 210 Transformer supplied at any peak plate 50-60 K C for 20A Tubes.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>List price (S)</th>
<th>Net price (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K843—S-M No. 211</td>
<td>Peaked from 50 to 70 K C for any type tube.</td>
<td>$5.85</td>
<td>$5.85</td>
</tr>
</tbody>
</table>

MILLER-WELLES CO., Chicago, III.
Improved Silver Laboratory Model Super

As described in the September Citizen's Radio Call Book

The performance of the Improved Laboratory Shielded Six is a positive revelation! The selectivity is so high that even with a short indoor aerial or 50-foot outdoor antenna, adequately selective to separate all the locals, and sensitive enough to pull in far distant stations, through local broadcasting.

The Shielded Six is a real receiver—difficult to equal at any price.

The Shielded Six may be built as a completely light-sOCKET-operated batteryless receiver by employing the new A.C. tubes and type 652A or 6564A, A.F. power supply units. The A.C. kit containing all parts for the regular 630, plus extra resistance, etc., is $6.00 A.C.

The Shielded Six is one of the highest types of broadcast receivers ever developed. Three stages of shielded tuned radio frequency amplification, piped with manual sensitivity control providing peak efficiency over the entire broadcast wavelength range give extreme sensitivity and selectivity to the receiver.

Two dial control of the Shielded Six is provided by a link motion which hangs together the second, third and detector stage condensers. So accurate is the matching of the coils and condensers provided in each No. 630 factory matched kit that no balancing or compensation is required. The receiver is assembled upon a pierced and formed steel chassis with decorated metal panel and removable aluminum shields. A single knob varies the volume from a whisper to a roar, the filament adjustment of all tubes (S-CX391A and 1-CX311) being non-critical and automatically controlled. The "Six" is remarkably simple to construct, smooth in operation, functioning perfectly with a short indoor aerial or 50-foot outdoor antenna, adequately selective to separate all the locals, and sensitive enough to pull in far distant stations, through local broadcasting.

Complete build-in instructions included.

(If shielded oscillator and first detector are desired, add $2.40 for two S-M type 631 stage shields.)
The S-C II Receiver

5K855 - KIT COMPLETE

List $64.35 - NET. $37.24

Representing the combined engineering skill of McMurdo Silver & Lawrence M. Cockaday, the S-C II is a two-diode five-tube receiver. The stages of radio frequency, amplification detector, and two stages transformer coupled audio frequency amplification) designed to give outstanding performance under all conditions of use.

The sensitivity of the S-C II is exceeded by no other five-tube set, its selectivity is ample for present day broadcasting conditions and its tone quality is guaranteed, exceeded only by the Shielded Six.

Editors and authorities throughout the United States and Canada have commended S-C II with highest praise in scores of periodicals and newspapers, and thousands of satisfied owners are demonstrating its quality to their friends.

LIST OF PARTS REQUIRED

1. Van Doorn pierced and decorated Steel Panel (size 7"x12½" x1½"; weight 3 lbs. 5 oz.) $9.00
2. National Vernier Dials, type B, clockwise. $6.00
3. Carter Tip Jacks $0.75
4. Carter M-200-S Potentiometer $1.25
5. Carter Tip Jacks $0.50
6. Benjamin 9040 Socket $2.00
7. Polymet 1 mfd. Condensers $2.00
8. Eby Binding Posts $1.50

Total List Price. $64.35

The S-M No. 660-171 Push-Pull Unipac is one of the finest power pack obtainable on the market. Utilizing two CX316 rectifiers, a CX371 or 171 Sonatron Power amplifier, an extra tube 85 M.A. Gaseous Rectifier tube, and also a CX374 Glow Tube, a Q.R.S. or Son-Otron 85 M.A. Gaseous Rectifier tube, it will deliver 1.5, 2.5, and 5 volts AC from three separate windings and therefore performs as a complete ABC Power unit for any receiver using AC Tubes.

List of Parts

1. No. 329 A Power Transformer $11.00
2. No. 331 Unichoke $1.00
3. No. 352 Condenser Bank $6.00
4. No. 611 Sockets $1.50
5. No. 653 Resistor $2.00
6. No. 654 Steel Base, with 4 binding posts, hardware, hook-up wire and assembly instructions $1.50

Total list price. $36.50

Reservoir A.B.C. Power Supply Kit

652A

The kit as listed here supplants the Reservoir "B" Power supply kit. The 329A Transformer included in addition to supplying 45 and 90 volts will furnish 210 volts maximum for a CX371 or 171 Sonatron Power amplifier. (40 for grid bias, 160 for Plate potential). The kit uses also a CX374 Glow Tube, a Q.R.S. or Son-Otron 85 M.A. Gaseous Rectifier tube. It will deliver 1.5, 2.5, and 5 volts AC from three separate windings and therefore performs as a complete ABC Power unit for any receiver using AC Tubes.

List of Parts

1. No. 329 A Power Transformer $11.00
2. No. 331 Unichoke $1.00
3. No. 352 Condenser Bank $6.00
4. No. 611 Sockets $1.50
5. No. 653 Resistor $2.00
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6. No. 654 Steel Base, with 4 binding posts, hardware, hook-up wire and assembly instructions $1.50

Total list price. $36.50
New World’s Record Super 10

Radio’s Most Powerful Receiver

Your Price $90.32

List $138.80

Net $88.52

Holds All Principal World’s Long Distance Records

DISTANCE—Here is the receiver for the man who wants the most powerful and sensitive set it is possible to build. Many claim to have received certain foreign stations once or twice, but the World’s Record Super proved its claim to consistent range by bringing in stations distant 6,000 miles or more, night after night. Below are a few of the principal records made by this remarkable receiver.

(1) World’s Record for the greatest distance voice has been heard with a receiver using LOOP aerial only. WCBD was heard at Tasman, New Zealand—an air line distance of 8,375 miles—on March 17th.

(2) World’s Record for the greatest number of stations heard which are distant 6,000 miles or more. A total of 19 stations were brought in.

(3) World’s Record for the greatest number of broadcasting stations distant 6,000 miles or more, that have ever been logged on any one evening. Six foreign stations were logged in two hours and a quarter.

(4) During a period of three months a total of 117 programs were heard and logged, all stations being 6,000 miles or more distant.

All these records are fully verified and at test. A leaflet telling the story of the remarkable achievements will be sent you free. Together with the proofs of reception will be mailed on request.

KEEN, NON-CRITICAL SELECTIVITY

Consistent long distance reception is only ONE of the attributes of the World’s Record Super 10. The amazing sensitivity of this remarkable radio, making possible these astounding feats of long distance reception is further enhanced by keen non-critical selectivity. The World’s Record Super 10 tunes through the local stations with ease and simplicity, and brings in distant stations only a few meters apart. Here is a super radio designed to accommodate the conditions of the present day.

TREMENDOUS UNDISTORTED VOLUME

Then ten tubes used in the World Record Super 10 are all connected in a circuit that has as its basic purpose the interception and amplification of distant signals, and this ultimate purpose is so expertly achieved that the reception actually improves the timber and quality of the selections that are received.

A Radio to be entertaining must be pleasant to listen to. The World’s Record Super 10 is more than a pleasure—it is a revelation in tonal qualities.

EASY TO ASSEMBLE

Complete building instructions and full sized working blue prints show exactly where to place each part, and how to execute each operation of assembly so that you cannot go wrong. These prints are so easily followed that anyone without previous experience can make an EXACT DUPLICATE of this unparalleled radio, and be the proud owner of the finest and most powerful radio available today.

A LIST OF THE REQUIRED PARTS

1 Formica Panel, drilled and engraved, 26x7x
3/16, $7.75; 1 Formica sub-panel, 25x8x7/8, $7.00; 1 Remier 1 in. line balance No. 633, $0.05; 1 Remier condenser No. 638, $0.05; 1 Remier drum dials No. 116 (1 each 110 and 110K), $0.00; 2 Remier R. F. Choke Coils No. 25, $1.80; 2 Thordarson audio transformers No. 38, $1.60; 1 Thordarson output transformer No. 78, $5.00; 2 Selectone L. W. Transformers No. B500, $12.00; 2 Selectone L. W. Transformers No. B518, $12.00; 2 Selectone R. F. Transformers No. 520, $16.00; 1 Selectone Antenna coupler No. 530, $5.00; 1 Selectone Oscillator coupler No. 540, $5.00; 10 Benjamin Sockets (without bases), $5.00; 1 pair Benjamin brackets No. 6229, $0.75; 1 Carter Rheo. 1R-115-8 Ohms, $1.50; 1 Carter Rheo. 30 ohms, $1.00; 1 Carter Power Rheostat MW-1 Ohm, $0.75; 1 Carter Imp. Pot. IR-400 Ohms, $1.25, 1 Carter fixed condenser .00025 with grid clips, $0.60; 1 Carter fixed condenser .002, $0.50; 1 Pr. No. 10 Carter pin in line balance No. 633, $0.25; 1 SM Balancing condenser No. 240, $1.10; 1 Jewel Voltmeter 0.8 Volts Pat. 125, $7.00; 4 Tobe By-Pass condensors 1 Mfd. $3.60; 1 Tobe grid leak, $0.60; 1 Jones 10-contact plug and 4 ft. cable type No. B6, $3.50; 1 3/4 in. Keilögen-blender 100, $0.25; 30 feet Belden rubber covered hook-up wire, $0.25. Blue Prints, $0.25.

3K120—Parts complete.

List, $138.80. Net, $88.52

Matched Selectone Units

For Sub-Panel Mounting

3K1201—Selectone B-500 Intermediate Frequency Transformer $6.00 3K1202—Selectone B-510 Tuned Filter 6.00 3K1203—Selectone B-520 Radio Frequency Transformer 5.00 3K1204—Selectone B-530 Antenna Coupling Unit 5.00 3K1205—Selectone B-540 Oscillator Unit 5.00

The widely known accuracy of design and precision of manufacture represented in all Scott products is embodied in each of the above devices, essential in the construction of the New World’s Record Super 10. Housed in a highly polished Bakelite case with all terminals plainly marked.
The Power-six offers the latest improvements in radio. It includes the basic superiority of the original counterphase circuit with the additional refinements to make possible through improvements in tubes, resistances and other parts. It provides for using power tubes output, thus greatly improving tone quality. The superior qualities of the previous Counter-Hase-six are well known. This kit is more simple, easier to construct.

### PARTS REQUIRED

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<tr>
<th>Item</th>
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<tr>
<td>1 B T Euphonic Audio Transformer</td>
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<tr>
<td>2 B T Tuning Controls</td>
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<tr>
<td>1 B T Euphonic Audio Transformer</td>
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<tr>
<td>2 B T UXA or UL Sockets</td>
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</tr>
<tr>
<td>1 Double Circuit Jack</td>
<td>6.70</td>
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</tbody>
</table>

### POPULAR BREMER-TULLY PARTS

- **3K 1302** - Tuning Controls: $2.50, Net: $1.60
- **3K 1303** - B-T Choke: $2.50, Net: $1.60
- **3K 1304** - Universal Socket: $1.75, Net: $1.48
- **3K 1309** - Euphonic Audio Transformer: 3.2 to 1: 5.00, Net: 3.19
- **3K 1310** - Euphonic Audio Transformer: 4.7 to 1: 5.75, Net: 3.63
- **3K 1314** - B-T Micro-mils: 1.00, Net: 64¢

### FROST DE LUXE REBOSTATS

Here are the new Frost Radio Deluxe Reboostats and Potentiometers. All resistances are wound on the new flexible bakelite (not fiber) which will not warp or distort. Exposed metal is enamelled frame rheostats and potentiometers are nickel plated. All units equipped with black bakelite knob, engraved white arrow indicator.

#### BAKELITE

- **3K 4000** - 2 ohm: List: 75¢, Net: 45¢
- **3K 4001** - 4 ohm: List: 75¢, Net: 45¢
- **3K 4002** - B-T Choke: List: 75¢, Net: 64¢
- **3K 4003** - 10 ohm: List: 75¢, Net: 45¢
- **3K 4004** - 15 ohm: List: 75¢, Net: 45¢
- **3K 4005** - 25 ohm: List: 75¢, Net: 45¢
- **3K 4006** - 50 ohm: List: 75¢, Net: 45¢

#### POTENTIOMETERS

- **3K 4007** - 200 ohm: List: $1.00, Net: 59¢
- **3K 4008** - 400 ohm: List: $1.00, Net: 59¢

#### METAL

- **3K 4010** - 2½ ohm: List: $1.00, Net: 59¢
- **3K 4011** - 5½ ohm: List: $1.00, Net: 59¢
- **3K 4012** - 10 ohm: List: $1.00, Net: 59¢
- **3K 4013** - 15 ohm: List: $1.00, Net: 59¢
- **3K 4014** - 20 ohm: List: $1.00, Net: 59¢
- **3K 4015** - 40 ohm: List: $1.00, Net: 59¢
- **3K 4016** - 75 ohm: List: $1.00, Net: 59¢

#### FROST EXTENSION CORDS

- **3K 4020** - 10 ft. length: $2.00, Net: 1.18
- **3K 4021** - 25 ft. length: $2.25, Net: 1.33
- **3K 4022** - 30 ft. length: $2.50, Net: 1.47
- **3K 4023** - 50 ft. length: $3.00, Net: 1.77

### CROSS MARKETS

- **3K 4039** - Modu-Plug: $2.50, Net: 1.47

### POLY CLARO PLUG

Will improve the tone quality of any loud speaker. Eliminates foreign noises, especially for summer reception. Rays noise and interferes with powerful nearby stations.

- **3K 4041** - List: $1.50, Net: 99¢
Radio News Strobodyne Eight

"The Greatest Circuit of the Year"

This sensational receiver was only recently developed, and has been endorsed by many leading radio engineers. The Radio News has written many articles giving complete instructions for building. Combined in this receiver you will find the five following features:

1. An entirely new frequency changer operating on a new and original principle.
2. A circuit unexcelled for distance with great selectivity, out-performing the best superheterodynes in use today.
3. Remarkable sensitivity.
4. Stations come in at but one place on the dials.
5. Tremendous volume with no distortion.

The following list of parts are taken from the August issue of the Radio News:

**List of Parts Recommended**

- 3 Hammerlund .00035 variable condensers,
- 1 set of three Auto couple coils (special built),
- 4 R. E. L. R. F. Units (plug in type F),
- 3 Thordarson R. 200 Audio Transformer, 4 Thordarson Output filter, 1 B. T. choke, 1 Daven Compensating condenser, 3 Carter Imp. 20 Ohm rheostats, 1 Carter 400 Ohm Potentiometer, 4 Carter By-Pass, 5 Mfd. Cond., 1 Carter fixed condenser .002 Mfd., 8 Benjamin sockets, 1 Carter filament switch, 4 Daven filament Ballasts 6 volt .1 amp., 1 Daven Filament Ballast 6 volt .4 amp., 2 Daven Balancing Cond., 1 Carter variable resistance 100,000 ohms, 1 Formica plain front panel 8x24x3/16 not drilled, 1 Formica sub-panel 12x25 %x% not drilled, 6 dozen screws, 2 rolls Belden rubber-covered hook-up wire, 1 brass shaft.

5X1150—Parts Complete. List $116.03. Net $68.56

The World's Record Super 8

The superheterodyne is acknowledged by leading radio engineers the most selective and powerful receiver it is possible to build. The circuit used in the World's Record Super 8 is practically the same as that used in the famous set that established the four world's records for long distance reception, and is one of the most efficient supers ever developed.

The Selectone Transformers used in the I. F. stages are supplied in perfectly matched sets consisting of two intermediate frequency and two sharply tuned filter transformers, and gives the set high-line selectivity, making it particu- larly suitable for use in locations where a number of powerful broadcasting stations make it difficult for an ordinary receiver to cut through. These transformers in addition to being tested and matched with the finest precision laboratory testing equipment, are given a final test in a special testing receiver, making sure that every set of transformers will operate perfectly when built into a receiver.

It brings in distant stations any night in the week with good volume. The use of Silver Marshall audio transformers give it exceptional tone quality.

**Parts Required**

- 2 Remler condensers No. 631, $10.00; 1 Hammerlund Midget condenser .00055, $1.50; 2 Selectone transformers R400, $12.95; 2 Selectone transformers R410, $12.60; 1 Selectone Oscillator Coupler No. 340, $3.50; 2 B. M. Audio transformers No. 230, $16.00; 8 Benjamin Sockets, $6.00; 2 Tobe By-Pass condensers, 1 mf., $1.30; 1 Carter Fixed Condenser .002, $6.00; 1 Carter Hi-Ohm 500,000 ohms, $2.60; 1 Carter Rho 1R30, $1.80; 1 Carter Rho 1R46, $1.50; 1 Carter Fixed resistance 1.1-3 ohms, $0.25; 3 Carter-tip jacks No. 10, $0.20; 1 Carter Jack No. 1, $0.25; 3 XL Binding posts, $0.45; 2 Kursh Kash Dials, $4.00; 1 Bakelite panel 7x24x3/16, $2.84; 1 wood baseboard 8x23, $1.00; Bus bar and lugs, $1.00; Blue print, $0.50.

5X1250—Parts complete. Net $50.77

**Selectone Transformers**

These transformers are a laboratory product and to insure maximum efficiency are supplied in matched sets.

**3X1251—Selectone R400 Intermediate Frequency Transformer. List, $8.00. Net $3.83**

**3X1252—Selectone R410 Tuned Filter Transformer. List, $6.00. Net $3.83**

**3X1253—Selectone Oscillator Coupler. List, $2.50. Net $2.29**
The Remler Drum Dial gives a full 15 inches of dial space, divided into 200 divisions—2 for each broad-right cast channel, or Embossed dial left Indicator plate adds to the beauty of any panel. Calibration strips are rigidly mounted, yet easily removed and renewable. Call letters are readily written in. Spiral gear drive gives quiet operation and no backlash. Socket and 6-volt lamp furnished for illumination. Easily driven, all standard makes of condensers furnished for illumination. Easily mounted, yet easily removable panel. Plate adds to the beauty of any screen.

**Remler Infradyne Amplifier**

This instrument is the result of the development of a simple and effective method for controlling amplification at high frequencies. It is unique in that amplification is accomplished at the fixed and very short wave length of 88 meters. Complete insulation of each rotor permits its use with any system of neutralization. All insulation is of maximum capacity of each section, and tunes all wave lengths evenly over the complete scale of the dials so that there is positively no crowding at any point. Every point on the dial is a separate wave length and this is especially desirable in the EQUIAMATIC circuit because of its extreme selectivity. Three are required. Price $7.00 each.

**New Karas Harmonik Audio Transformer**

These new condensers have been designed especially for the EQUIAMATIC SYSTEM and have an extended shaft over which is fitted the primary of the R A R A S EQUIAMATIC Coil. This adjustable primary coil has an arm and collar with a set screw for this purpose.

These condensers distribute the wave lengths evenly over the complete scale of the dials so that there is positively no crowding at any point. Every point on the dial is a separate wave length and this is especially desirable in the EQUIAMATIC circuit because of its extreme selectivity. Three are required. Price $7.00 each.

**New Karas 17-Plate Special Extended Shaft Orthometric Condensers**

Price $4.12 each.

**New Karas Micrometric Vernier Dial**

Ratio is 63 to 1. continuous, and tune accurately to the thousandth part of an inch. Small knob controls vernier; rough tuning is done with larger knob. Gold plated moulded Bakelite. Outside diameter, 1 1/2 in.

**Other Well Known Karas Parts**

**New Karas Micrometric Vernier Dial**

Ratio is 63 to 1. continuous, and tune accurately to the thousandth part of an inch. Small knob controls vernier; rough tuning is done with larger knob. Gold plated moulded Bakelite. Outside diameter, 1 1/2 in.

**A Drum Dial**

The Remler Drum Dial gives a full 15 inches of dial space, divided into 200 divisions—2 for each broad-right cast channel, or Embossed dial left Indicator plate adds to the beauty of any panel. Calibration strips are rigidly mounted, yet easily removed and renewable. Call letters are readily written in. Spiral gear drive gives quiet operation and no backlash. Socket and 6-volt lamp furnished for illumination. Easily mounted, round drilled hole required for panel plate. Will drive all standard makes of condensers either single or in gangs.

**Remler Infradyne Amplifier**

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**New Karas 17-Plate Special Extended Shaft Orthometric Condensers**

Price $4.12 each.

**New Karas Micrometric Vernier Dial**

Ratio is 63 to 1. continuous, and tune accurately to the thousandth part of an inch. Small knob controls vernier; rough tuning is done with larger knob. Gold plated moulded Bakelite. Outside diameter, 1 1/2 in.

**Twin-Rotor Condenser**

Both sets of plates rotate. Rotation of the dial through a full 180° gives greater separation of stations at all wave lengths than is possible with the usual 180° dial.

**S. F. TYPE**

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**S. L. WAVE LENGTH**

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**3-in-Line Condensers**

Complete insulation of each rotor permits its use with any system of neutralization. All insulation is of maximum capacity of each section, and tunes all wave lengths evenly over the complete scale of the dials so that there is positively no crowding at any point. Every point on the dial is a separate wave length and this is especially desirable in the EQUIAMATIC circuit because of its extreme selectivity. Three are required. Price $7.00 each.

** Improved Socket**

The No. 50 Remler Socket is designed for use with the X-type standard base tubes. Made of moulded Bakelite; compact, easily installed.

**3-in-Line Condensers**

Complete insulation of each rotor permits its use with any system of neutralization. All insulation is of maximum capacity of each section, and tunes all wave lengths evenly over the complete scale of the dials so that there is positively no crowding at any point. Every point on the dial is a separate wave length and this is especially desirable in the EQUIAMATIC circuit because of its extreme selectivity. Three are required. Price $7.00 each.

**New Karas 17-Plate Special Extended Shaft Orthometric Condensers**

Price $4.12 each.

**New Karas Micrometric Vernier Dial**

Ratio is 63 to 1. continuous, and tune accurately to the thousandth part of an inch. Small knob controls vernier; rough tuning is done with larger knob. Gold plated moulded Bakelite. Outside diameter, 1 1/2 in.

**New Karas Micrometric Vernier Dial**

Ratio is 63 to 1. continuous, and tune accurately to the thousandth part of an inch. Small knob controls vernier; rough tuning is done with larger knob. Gold plated moulded Bakelite. Outside diameter, 1 1/2 in.

**New Karas Harmonik Audio Transformer**

This well made transformer amplifies all the overtones and harmonies. Beautifully finished and easily mounted. All stage Ratio.
New Karas 2-Dial Equamatic

Completely balanced and perfectly neutralized, insuring easy tuning and marvelously simplified control with equal and maximum efficiency over entire broadcast waveband.

All of the superb tone quality and magnificent volume of the KARAS EQUAMATIC 5-Tube Sensation can now be had in the NEW 2-DIAL MODEL with 24-inch panel. To the remarkable performance of the Equamatic has been added in this new receiver a complete neutralization that not only makes the receiver delightfully easy to tune, but also gives a clearer, purer and more richly beautiful tone. The reduction in size of panel and baseboard to 24 inches in the Karas 2-Dial Equamatic and the vastly improved reception of this completely neutralized receiver will make it one of the most popular of all tuned radio frequency receivers during the 1927-28 season.

The building of a Karas 2-Dial Equamatic is an extremely simple matter. All parts for the construction of this unusual receiver are in stock and the kit will be supplied as listed in the Citizens Radio Call Book except the use of Carter's new moulded condensers to replace Sangamo. You will be delighted with the performance of this new Karas creation.

New Karas Condenser

This marvelous new Karas Condenser has a removable shaft allowing for sub- panel, baseboard or single hole mounting from either side, permitting use of 0-100 or 100-0 dials.

The plates are so precisely laid out that when the condenser is tuned with the proper inductance the adjoining wavelengths are all separated by equal distance on the dial. Thus every point of a 100 degree 100 division dial covering the 100 wavelengths between 200 and 600 meters is equally separated from its nearest adjoining point in either direction by exactly 10 kilocycles.

They are precision built, scientifically engineered, and beautifully finished.

New Karas Equamatic Inductance Coils

These coils used in conjunction with the new Karas 17-plate Special Extended Shaft Orthometric Condensers, and the Karas Retard Coils form the EQUAMATIC SYSTEM of tuning. By means of an entirely separate variable rotating primary and an adjustable secondary, the inductive coupling of these two windings is varied so that the tube always operates at a point just below the oscillation peak at ALL DIAL SETTINGS from 200 to 600 meters. The result is a strong, clear and wonderfully pure signal.

KARAS EQUAMATIC COILS are packed three in a box with complete manual of simple diagrams and instructions for building the five-tube KARAS EQUAMATIC RECEIVER. Included with this kit are all necessary nuts, screws and binding posts for mounting.

New Karas No. 28 Transformer

Designed to provide undistorted amplification of both low and high notes and with tremendous volume. Very compact. Finished in Black Duco. Extra length soldering lugs. Completely impregnated with high quality insulating compound. Case hermetically sealed. Transformers may be placed close together, even in contact without harm. Highest grade low ratio transformer made.

New Karas "Output Filter"

Appearance, size and construction same as transformer above. Eliminates unpleasant chatter of speaker due to excessive B voltage. Sidetracks D.C. Component of plate current. A fitting companion for the No 28 Transformer. Very compact, containing special choke of 100 henries. Insulation is genuine bakelite.

MILLER-WELLES CO., Chicago, Ill.
MAGNAFORMER 9-8

Commander-in-Chief of the Air

The new Magnaformer 9-8 Receiver has won the instant approval of radio experts. It has created a new standard of all-round radio efficiency. It is the season’s feature circuit in the Citizens’ Radio Call Book, Popular Radio, Radio and other well-known Radio publications. This widespread acceptance and enthusiasm is due to the inherent excellence of the circuit—its hair-splitting selectivity, perfected, superb tone, great volume and extremely long range.

Also, with the Magnaformer Receiver, interference is a thing of the past—each station—even in radio-congested centers like Chicago and New York—clicks in alone, as though there were no other stations on the air.

The Magnaformer Receiver is quickly changed from a 9-tube set to an 8-tube set, or from an 8-tube set to a 9-tube set by simply turning a small switch on the front panel. This switch cuts in or out one of the intermediate R. F. stages. Nine tubes are used only on faint signals from distant points. Nine tubes give far too great a volume on local stations; 8 tubes are plenty for stations within a 1,000 mile radius. This Receiver is exceptionally easy to construct and makes a very beautiful appearing job.

LIST OF PARTS SPECIFIED

1 Formica Front Panel 7x26x1/16"—1 Formica Sub-Panel 9x26x1/16"—6 Magnaformer Transformers, R.F. No. 61—1 Unicoupler, Unit C.U. No. 71—2 Remler Universal Drum Dials—2 Remler 3600 mfd. Variable Condensers—9 Benjamin Sockets—2 Benjamin Sub-Panel Brackets 2" high—2 Ferranti Audio Transformers, A.F. No. 4—1 National Tone Filter—1 Samson Radio Frequency Choke Coil—2 Carter .00025 Grid Condensers with Mountings—1 Tube 1 mfd. By-Pass Condenser—1 Carter .001 Fixed Condenser—2 Durham 2 megohm Grid Leaks—1 Frost DeLuxe 400 ohm Potentiometer, arrow knob—1 Frost DeLuxe 10-ohm Combination Rheostat and Battery Switch, arrow knob—1 Frost DeLuxe 10-ohm Rheostat—1 Frost DeLuxe 30-ohm Rheostat—2 Frost Tip Jacks—2 No. 112 Amperites, with Holders—1 Yaxley Radio Jack Switch—12 feet Bus Bar Wire No. 14 round tinned—25 feet Flexible Spaghetti covered wire—1 2% x 2½" wood block for sub-panel center support—2 2" right angle supports for rear of sub-panel—wire, screws, nuts, bolts, solder—complete blue print and schematic drawing.

5K1500 Total list price, $129.99. Net. $79.23

R. F. 61 Transformer

Superb tone quality, hair-splitting selectivity, great distance, quiet operation, double amplification (greatest per stage uniform amplification of all broadcast frequencies). Perfectly matched and factory-sealed, not necessary to match tubes.

3K1501 List, $8.50. Net. $5.00 Magnaformer

GU-71 UNICOUPLER

Specified in set above; may be used elsewhere with equal success. 3K1502 List, $6.50. Net. $3.83

Thordarson R-171 and R-210

Power Supplies and “B” Eliminators

PARTS REQUIRED

R-210

1 Thordarson Power Compact R-210—2 Tube 2 Mfd. Condensers (400 D.C. working volts)—1 Tube 1 Mfd. Condenser (160 D.C. working volts)—1 Tube 1 Mfd. Condenser (160 D.C. working volts)—1 Tube 1 Mfd. Condenser (160 D.C. working volts)—1 Standard "B" Condenser Block (Tohe Deutschman R-171 or equivalent)—1 0.1 mfd. Condenser, 200 D.C. working volts—2 UX Tube Sockets—1 Thordarson Power Input Plug R-172—5 Binding Posts—1 Raytheon Rectifier Tube B-H—1 Power Amplifying Tube CX371—1 set instructions free.

5K561 List, $50.65. Net. $31.27

Miller-Welles Co., Chicago, Ill.
Famous UTAH Speakers

"SCREEN" SPEAKER

This beautiful new and popular type speaker occupies a position far ahead of anything developed in this line this year. Finished in antique Brown and constructed with a ten-foot air column horn and equipped with the superior Utah unit. It gives a wonderfully clear and mellow tone. Made of 5-ply Walnut Veneer with bowed front. Adaptable to many uses as a screen. It is of special attraction to owners of fine and expensive Radio Receivers.

Height, 40 in.; width, 28 in.; depth, 12 in.; weight, 50 lbs.

2K5100—List price, $100.00.

Net price, each

$58.80

"UTAH" DRUM No. 16

The "Utah" Drum Speaker has a reproduced hand carved base. The Drum is of metal construction finely finished in antique Walnut. Measures 16½ inches by 14 inches by 1½ inches deep; weight, 10 lbs. A wonderful Speaker value.

2K5102—List price, $16.00.

Net, each

$9.41

"UTAH" JUNIOR CONE

A "free edge" cone Speaker measuring 15½ inches in height with cone 11½ inches in diameter with strong Utah unit delivering clear natural tone seldom found in Speakers at the price. Should be a very fast mover.

2K5105—List price, $10.00.

Net, each

$5.88

FAMOUS "UTAH" HORNS

The Speakers are designed especially for great volume and clarity. They are nicely finished in gold and brown, may be had in either of two popular sizes, "Standard" 14-inch horn and "Junior" 11-inch horn. We recommend these horns as the best purchase possible at anywhere near the price.

2K5103—"Utah Junior." List $12.50.

Net, each

$7.35

2K5104—"Utah Standard." List $22.50.

Net, each

13.23

1927 "SUPERFLEX"

Very clear and pleasing tone comes from base instead of top. Although comparatively small in size this speaker is noted for its "Pep." Finished beautifully in Walnut and equipped with "Utah" Deluxe Unit. Has tonal chamber equal to that of the horn. Height, 8 inches; width, 6 inches; weight, 3½ pounds.

2K5106—List price, $10.00.

Net, each

$5.88


Above
This large beautiful speaker stands 18 1/2" high and has a diameter of 17 1/2". The frame is made of 5-ply laminated wood 13/16" thick, which serves as a true sound resonator exciting the rich mellow quality so much desired in loud speakers today. The frame is artistically done in jade color with bronze finish showing through crackle lines. The beautiful design of the metal base is enhanced by the bronze finish and the verdigris shading. The frame is artistically done in Jade laminated wood 13/16" thick, which serves as a true sound resonator exciting the rich mellow quality so much desired in loud speakers today.

FROST FONES

The Frost line combines exceptional quality and a price that is within the reach of everyone due to tremendous production. All materials used in the manufacture of Frost head sets are the best that money can buy. For permanently satisfied customers be sure to sell them Frost Head Sets.

FROST-RADIO

The Frost line combines exceptional quality and a price that is within the reach of everyone due to tremendous production. All materials used in the manufacture of Frost head sets are the best that money can buy. For permanently satisfied customers be sure to sell them Frost Head Sets.

Baldwin Headset
Genuine Nathaniel Baldwin Headphones have broken world records in transcontinental reception and hold many long distance reception titles. The two units of each headset are perfectly matched and are equipped with a 6-foot standard cord.

Trimm Headsets
The "DEPENDABLE" metal cased and the "PROFESSIONAL" Bake-lite cased are high quality sets. The latter used by the MacMillan expeditions. Guaranteed to satisfy.

N. wcombe-Hawley Drum
At Right
This new type Reproducer is not a horn nor a cone. It is a Drum Speaker that embodies an entirely new, scientifically correct principle of tone reproduction. It will reproduce faithfully every tone from a whisper to full orchestra volume. This great volume and tone range is obtained by the combined action of the matched Baldwin Unit and the acoustically correct exponential design Tone Chamber. There is nothing to adjust—nothing to get out of order. Finished in attractive dark brown, the Newcombe-Hawley Drum will boost your sales and increase your profits.

Oniel Cone

282708-Phono Speaker (with Oak Cabinet). Finished units. Known the world over. Listed, $14.00. Net, $5.59

282709—Deluxe Speaker Unit 4 List, $14.00. Net...$8.33

Our Leader Unit
A high grade adjustable unit for Loud Speaker, consoles or phonographs. For use with 90 volts of "B" Battery. This unit cannot be beaten, giving plenty of volume, no chatter or distortion. Sweet natural tone.

282730— LIST, $3.00. Net........$2.55

Nathaniel Baldwin Units

"U.T.A.H." Units
Beautiful efficient nickel finished units. Known the world over.

2K2700—"Rival" Speaker Unit...$7.00 $4.46

2K2701—"Oasis" Unit...$12.00 6.37

2K2702—Concert Phone Unit...$12.00 7.65

2K2703—Grand Phone Unit...$14.00 8.92

2K2704—Standard Phone Unit with Pedestal...$8.00 5.10

2K2705—Phone Adapters, any make machine. (State name.)...1.25 .75

Miller-Welles Co., Chicago, Ill.
### Concert Master
**Copper Shielded Tubes**

A new high quality tube completely shielded in pure copper. This patented shielding protects the tubes and renders it immune from squeaks, squalus, and microphonic noises and lessens A/B heterodyne consumption. An exceptionally efficient tube with greater volume and remarkable clarity. Shield grounded to "A" Terminal, eliminates stray capacities and the cushion surrounding tube prevents vibration, making for clearer, sharper tuning. Fit any set and saves only slightly higher in cost. Made in following popular types:

<table>
<thead>
<tr>
<th>Type</th>
<th>List Price</th>
<th>Net Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2K250 Type 201A</td>
<td>$8.50</td>
<td>$5.47</td>
</tr>
<tr>
<td>2K251 Type 199V</td>
<td>2.50</td>
<td>1.47</td>
</tr>
<tr>
<td>2K252 Type 199U</td>
<td>2.50</td>
<td>1.47</td>
</tr>
<tr>
<td>2K253 Type 200A Det</td>
<td>4.50</td>
<td>2.65</td>
</tr>
<tr>
<td>2K254 Type X112</td>
<td>4.50</td>
<td>2.65</td>
</tr>
<tr>
<td>2K255 Type X111</td>
<td>4.50</td>
<td>2.65</td>
</tr>
</tbody>
</table>

### CUMMINGS TUBES

<table>
<thead>
<tr>
<th>Type</th>
<th>List Price</th>
<th>Your Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2K279-CX340</td>
<td>$1.25</td>
<td>-</td>
</tr>
<tr>
<td>2K280-CX249</td>
<td>$1.25</td>
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<td>2K281-CX220</td>
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<td>2K283-CX312</td>
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<td>2K284-CX313</td>
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<tr>
<td>2K287-CX316</td>
<td>$1.25</td>
<td>-</td>
</tr>
<tr>
<td>2K288-CX317</td>
<td>$1.25</td>
<td>-</td>
</tr>
</tbody>
</table>

### QUALITONE LOOP

**The QUALITONE LOOP**

Loop sets the world's record of 3,275 miles for distance reception. You can increase your distance and wire width by using these loops. Woodwork is of hand-rubbed walnut. Well insolated stranded wire, covered with brown silk braiding, is used on all Qualitones. They are provided with adjustable screw at top to assure tight wires. Three taps, center tap removable. Easy folding metal parts heavily nickelled. Leads with phone plugs included, also a DeLuxe model. Both models designed for .0005 condensers. Qualitones turn within a radius of 9½". DeLuxe model turns within radius of 7½".

<table>
<thead>
<tr>
<th>Loop</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2K2675 - Qualitone</td>
<td>$18.00</td>
</tr>
<tr>
<td>2K2676 - DeLuxe Model</td>
<td>$25.00</td>
</tr>
</tbody>
</table>

### BODINE DE LUXE LOOP

Solid walnut frame hand-rubbed, non-stretching silk covered wire. Base a 3-contact jack on Bakelite. Turning radius 6 in., a very beautifully efficient and selective loop. Shape makes it popular for fitting into consoles. HI 28 in. Jacks may be mounted on set. Two models are our Diamond shaped folding models.

<table>
<thead>
<tr>
<th>Loop</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2K2677 - Deluxe for .0005</td>
<td>$12.00 Net, $7.06</td>
</tr>
<tr>
<td>2K2678 - Deluxe for .0035</td>
<td>$12.00 Net, $7.06</td>
</tr>
<tr>
<td>2K2679 - Diamond Model</td>
<td>$5.50 Net, $5.00</td>
</tr>
</tbody>
</table>

### AALCO LOOP

AALCO loop as proved by leading technical magazines have a wavelength range 150 to 570 meters, 30 in high, easily and quickly folded. Genuine walnut with nickel plated metal parts. Brown silk covered wire which is always tight even when folded, very compact and attractive. LOOP No. 35 designed for Tuned H.F. Neutohylene. Browning-Drake and all .00053 condenser circuits: LOOP No. 50 for Superheterodynes and other .0065 condenser circuits. Center tapped, guaranteed for life.

<table>
<thead>
<tr>
<th>Loop</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2K2680 - LOOP No. 35</td>
<td>$7.47</td>
</tr>
<tr>
<td>2K2681 - LOOP No. 50</td>
<td>$7.35</td>
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</tbody>
</table>

### MATTHEWSON LOOP


### FIAT LOOP


<table>
<thead>
<tr>
<th>Loop</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2K2684</td>
<td>$7.35</td>
</tr>
</tbody>
</table>

**MILLER-WELLES CO., CHICAGO, ILL.**
Sonatron is the manufacturer of the "World's Largest Radio Tube Line." Thirty-three types of tubes each adapted for a special radio purpose.

The World's Largest Radio Tube Line

Sonatron Guarantee: Any tube will be replaced free of charge if the filament lights, only.

Type X-201-A
Detector and Amplifier

Detector and Amplifier

| List price | $1.75 | Net, each | $0.87 |

All purpose tube, universally used in storage battery or radio frequency, detector and audio frequency amplifier.

Type SH-85

| List price | $4.50 | Net, each | $2.21 |

Gas Filled No Filament Current Consumption. 8 watts; Max. AC input voltage (per plate). 290; Max. Rectified current (both plates). 65 Mils. For "B" Eliminators. Its rugged construction insures a keen even flow of rectified current at maximum efficiency. This tube is guaranteed for 600 hours, but when used properly will operate efficiently for approximately 2,000 hrs.

**"B" Eliminator Tubes!**

**TYPE 213**
Full Wave Rectifier Tube for "B" Eliminator

| List price | $5.00 | Net, each | $2.45 |

List price... $5.00

Net, each... $2.45

For Rectifying Current

Fil. volts. 5

Fil. amps... 35

Plate voltage... 22½ to 180

"C" battery volts... 1.5 to 35

**TYPE 210**
Half Wave Rectifier for "B" Eliminator

| List price | $7.50 | Net, each | $3.68 |

List price... $7.50

Net, each... $3.68

For Rectifying Current

Fil. volts. 5 to 8.75 avrg.

Fil. amps... 1.25

Max. AC input voltage... 550 volts (RMS)

Max. DC output... 65 mils.

**Power Tubes!**

**Type 200-A**
Power Detector

| List price | $4.00 | Net, each | $1.96 |

List price... $4.00

Net, each... $1.96

For greater volume, for distant stations, use this Power Detector in the detector socket, only, of storage battery sets. No rewiring is necessary on either old or new sets.

Fil. volts... 5

Fil. amps... 35

Plate volts (min.)... 22½

Plate volts (max.)... 45

**Type X-112**
Power Amplifier

| List price | $4.50 | Net, each | $2.21 |

List price... $4.50

Net, each... $2.21

You get greater volume, distant stations, with ease when you use this Power Amplifier in any ordinary storage battery receiving set.

Fil. volts... 5

Fil. amps... 35

Plate volts 22½ to 157

"C" Battery voltage 6 to 10.5

**Type 112-A**
Power Amplifier

| List price | $5.00 | Net, each | $2.47 |

List price... $5.00

Net, each... $2.47

The adapter base of this tube automatically changes hook-up for a power tube. No rewiring necessary. Has same specifications as Type 112.

**Type 171-A**
Power Amplifier

| List price | $8.00 | Net, each | $4.41 |

List price... $8.00

Net, each... $4.41

As Oscillator

Fil. volts... 7.5

Fil. amps... 1.25

Plate volts (max.)... 40

Plate volts (min.)... 35

Neg. "C" Battery... 4.5 to 35

**TYPE 171**
Power Amplifier

| List price | $4.50 | Net, each | $2.21 |

List price... $4.50

Net, each... $2.21

This tube is used in any storage battery receiving set with hook-up for power tube in last stage of audio frequency. Gives greater amplification and clarity on distance than the ordinary amplifying tube.

Fil. volts... 5

Fil. amps... 35

Plate volts (max.)... 180

Neg. grid volts with (90 pl.) 22½

Neg. grid. volts (with 150 pl.) 40½

**TYPE 210**
Oscillator and Amplifier

| List price | $9.00 | Net, each | $4.41 |

List price... $9.00

Net, each... $4.41

As Oscillator

Fil. volts... 7.5

Fil. amps... 1.25

Plate volts... 40 Plate volts

Plate volts. 350 (max.)... 425

Neg. "C" Battery... 4.5 to 35

**TYPE X-223**
Power Amplifier

| List price | $2.25 | Net, each | $1.96 |

List price... $2.25

Net, each... $1.96

For Rectifying Current

Fil. volts... 5

Fil. amps... 35

Max. AC input voltage... 220 volts (RMS)

Max. DC output... 65 mls.

**TYPE X-225**
Power Amplifier

| List price | $4.50 | Net, each | $2.21 |

List price... $4.50

Net, each... $2.21

This tube is used in any ordinary storage battery receiving set.

Plate volts... 22½

"C" Battery voltage 6 to 10.5

**Type 122-A**
Power Amplifier

| List price | $5.00 | Net, each | $2.47 |

List price... $5.00

Net, each... $2.47

Use this tube in the last stage of audio frequency. The adapter base automatically changes hook-up for power tube. Same specifications as Type 112.
**SONATRON**

**The Sonatron Amplifier**

To give any set, storage battery or dry cell, new power, new tone, this ingenious device fills the bill. One connection and it transforms any set into a modern efficient unit.

**Sonatron Amplifier Complete with Tubes.** List price, $11.76

- **2K205**—Amplifier only. List, $8.00. Net, $4.71
- **2K206**—Set A C Bat. Tubes. List, $12.00. Net, $7.06
- **2K207**—Set Dry Cell Tubes. List, $12.00. Net, $7.06

**SONATRON Hi-Mu Tubes**

For Storage Battery Sets, List Net

- **2K208**—Mu-10 $5.00 $2.94
- **2K209**—Mu-20 4.00 2.36
- **2K210**—Mu-30 4.00 2.36

For Dry Cell Sets, List Net

- **2K211**—Mu-29 $5.00 $2.94
- **2K212**—Mu-19 4.00 2.36
- **2K213**—Mu-9 5.00 2.94
- **2K214**—New X-210 2.25

**SONATRON Matched Tube Sets!**

<table>
<thead>
<tr>
<th>5 TUBE COMBINATIONS Combination S-1—for New Sets</th>
<th>5 TUBE COMBINATIONS Combination S-5—for New Sets</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 X-201-A Amplifier Tubes</td>
<td>5 X-201-A Amplifier Tubes</td>
</tr>
<tr>
<td>1 200-A Power Detector</td>
<td>1 200-A Power Detector</td>
</tr>
<tr>
<td>1 TRON Type 225-A AC acts as a radio frequency amplifier, detector, audio frequency amplifier and oscillator</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6 TUBE COMBINATIONS Combination S-2—for Old Sets</th>
<th>7 TUBE COMBINATIONS Combination S-6—for Old Sets</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 X-201-A Amplifier Tubes</td>
<td>5 X-201-A Amplifier Tubes</td>
</tr>
<tr>
<td>1 200-A Power Detector</td>
<td>1 200-A Power Detector</td>
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<tr>
<td>1 TRON Type 225-A AC acts as a radio frequency amplifier, detector, audio frequency amplifier and oscillator</td>
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</tr>
<tr>
<td><strong>2K217</strong>—List price, $15.50. Net, set $7.60</td>
<td><strong>2K219</strong>—List price, $17.25. Net, set $8.45</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6 TUBE COMBINATIONS Combination S-4—for Old Sets</th>
<th>8 TUBE COMBINATIONS Combination S-8—for Old Sets</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 X-201-A Amplifier Tubes</td>
<td>6 X-201-A Amplifier Tubes</td>
</tr>
<tr>
<td>1 200-A Power Detector</td>
<td>1 200-A Power Detector</td>
</tr>
<tr>
<td>1 TRON Type 225-A AC acts as a radio frequency amplifier, detector, audio frequency amplifier and oscillator</td>
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</tr>
<tr>
<td><strong>2K218</strong>—List price, $16.60. Net, set $7.84</td>
<td><strong>2K221</strong>—List price, $19.00. Net, set $9.31</td>
</tr>
</tbody>
</table>

**SONATRON Type 225 A-C**

Fイルament (heater) Voltage, 3.
Plate Voltage, 12 to 135.

**2K209**—Type 199 Amplifier and Detector. List Price, $2.25.

Net, each $1.11

Fil. volts, 3.
Plate voltage, 22 1/2 to 90.
Type X-199—Made with new X Base.

**2K202**—Type 199 A—Equipped with standard base.

Net, each $3.00

**SONATRON Type X-120 Power Amplifier**

List price, $2.50.

Net, each $1.23

Fil. amps, 2.
Fil. volts, .06.
Plate voltage, 125.

This tube is used in dry cell battery sets in the last stage of radio frequency. It produces great volume without distortion.

When you sell Sonatrons, you know you can depend on them for performance. And this will bring back custom eras again and again.

When you sell Sonatrons, you know you can depend on them for performance. And this will bring back custom eras again and again.
“EVEREADY” Radio

“A”, “B” and “C” Batteries

“Eveready” Batteries are so well known, it is unnecessary to describe them in detail. These batteries are extremely well built and are noted for long life and quiet hum-free service. If your set uses four or more tubes don’t hesitate to purchase “Heavy Duty” Batteries as higher initial cost is economy in the long run. Also use a “C” battery whenever possible to increase the life of the “B” batteries. Fresh stock on hand at all times.

POCKET VOLT-AMMETER

Range 0-50 Volts

Handy pocket meter designed for testing “B” batteries. Total range in 50 volts. The scale is hand calibrated and the 221/2 and 45-volt points are marked in. It is recommended to use one of the “C” batteries. This meter is well built and sensitive. Reads as low as 1/2 milliamp. and 1/2 v. 3K340—Meter with flexible leads. List $23.00. Net...

HOYT ROTARY METER

Precision built 2 1/2” moving coil voltmeter combines in one unit five ranges necessary for testing radio sets, tubes, batteries, chargers and “B” Eliminators. Meter mounted on mahogany block is turned by knurled rim to five different positions. Very well built and sensitive. Reads as low as 1/2 milliamp. and 1/2 v. 3K340—Meter with flexible leads. List $17.64.

YAXLEY PILOT LIGHT SWITCH

This is a decided novelty as well as a big in the utility for every set. The signal light shows whether the set is on or off, and when a needless drain on batteries and the lives of tubes should be turned off. After the station has signed off. Add to the attractiveness of any receiver. Easily installed. 3E235—Switch complete (No lamp). List 75c. Net... 3E2196—Bracket only. (Attach to any switch) List 30c. Net...

“TAB,” the RECHARGEABLE DRY “B” BATTERY, has as long original and shelf life as any battery on the market. Can be recharged six to eight times, thereby giving six to eight months to two years’ service. Final cost about one-sixth the cost of any other battery. The only one on the market. The "cat" means nine lives, 45 v., sold in a "cat" battery. 2E125—List... $2.87...
**Daven Tubes**

For resistance and impedance coupled amplifiers.

- M.U. 20 is Daven detector 6-volt, 4 amp. Requires no rheostat. High amplifying qualities. **List $2.25**
- M.U. 6 is a 6-volt, .75 ampere power tube. Requires no rheostat. Should be used in last or output stage. The power tube for all storage battery sets. **List $2.50**

**NEW DAVEN TWO-DIAL BASS NOTE SET**

A positive revelation in tonal reproduction. The kit includes drilled and engraved panel, drilled baseboard, and all necessary parts down to the last screw and piece of wire but without tubes, batteries, or cabinet. Complete instructions for assembling are included. The circuit employs 3 stages of R. F., one detector and 3 audio, 7 tubes in all. It is single dial control, an illuminated Rensler Drum being employed. This set will give you the maximum selectivity, distance and volume. Use Daven tubes. Order seven for the set at $31.92 list.

**Daven Electrical Phono Pick-Up**

Here is a real new Daven triumph. When used with the Daven or any other amplifier results are astounding. Will operate perfectly on any standard record with exact reproduction of all notes recorded. Beautifully finished, weighted base, 8-ft. cord and 2-oval reproducer. Complete with volume control. Wonderful tone and volume.

**List $17.50.**

**Daven Products**

**Resistance Coupled Amplifier**

The new Daven Super Amplifier, equipped with Daven tubes as illustrated, is the last word in tone quality radio reproduction. Reproduces all tones from 25 to 15,000 cycles. Made of black moulded bakelite and equipped with Daven glastors and type A condensers 10 3/4" long by 3 1/2" wide by 2 1/2" high. Complete instructions with each amplifier. **List $15.00 Net. $8.82**

**Daven Glastors**

- Designed for "B" Eliminator, telephone, signal, and other circuits. High current carrying capacity.
- The Daven Glastor is a miniature split capacitor designed to balance the capacity of two radio frequency circuits which are tuned by a tandem condenser.

**Hi-Duty Glastors**

- Slightly larger construction than R. F. type. Construction is small, yet efficient. Used to add sufficient capacity to the condenser. Attached to the framework of first radio frequency condenser. Once adjusted the setting of panel dials will remain matched over practically the entire broadcast range.

**Grid Stabilizer**

- Controls oscillation in R.F. circuits. Place in input of grid circuit.

- **List 75c.**
- **Net each.**

**Resisto - Coupler**

- Simplifies construction of a resistance coupled amplifier. Two pairs of clips. One each for grid and plate resistors.
- Baked bakelite base with condenser in bottom. Soldering lugs attached.

**List $1.50.**

**New Daven electrical Phono Pick-Up**

Here is a real new Daven triumph. When used with the Daven or any other amplifier results are astounding. Will operate perfectly on any standard record with exact reproduction of all notes recorded. Beautifully finished, weighted base, 8-ft. cord and 2-oil reproducer. Complete with volume control. Wonderful tone and volume.

**List $10.29.**

**Daven R. F. Coils**

- Redesigned to give ever greater selectivity, sensitivity and volume. Coils consist of two stages of tuned R. F. and one detector. Will give maximum results under all conditions. For use with 0005 condensers, size 3° by 1 1/2". No feed back. Cover range completely. Adapted to any tuned R. F. circuit.

**List $8.00.**

**Anti-Motor-Boater**

Now you can use a "B" Eliminator with resistance coupled sets without motor boating. Remove grid leak; insert cartridge.

**List $4.00.**

**Coupling Condenser**

- Type 1/4" coupling condenser is small and compact. Used in resistance coupled amplifiers. 1 1/4 x 3/4 x 1/4".

**List $1.00.**

**Balancer**

- Used to add sufficient capacity to the condenser. Attaches to the framework of first radio frequency condenser. Once adjusted the setting of panel dials will remain matched over practically the entire broadcast range.

**List $1.90.**

**Daven Tube Ballasts**

- Automatic rheostat. Eliminates needless controls and wiring.

**List $1.11.**

**NEW DAVEN TWO-DIAL BASS NOTE SET**

- A positive revelation in tonal reproduction. The kit includes drilled and engraved panel, drilled baseboard, and all necessary parts down to the last screw and piece of wire but without tubes, batteries, or cabinet. Complete instructions for assembling are included. The circuit employs 3 stages of R. F., one detector and 3 audio, 7 tubes in all. It is single dial control, an illuminated Rensler Drum being employed. This set will give you the maximum selectivity, distance and volume. Use Daven tubes. Order seven for the set at $31.92 list.

**List $68.50.**

**Set wired**

**List $68.50.**

**DAVEN ELECTRICAL PHONO PICK-UP**

- Here is a real new Daven triumph. When used with the Daven or any other amplifier results are astounding. Will operate perfectly on any standard record with exact reproduction of all notes recorded. Beautifully finished, weighted base, 8-ft. cord and 2-oval reproducer. Complete with volume control. Wonderful tone and volume.

**List $17.50.**
CARTER "MIDGET" RHEOSTAT
All Metal Frame
Self-Cooling


POTENTIOMETERS

| Value          | 2 ohm   | 2.5 ohm | 3 ohm   | 4 ohm   | 5 ohm   | 6 ohm   | 8 ohm   | 10 ohm  | 12 ohm  | 15 ohm  | 20 ohm  | 25 ohm  | 30 ohm  | 40 ohm  | 50 ohm  |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Price          | $1.00   | $1.35   | $1.50   | $1.75   | $2.00   | $2.25   | $2.50   | $3.00   | $3.75   | $4.50   | $5.25   | $6.00   | $7.50   | $9.00   |

CARTER "IMP" RHEOSTATS AND POTENTIOMETERS

Same general construction as the well known "Midget" type except that the "Midget" type is approximately 1/4" smaller in diameter. It is made to offer more radiating surface. Will dissipate 6 watts. Mounts in 1/4" hole.

TERMINALS

Black knob, Walnut or mahogany knob 5c extra. Insulation for metal panel mounting 5c extra.

CARTER "MIDGET" RHEOSTAT
(Heavy Duty Type)

The same general construction as the "Midget" type. A marked improvement. Black knob. Resultant of tests back of the panel(fits Ted with and is only 1/2") in diameter. Provided with hard binding post terminals. Black knob, Walnut or mahogany knob 5c extra. Metal panel Insulation 5c extra.

RHEOSTATS

<table>
<thead>
<tr>
<th>Value</th>
<th>2 ohm</th>
<th>3 ohm</th>
<th>4 ohm</th>
<th>5 ohm</th>
<th>6 ohm</th>
<th>8 ohm</th>
<th>10 ohm</th>
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<td>$6.00</td>
<td>$7.50</td>
<td>$9.00</td>
<td>$10.00</td>
</tr>
</tbody>
</table>

CARTER "IMP" RHEOSTAT
(With Filament Switch)

Same construction as "Midget" Rheostat, but with filament switch and black knob. Mahogany or walnut knob 5c extra. Insulation for metal panel mounting 5c extra.

POTENTIOMETERS

<table>
<thead>
<tr>
<th>Value</th>
<th>200 ohm</th>
<th>300 ohm</th>
<th>400 ohm</th>
<th>500 ohm</th>
<th>600 ohm</th>
<th>750 ohm</th>
<th>1000 ohm</th>
<th>1500 ohm</th>
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<td>$3.00</td>
<td>$3.75</td>
<td>$4.50</td>
<td>$6.00</td>
</tr>
</tbody>
</table>

CARTER "MIDGET" RHEOSTAT
(With Switch Control)

This latest type of loud speaker outlet jack is furnished with a "Carter Hi-Ohm" Volume Control, so the user can regulate the volume to suit, without changing resistance elements which out of the balance of the circuit when more than one speaker is used on the same circuit. Ideal for hospitals, apartments, houses, hotels, or the home where more than one speaker or group of speakers are operated simultaneously in one outlet box, or on wall or base board.

CARTER RADIO RECEP-TATION JACK
(With Volume Control)

One of the smallest switches made.

CARTER NO. 2 "IMP" BATTERY SWITCH

Crude Type for Metal Panel Mounting.

CARTER "IMP" BATTERY SWITCH
Snap Switch Designed for Use on Name Plate.

CARTER "IMP" "MIDGET" RHEOSTAT
"Self-Cooling"

CARTER "MIDGET" RHEOSTAT
All Metal Frame
Self-Cooling


CARTER "MIDGET" RHEOSTAT
(Heavy Duty Type)

The same general construction as the well known "Midget" type except that the "Midget" type is approximately 1/4" smaller in diameter. It is made to offer more radiating surface. Will dissipate 6 watts. Mounts in 1/4" hole.

TERMINALS

Black knob, Walnut or mahogany knob 5c extra. Insulation for metal panel mounting 5c extra.

CARTER "MIDGET" RHEOSTAT
(Heavy Duty Type)

The same general construction as the well known "Midget" type except that the "Midget" type is approximately 1/4" smaller in diameter. It is made to offer more radiating surface. Will dissipate 6 watts. Mounts in 1/4" hole.

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Black knob, Walnut or mahogany knob 5c extra. Insulation for metal panel mounting 5c extra.

CARTER "MIDGET" RHEOSTAT
(Heavy Duty Type)

The same general construction as the well known "Midget" type except that the "Midget" type is approximately 1/4" smaller in diameter. It is made to offer more radiating surface. Will dissipate 6 watts. Mounts in 1/4" hole.

TERMINALS

Black knob, Walnut or mahogany knob 5c extra. Insulation for metal panel mounting 5c extra.
AUTOMATIC POWER CONTROL

Connect the Automatic Power Control and the receiver becomes a power operated set. Cuts in the Bel eliminator, cut- ting off the trickle charger when the set is turned on. Reverse takes place when the set is turned off. Filament switch of the set is the only switch to operate, the Automatic Power Control does all the other switching.

JACKS

All Bakelite insulation. Mount in single 7/16" panel hole without adjusting collars. Bakelite insulating washers furnished on order for mounting on metal panels. Fits any standard radio plug.

3K2122—No. Open Circuit. List, $0.90. Net, $0.65.
3K2123—No. Circuit Closing, 60c. Net, $0.45.  
3K2124—No. A—Two Circuit. List, 60c. Net, $0.42.
3K2126—No. Circuit Reversing, List, 75c. Net, $0.52.
3K2128—No. 4—Interstage (Illustrated). List, $2.00. Net, $1.18.
3K2129—No. 5—Two Circuit Filament Lighting. List, 95c. Net, $0.60.
3K2130—No. 6—Interstage Filament Control. List, $1.00. Net, $0.65.
3K2131—No. 7—Interstage Filament Lighting. List, $1.10. Net. $0.75.

BATTERY WIRE IN A BOX

Battery wires are brought to the set in one neat compact cable. All connections plainly marked with color code (RMA standard colors).

3K2106—No. 676. For sets equipped with binding posts. Pin plug has 15" pigtails for attaching to the set. List, $3.50. Net, $2.06.

RESISTANCES

For use in all circuits. Silver and bronze insulated. Important, Bench and Panel units. The ideal combination. Unit with the rheostat. All Bakelite. Complete with dial.

3K2135—No. 64—Four Pole, Double Throw, List, $2.00. Net, $1.18.

INDUCTANCE SWITCH

Only 1 7/8" across, this little switch answers every requirement for a dependable t.a.p. switch. Complete with neat dial plate and Bakelite knob. Specifications: 100 to 2000 ohms. Each, 10c. 500 to 1000 ohms. Each, 15c.

JUNIOR JACK SWITCHES

For use in sets where space is at a premium.

3K2110—Battery Switch. List, 75c. Net, $0.50.
3K2111—Two Circuit, List, 85c. Net, $0.55.
3K2112—Double Circuit. List, 95c. Net, $0.65.
3K2113—Five Spring. List, 95c. Net, $0.65.
NATIONAL "A" BATTERIES

SAVE ON EXPRESS CHARGES
18 MONTHS FREE REPAIR GUARANTEE

90 day repair guarantee on thin plate Batteries

Shipped From Nearby Cities

A NATIONAL Battery carefully constructed of full sized standard thickness plates. Carefully and accurately rated as to voltage and amperage. You can depend on the life and performance of these batteries and build up a large list of satisfied customers through your battery sales. No greater battery satisfaction can be had at any price. Each battery built in a strong rubber compound case and provided with handle for convenient handling. Shipped fully charged ready to put into operation.

You will save greatly, also due to our shipping from warehouses in any of the following cities which you may specify:

Chicago
New York
St. Paul
Kansas City
Baltimore
St. Louis

Also from Los Angeles, Calif., or Oakland, Calif., Portland, Ore., or Seattle, Wash., for 50c extra per battery.

The ELKON Trickle Charger

"It's Bone Dry"

Equipped with the Elkon Rectifier, has won an astounding success, because it does completely what has heretofore been done only partially; it makes the charging of RADIO "A" batteries AUTOMATIC requiring NO attention.

When you connect up the Elkon Trickle Charger to your "A" Battery and house current it first of all brings up your battery to its most efficient charging rate. Then it TAPERS off to a minimum charge (you do not have to turn it off) increasing again as more current is needed, and in turn tapering off. In other words...

A device which changes your house current to "A" battery current and AUTOMATICALLY feeds it to the battery.

It operates any radio "A" battery from A.C. furnishing up to 0.7 amps. and can keep even the largest set supplied in ordinary use.

The result of a wonderful invention, "A" Battery elimination is now PERFECT. Over a year ago the "Elkon" principle of dry rectification was announced and the Trickle charger was marketed. Now in the Elkon "A" Power you have silent, inexhaustible, unvarying "A" current of highest quality for radio sets. Silent because it has no moving parts, no bulbs or rectification troubles. Constructed with rugged battery which will operate a set for hours even if light socket power should fail. Equipped with the famous Westinghouse Rectox trickle charger with automatic switch. When receiving set is off switch disconnects power from "B" Battery eliminator and connects power on Sure "A" to replace current used. When set is in operation charging will cease and power is put onto "B" Eliminator socket connection. It is dry, noiseless, wear proof.

2K5500-6 v. 50 amp. size $6.35
2K5501-6 v. 75 amp. size 7.50
2K5502-6 v. 100 amp. size 8.65
2K5503-6 v. 125 amp. size 9.75
2K5504-6 v. 150 amp. size 10.80

Westinghouse—SARVIS
SURE "A"

A socket-charging "A" battery power unit combining an "A" Battery, charger and automatic switch. It furnishes an unfailing noiseless "A" current of highest quality for radio sets. Silent because it has no moving parts, no bulbs or rectification troubles. Constructed with rugged battery which will operate a set for hours even if light socket power should fail. Equipped with the famous Westinghouse Rectox trickle charger with automatic switch. When receiving set is off switch disconnects power from "B" Battery eliminators and connects power on Sure "A" to replace current used. When set is in operation charging will cease and power is put onto "B" Eliminator socket connection. It is dry, noiseless, wear proof.

2K5513—Unit complete. List price. $30.00. Net price $17.64

The ELKON "A" Power

The principle of dry rectification was announced and the Trickle charger was marketed. Now in the Elkon "A" Power you have silent, inexhaustible, unvarying "A" Power supply which eliminates forever "A" Battery troubles. No noise, no moving parts, no bulbs. Just constant, perfect "A" Power. Operates on 110 volts, A.C., 60 cycles.

3K3401—List. $35.82

The result of a wonderful invention, "A" Battery elimination is now PERFECT. Over a year ago the "Elkon" principle of dry rectification was announced and the Trickle charger was marketed. Now in the Elkon "A" Power you have silent, inexhaustible, unvarying "A" Power supply which eliminates forever "A" Battery troubles. No noise, no moving parts, no bulbs. Just constant, perfect "A" Power. Operates on 110 volts, A.C., 60 cycles.

3K3401—List. $30.00. Net...

2K5500-6 v. 50 amp. size $6.35
2K5501-6 v. 75 amp. size 7.50
2K5502-6 v. 100 amp. size 8.65
2K5503-6 v. 125 amp. size 9.75
2K5504-6 v. 150 amp. size 10.80

MILLER-WELLES CO., Chicago, Ill.
EAGLE "A" and "B" POWER UNIT

Smooth and constant "A" and "B" supply direct from A.C. lighting circuit. Delivers 180 volt at 60 mill. Designed to operate from 3 to 10 tube sets. Variable detector and intermediate as well as a variable maximum output. Uses Raytheon B.H. or other -55 tubes. Completely Automatic, operating directly from the switch on the radio set. Absolutely quiet and cool in operation. Black and Gold finish. Size, 16 x 8 x 8 inches. List, Net.

383428 ...... $79.50 $46.76

EAGLE DRI-DISC-CHARGER

No tubes, no acid, one-half ampere trickle charge rate. 1 1/2 ampere high rate. Absolutely quiet and cool in operation. Can be left on continuously.

383432 - 1 1/4 x 1 1/4 x 1 1/4 inches. List, $15.00. Net. ..... $8.82

HOLMES D. C. CHARGER

This D. C. Charger is well constructed and designed for charging batteries from 3 ma. 110 Volt D. C. line.

383434 ...... List. Net ...... $16.50 $9.71

EAGLE -B- POWERS

Super "B"
Automatic Relay built in with flush receptacle in rear to attach trickle charger. For Automatic control direct from switch on set. For six tube sets or less. Uses Raytheon Tube. Delivers 135 Volts at 40 Mil. Dimensions, 4 3/16 x 3 1/16 x 7 inches.


Power "B"
For sets up to 10 tubes. Delivers 180 Volts at 60 Ma.


MILLER-WELLES CO., Chicago, Ill.
Cables

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>Price</th>
<th>Unit</th>
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<tbody>
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<td>.50</td>
<td>pkg.</td>
</tr>
<tr>
<td>3K3401</td>
<td>7-conductor, 5 ft.</td>
<td>4.56</td>
<td>pkg.</td>
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<tr>
<td>3K3403</td>
<td>5-conductor, 10 ft.</td>
<td>10c</td>
<td>ft.</td>
</tr>
</tbody>
</table>

Battery Equipment

Belden Fused Cable

- Prevents burning out of tubes and fire hazards due to short circuits. A and B circuits both fused.
- Easily installed. Very popular last season.

- 3K3402 - 6 ft. long, 5-conductor | List $1.50, Net $1.25
- 3K3403 - 6 ft. long, 7-conductor | List $1.65, Net $1.45

EXTRA FUSES

- B battery replacement fuses.
- Three in box.

- 3K3404 - Per box | List, 85¢, Net 75¢
- 3K3405 - Per box | List, 40c, Net 32c

Cable Markers

- Metal tags for marking battery cables. Easy to fasten.
- Complete set in package.

- 3K3409 - List, per pkg., 95¢; net, 80¢. Per doz., pkg., 75¢

Toggle Switch

- Popular bakelite toggle switch, easily mounted on panel.

- 3K3411 - List, each, 50¢ Net. 32c

Hydrometers

- A hydrometer that will not drip acid and can be used in close quarters. Hose is 24" long. Will reach battery without moving. Very popular.

- 3K3412 - List Net 1.00 64¢

Drip Proof

- Three-ball type. Accurate and reliable. Safe guard against battery acid falling upon furniture and rugs.

- 3K3416 - Each, List $1.00, Net 64¢

Brackets

- Make your home-built set sturdy by using.

- 3K3413 - List, 95¢ Net 19c

Cell-Check

- Volt-Ammeter

- This meter is designed for testing dry cells and storage batteries. Attractive blue finish.

- 3K335 - 0-10 volts, 0-35 amps | List, $1.50, Net $1.25
- 3K336 - 0-50 volts, 0-35 amps | List, $3.00, Net $1.92

Tritox Automatic Trickle Charger

- Westing-House-Sarvas Product

- Operates on light socket A. C. 110 v. 60 cycle current. Eliminates bulbs, acids, and all moving parts. Full wave rectification using little current. Filament switch turns off charger when set is on and vice versa. Also provides "B" eliminator current when set is on. Tapering charging rate from 1/2 to 1/8 amp, assuring long battery life and freedom from any bother.

- 3K3421 - Charger complete | List $16.00, Net $9.41

Benjamin


- 3K3419 - Adjustable 51.25 79c
- 3K3420 - Not adjustable. 70 44c
Jewell Instruments

For Receiving Sets No. 135

A real asset to any receiver. A special mounting gives this 2-in. instrument an over-all dimension of 2½ inches. Etched scales with black markings on silver background.

3K300—0-5 volts $7.00 $4.46
3K301—0-8 volts 7.00 4.46
3K302—0-100 volts 7.50 4.76
3K303—0-3 amp. 7.00 4.46
3K304—0-50 milliamperes 7.00 4.46
3K305—Double reading—0-7½-150 v. 8.50 5.41
FUSC SWITCH TYPE 135 B—3K306 List Net 0-7½-150 volts 9.00 5.41
3K307—0-150 volts 9.00 5.74

Portable Voltmeter

A beautiful portable for the home, representing a miniature mantel clock. Furnished with leads which may be plugged into Radiola, Victor and Brunswick sets. A very desirable battery tester.

3K317—0-7½-150 volts $7.35
List $10.00. Net $6.50. Each

Set Analyzer

This 1927 Jewell product provides a rapid means of shooting trouble in a radio set. All parts of the set may be checked and recorded for future reference on printed blanks supplied for that purpose. Meter may be used as voltmeter, 0-80-200 volts and 0-10 milliamperes. Genuine morocco leather case.

3K321—List $65.00. Net each $47.78

A-B Relay

This Jewell A-B Relay has been designed for automatically switching the trickle charger and 'B' Eliminator when the filament control is turned on or off, thus relieving the set owner from the necessity of disconnecting those accessories or switching them individually. The relay is so sensitive that it will not interfere in any way with the operation of any set.

3K323—Por sets having 6 or more three volt tubes drawing 3 to 1 amp. List $5.00. Net each $3.19
3K324—Por sets having 6 or more five volt tubes drawing one more amperes. List each, $5.00. $3.19

High Precision Meters

Jewell's new small meter of high resistance, designed especially for checking "B" Eliminators, scale 0-300 volts. A thoroughly high grade instrument and can be depended upon.

3K316—List $12.00. Net $7.65

Pocket Meters

Accurately constructed scale calibrated for close reading. Enamelled black case with glass crystal flexible connection cord.

3K318—Voltmeters. 0-50 volts. List $2.75. Net each $1.76
3K319—Ammeter. 0-40 amperes. List $2.00. Net each $1.28

Tube Tester

A complete tube tester designed for the dealer to place on the counter. Equipped with voltmeter, milliammeter, rheostat and socket. A push button is employed to change the grid bias from negative to positive.

3K325—List $35.00. Net each $25.82

Filament Control No. 53

Prolongs life of vacuum tubes. Regulation iron-vane type; rugged and accurate, with zero adjustment flush type.

3K308—0-10 volts. D. C. $7.50
3K309—0-3 amperes. D. C. 7.50
Net each $5.51

Filament Control No. 53

Double Reading Meters

A popular instrument for mounting on panel of a receiving set. arrowing correct readings of A and B batteries. Black enamel finish, nickel plated and polished switch knob. Fits 2½-inch hole.

3K310—0-5-100 v. $18.00 $7.35
3K311—0-10-100 v. 18.00 7.35
3K312—0-4-160 v. 10.00 7.35
3K313—0-7.5-15 v. 10.00 7.35
3K314—0-7.5-150 volts. 3 readings. 12.50 9.15
3K315—0-8-80-160 volts. 3 readings. 12.50 9.15

Tubhe Checker

A small and compact design for use in checking tubes. Will test power tubes. The case is genuine bakelite with a carrying handle and includes filament rheostat socket, filament Voltmeter (0-8 volts) and plate milliammeter (0-8-10 milliamperes). A decidedly new and valuable instrument to the radio trouble finder.

3K320—List $27.80. Net each $20.20

Service Test Set

Service test set for general servicing of radio apparatus. Tests tubes, batteries, "B" eliminators, circuits, etc. Has drawer for small tools and detachable battery compartment. The instruments contained in the set are a four-scale voltmeter with extra high resistance for "B" Eliminator work and a three-scale milliammeter. The ideal instrument for a professional radio doctor. Furnished with leads and tube adapter but without tools and batteries.

3K322—List $78.00. Net each $57.84

Beebe Pocket Meters

Sturdy, accurate and finely nickel-plated. May be had for testing both "A" and "B" batteries. It is so sensitive that it will not interfere in any way with the operation of any set.

3K326—Storage "A" Tester. List $1.50. Net each $0.89
3K327—Combination 0-50 v. 0-50 amp. List $1.50. Net each $0.89
3K328—Combination 0-100 amp. List $1.25. Net each $0.89
3K329—Voltmeter. 0-50 v. List $1.25. Net each $0.74
3K330—Voltmeter. 0-10 v. List $1.25. Net each $0.74

MILLER-WELLES CO., Chicago, Ill.
**Electrad Varichrome**

A Variable Grid Leak. Suitable range of resistance 1/4 to 10 Megohms.

3K2567 $1.25 79c
3K2558—0001 to 0005

**Phasatrol**

A true balancing device for B.F. Amplifiers. Suitable for base or sub-panel mounting. Gives maximum efficiency and selectivity.

3K2569 $1.75

**Tonatrol**

A true tone and volume control connects across secondary of audio transformer in an audio amplifier.

3K2560 $1.50 96c

**Truvolt**

25 Watt


3K2562—0 to 5000 ohms
3K2563—0 to 10000 ohms
3K2564—0 to 50000 ohms

**Brach-Stat**


3K2561—For 201-A and similar tubes, 3.4 V
3K2562—For 199 and similar tubes, 3.4 V

**Resistor Mounts**

Bakelite with Phosphor Bronze Clips. Suitable for any standard size tubular resistor or grid leak.

3K2561—Single $0.25 90c
3K2562—Double 35.21

**Veritas Resistors**

Designed especially for "B" Eliminators, resistance audio amplification and transmitting grid leaks. Fit standard gridleak mounts.

3K2509—2,000 ohms $0.30
3K2510—5,000 ohms $0.65
3K2511—10,000 ohms $1.10
3K2512—20,000 ohms $1.65
3K2513—50,000 ohms $3.50
3K2514—100,000 ohms $6.90
3K2515—250,000 ohms $11.95
3K2516—500,000 ohms $23.75

**The "Clarostat" and Power Clarostat**

The "CLAROSTAT" is well known as a Universal Variable resistance from zero to 5,000,000 ohms. For "B" eliminators, volume control, eliminating distortion, variable gridleak use, etc.

3K2565—List $2.25

"POWER CLAROSTAT" is several times larger than the standard Clarostat but similarly constructed. Especially adapted to regulation of the filament control with the H.H. and other 85 M.A Rectifier Tubes of A-B-C Power Units.

3K2566—List $3.50

**Polyemt Grid-Leaks**

3K2532—.1 meg.
3K2533—.4 meg.
3K2534—1 meg.
3K2535—2 meg.
3K2536—4 meg.
3K2537—6 meg.
3K2538—8 meg.
3K2540—4 megs.
3K2541—8 megs.
3K2542—10 megs.
3K2543—10 megs.

**Truvolt**

25 Watt


3K2562—0 to 5000 ohms
3K2563—0 to 10000 ohms
3K2564—0 to 50000 ohms

**Electrod Resistances and Grid Leaks**

3K2544—.1 megohm.
3K2545—.2 megohm.
3K2546—.4 megohm.
3K2547—1 megohm.
3K2548—2 megohm.
3K2549—4 megohm.
3K2550—8 megohm.
3K2547—1 megohm.
3K2552—.4 megohm.
3K2554—.8 megohm.
3K2555—.4 megohm.
3K2556—10 megohm.

Net... $2.23

**Brach-Stat**


3K2561—For 201-A and similar tubes, 5 V
3K2562—For 199 and similar tubes, 4.7 V

**Miller-Welles Co., Chicago, Ill.**
Audio Transformers

Thordarson Audio Frequency Amplifying Transformers are built with one primary aim—perfect reproduction. The Thordarson Super Transformer is a product of the combined efforts of Thordarson engineers and nationally known tone experts and musicians.

There are more Thordarson Amplifying Transformers in use in leading sets than all competitive transformers combined. Built for good musical reproduction. The Autoformer is de-signed for use as a voltage divider with the advantage of greater amplification. Three-stage Autoformer amplifications are superior in amplification to four stages resistance coupled or four stages straight impedance coupled amplification. Flat amplification curve over entire range of frequencies.

Audio Transformers

Choke Unit

Intended primarily for use with transformers T-2098 but may be used in the filter circuit of any similar rectifier. It consists of two 30 henry choke coils capable of carrying 130 milliamperes without heating or saturation of the core. This unit is contained in a crakle finished compound filled case.

3852-Choke Unit. List $14.00. Net $8.40

130 M. A. Full Wave Rectifier

Here is a power unit that will satisfy the ever increasing demand for improved quality of reception. A split secondary 55 volts on either side of center, makes possible full wave rectification, using two 216-B or 216 tubes, two 216-B or 216-B tubes and one center tapped filament transformer.

38013-Choke Unit. List $20.00. Net $12.00

Output Resistor Kit for 210 Type Power Amplifiers

This special resistor kit is designed for use as a resistor divider for the Thordarson R-210 power amplifier, but may be used in all similar type power supply devices employing the UX-714 voltage regulator tube. This kit contains four individual resistors as follows: One 800 ohms with a tap at 400 ohms, and one 1000 ohms. Intended to supply 42-50 volts and 100 volts, and in addition, approximately 20 volts grid bias for the UX-210 power tube.

38514-List $4.90. Net $2.94

Filament Transformer

This transformer is designed primarily as a filament supply for the various types of five volt filament transformers. It should be used on all power amplifiers employing more than one power tube (the filament supply of the R-171 Power Compact is intended for only one power tube).

38516-5 Volt Fil. Supply Transformer. List $5.00. Net $3.00

Thordarson Output Choke R-196

A choke of 30 henries inductance, 45 milliamperes current carrying capacity, D.C. resistance of 260 ohms, suitable for use either as an output choke or for filter purposes.

38508-List $5.00. Net $3.00

Thordarson Autoformer

The Autoformer is a step-up impedance coupled amplifier which embodies all the good qualities of bass note amplifiers with the additional advantage of greater amplification. Three-stage Autoformer amplifications are superior in amplification to four stages resistance coupled or four stages straight impedance coupled amplification. Flat amplification curve over entire range of frequencies.

Power Push-Pull Transformer and Choke

This arrangement is designed to use with power tubes only and has sufficient capacity for all tubes up to and including the UX-210. Input transformer couples stage of straight audio to stage of push-pull. Output choke is centered tapped and has four series on either side of center tap.

38510-Input Transformer. List $5.00. Net $4.80

38511-Output Choke. List $8.00. Net $4.80

Power Compacts

The Thordarson Power Compacts R-171 and R-210 are designed as power units for simple and efficient power amplifier and B eliminator for home construction. R-171 employs Raytheon BH rectifier, 2 filter chokes of 80 milliamperes capacity, five-volt center tapped supply for one UX-171 power tube, and 2 buffer condensers. For use with 110 volt, 50 cycle light circuit.

38518-Complete with 8 ft cord, 111 pact. List $15.00. Net $9.00

38519-R-210, with 6 foot cord. List $20.00. Net $12.00

Speaker Coupling Transformer R-76

Designed as a protective device to keep the high voltage current of power amplification out of the delicate speaker windings. Suitable for use with either UX-171 or UX-210 power amplifiers.

38507-List $6.00. Net $3.60

Power supplies Deducted—Prices Net.
Fixed ACCURATELY RATED

TUBE TOBE Condensers

By-Pass Condensers

In their silvered metal cases the Tobe Bi-Pass Condensers are made for all by-pass use in radio sets. The Bi-Pass Condensers are noiseless and unchangeable. Insulation is of the order of 150 meghoms.

Sizes, List Net, mfd. price each
3K1800-0.1 .30 .63
3K1801-0.25 .70 .42
3K1802-0.5 .90 .53
3K1803-0.6 .90 .53
3K1804-1.0 1.50 1.03
3K1805-1.5 3.50 2.06

TinnyTOBE Condensers

TINY TOBE Condensers are made for constant operating voltage up to 500 D.C. They are of extremely small size—a very valuable feature because of the small space often allowed for by-passing condensers.

Sizes, List Net, mfd. price each
3K1813-0001-60 .30 .63
3K1814-00015-.35e .21
3K1815-.1 .30 .17
3K1816-00075-.40c .24
3K1817-001 .40c .24
3K1818-01 .65e .33
3K1819-02 .65e .33
3K1820-05 .65e .33
3K1821-10 .65e .33
3K1822-01 .65e .33
3K1823-02 .65e .33

INTERFERENCE FILTER

The Tobe Radio Interference Filter No. 1 will handle up to ¾ H.P. 220 v. or ½ H.P. 110 v. or ½ H.P. 220 v. D.C. and is made to reduce interference from oil burners, refrigerators, and all such motors at the source. Provides working capacity of 800 volts.

3K1824—Filter. List price, $1.00. Net, each .83

POLYMET FILTER AND BY-PASS CONDENSERS

A high voltage condenser that will stand up under continuous operating at rated working voltages. Non-inductive type.

Capacity D.C. Work Volt. 300

List price, Cap. each
3K1847-25 .80 .69
3K1848-25 .70 .42
3K1849-35 .50 .42
3K1850-45 .40 .39
3K1852-50 .35 .36
3K1853-60 .25 .36

D.C. Work Volt. 600

List price, Cap. each
3K1847-25 .80 .75
3K1848-25 .70 .50
3K1849-35 .50 .50
3K1850-45 .40 .49
3K1852-50 .35 .48
3K1853-60 .25 .48

POLYMET MOLDED BAKELITE CONDENSERS

The very last word in fixed condensers molded in genuine Bakelite, individually tested and inspected, not affected by heat or outside conditions.

Capacity List price, Net each
3K1836-0004 85c .21
3K1837-0009 35c .21
3K1838-0015 35c .21
3K1839-0025 35c .21
3K1840-0050 with grid leak clips 45c .27
3K1841-0060 40c .24
3K1842-0075 40c .24
3K1843-0100 35c .20
3K1844-0125 35c .20
3K1845-0150 35c .20

Polymet Mica Condensers

An extremely low loss type condenser guaranteed within 5% of rated capacity and against breakdown at 900 volts.

List price, Cap. each
3K1852-0001 35c .14
3K1853-0004 35c .14
3K1855-0009 35c .14
3K1856-0015 35c .14
3K1857-0025 with grid leak clips .35c .21
3K1858-0035 with grid leak clips .25c .21
3K1859-0045, with grid leak clips .25c .21
3K1860-0060 with grid leak clips .25c .21
3K1861-0082 30c .18
3K1862-0095 30c .18
3K1863-0115 30c .18
3K1864-0130 30c .18
3K1865-0150 30c .18
3K1866-0175 30c .18

Polymet Block Condensers

These Blocks incorporate the proper condenser sections for the various eliminators, power amplifiers, etc. Buy the block to suit the purpose.

List Net
3K1872—For Raytheon "B" Elim. 14 Mfd. $1.50 $0.67

Filter Condensers

TOBE Filter Condensers are made for use in filter circuits on plate supply units and in B Eliminators in power amplifiers where the D.C. working voltages run up to 300 volts. The 40 Mfd. is especially suitable for use in output devices required with the TX-171 and similar power-tubes.

Sizes, List Net, mfd. price each
3K1806-0.1 .60 $0.42
3K1807-0.25 .75 .45
3K1808-0.5 .90 .53
3K1809-1.0 1.50 1.03
3K1810-2.0 1.75 1.03
3K1811-4.0 3.50 2.06
3K1812-2.0x2.0 (Buffer) .50 .89

400 Line Condensers

Higher voltage condensers, made for continuous operation up to and including 700 volts D.C.

Sizes, List Net, mfd. price each
3K1834-1 .70 $1.18
3K1835-2 .80 $1.42
3K1836-4 1.50 2.65
3K1837-7 2.00 3.00

500 Line for Power-Packs

This new condenser is designed for continuous operation at 500 volts. Possibility of breakdown in the AmerTran Power-Pack and similar high voltage power amplifiers. This condenser will operate continuously up to 700 volts from 600 to 1000 volts.

Net, Mfd. price each
3K1883-0.5 $0.11
3K1884-1.0 2.50 1.47
3K1885-2.0 3.50 2.06
3K1886-4.0 6.00 3.53

MILLER-WELLES CO., Chicago, Ill.
K. K. Vernier Dial

These dials operate clock-wise or counter clock. Very artistic. Probably the fastest seller in the market. Genuine Bakelite finely polished. Requires one shaft hole and two small support holes, no gears to wear, no back last. Ratio 14:1. Housing 4 in. by 4 in.

List Net
3K400—Black $2.90 $1.18
3K401—Walnut 2.00 1.18

Vernier—"MARCO"—Illuminated

The newest illuminated control. Very attractive, easy to mount. Nickel finish throughout. Comes complete with lamp, template, switch, dial, etc. This is a big seller.

Black...
3K418—100-0, List, $3.50, Net, $2.06
3K419—100-6, List, $3.50, Net, 2.06

Marco Rheostat Dial

Matches the standard Marco Dial. Black Bakelite. Size 7". Vernier Type.

3K430—List, 75c, Net, 44c

K-K Rheostat Knob

Polished Bakelite knob, attractively etched with arrow. Two sizes.

3K402—Black List, 15c, Net, 10c
3K403—Black List, 15c, Net, 10c
3K404—Walnut List, 14c, Net, 12c
3K405—Walnut List, 14c, Net, 12c

K-K Plain Dials

Genuine Bakelite Dials. Black or Walnut in sizes which enable you to match all items on the set. Very staple stock.

Black...
3K420—2", Rheo Dial, List, 48c, Net 36c
3K421—2", 100-0, List, 60c, Net, 49c
3K422—3", 0-100, List, 60c, Net, 49c
3K423—4", 0-100, List, 60c, Net, 49c
3K424—4", 100-0, List, 60c, Net, 49c
3K425—2", Rheo Dial, List, 40c, Net, 36c
3K426—3", 100-0, List, 60c, Net, 49c
3K427—3", 0-100, List, 60c, Net, 49c
3K428—4", 100-0, List, 60c, Net, 49c
3K429—4", 0-100, List, 60c, Net, 49c

Benjamin Cle-Ra-Tone

Genuine Bakelite. For large base vacuum Tubes, will also accommodate new standard UX tubes. Very durable. Spring suspended, shock absorber.

Spring Suspended Shock Absorbing

Benjamin Spring Socket

For New Standard UX Tubes, also old style base except UV159. Side wipping.

Spring Supported Shock Absorbing

Benjamin Spring Socket, List, 75c, Net, 45c

Benjamin Direct Panel Mount Socket

Comes with drilling template and four machine screws with nuts for direct panel mounting.

DEJUR SPRING SOCKET


3K431—Each Socket, List, 50c, Net, 25c
3K432—Each Socket, List, 36c, Net, 18c
3K433—Each Socket, List, 36c, Net, 18c
3K434—Each Socket, List, 50c, Net, 25c
3K435—Each Socket, List, 60c, Net, 30c
3K436—Each Socket, List, 60c, Net, 30c

Benjamin 5 Prong

New 5 Prong Socket suitable for A.C. Push Type Tubes. Provided with large contact prongs and 5 taps. Cushion type. Will be very popular.

3K431—Sub Panel Type, List, 90c, Net, 36c
3K432—Complete with Base, List, $1.20, Net, 71c
Genuine Bakelite Panels

Highest quality, will not warp.
Will not chip. Finest natural polish. Black or Walnut.

3/16" Thick Panel 3/16" Thick
Black: Size Walnut

$3.200 $1.25 7x12 3K2408 $1.44
$3.201 1.46 7x14 3K2409 1.69
$3.202 1.83 7x18 3K2410 2.17
$3.203 2.19 7x21 3K211 2.65
$3.204 2.50 7x24 3K2412 2.90
$3.205 2.71 7x26 3K2413 3.14
$3.206 2.02 7x28 3K2414 3.37
$3.207 3.13 8x30 3K2415 3.62

Black Bakelite Sub-Panel 3/16" Thick

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</tr>
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Baseboards

Made of good quality ply wood about 7/16" thick. Any size can be supplied at approximately 25c per 100 sq. in.

<table>
<thead>
<tr>
<th>No.</th>
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<td>3K2457</td>
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</tbody>
</table>

Baseboard Tubsing Genuine Bakelite Tubing, natural color. Pieces cut 3 1/2 long, width 1/16 thick. Inside Price

<table>
<thead>
<tr>
<th>No.</th>
<th>Diameter Edge</th>
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<tr>
<td>3K2447</td>
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</table>

SPECIAL SIZE PANELS Bakelite Panels can be supplied in any size and thickness, either Black or Walnut. Special panels must be paid for in advance (see C.O.D.), and are not subject to exchange.

Per sq. in.
Black: Size Walnut

1/4" thick 1/4c 1/2" thick 1/2c 3/4" thick 3/4c Minimum charge, 50c.

Panel Engraving

You may have your panels engraved in any style or manner you desire. Always send exact layout carefully lettered. Prices per letter or figure, 5c. Striaght Line Borders count one letter to 6" of line.

Engraved panels are not exchangeable if according to layout submitted. Minimum charge, 50c.

Bakelite Tubing

Beautifully decorated Stock Metal Panels. By using a metal panel you can complete the shieling of your set. These panels are easily drilled with ordinary breast drill. Walnut finish decorated with Gold Lined Border.

No. | Size | List | Net |
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You can reduce the price of the popular Kits substantially by substituting a decorated metal panel for the Bakelite Panel listed and drilling it yourself.

Lignole Panels

Lignole is the beautiful new insulated Radio panel wood di-electric and moisture resistant. Here you have the beautiful natural color. Very artistic for the high class radio set. Two-Tone Lignole with beautiful inlaid separation border, Walnut Finish.

No. | Size | List | Net |
<table>
<thead>
<tr>
<th></th>
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Lignole panels can also be supplied in plain, or mahogany, or two-tone without inlay.

Drilled and Engraved Bakelite Panels for Popular Kits

Gold decorated and correctly drilled front panels and correctly drilled Sub-panels for the popular sets featured in leading Radio magazines.

No. | Kit | List | Net |
<table>
<thead>
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We can supply decorated and drilled Panels and Sub-Panels for any popular Kits whether listed above or not. If not listed allow us two days to have engraving done to order.
Belden Aerial Wire

Belden aerial wire consists of individual enameled wires braided together. Enamel is baked on, prevents corrosion. Very high grade wire.

3K2601 - Stranded 100-ft. roll, $1.00 64c
3K2602 - Stranded 500-ft. roll, $3.00 96c
3K2603 - Solid enameled 100-ft. roll, $1.15 75c
3K2604 - Stranded bare wire, 100-ft. roll, 75c 48c
3K2605 - Solid bare wire, 100-ft. roll, 65c 42c

Light Socket Aerial

Every outlet on an aerial; consumes no current; absolutely safe. Listed by board of fire underwriters.

3K2610 - List, $1.00, Net, 64c

Porcelain Insulators

White porcelain, deeply corrugated to prevent leakage, 1½ inches long, by 1½ inches diameter.

3K2615 - Each, 15c 80c

Belden Aerial Kit

Contains all essentials for making complete aerial-insulation. Very high grade material. Kit contains: 100 ft. bare copper aerial wire, 1 Belden lightning arrester, 1 ground clamp, 15 inch lead-in strip, 2 porcelain insulators, essential hardware, 1 instruction book.

3K2600 - List, $2.50, Net, $1.47

Lead-In Wire

Designed especially for use as lead-in and ground wire. The insulation is readily removed and the tin-plated copper is easily soldered. Rubber or brass insulation.

3K2606 - Stranded wire, 50-ft. roll, List, $0.00, Net, 64c
3K2607 - Solid copper, 50-ft. roll, List, 75c, Net, 39c

Window Lead-In

A high grade lead-in. Provides a reliable and simple method for bringing the aerial into building, avoids cutting holes in walls. Extremely flexible, phosphor bronze spring clips.

3K2605 - 17" long, 10c wide
List 35c, Net, 21c
3K2609 - 15" long, 1½" wide
List 25c, Net, 15c

Insulators

Branch glass insulator is of high grade dielectric value; will not accumulate dust or dirt. Tensile strength very high.

3K2614 - Each, 25c 15c

Ground Clamps

Instant adjustable ground clamp, easily fitted to all pipes. Positive contact insured. Very high grade material.

3K2612 - List, 15c, Net, 10c

The Ekko Ekko Clamp is easy to use. Screw the ground wire to clamp. Attach the clamp to the nearest pipe. In- sure positive contact. Most popular clamp in use.

3K2613 - List, 25c, Net, 15c

Eby Binding Posts

The most popular binding post in use. Completely insulated with non-removable top.

3K2617 - PLAIN
3K2618 - A BAT +
3K2619 - A BAT -
3K2620 - A BAT +
3K2621 - A BAT -
3K2622 - B BAT +
3K2623 - B BAT +
3K2624 - C BAT +
3K2625 - C BAT +
3K2626 - 2 VOLTS +
3K2627 - 3 VOLTS +
3K2628 - 5 VOLTS +
3K2629 - 10 VOLTS +
3K2630 - 15 VOLTS +
3K2631 - 20 VOLTS +
3K2632 - B DET.
3K2633 - B AMP.
3K2660 - AAMP.
List, 15c, Net

10c

X L Binding Posts

A binding post that is unusually different. Push it down with your thumb, insert wire, remove pressure and wire is firmly held. Releases instantly. Specified in many popular circuits. Very popular.

Following marked posts:
3K2639 - Aerial.
3K2640 - Ground.
3K2644 - A Bat +
3K2645 - A Bat -
3K2644 - B Bat 25/4 +
3K2645 - B Bat 25c +
3K2645 - C Bat -
3K2648 - B Bat 45-
3K2643 - B Bat 90-
3K2650 - B Bat + Amp.
3K2655 - B Bat + Loop.
3K2667 - Av B-
List, each, 15c

10c

X L Binding Post Strip

Handsome polished panel with gold mounted push posts with white engravings. Aerial, ground, A-, A+, B, -5, Amp., Det., and B+ Amp.

3K2658 - List, $1.50, Net
96c

X L Vario Densers

Genuine Bakelite casing, all metal parts, phosphor bronze electrode. For use in popular circuits.

3K2669 - Model N, 1.5 to 20 mfd., List, $0.00, Net, 1.00
3K2660 - Model G-L, 0.0002 to 0.0001
List, 0.00, Net
1.50 96c
3K2661 - Model G-5, 0.0001 to 0.0005
List, 0.00, Net
1.50 96c
3K2662 - Model G-10, 0.0005 to 0.001 mfd.
List, 0.00, Net
1.50 96c

MILLER-WELLES CO., Chicago, Ill.
Belden Magnet Wire

We have in stock a complete assortment of Magnet wires, suitable for all kinds of experimental and radio work. One place only on spools. Prices quoted are for 8-oz. spools. Sizes are standard B.S. Be sure to state size of wire and article number.

**Double cotton Double silk Wire**

<table>
<thead>
<tr>
<th>Size</th>
<th>White</th>
<th>Green</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K3200</td>
<td>286c</td>
<td>18</td>
</tr>
<tr>
<td>3K3201</td>
<td>316c</td>
<td>20</td>
</tr>
<tr>
<td>3K3202</td>
<td>364c</td>
<td>22</td>
</tr>
<tr>
<td>3K3203</td>
<td>376c</td>
<td>24</td>
</tr>
<tr>
<td>3K3204</td>
<td>426c</td>
<td>26</td>
</tr>
<tr>
<td>3K3205</td>
<td>549c</td>
<td>28</td>
</tr>
<tr>
<td>3K3206</td>
<td>616c</td>
<td>28</td>
</tr>
</tbody>
</table>

Prices per spool are:
- $6.00 for spools.

Cuts into two-foot lengths:
- 10 lengths 100 lengths
- 3K3207 - Round... 13c $1.20
- 3K3208 - Square... 15c $1.30

In 14 stranded tinned copper wire. Used for wiring sets; handy and easy to solder.

**Benjamin Coils**

The Benjamin "Leotless" Transformer has uniformly high inducance, low distributed capacity and low resistance. Can be used in any type of tuned radio frequency circuit or with more than two steps of radio frequency. Especially desirable for single control. Designed to be used with .0005 mfd. condensers. Range 200 to 550 meters.

**3K3211 - Set of three coils.**

List, $6.00. Net, $3.83

**Bodine Twin-8**

R. F. Transformer

A new type of closed field coil to improve all types of tuned R.F. sets. Field designed to have very high amplification. Easy to assemble, strong and compact. Mounting brackets included.

**3K3212 - Set of three coils.**

List, $6.00. Net, $3.83

**Formalite Radio Frequency Coils**

Small but efficient tuned radio frequency coils only 2" in diameter. Wave length range 200 to 550 meters when used with .0005 mfd. condensers. Faced in a box, complete with mounting strips.

**3K3212 - Set of three coils.**

List, $2.00. Net, $1.17

**Belden Litz Wire**

Consists of many strands of fine Belden wire, coiled together and protected by double covering of green silk. Each strand of Belden Litz Wire is enamelled separately. Ideal wire for winding low loss coils.

- 3K3202 - 100-ft. spool...
- 3K3203 - Brown...
- 3K3204 - Same as above...
- 3K3205 - Stranded tinned...

**Cut Into Two-foot Lengths**

<table>
<thead>
<tr>
<th>Size</th>
<th>10 lengths</th>
<th>100 lengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K3207</td>
<td>13c</td>
<td>$1.20</td>
</tr>
<tr>
<td>3K3208</td>
<td>15c</td>
<td>$1.30</td>
</tr>
</tbody>
</table>

**R. F. COILS**

**Baby Solenoid Coils**

This coil is the latest designed radio frequency transformer winding. 1%" Formalite tubing, machine spaced No. 25 mica condenser. Designed to be used with .0005 mfd. condensers for wave-length range of 200 to 500 meters.

**3K3216 - Set of three coils complete with mounting brackets.**

List, $3.00. Net, $1.77

**3 Circuit Tuner**

Wound on 3/4" diameter tubing. 2 1/2" long. To be tuned with .0005 mfd. condenser. With hole mounting bracket and hardware. 200 to 550 meters when tuned with .0005 mfd. condenser.

**3K3217 - Set of three coils.**

List, $2.00. Net, $1.18

**Strobodyne Coils**

Designed especially by R. E. L. for Strobophone Receiver featured by a brand of Brown Rayon over-all. 2 oz. spool.

**3K3219 - Type F with base.**

List, $4.50. Net, $2.87

**3K3220 - Type F without base.**

List, $4.00. Net, $2.87

**Colorubber Wire**

The ideal wire for hook-ups and split wiring. The flexibility makes fitting easy. This rubber insulation permits easy reconnections. The different colors in which Belden Colorubber is supplied permits wiring sets by code. The cotton serve under the Colorubber facilitates stripping. The stranded tinned copper wire is easily soldered. Ideal for ground wires.

- 3K3205 - Stranded Tinned Copper Wire, insulated with Colorubber (colored rubber) either natural, green, blue, brown or yellow; 25 ft. in a carton; one color per carton. State color desired.

**Formalite Wire**

A superior radio bushing made of No. 14 copper wire with a non-inflammable insulation. Bend without cracking.Moisture proof and has high insulating value. Specify color desired—black, yellow, red, green and brown. Solid cut in 10" lengths. All colors.

- 3K3209 - 100-ft. spools...
- 3K3210 - Per box of 25...

**Colorubber Wire**

- 3K3205 - Stranded Tinned Copper Wire, insulated with Colorubber (colored rubber) either natural, green, blue, brown or yellow; 25 ft. in a carton; one color per carton. State color desired.

**Cuts Into Two-foot Lengths**

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**Cuts Into Two-foot Lengths**

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</tr>
<tr>
<td>3K3208</td>
<td>15c</td>
<td>$1.30</td>
</tr>
</tbody>
</table>

**Belden Loop Wire**

- 3K3204 - Same as above except has double serve of ground wire...
- 3K3203 - Brown silk; 65 strands of fine copper wire with one serve of cotton and a braid of Brown Rayon over-all. 125 ft. spool.

List, $1.16. Net, $0.64

**List, $5.00. Net, $2.67**

**List, $6.00. Net, $3.83**

**List, $2.00. Net, $1.18**

MILLER-WELLES CO., Chicago, Ill.
Consrad Publications

25¢ Books
These books are carefully written so that persons not having technical knowledge can easily understand them.
3X3602-Tips for Radio Amateur Constructor.
3X3603—How to Make Practical Radio Receiving Sets.
3X3604-Radio Frequency Amplification.
3X3605—How to Make Loud Speakers.
3X3606—How to Tune Your Radio Set.
3X3607—150 Radio Hookups.
3X3608—All about Radio parts.
3X3609—History and Operations of the Vacuum Tube.
3X3610—Neutrodyne; All About It.
3X3611—Radio News Trouble Finder.
3X3612—Reflex Radio Receiver.
3X3613—How to Make a Neutrodyne Constructor.
3X3614—How to Make a Neutrodyne Receiver.
3X3615—Radio News Ama
teur's Handibook.
3X3616—1901 Radio Questions Answered.
3X3618—Television List, 50c. Net.
3X3620—List, 35c. Net.
3X3621—List, 30c.
3X3622—Black.
3X3623—Mahogany.

Radio Encyclopedia

S. Gernsheimer's Radio Encyclopedia is the only standard work ever published in America attempting to classify alphabetically the countless words used in the highly specialized science of Radio. The encyclopedia is written in plain English so that everybody can understand the definitions and descriptions. The work contains 1,930 definitions, 49 photographs, drawings and diagrams.
3X3601—List, $2.00. Net.

Citizen's Call Book

Contains complete up-to-date list of all broadcasting stations in the world, a wonderful picture section and beautifully illustrated construction review showing how to build all of the latest circuits. We always supply the latest copy.
3X3600—List price, 50c. Net.

Reliable Detectors

Atomite has no equal for uniform loudness all over. By selection of best materials and high-grade workmanship, we supply the buyer with what he expects and demands. The same quality that makes for loudness in Atomite gives it long distance reception.
3X3625—Silicon. List 50c. Net, 30c.

Howe Crystal Set

It is not a toy! The Howe was designed by practical radio experts; it is absolutely trouble and foolproof. Requires no batteries—has no exposed wires. As many as eight people can "listen in" at the same time. The metal case is finished in beautiful antique verde. Binding posts are riveted and can't pull out. Only the highest grade crystals are used. Stations can be logged by numbers. It is a significant fact that radio broadcasting stations use this receiver to test how their programs are "coming through."
3X3626—Set as shown. List $1.75. Net.

Midget Switches

Specifications: Black molded Bakelite base. Highly nicked brass contacts with moulded insulating sleeves. Stamped, riveted and can't pull out. Only the latest cops andros are used. Stations can be logged by numbers. It is a significant fact that radio broadcasting stations use this receiver to test how their programs are "coming through."
3X3632—List, 60c. Net.
3X3628—List, 60c. Net.
3X3629—List, 85c. Net.
3X3631—List, 35c. Net.
3X3632—List, 50c. Net.
3X3633—List, 50c. Net.


Yaxley Plug
Neat appearing with polished bakelite handle. Shorting impossible. Duplex plug screw terminals, coin slots and tie cord clips.
3X3619—List, 50c. Net.

De Jur Plug
Small in size, neat appearing. Body of high grade insulation material prevents shorting or leakage.

Poly Plug
Exceptionally well made plug. Holds wires twice as long as others. Can not be jarred, thus preventing disturbance.
3X3622—Black. List 50c. Net.

Cord Connector
Connects speaker cord with extension cord so speaker can be moved any distance from set.
3X3630—List, 35c. Net.

Brach Shock Proof Plug inserted to withstand high voltages for Loud Speakers.
3X3633—List, 50c. Net.

NION FIXED DETECTOR
Guaranteed to bring in loud signals on crystal sets and on reflex sets where excessive voltages is not used.
3X3626—List, $1.00. Net.

Hazelton Distance Geter

Reservation results in affecting longer distances accomplished.
Easy to Connect. No Technical Experience Required.
There are four simple connections to be made which can be done in a minute's time. No internal changes in the wiring or hook-up of the radio receiver need be made. Immediate results are noticed from the instant your distance getter is connected.
3X3631—Net, 75c.
### Radio Tools—Screws—Soldering Irons

#### Brass Screws

**Polished Nickel-Plated Heads**

| Size | Thread | Length | Gross |\n|------|--------|--------|--------|\n| 3K3700 | 6 threads | \(\frac{1}{4}\) in. | 40c |\n| 3K3701 | 4 threads | \(\frac{1}{4}\) in. | 49c |\n| 3K3702 | 3 threads | \(\frac{1}{4}\) in. | 56c |\n
| Size | Thread | Length | Gross |\n|------|--------|--------|--------|\n| 383703 | 6 threads | \(\frac{1}{2}\) in. | 40c |\n| 383704 | 4 threads | \(\frac{1}{2}\) in. | 47c |\n| 383705 | 3 threads | \(\frac{1}{2}\) in. | 53c |\n| 383706 | 6 threads | \(\frac{3}{4}\) in. | 70c |\n| 383707 | 4 threads | \(\frac{3}{4}\) in. | 89c |\n
| Size | Thread | Length | Gross |\n|------|--------|--------|--------|\n| 3K3708 | 6 threads | 1 in. | 40c |\n| 3K3709 | 4 threads | 1 in. | 47c |\n| 3K3710 | 3 threads | 1 in. | 53c |\n
#### Screw Drivers

- **Oval-Head Machine Screws**
- **Flat-Head Machine Screws**
- **Round-Head Machine Screws**

#### Countersink

For shapes in any kind of panel.

| Size | item | List | Net |\n|------|------|------|-----|\n| 3K3704 | 25c | 15c |\n
#### Socket Wrench Set

- **Tapered**
- **Socket**

| Type | item | List | Net |\n|------|------|------|-----|\n| 3K3705 | 25c | 17c |\n
#### Radio Wrench Set

For all hexagon nuts. Three wrenches in leather case. Sizes \(\frac{1}{2}\)", \(\frac{3}{4}\)", \(\frac{5}{16}\)", \(\frac{7}{16}\)", \(\frac{1}{4}\)" and odd size jaw.

| Size | item | List | Net |\n|------|------|------|-----|\n| 3K3706 | 25c | 17c |\n
#### Center Punch

To mark panel to start drill point. Makes drilling easy and accurate. Net.

| item | List | Net |\n|------|------|-----|\n| 3K3708 | 15c | 10c |\n
#### Screw Drivers

For enlarging drilled holes.

| item | List | Net |\n|------|------|-----|\n| 3K3705 | 25c | 17c |\n
#### Flat Washers

Brass, nickel plated. Fit size 6 screws.

| item | Gross |\n|------|-------|\n| 3K3717 | 31c |\n
#### Hexagon Nuts

Brass, nickel plated. Chambered and countersunk for assembly work. Fit all size 6 screws with 32 threads to inch.

| item | Gross |\n|------|-------|\n| 3K3718 | 44c |\n
#### Flat Lugs

Package of 25.

| item |\n|------|\n| 3K3720 | 15c |\n
#### Radio Screw Assortment

| item | List | Net |\n|------|------|-----|\n| 3K3721 | 100c | 89c |\n
#### Radio Nut Forceps

For a perfect grip on all sized hex and square nuts. Fine for outer pin work or for knurling. Nicely finished.

| item | List | Net |\n|------|------|-----|\n| 3K3711 | 90c | 39c |\n
#### Radio Nut Forceps Assortment

| item | List | Net |\n|------|------|-----|\n| 3K3711 | 15c | 10c |\n
#### American Beauty Irons

- **Screw Drivers**
- **Oval-Head Machine Screws**
- **Flat-Head Machine Screws**
- **Round-Head Machine Screws**

#### Soldering Irons

**Solder**

- **Brach Jr. Iron**
- **Kester Rosin Core Radio Solder**

**Radio Vise**

Almost a necessity to radio setbuilders. Made of certified malleable iron castings. Unbreakable. Width of jaws, \(\frac{3}{4}\)"; opens 12", weight 3 lbs.

| item | List | Net |\n|------|------|-----|\n| 3K3521 | 15c | 12c |\n
---

**TAP AND DIE SET**

Contains taps and dies for 4-36, 6-32, 8-32, 10-24, 12-20, also adjustable tap wrench. Designed for radio work. With fine wooden case.

| item | List | Net |\n|------|------|-----|\n| 3K3522 | 100c | 89c |
Walnut Two-Tone Cabinet

Beautifully finished and decorated cabinet at a very low price. Panels on top and sides genuine dark walnut on light colored walnut panels, outlined by inlaid gold striping. Full length nickled piano hinge ends, grooved for panel. Cabinet solidly built, 10 inches in depth behind panel.

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Panel Size</th>
<th>List Price</th>
<th>Net Price</th>
<th>Shipping Price</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6K5214</td>
<td>7x18</td>
<td>$11.00</td>
<td>$5.79</td>
<td>$5.70</td>
<td>16 lbs</td>
</tr>
<tr>
<td>6K5215</td>
<td>7x21</td>
<td>12.00</td>
<td>6.52</td>
<td>6.52</td>
<td>18 lbs</td>
</tr>
<tr>
<td>6K5216</td>
<td>7x24</td>
<td>13.00</td>
<td>6.81</td>
<td>6.81</td>
<td>20 lbs</td>
</tr>
<tr>
<td>6K5217</td>
<td>7x26</td>
<td>14.00</td>
<td>7.59</td>
<td>7.59</td>
<td>21 lbs</td>
</tr>
<tr>
<td>6K5218</td>
<td>7x28</td>
<td>15.00</td>
<td>8.09</td>
<td>8.09</td>
<td>22 lbs</td>
</tr>
<tr>
<td>6K5219</td>
<td>7x30</td>
<td>16.00</td>
<td>8.72</td>
<td>8.72</td>
<td>23 lbs</td>
</tr>
</tbody>
</table>

Console Speaker

Can be used in any standard console air column 60 inches. Bell, 6½"x1½"; Depth, 18¾". Will take standard units.

Without Unit

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>List Price</th>
<th>Net Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K5174</td>
<td>$5.00</td>
<td>$5.29</td>
</tr>
</tbody>
</table>

Panel Size

Classified by the size of the panel, the price includes the shipping charge.

Low-Boy Horn

For low model console speaker compartments. Bell, 12½" by 3½"; Depth, 5¾". Uses standard speaker units.

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>List Price</th>
<th>Net Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K5176</td>
<td>$5.00</td>
<td>$2.94</td>
</tr>
</tbody>
</table>

Radio Tool Chest

Contains 10 practical tools designed by men who knew exactly what was required for Radio work. Complete in attractive dark blue and gold case.

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>List Price</th>
<th>Net Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K3575</td>
<td>$3.00</td>
<td>$1.96</td>
</tr>
</tbody>
</table>

Two-Tone Battery Table

Very attractive battery table finished in two-tone genuine walnut. Dark walnut panels outlined by gold striping on lighter walnut background. Front has appearance of two doors. Back left open to give free access to batteries. Top is of selected gum wood, hand-rubbed to a finish, having appearance of solid walnut. Height, 30"; Top, 16x30"; Inside Depth, 13¾"; Height, 14¾"; Width, 26½".

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>List Price</th>
<th>Net Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>6K5220</td>
<td>$18.00</td>
<td>$9.26</td>
</tr>
</tbody>
</table>

SuperPhonic Horn

Designed in line with the new "Orthophonic" principle this horn produces remarkable tonal quality. Air column and tone chamber measure 6 feet, but due to proper scientific construction, horn measures over all 1½"x16"x12" deep. Will reproduce with quality all notes of the audible scale without vibration or chatter. Will take all standard units.

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>List Price</th>
<th>Net Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K5175</td>
<td>$14.00</td>
<td>$8.23</td>
</tr>
</tbody>
</table>

"UTAH" Piano Speaker

For Baby Grand or Upright Piano. Powerful nickel finish Utah unit, ready to attach to rounding board of your piano. At once converts it into a powerful high grade speaker at very small cost. Equipped with 25-ft. cord. The very latest "Utah" success.

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>List Price</th>
<th>Net Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2K2765</td>
<td>$10.00</td>
<td>$5.88</td>
</tr>
</tbody>
</table>

MILLER-WELLES CO., Chicago, Ill.
Learn to Recognize Good Furniture

Look into the furniture you sell. The construction—see that solid and firm material is used, that all shelves are grooved into the ends, and that ends are grooved into bases and top. Then look at the finish. Has it depth of body? Is it smooth as glass? Is it uniform in color? Is it finished so that you would have it in your living room alongside a piano if need be? Your customers deserve this consideration and they will have it if you as a dealer are to prosper and profit. Do not be satisfied with price alone.

The "Arlington" Model 860

Truly a wonderful piece of cabinet work. Genuine walnut, figured in butt walnut plywoods. Arched doorways, arched satinwood panels, bold overlays in relief with hand-painted polychromed carvings as center motifs. Beautifully finished. The finest radio console we have to offer. Width, 63"; height, 42"; depth, 18". Complete with Ortho type air column horn and Baldwin Unit. Takes up to 24" panel. Has standard loop compartment. Will house any power pack or eliminator.

6K5209—List, $250.00. Net... $147.00

The "Seville" Model 208

The new redesigned "Seville" houses the Ortho type air column horn. Marvelous Spanish design, a real treat to the eye. Finished in matched butt walnut. Antique brass finished Spanish hardware, richly ornamented by a series of mitred return moldings and spindle carvings. Complete with Baldwin unit. Takes up to 30" panel. Width, 30"; height, 48"; depth, 18".

6K5210—List, $140.00. Net... $83.32

"FRITTS" Super-Quality Cabinets

The Super Table is very attractive and a beautiful addition to any setting. It is especially designed to match the Standard Super Cabinet at the left and provides a perfect combination in color and workmanship. All decorations are slightly polychromed and diamond inserts on front doors are genuine burled walnut. Top, sides and doors have raised panel effect. Hardware, antique brass. It is suitable for cabinets using up to 30" panels. Dimensions: Top, 38" x 15 1/2"; height, 32". Inside dimensions of compartment: 14 1/4" deep by 20" long by 10 1/2" high. Shipping weight, crated, 78 lbs.

6K5230—List price, $52.50. Net... $29.40

Carved Solid Walnut Cabinet

This cabinet is solid walnut and is of the same high quality which distinguishes the entire Fritts line. The decorations are polychromed. Top and sides slightly raised with panel effect. Nickeled piano hinge and lid stay. Made to take standard 7" panel. If an 8" panel is used, it is only necessary to remove the top panel decorative strip. All cabinets 8" high inside by 12" deep from panel to back.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>size</th>
<th>Shp. wt.</th>
<th>List price</th>
<th>Net price</th>
</tr>
</thead>
<tbody>
<tr>
<td>6K5221.1</td>
<td>7&quot; x 18&quot;</td>
<td>40 lbs.</td>
<td>$21.00</td>
<td>$12.35</td>
</tr>
<tr>
<td>6K5222.</td>
<td>7&quot; x 21&quot;</td>
<td>40 lbs.</td>
<td>$22.00</td>
<td>$12.94</td>
</tr>
<tr>
<td>6K5223.</td>
<td>7&quot; x 24&quot;</td>
<td>45 lbs.</td>
<td>$25.00</td>
<td>$13.23</td>
</tr>
<tr>
<td>6K5224.</td>
<td>7&quot; x 26&quot;</td>
<td>55 lbs.</td>
<td>$28.50</td>
<td>$14.00</td>
</tr>
<tr>
<td>6K5225.</td>
<td>7&quot; x 28&quot;</td>
<td>55 lbs.</td>
<td>$26.00</td>
<td>$13.68</td>
</tr>
<tr>
<td>6K5226.</td>
<td>7&quot; x 30&quot;</td>
<td>55 lbs.</td>
<td>$26.00</td>
<td>$14.24</td>
</tr>
</tbody>
</table>

We also carry Fritts Super Cabinets and Super Consolette at correspondingly reasonable prices.
FINEST RADIO FURNITURE MADE

These HIGH GRADE Consoles and Cabinet Speakers have been chosen by us because we believe them to be the BEST FURNITURE VALUES available in the United States.

The cabinets, when equipped with large Newcombe-Hawley Horn, will accommodate all standard A, B, and C batteries, and all standard B Eliminators, but will not accommodate the large A, B, and C power supplies, such as Philco, Balkite, etc., or motor generators. If you wish to install these, it will be necessary to state so on your orders, and a special Horn will then be installed permitting this extra space.

THE "INTERMEZZO"—Model 212

Created in direct response to a demand for a Cabinet of strictly Orthotype design, the Intermezzo has already achieved a popularity that is amazing.

The two doors are of the most select matched Butt Walnut, and made in perfect pairs. Arch design carved into the face of the doors gives definite outlines for the rich shadings, done by air brush. The center carved medallion sets off the beautiful antique Brass Pull in a manner that must be seen to be appreciated.

The corners of the cabinet have been cut out at angles and a heavy carving of acanthus leaves forms a drop that is very pleasing.

In the interior the scroll with its turned columns forms beautiful colonnade set off by neutral colored silks. Wonderful radio music pours forth from the genuine Newcombe-Hawley Orthotype Speaker mounted within.

Outside Specifications—Width, 30 ins.; Height, 42 ins.; Depth, 20 ins.

Battery and Speaker Compartment—Width, 26% ins.; Height, 25 ins.; Depth, 16% ins.

Set Compartment—Width, 24 ins.; Height, 9 ins.; Depth, 15% ins.

Will house the average requirements of power units.

Selling price, $125.00

Net $73.50

THE "CARAVEL"—Model 218

The CARAVEL, while distinctly Spanish, is not freakishly so; wrought iron stretchers have been purposely avoided as have gaudy colored polychroming.

In this charming creation have been combined two very popular features: First, from point of beauty, the Spanish design, with its antique wrought brass hinges and hardware, with its carved twists and the beautiful Spanish finish; second, the Orthotype construction, embodying the long air column horn, bringing forth the entire tonal register.

The CARAVEL, as you know, is the Spanish Treasure Ship, and truly this creation is a treasure ship, bringing to you the rarest treasures of entertainment.

Outside Specifications—Width, 28 ins.; Height, 43 ins.; Depth, 19 ins.

Battery and Speaker Compartment—Width, 24 ins.; Height, 9 ins.; Depth, 15 ins.

Will house the average requirements of power units.

Selling price, $150.00

Net $88.20

THE "NEWHALL"

A speaker cabinet equipped with a genuine Newcombe-Hawley long air column Horn and powered with a genuine Orthotype Baldwin unit.

Produced in beautifully finished Adam Brown Mahogany. The Top, Front and Ends are genuine 5-ply mahogany and the solid parts, such as Legs, Rails and Pilasters, are quarter-sawn Red Gum.

You cannot produce a better toned speaker cabinet, no matter what price you pay, as this has the same horn as is used in $250.00 list cabinets.

Battery and Speaker Compartment will house the average power units.

Selling price, $65.00

Net $38.22

MILLER-WELLES CO., Chicago, Ill.
THE "LOWBOY"  
Model 20  
At Left  
The original type of console, simple of design, very well made and beautifully finished. Occupies little space but with ample room for all radio requirements. Design an adaptation of Hepplewhite with hand-rubbed Adam Brown mahogany finish. Width, 30"; height, 38"; depth, 16". Will accommodate set up to 26" by 15½" deep. Top lifts for access to set. Mahogany 5-ply front and top. Balance selected hardwoods with gold striping.  
6K5203—List price, $35.00. Net $20.58  
List $35.00  
Net $20.58

THE "SUPER"  
Model 25  
At Left  
Staunch dependable cabinet. Top and front 3-ply mahogany; balance of selected hardwoods. Adam Brown mahogany finish and gold striping. Will house set up to 22½" long or 24½" with inside speaker. (No speaker supplied. See page 43.) Ideal for Superheterodynes. Outside width 36½"; height, 38½"; depth, 16".  
6K5205—List price, $45.00. Net $26.46  
List $45.00  
Net $26.46

THE "HIGH-BOY"  
Model 31  
Above  
This popular design will be a very fast seller this year. Top and front of 3-ply mahogany; balance of selected hardwoods with hand-rubbed Adam Brown mahogany finish with gold striping. Every cabinet equipped with speaker horn (no unit; see page 22). Will accommodate set up to 26½" long, outside width 30½"; height, 42½"; depth, 18½". Mounting panel supplied. Top lifts for access to set.  
6K5206—List price, $48.00. Net $28.23  
List $48.00  
Net $28.23

BATTERY CABINET—Model 11  
To be used for smaller sets having cabinets less than 28" in length. Hand-rubbed Adam Brown mahogany finish with gold striping. Ventilates at the rear. Width, 30"; height, 28½"; depth, 19½".  
6K5207—List price, $23.00. Net $13.53  
List $23.00  
Net $13.53

THE "SONATA"  
Model 38  
At Right  
Ortho-type speaker controls. Beautifully finished. Has air column horn and Baldwin Unit. Speaker scroll backed by neutral silk. Battery space for average radio requirements. Top and front 3-ply mahogany. Takes panel up to 22½" wide. Outside width, 26½"; height, 40½"; depth, 21½".  
6K5211—List price, $100.00. Net $58.80  
List $100.00  
Net $58.80

MILLER-WELLES CO., Chicago, Ill.
Hold Heeter

A beautiful smooth bowl beater. Solid heavy 13 1/2" copper bowl case iron base. Finished in mahogany bronze. Separable cord connection back of heater. Inverted cone shaped wire element. Spreads heat over wide area. 110 v. or 220 v. 43E3303-110 v. List $6.50. Net each... $3.73

Rex Aluminum Percolator

Finely constructed of high grade aluminum. Has steel sheathed heating element which can easily be removed or renewed. Pumps only water, assuring coffee without bitter element. Very attractive. 7 1/2 cup size. 110 v. 4K3303—List $4.25. Net... $2.50

Hold-Heet Percolator Set

Beautiful 4-piece set consisting of 8-cup percolator, heavy round nickel finished tray 12 1/2" with sugar and creamer set. Works on hot water principle. An ideal item for a gift. Pan- eled Nicalurn percolator. The biggest value on the market in nickel plated percolator. Finished in sparkling easy-to-clean Nicalurn. Substantial rugged construction throughout. 4K3304—List $8.50. Net... $5.00

DeLuxe Hold-Heet Waffle Iron

The most beautiful Waffle Iron on the market. Makes full size waffles. Drip catcher on edge of plates and large base acts as tray. Octagonal ebbonized handles. Shell of heavy brass beautifully etched and finished in high polished nickel plate. 5 3/4" high. Size 1 1/2"x8 1/2"x8 1/2". 110 volt. 4K3306—List $12.00. Net... $7.06

Hold-Heet Toaster

Medium priced Toaster of high quality. Full polished nickel throughout. Insulated feet and handles. Heating element distributed to insure even toasting. Size 7 1/4"x4 3/4"x8 1/2". 110 volt. 4K3308—List $3.50. Net... $2.06

Hold-Heet Immersion Heater

This Heater is light, of convenient size, very quick heating, and serves innumerable purposes. Most economical and rapid method of heating a glass of liquid, baby's milk or shaving water. Nickel plated, 3/16"x8". 110 volt. 4K3309—List $3.75. Net... $2.21

MILLER-WELLES CO., Chicago, Ill.
### The Revolutionizing New Radio Tube Soon to be on the Market

Will Eliminate "A," "B" and "C" Batteries.
Will Eliminate entirely all External Electric Interference such as motors, etc., and even "STATIC."
Will have Long Life, wonderful volume and ideal clarity of Reception which has never before been approached by any similar electrical device.

Can be used in any Radio Set "Old" or "New" without any accessories or changes whatsoever.
Will bring Radio to your Home in such perfect reproduction and such pure natural tone as if the orchestra or voice were in your own home.
This Tube will soon be on the market. Patents have been allowed. We will make further announcements shortly. Watch our later issues for more detailed information and prices.

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### Utah Products

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The Long Looked-
For True A. C.
Radio Set

POWER-PLUS SET

No batteries, eliminators, chargers or attachments of any kind necessary. Simply insert plug in light socket and enjoy the most wonderful reception you have ever experienced.

Everybody wants this set—the volume of a brass band, the clear tone of the finest violin and the sturdiness of a skyscraper.

Big Profits Await You—Act Now!

The Power-Plus Seven makes radio reception 100 per cent entertaining—gone are the radio troubles of the past—now there is nothing to get out of order—no batteries to give out. The Power-Plus Seven comes completely equipped, including A-C-tron tubes, which are operated from 110-volt, 60-cycle A.C. current.

A.C. Set in the beautiful "Spanish" decorated console as shown, finished in Burl walnut, complete with Newcomb Hawley Air Column Speaker and high-grade Baldwin Unit.

1X5005—A.C. set complete. List, $350.00. Net, $205.80

1X5006—A.C. set, same as above but installed in Console 6K520 "Intermezzo" (page 45). List, $285.00. Net, 167.58

THE CIRCUIT

Is the time-proven, tuned radio-frequency amplifiers with detector and three stages of resistance-coupled, audio-frequency amplification—adapted A.C. operation.

THE AMPLIFYING SYSTEM

A better amplifying system could not be purchased even if you were to offer a thousand dollars. Every tone, from the lowest bass to the highest treble, is reproduced with absolute fidelity.

ADAPTED TO PHONOGRAPH PICK-UP

Leading critics of the music world have marveled at the wonderful music produced from records through the A.-C.-operated Power-Plus Amplifier. Here is an added feature that helps sell this receiving set and keeps it sold 365 days of the year.

POWER-PLUS SETS USE A-C-tron TUBES

A-C-tron tubes that have been on constant tests twenty-four hours a day for over six-month periods have not shown the slightest depreciation. It is practically impossible to burn out the filament.

NO MORE SERVICE WORRIES—NOW ALL PROFIT

Start now and make some real money out of the radio business. Set requires 3 Standard Tubes, 1 Rectifier and 1 each of 6, 10 and 20 mu. A-C-tron Tubes.

3K295—Standard "A-C-tron" A.C. Tubes.$5.50 $3.50
3K296—A-C-tron A.C. Rectifying Tube. 4.00 2.55
3K297—A-C-tron A.C. 6 mu. Tube.... 5.50 3.50
3K298—A-C-tron A.C. 10 mu. Tube.... 5.50 3.50
3K299—A-C-tron A.C. 20 mu. Tube.... 5.50 3.50

The POWER-PLUS A. C. Set in the popular arm chair model console. Adam Brown mahogany finished. Complete with Newcombe-Hawley Horn and Baldwin Unit.

1K5007—Arm Chair Model, complete. List, $230.00. Net $135.24

Power-Plus "Seven" Chassis

Completely equipped ready to attach to light socket for operation. Entirely enclosed and shielded. Chassis may be fitted easily into any console or cabinet listed on pages 44, 45 and 46.

5K5008—Power Plus Chassis, complete with tubes. List, $160.00. Net, $94.50

Note—We challenge any manufacturer to equal the performance and tone of the Power-Plus regardless of number of tubes or price.

MILLER-WELDES CO., Chicago, Ill.
A COMPLETE SET OF PRECISION TOOLS electrically driven that will make you an accomplished workman. It is a chest full of tools than has been designed by a master for the private use of tool lovers and men who want to build, construct, invent and create a home. You will be able to make everything—attractive odd furniture, toys, home and garden improvements, all around manufacturing, repairing.

NOW! Make Things at Home
With The New RED JACKET Home Work Shop

The complete equipment consists of the powerful Red Jacket Motor, with direct drive to an accurate wood turning lathe (capacity 9 in. x 34 in.); a bench saw, that has depth and side gauges; scroll and jig saw; and all accessories for both portable and stationary power drilling, buffing, grinding and cleaning. Attaches to any light socket and converts your work bench into a complete private tool and machine shop.

SPECIAL CRAFTS COURSE
And blueprint service is free to Red Jacket Shop owners—all that there is to know about handcraft methods, raw materials, woods, carving, sawing, turning, designing, carpentering, decorating, is taught by special correspondence.

BLUE PRINTS and 12 Month Crafts Course FREE to Every Owner

4K5400—Complete Electric Craftsman's Shop $95.00

4K5401—Extra Length Rails to Turn 34 Inch Work $40.00

Write for Dealers' Proposition

MILLER-WELLES CO., Chicago, Ill.