

# TO OUR CUSTOMERS



#### **LEW BONN** President

We are constantly striving to give better service and a larger dollar value. We realize this must be done to justify your business. The larger dollar value we are giving because of our greater purchasing power, due to increasing demands from you, Our Customer, of staple radio merchandise guaranteed by nationally recognized manufacturers and backed by our policy of satisfaction, or Money Cheerfully Refunded.

We realize to give good service

Refunded.

We realize to give good service we must have employees working co-operatively to give their best; intelligent, pleasant, courteous, and always willing to do the unusual. Most of our personnel have been ciation and willing to give you just such service if you will give us this chance.

Our newly arranged stock and shows

give us this chance.

Our newly arranged stock and showroom with 55 feet of pinte-glass showcase frontage, allows you plenty of room to see the actual equipment and parts while making your purchase from our technically trained counter staff.

Our mail order department and city desk is supervised very ably by one of our oldest employees, figured in years of service with our company, who analyzes and double checks your orders.

orders.

May I make a personal appeal to invite your criticism of any purchases or shipments, as only through your constructive complaints and suggestions can we correct weaknesses in our service. If we do not have what you want, we will get it for you if obtainable.

We offer you our Annual Cataiog for another year with the wish that it will guide you to a higher level in the radio industry, based upon a more profitable foundation.

#### WARD JENSEN General Manager W9TLE

Here's Our New Catalog! and with the exception of Delco Radio and Webster-Chicago P.A. equipment, all prices shown are NET. We believe you will agree with us, that the purpose of our book is to tell you what we have to sell and how m ch it costs. We DO NOT want you to drive business away by charging too much for your work or the merchandise you sell. A man is entitled to a FAJR PROFIT and "the laborer is worthy of his hire," but do not think for a minute that fictitious prices make Here's Our New Catalog! and with minute that fictitious prices make

a minute that fictitious prices make for repeat business.
We realize that if you are successful it means business for us. We are therefore going to do everything in our power to see to it that you are a success. Our new mailing list will be bona fide and we invite your comments. If you care to see who gets our catalog in your town just drop in on us here in Minneapolis some time and we'll show you who is on our list.

We do not beheve you should show our catalog to your customer. Of course, in the past, when you showed him an article, the price shown was high and if by accident he saw it later, in a competitive catalog—what would that make you?

BE FAIR—Charge normal release to the same and the sam

BE FAIR-Charge normal prices for your work, and REC-OMMENDED LIST PRICES for your parts and business will be better for you.

How do you like our book? Ward Jensen has been a service-man for many years and we know he anticipates your prob-lems and will work with you to see that you get a square deal.

We will be glad to have you incorporate a couple of lines on your first order, telling us about it.

#### **BOYD PHELPS** Sales Engineer W9BP

Sales Engineer W9BP

Few men, if any, have had experiences that closely parallel those of Boyd Phelps. Starting with wireless a quarter century ago, he has closely followed the art and many times taken the leadership in making important advancements. Some unbiased observers claim he was responsible for the start of short wave development in his classical experiments during 1920-1924 which began at Minneapolis and continued in Hartford and New York. For this he received a Gold Medal in 1933. Other adventures include editing QST, pounding brass and teaching radio in the navy during the war, establishing first communication on 5 meters and 34 meter, first amateur television, lowest wave regenerative oscillator, highest precision frequency measurements, etc. He has been a speaker at dozens of ham conventions since the first at Chicago in 1921, and alls writings have been translated and reprinted in many toreign countries. His biography appears in "Who's Who in Engineering" (1925), "Young Men of America," etc.

"BeeP" (as he is called by his numerous friends) has held

"BeeP" (as he is called by his numerous friends) has held nearly a score of calls and W2BP-W9BP are his at present, being also similar to his initials. The W9BP station contains five regular receivers covering 3 to 30,000 meters, a KW transmitter on 80 meters, a half KW line frequency control we modulator delivering 600 watts of audio to any of these, a 15 watt battery operated emergency portable on 40-80 meters, and a 12 watt five meter mobile station in the car.

While he calls the above adventures rather than experience, he has held many responsible positions as president, chief engineer, or consulting engineer with several large eastern radio factories and has a keen understanding of sales angles as well as the problems of the serviceman.





#### FRED KENNEDY Manager St. Paul Store

Our new St. Paul store is under the capable direction of Fred Kennedy whose experience and ability admirably enable him to serve you. If its too far over to Minneapolis, drop in on Fred, who will see that you get what you want at 506 Robert St., St. Paul.

Business is better in St. Paul this season. "Kadette's" are selling fine and the new "Starline" and Delco models sure leave nothing to the imagination. New tubes and advanced circuits are going to make the Serviceman hop. Better let us show you some of the new and latest test equipment when you come in.

equipment when you come in.

Both conventions are going to be held in St. Paul this year and we intend to show you that St. Faul is definitely on the map. The plans at present are to hold the "Northwest Radio Serviceman's" and the "Mid American and Dakota Division" A. R. R. L. convention at the Lowry Hotel. Watch for announcement of the time and place in "QST" and the "National Technician." Don't fail to look us up as we'll be there "with belis on." Last minute word has it that the "Mid American" will be held on May 21-22-23, 1927. Let's Go!

#### TRAINED RADIO MEN TO SERVE YOU

BEN MILLER, W9DKL JERRY JENSEN, Serviceman ART KASSET W9HOP CHARLES ENGLEMAN Serviceman O. G. SHERMAN, Serviceman

RALPH BOLAND, Public Address-Short Wave

# THE LEW BONN CO. DISTRIBUTES



# INTERNATIONAL ADET

#### FRANCHISE DEALERS ON KADETTE

We are not showing the Kadette line in the catalog this year as we wish to keep it as an exclusive proposition for our dealers. This nationally advertised line includes models which range in price from a 3 tube AC-DC at \$10.00 to the most exquisite console at \$69.50, enabling us to set you up to meet the severest competition on the market.

Delco is also being held open to dealers and while they are shown on our pages we show only list prices. Write us for particulars.

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Fast Delivery Service in Twin Cities
Phone Your Order to Main 5313

We use a commercial delivery service that gives very prompt and efficient servi. We can get merchandise to any part of Minneapells or St. Paul within two to hours. It you can't come over—call and have your order delivered.

Webb Publishing Co., St. Paul, Minn.

World Radio History

# Time Payment Plans

# **Supreme Instruments**

NOTE: An application, properly filled out, must accompany your order. We will gladly supply this form at your request.

#### CASH PRICE

Model 500 Automatic (De Luxe Series) Net Cash C.O D. \$66.95 Model 505 Tube Tester (De Luxe Series) Net Cash C.O.D. 847.95 Model 540 Radio Tester (De Luxe Series) Net Cash C.O.D. \$36.95 Model 550 Radio Tester (De Luxe Series) Net Cash C.O.D. \$55.95 Model 585 Diagnometer (De Luxe Series) Net Cash C.O.D. 896.95 Model 570 Signal Generator (De Luxe Series) Net Cash C.O.D. \$31.95 Model 580 Signal Generator (De Luxe Series) Net Cash C.O.D. 854.95 Model 545 Cathoray Oscilloscope Net Cash C.O.D. 892.95 Model 555 Diagnomoscope Net Cash C.O.D. \$147.95 Model 400 Tube Tester (Standard Series) Net Cash C.O.D. \$38.95 Model 490 Multi-Meter (Standard Series) Net Cash C.O.D. \$22.95 Model 450 Set Tester (Standard Series) Net Cash C.O.D. \$34.95

Be sure and enclose down payment when ordering.

#### S. I. C. EASY TERMS

Model 500 Automatic (De Luxe Series) \$7.50 Deposit-\$6.61 Monthly (ten months) Model 505 Tube Tester (De Luxe Series) \$5.25 Deposit-\$4.75 Monthly (ten months) Model 540 Radio Tester (De Luxe Series) \$4.00 Deposit-\$3.66 Monthly (ten months) Model 550 Radio Tester (De Luxe Series) \$6.00 Deposit-\$5.55 Monthly (ten months) Model 585 Diagnometer (De Luxe Series) \$10.00 Deposit-\$8.00 Monthly (twelve months) Model 570 Signal Generator (De Luxe Series) \$4.00 Deposit-\$3.90 Monthly (eight months) Model 530 Signal Generator (De Luxe Series) \$6.00 Deposit-\$5.44 Monthly (ten months) Model 545 Cathoray Oscilloscope \$10.00 Deposit-\$7.68 Monthly (twelve months) Model 555 Diagnomoscope \$15.00 Deposit-\$12.05 Monthly (twelve months) Model 400 Tube Tester (Standard Series) \$4.50 Deposit-\$3.83 Monthly (ten months) Model 490 Multi-Meter (Standard Series) \$4.00 Deposit-\$4.25 Monthly (five months) Model 450 Set Tester (Standard Series) \$4.00 Deposit-\$3.82 Monthly (nine months)

All prices F.O.B. Greenwood, Miss.

# The Lew Bonn Co. Time Payment Offer

The Lew Bonn Co. Time Payment Offer is open on any merchandise we carry. Contracts of less than \$75.00 will be financed for as long as 6 months and contracts of between \$75.00 and \$150.00 may be carried as long as 10 months while contracts over \$150.00 may be extended to 12 months if necessary. Interest at the rate of 8% is charged if the balance owed is \$150.00 or over. Smaller contracts are charged for at the rate of \$1.00 per month for the term of the contract and the down payment can be anything you care to give us, preferably 20% or better.

In 10 monthly installments is \$16.00 per month. Or in 6 monthly installments is \$26.00 per month.

To obtain credit on this plan, write us for an application form to fill out and return to us along with your order and down payment. We will send you a contract form to be signed after your references have been approved and immediately upon the return of this contract, properly signed, we will ship your order.

### **Clough Brengle Plan**

Time payment prices on Clough Brengle equipment are shown below, and it will be necessary to write for a credit reference blank which must be filled out and returned to us, together with your down payment. (This will be refunded if credit is not approved.) A contract form will then be sent you to be signed and returned to us. Upon approval of this contract by Clough Brengle the unit you ordered will be shipped you.

Model	Price	Down Payment	Mos.	Payments
OC-A	\$29.95	\$4.50	7	\$4.20
99	43.90	5.00	10	4.44
OM-A	57.75	6.50	10	5.85
81-A	34.25	4.00	10	3.46
CRA	84.50	9.50	10	8.36
79-A	53.75	6.00	10	5.45
95	47.75	5.50	10	4.83

### Hallicrafter Plan

All models of Hallicrafter receivers are available on time payments as outlined below. To avail yourself of this plan, write us for a credit application blank and return it to us properly filled out, along with your down payment and your order for a Hallicrafter receiver. You will then be sent a conditional sales contract to be signed and returned to us. As soon as this has been approved, your receiver will be shipped. Time payment prices are as follows:

Model	Down Payment	Mos.	Paymenta
Sky Buddy	\$ 7.00	6	\$ 4.50
S-10-less speaker	22.70	10	9.18
S-10-with speaker	25.50	10	10.30
SX10-less speaker	24.90	10	10.68
SX10-with speaker	27.70	10	11.80
S-11—less speaker	20.20	10	8.28
S-11-with speaker	23.00	10	9.40
SX11—less speaker	22.70	10	9.18
SX11-with speaker	25.50	10	10.30
S-12—less speaker	22.70	10	9.18
S-12-with speaker	25.50	10	10.30
SX12—less speaker	24.90	10	10.68
SX12-with speaker	27.70	10	11.80
Sky Chief-with speak	er 10.00	6	6.90

**World Radio History** 

10 WATT

#### SETCHEL-CARLSON SOUND SYSTEMS

15 WATT

PORTABLE 15-WATT AMPLIFIER \$41.70 COMPLETE WITH TUBES AND TWIN SPEAKERS

MODEL **PA15** 





#### MODEL PA15-15-WATT A.C. PORTABLE

Model P. A. No. 15 is a fifteen watt twin speaker amplifier, as shown above. It is modernly engineered to use the new crystal or velocity type microphone, which insures true reproduction of sound.

Temporary Installations—Makes a perfect portable sound system due to its compactness and individuality. The two speakers, when fastened together, make an ideal dust-proof carrying case. The amplifier unit is also dust-proof when front slide cover is in place.

Permanent Installations — Two separate 10-inch speakers are used for adequate coverage of large areas. The amplifier, which is a separate unit, can be placed in the most convenient location for controlling and operating.

- Two separate, individually controlled microphone input circuits.
  - Phonograph or radio input circuit for mixing voice with musical background.
  - 35-foot cord with each speaker,
  - Full range tone control.
  - · High gain for crystal or velocity microphone.
  - Tubes used: 3 No. 6F5, 1 No. 42, 2 No. 2A3, and 1 No. 5Z2.

Model PA15. List, \$69.50.
Net Price (with Twin Speakers)..... \$41.70

#### MODEL PA6-14-WATT 6-VOLT PORTABLE OR PERMANENT

Model P. A. 6-1s an 8-tube, 14-watt amplifier designed to operate most efficiently on a 6-volt battery. The low drain of 10 amperes is accomplished by using new tubes and design.

For Permanent Installations--On sound trucks, the use of the bell type speaker, as shown above, is recommended

For Portable Une—Two 10-inch speakers in leather-ette cases are used. See picture on reverse side of

this page.

The P. A. 6 is furnished with one Bell Type speaker or two speakers in leatherette carrying case—your choice of either equipment at the same price.

Twin power supply, employing two vibrators, two transformers, two rectifiers, assuring efficient and

dependable operation.

Tubes used: 2 No. 6F5 s, 2 No. 37's, 2 No. 6A6's, and 2 No. 6X5's.

2 No. 6X5's. Model PA6. List Price, \$79.50. Net Price

Net Price With twin speakers or one speaker in directional baffle shown below. Specify which.)

#### MODEL PA10-10-WATT A.C. PORTABLE WITH SINGLE SPEAKER

This portable ten wart amplifier with one 10-inch speaker has sufficient gain for a crystal or ribbon mike and offers an excellent value for small orchestra or carnival speaker. Housed in one carrying case as illustrated at left below. If equipped with a newly developed magnetic pick up, it is an excellent unit for use with the stringed instruments in an orchestra. This pick up with volume control and cord may be supplied at a net price of \$6.00. (List price \$10.00.)

Model PA10

List Price \$49.50.

Dealer Cost

#### MICROPHONES AND STANDS EXTRA-



#### SEE P.A. PAGES

#### Left:

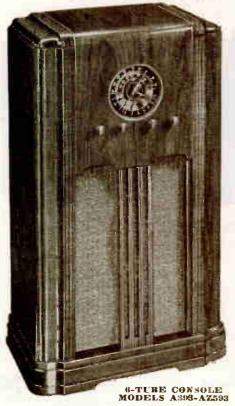
Carrying Case as used in PA10 10watt amplifier with one speaker only.

#### Right:

Baffle horn and speaker as used in PA6 as optional with twin speakers shown above.



# 1937-AC AND FARM RADIOS-STAR-LINE





SIX-TUBE STREAMLINE **CONSOLE AND** MANTEL MODELS

R. C. A. Licensed Complete With Tubes 18 to 550 Meters in 3 Bands



6-TUBE MANTEL MODELS Z347-Z547

3 continuous wave bands-18 to 550 meters. 64-in, three-color airplane dial. Zone station tuning. 15 to 1 ratio vernier dial. 11 tuned circuits. Variable tone control. 3-gang condenser. Automatic volume control. 10 kc. selectivity. Full size electro dynamic speaker. Beautiful harmonizing cabinets in modernistic streamline contours.

#### HERE ARE AMERICA'S FINEST RADIOS-MAGIC EYE-

#### SIX-TUBE A.C. CONSOLE

An impressive graceful streamline console of the very latest design as illustrated above. The recessed speaker grill with its oversized 8-inch dynamic speaker adds much to the richness and fullness of its tone. Beautiful natural grained American walnut instrument panel with rolled top. Overlay of walnut over solid red gum pillasters and hand rubbed finish. Height 39½ ins., width 22 ins., depth 12 ins.

List price, \$64.50. Model No. A393. Net price

\$31.65

#### SIX-TUBE BATTERY CONSOLE

Housed in the same beautiful console described above Housed in the same beautiful console described above but equipped with oversize dynamic speaker. Operates entirely from a six-volt storage battery and drains only 1.3 ampere. This is a truly economical console receiver and permits the rural user to enjoy the full rounded out tone of A.C. operated receivers.

List price. \$77.50. Model No. AZ593. Your net cost .

**S37.25** 

#### SIX-TUBE BATTERY MANTEL

Carrying out all the cabinet teatures of the A.C. mantel set plus the powerful battery operated chassis used in the 6-volt console, this set enables the user who lacks the facilities of lighting service to enjoy the fullest benefit of modern all-wave reception.

**\$26.95** 

#### SIX-TUBE A.C. MANTEL

A DeLuxe six-tube A.C. table model superheterodyne using same chassis as the six-tube console described on the left. The beauty and harmony of the console are carried out in this truly attractive mantel set. Comes complete with latest type metal tubes and equipped with 8-in. dynamic reproducer. Size 15½x13¼x9½ ins. List price, \$17.50.

Model No. 2347. \$23.75

#### A.C. RADIO CHASSIS



With 8-Inch Speaker

To bring customer's receiver up-to-date and him of modern all-wave receiver up-to-date and available of modern all-wave receiver quip him with this 6-tube all-wave chassis and speaker. 8 ins. high, 11% ins. wide and 8 ins. deep. 60 cycle A.C. only.

List price, \$42.50.

Model No. AZ3.

Your price with tubes.

Your net cost

# **CUSTOM BUILT-WORLD RECEPTION**



7-TUBE BATTERY MANTEL MODEL M551

MODERN RADIO RECEIVERS ELEVEN TUBE STREAMLINE CONSOLE Metal Tubes Magic Eye Spin-A-Dial Tuning All Wave Reception Oversized 12-Inch Dynamic Speaker Spin-A-Dial (Both Models)



11-TUBE A.C. OR BATTERY CONSOLE MODELS AM786-M557

#### **BATTERY MISER 7-TUBE MANTEL MODEL**

Conservative in design, this mantel 6-volt set is enhanced by a highly figured butt walnut front panel and pilasters of molded red gum. Hand rubbed piano finish. Tunes in four bands, from 16.4 to 2,000 meters. Uses powerful 8-in. permanent dynamic reproducer drawing no field current. Complete drain on a six-volt storage battery is only 1.7 ampere. Uses full floating, three-gang condenser and fly-wheel "Spin-A-Dial." Automatic volume control and full rounded tone make this set especially attractive to the farm listener.

List price. \$74.50.

Model No. M551.

Your net cost Conservative in design, this mantel 6-volt set is enhanced by a

### METAL TUBES—STREAMLINE CABINETS—HI-GAIN CIRCUITS

#### THE "STAR-LINE" SPIN-A-DIAL STATION SELECTOR



A spinning fly-wheel continues to rotate the pointers after you let go of the knob! Clock dial logging makes it possible to come back to a station with ease and preeision. The 11-in oval dial finished in gold letters on black background, plus the beautiful hammered bronze escutcheon, set these receivers in a class by themselves as years in advance of all others

#### 11-TUBE A.C. CONSOLE

This modern ELEVEN-tube receiver with its full 12-in. dynamic reproducer behind the front panel of one of 1937's most attractive streamlined consoles, offers you an artistic full-toned receiver that will bring into the room all the realistic qualities of studio productions plus the ability to tune the four corners of the world. Truly Superlative Reception! Cabinet front panel of beautiful curving butt walnut, contrasting pilasters. Four wave bands, 16.5 to 2,000 meters, covering "Weather," "American," "Folice," and "Foreigh." Has variable tone control and full automatic signal strength compensation. compensation.

List price, 880.50. Model No. AM786. Your net cost

\$46.45

11-TUBE ALL-WAVE CHASSIS WITH 12-IN. SPEAKER As used in above streamlined console.

Model AM7. List, 879.50.

**S35.95** 

#### 7-TUBE BATTERY CONSOLE

The seven-tube "Battery Miser" housed in this beautiful modernistic console described above gives you all the enjoyment of modern all-electric reception and tone plus the added economy of only 1.7 amp. drain from a single six-volt storage battery. Truly all-wave reception with powerfu! and faithful reproduction.

List price, \$80.50.

Model No. M557. Your net cost ... \$46.45

# 1937 STAR-LINE RADIOS--METAL



12-Tube A.C. Console.

Model

# 12 TUBE STARLINE CONSOLE

- COMPLETE SHORT-WAVE COVERAGE.
- Four bands: 16.4 to 2,000 meters.
- · Absolute sensitivity of 2 microvolts.
- Full floating 3-gang variable condenser.
- Automatic tone control, automatic volume control.
- RCA Hazeltine licensed, underwriters' approved.
- 12 metal tubes, new 6L6 beam power output.
- · "Litz" wound coils in R.F. circuits.
- GIANT 12-inch reproducer.
- · "Electric Eye" and "Spin-a-Dial" tuning.

This powerful 12-tube chassis with its heavy-duty, high-fidelity reproducer is housed in an exquisitely-designed cabinet of burl walnut with slightly slanting instrument panel and roll top. Its hand-rubbed finish and fluted pillasters with rich gold grill cloth bring out all the beauty of the genuine walnut used in panelling. Perfected acoustic qualities and ample baffle produce tone quality unexcelled in a receiver of anywhere near this attractive price.

Model AM458 List Price, \$125.00. Dealer Cost..... \$57.65

#### CHASSIS AND SPEAKER ONLY

This superior receiver with its 12-in, auditorium dynamic speaker is available for installation in existing cabinets.

TUBE-LAY DOWN MODELS-6 TUBE

Model No. AM4. List Price, \$00.00. Net Price.....

**S41.95** 



#### 5-TUBE MODEL

Positively the most sensitive and Positively the most sensitive and selective five-tube receiver of-fered for 1937. Giant dial mechanism having 15 to 1 ratio. Uses dual-purpose tubes and is tuned with a three-gang condenser. Newest tubes.

- Tuning range (3 bands) 18.5 to 550 meters.
- Full automatic volume control.
- 6 % -in. dynamic speaker, tone conerol.
- 11 tuned circuits, 10 KC selectivity.

Attractive rolled top "lay-down" cabinet with figured American walnut with darker centrasting sides and hand-rubbed finish. Together with its "Zone" tuning dial in rolors this is truly a pleasing receiver in appearance as well as performance pleasing receiver in a as well as performance

Model A128, List Price, \$39.50, Dealer Cost .....

#### NEW CABINETS GREATER BEAUTY "LAY-DOWN" STYLE

Foreign Stations

Airplanes—Amateurs—Police



A modern, "lay-down" table mod-el in streamlined, rolled-top cab-inet with gracefully moulded pil-lasters of molded red gum and hand-rubbed finish. Full floating 3-gang condenser and newest type tubes.

3 BANDS

ALL-WAVE

RECEPTION

6-TUBE MODEL

- 3 continuous bands, 18 to 550 meters.
- airplane • 64 -in illuminated dial.
- Automatic volume control, tone control.
- · Heavy-duty dynamic speaker. Licensed.

World-wide reception is assured with this powerful 6-tube receiver of modern design. Eleven tuned circuits with preselector stage and high-gain, multi-purpose tubes. "Litz" wound coils and "Higain" superhetrodyne coils circuit.

Model 2344. List Price, \$49.50. Net Price

\$24.65

# TUBES--ELECTRC EYE--ALL WAVE

# 19 TUBE STARLINE DELUXE

- · Four complete wave length ranges.
- "Weather," "American," "Foreign," "Police."
- Two masterful auditorium dynamic speakers.
- · Automatic bass compensation. Stadium volume.
- · Automatic tone and volume control.
- Double chassis construction. Acoustic cabinet. • 11-in, oval dial with tly wheel tuning.
- 16 Litz wound tuned amplifier circuits. • Floating variable condenser, mounted on live rubber.
- · Beautiful console cabinet of figured butt walnut.

This is truly 1937's greatest gesture toward the development of the radio art. Absolute fidelity of tone behind amazing volume. To close your eyes and listen to entertainment from the far corners of the globe as though it were in the room is a thrill long to be remembered. This beautiful cabinet of sliced and butt walnut with its contrasting pillasters of harmoniously matched red gum pay tribute to the craftsmen's art and grace the most deluxe appointments of the modern home.

Model AMS59 List Price \$225.00 Dealers' Net cost ......

\$99.50

#### 19 TUBE CHASSIS WITH SPEAKERS

This powerful 19 tube, 30 watt, chassis with its two perfectly matched 12-inch stadium speakers, offered separately for a still more attractive price.

Model AM8 List Price \$180.00 Net Price

\$75.00



19 Tube "All Wave"

Model AMS59

#### **ECONOMICAL--AC--BATTERY--AC-DC SETS**

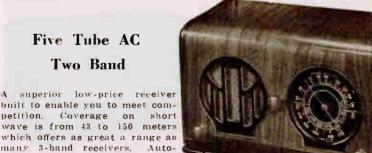
#### FOUR TUBE FARM RADIO Short Wave and American Broadcast

For those who desire the utmost in performance from a small receiver, this 4-tube 6-volt receiver with its 8-tube performance offers the answer. All power is derived from a 6-volt battery and the amount consumed is only 12 amp.! The attractive cabinet illustrated below is of genuine American walnut with contrasting red gum sides and trim. Hand rubbed to a lustrous piano finish

FOREIGN-AMERICAN BANDS.

Model No. B327. List Price \$34.95 Dealer Cost

\$19.95



The cabinet used in the above 3 models is of beautifully grained walnut with a pleasing contrast in selected red gumwood. Top and front are one piece and artistically rolled. All three models cover from 43 to 150 and 175 to 550 meters and are R.C.A. Hazeltine licensed.



Six Tubes AC or DC

This six-tube AC-DC Starline receiver is so smartly designed and engineered that many seven tube straight AC receivers cannot equal it in value. Tunes from 43 to 150 meters, covering the police, aircraft, amateur, American and Canadian broadcast as well as the regular 175 to 550 meter bands. Has automatic volume control, condenser set in rubber, six-inch dynamie speaker and newest multi-purpose tubes,

Model No. B227 List Price \$32.56 Dealer Net ..... \$15.45

5

Model No. B127 List Price \$27.50 \$13.95 Dealer Cost ....

band-spread dial, attractive cabi-

net and other features make this

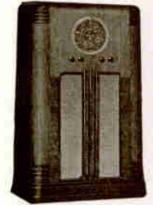
receiver an outstanding value and defies all comers to top it.

deluxe

matic volume control

#### Style CONSOLES DELCO AC

Performance



#### Easy Tuning—Natural Tone—Robot Eye

Distinct and positive band indications on large multicolored edge lighted dials. A Delco can be tuned with perfect e2 se and assurance.





#### MODEL R1117

#### **CONSOLE MODEL R1118**

MODEL RIUS

TEN TUBES - 3 Bands - American Broadcast, Foreign, Police-Amateur.

CABINET-41 ins. high, 251/4 ins. wide, 124 ins. deep. Continuous instrument and top panel with matched walnut. Striped walnut pilasters

FEATURES - Dual tuning ratio. Continuously variable tone control. Automatic base compensation. 7-in., 340°, edge lighted dial. Dual band indicator to conform with color of selected band. Robot Eye incorporated in dial. Clock tuning.

\$99.95

#### CONSOLE MODEL R1117

SEVEN TUBES-3 Bands-American Broadcast, Foreign, Police-Amateur.

CABINET—39½ ins. high, 24 ins. wide, 11¾ ins. deep. Continuous instrument and top panel of matched walnut. Two-tone fluted pilas-

FEATURES—Continuously variable tone selector. Automatic volume control. Three gang tuning condenser. Automatic antenna selector. 6-in. edge lighted illuminated multi-colored dial. Robot Eye.

\$69.50

The Delco Robot E y e enables positive tuning. The set is properly tuned when the ray in the Robot E y e becomes narrow.

MODEL R1119

#### CONSOLE MODEL R1119

TWELVE TUBES—4 Bands—American, Foreign, Folice-Amateur and Weather Bands.
CAISINET—42 ins. high. 26% ins. wide, 13½ ins. deep. Continuous instrument and top panel of matched select quartered stripe walnut. Pilasters molded with highly figured claro and burl walnut. Ends of sliced walnut.
FEATURES — Dual tuning ratio. Five-point tone selector. Controllable bass compensation adjusted by tone control. Dual channel automatic volume control. Two-point selectivity control. 616 push-pull beam audio amplifier. 7-in., 340°, edge lighted dial. Dual band indicator to conform with color of selected band. Robot Eye. Clock tuning.

\$144.50 List price

#### DELCO LAY-DOWN MODELS AMAZING NEW



MODEL RILLS

#### TABLE MODEL R1115

FIVE TUBES-2 Bands-American Broadcast and both Police Bands.

CABINET-81/8 ins. high, 161/8 ins. long, 71/2 ins. deep. Front and end panel form one continuous piece. Horizontal straight grain walnut. around base. Gold stripe inlaid Overlapping, top darker tone.

FEATURES-Tone control, 41/2-in. multi-colored translucent, e a s yreading dial.

6

\$25.00

#### THE GLOBE TROTTER R1120

Modernistic beauty embodied in curving one-piece cabinet. Exquisite tone from its full size electro dynamic speaker. Destined to be a

Continuous top





MODEL R1116

#### TABLE MODEL R1116

SIX TUBES-3 Bands-American Broadcast, Foreign and Police-Amateur.

CABINET —12% ins. high, 21½ ins. long, 9% ins. deep. Continuous instrument and top panel of matched quartered stripe walnut. Modernistic grille harmonizing with dial.

FRATURES—Continuously variable tone selector. Automatic volume control. Three gang tuning condenser. Automatic antenna selector. 6-in. edge lighted illuminated multi-colored dial.

List price PRICES SHOWN ARE LIST. WRITE FOR QUOTATIONS

#### DELCO 32-V Models for - DC 2 VOLT the



MODEL R3209 32-VOLT CONSOLE



Rural Home

NINE TUBES—4 Bands—American, Foreign, Police, Amateur and Weather.
CABINET—39 % ins. high, 24 ins. wide.
11% ins. deep. Continuous instrument and top panel of matched walnut. Two-

and top panel of matched waind. Twotone fluted pilasters.
FEATURES—Selectivity control. Variable sensitivity selector. Automatic
volume control. No vibrator. 7-in. oval
dial. 10-in, full dynamic speaker.
Deluxe 9 tube chassis used in both models.

22-volt. Price .....



#### TABLE MODEL R3205— 32-Volt

SIX TUBES—2 Bands—American Broadcast, Police-Amateur and Aeroplane. CABINET—16½ ins. high, 12 ins. wide, 9 ins. deep. Top plaque in American halfround walnut. Front instrument panel book-matched stump walnut. Mahogany overlay in pilasters and grille. Sides select maple. FEATURES Variable tone selector. Variable sensitivity selector. Automatic volable sensitivity selector.

able sensitivity selector. Automatic vol-ume control. No vibrator. 3-in. oval dial. 6-in. full dynamic speaker. \$49.50 \$49.50

One look at the 1937 Delco Home Radios and even the most sophisticated will become raptured with their beauty—and after listening to their magical lifelike tone, they will be convinced that no home will be complete without a Delco. Delco Radios are truly the 1937 leaders in style, tone and performance.

"Amazing Tone in New 1937 Delco," Says Rubinoff!

"I would be happy if all my listeners could hear my Stradivarius over a new Delco radio—for then I could know that they would be hearing my music exactly as it was produced."—Rubinoff.

#### TABLE MODEL R2050-2-Volt Battery

Batteries Not Included in Price



FIVE TUBES - 2 Pands - Am-Broadcast and one Police Band. American

CABINET—10% ins. high, 21-5/16 ins. wide, 12 ins. deep. and ends of walnut. Top and bottom of darker tone. Ample space provided in cabinet for A and B batteries.

FEATURES-6-in. oval dial. Automatic volume control. 6-in. new permanent magnet dynamic speaker. \$34.50 \$34.50

#### OUTSTANDING 6-VOLT PERFORMANCE

#### New, Permanent Magnet Dynamic Speakers Used in Delco Battery Models Consume No Current.

The permanent magnet dynamic speaker is the latest engineering development. This brand new permanent magnet dynamic speaker, never before used, will give the owner of a battery set the ultimate in tone performance. This speaker gives tone quality comparable to the electrodynamic type and consumes no current. It is the biggest improvement in speakers since the invention of the dynamic speaker.

"What appeals to me most in these new Delco Radios is their surprising ability to carry all the overtones to the radio listener—those vague, fleeting 'will-o-wisp' intonations which make the actual hearing of a beautiful instrument so much more satisfying than reception over the ordinary radio.'—Rubinoff.



#### CONSOLE MODEL R6012— 6-Volt Battery

Storage Battery Furnishes Entire Power Requirements

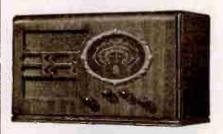
SEVEN TUBES - 3 Bands - American Broadcast, Foreign and Police-Amateur.

CABINET-391/2 ins. high, 24 ins. wide, 11% ins. deep. Continuous instrument and top panel of matched walnut. Twotoned fluted pilasters.

FEATURES-The new rugged type 15 tube. 8-in, new permanent magnet dynamic speaker. Selectivity control. Automatic bass compensation. Automatic volume control. Continuously variable tone control. \$86.50

#### TABLE MODEL R6011— 6-Volt Battery

Storage Battery Furnishes Entire Power Requirements



TIX TUBES - 3 Bands -- American Broadcast, Foreign and Police-Amateur

CABINET-11% ins. high, 191/2 ins. wide, 81/2 ins. deep. Continuous instrument and top panel of matched walnut. Beautiful modern fluted base.

FEATURES-New rugged type 15 tube, Class B audio output. Continuously variable tone control. 6-in. new permanent magnet dynamic \$54.50 speaker. Price ......

PRICES SHOWN ARE LIST. WRITE FOR QUOTATIONS

**World Radio History** 

#### AUTO RADIO CUSTOM BUILT DELCO CONTROLS ROBOT CONTROLLED



This is the greatest radio development of 1936-the Delco Duo-Sonic Model 635. Two speakers provide complete range of tone, blending the bass and high notes and producing a tone fidelity heretofore unobtainable in auto radio. The header speaker reproduces the high notes. while the dash speaker reproduces the low notes. Choice of three-header speakers is available with Model 635-a speaker for General Motors cars, one for Ford cars and a universal speaker for many others. New suede finish, 6 tubes.



An outstanding value in a two-unit, 6-tube auto radio. Delco Auto Radio Model 634 is a real de luxe auto radio having greater selectivity and sensitivity and a newly-designed dash speaker with improved tone fidelity. A new suede finish harmonizes with the upholstering of your car a finish that is easily cleaned

Model 634.

\$59.95 List Price

These are just a few of the features of the 1936 Delco Auto Radios—and they are moderately priced 5 models from which to choose.

Talk about your auto radio reception—see and hear the new 1936 Delco Auto Radios. Improved robot-controlled syncro-tuning brings in a greater number of stations more clearly. Newly-designed, custom-built speakers—a new development that gives unusual lifelike tone quality. Metal and glass tubes, new suede finish that matches upholstering, custom-built controls that match the instrument panels of your car. With the new 1936 Delco Auto Radio, no spark plug suppressors are needed.



FORD



GENERAL MOTORS

With Adapter Package No. For Installation Use Control No. 4033 4046 4062 Chevrolet '35 Graham '36. 4034 Oldsmobile '35. 4034 4059 4058 Ford '35-'36 ...4019 4024 Lincoln Zephyr '36 I.Incoln Zephyr '36 Chrysler '34, 6-cyl. Dodge '34 Graham '35 DeLuxe Hupmoblie '34-'35-'36 (Some Models) Nash '36 DeLuxe 400 Plymouth '34 Del.uxe '35 Reo '35-'36 Studebaker '36, 8-cyl. ...4019 4055 Ford '34 DeLuxe Hudson '35 Hupmobile '34-'35-'36 (Some Models) Lafayette '36 Studebaker '36, 6-cyl. Terraplane '35 ...4019 4056 Chrysler '35 Airstream De Soto '35 Airstream Dodge '35 Nash '36 Standard ''400'' 4027 ...4019 All cars and models for under-dash mounting. ...4019 All cars and models for 4020 ...4019 steering post mounting.

HEADER SPEAKER ADAPTERS

For All Cars.

Specify Year and Model.

Each, \$2.00

#### NOTE!

All Deleo prices shown are List. We urge all car radio dealers interested in the line to write us for quotations.



A newly-designed, 6-tube auto radio with a modernistic suede finish to harmonize with the interior of modern motor cars. One of three custom-built speakers shown here can be used with this radio one for General Motors cars, one for Ford cars and universal speaker for \$52.95 many others. Price



1936 Ford Lincoln-Zephyr



1936 Hudson



1936 Dodge



1936 Plymouth

Terraplan World Radi io Hist WDITE HE FOR MINTATIONS

# DELCO RADIO STAR-LINE

#### 6-TUBE STAR-LINE AUTO RADIO

One of the easiest auto radios to install that is built! Fits all cars and mounts with a single bolt. Dimensions: 7½x7x8½ in., leaving plenty of room for heater, etc. Tailor-made controls fit all cars. Only one antenna connection, only one battery connection. No spark plug supressors necessary. 10 KC selectivity. Variable tone control. Housed in sturdy, wrinkle-finished metal case. Patented antenna circuit allows sensitivity of ½ microvolt. Fully KCA and Hazeltine licensed. Uses 3-gang, rubber-floated condenser with noise-reducing preselector stage guaranteeing reception unexcelled by much higher priced receivers. Plug-in provision is made so an extra speaker for over head or back of front seat may be added.

SETCHEL-CARLSON PORTABLE

Model UGB-List Price. \$49.95.

Dealer Cost .....

\$24.75

#### ACCESSORIES UNIVERSAL KIT TYPE A

For installation where under-dash or steering-column control is neces-sary. \$0.95 Price

DASH CONTROL KIT TYPE B For instrument-panel control. Specify make, model, and year \$0.95

TWIN SPEAKER

Mate to the one in the radio and arranged to plug in to receptacle provided. Specify whether for above windshield or against roof or seat. List price. \$6.50. Net Price ......

Model 44-List Price, \$24.95. Dealer Cost .....

\$19.95

OPERATES ON 6 VOLTS D.C. AND 110 VOLTS A.C.

This outstanding, long-awaited, portable radio is truly a remarkable discovery. Its low current consumption and modern. compact design makes it an ideal allpurpose radio. Five tubes are employed in a superheterodyne circuit. Ferfect coast-to-coast reception. No fading. Tubes: 1-6A7, 1-78, 1-75, 1-41, 1-37.

Prices Shown Are Net. Deduct 2% for Cash with Order

#### OTHER DELCO MODELS AND CONTROLS

Only a demonstration will reveal and prove the marvelous qualities of the 1936 Delco Auto Radios, and also prove to you that they are the leaders for 1936—the most modern of car radios. Any one of these new Delco models will give you real radio enjoyment— see and hear them before you buy.

Note: Delco prices shown are list. We urge our dealers to write us for



### DELCO ONE-PIECE MODELS

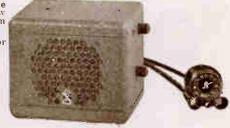
Mødel 632.

This popular-priced single-unit, 6-tube set has a specially-designed circuit giving outstanding performance. Beautifully designed monogrammed grille, new suede finish, improved robot-controlled syncro-tuning are just a few of the many featur's of this Delco Auto Radio Model 532.

Model 632.

EPrilore.....

\$49.95



Model 631A.

Your favorite program at your command-have radio enjoyment wherever you drive with a Delco Auto Radio Model 631-A. Excellent performance and fine reception with either roof or running-board antenna is what you get with this 6-tube superheterodyne single unit Delco Auto Radio. Finished in modernistic lacquer.

Model 631-A.

\$39.95



1936 Oldsmobile



1936 Pontlac



1936 Chevrolet



1936 Buick

Delco Prices LIST. Write Us for Quotations

# CAR RADIO DIALS — ACCESSORIES

#### SERIES 600

Special Panel Mounting

#### INSTRUMENT CONTROL

For all 1935 Oldsmobiles, Pontlacs and Chevrolet Masters, etc.



No.	250—Ratio	6	to	1	in	360	degrees.	Net	2.55
No.	251-Ratio	8	to	1	in	360	degrees.	Net	2.55
								Net	
								Net	
								Net	

#### PANEL MOUNTING KITS

For Series 250 Head

	it o.	Net Price
Buick 40—1936	000	20.00
	039	80.90
	639	.90
	639	.90
	639	.90
Cadillac V8, 60-1936	649	1.20
Cadillac V8, 70—1936	649	1.20
Cadillac V8, 75-1936	649	1.20
Cadillac V12-1936	649	1.20
Cadillac V16—1936	649	1.20
Chevrolet Master-1935	847	.81
Chevrolet Master-1936	629	.81
Chevrolet Standard-1936	629	.81
Chrysler Airflow Eight—1936	648	1.20
Chrysler Airstream Six-1936	600	1.20
Chrysler Airstream Eight-1936	809	1.20
Chrysler Imperial—1936	646	1.20
Dodge—1936	049	
I calle 1996	041	.90
LaSalle—1936	049	1.20
Oldsmobile Six—1935	846	.90
Oldsmobile Eight—1935		.90
Oldsmobile Six—1936		.90
Oldsmobile Eight—1936	519	.90
Plymouth DeLuxe—1936	376	.81
Pontiac-1935	025	.81
Pontiac DeLuxe Six—1936	894	.81
Pontiac DeLuxe Eight-1936	894	.81
Pontiac Master Six-1936	894	.81
		,



Steering Column Kit

Under-Dash Kit

#### STEERING COLUMN AND UNDER-DASH KITS

For Series 600 Controls Only



#### NO. 104 GEAR

#### FLEXIBLE CASING BRACKET





No. P4521—Shaft coupling. Use to adapt No. 7 or 8 shaft to condenser, etc. Each.....\$0.21

#### LATEST CROWE DIALS



#### UNIVERSAL CONTROL FOR ALL CARS

For instrument panel, under-dash or steering column mounting. Has convex crystal glass. Supplied 0 to 100 or 100 to 0 Comes complete with knobs, pilot lead, socket and bulb.

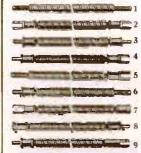
No.	600—Head	only.	Ratio	6	to	1.	Net	2.10
							Net	
No.	602-Head	only.	Ratio	10	to	1.	Net	2.10
No.	603-Head	only.	Ratio	12	to	1.	Net	2.10
No.	601-Head	only.	Ratio	16	to	1.	Net	

# INSTRUMENT PANEL MOUNTING KITS

For Crowe Universal Heads Use Controls Nos. 600 to 603. Knobs to match included.



	****	
Automobile	Kit No.	Net Price
Auburn 654—1936		-
Auhum 050 100c	.A-8640	\$0.60
Auburn 852—1936	.A-8630	.60
Chrysler Airstream—1935	. A-8630	.60
	. A-8840	.72
	.A-9026	.72
	.A-8460	.81
	.A-8460	.81
DeSoto DeLuxe Airstream—1936		.72
		.72
		.72
	.A-8848	.60
Ford Standard—1935	.A-884H	.60
Ford DeLuxe-1936	. A - 8626	.60
Ford Standard—1936	.A-8842	.60
Hudson Six-1936	.A-8439	.81
Hudson Eight-1936.		.81
Hupmobile Slx-1935	. A -8634	.72
Hupmobile DeLuxe Eight-1935	.A-8638	.72
Hupmobile Standard Eight-1935	.A-863D	.60
Hupmobile Six-1936	.A-863#	.72
Hupmobile Eight-1936		.72
Lafayette-1936		.60
Lincoln Zephyr—1936		.60
Nash 400		.72
Nash Ambassador Six	.A-8628	.72
Nash Ambassador Eight-1936		.72
Plymouth—early 1935 (walnut grain)	.A-8634	.72
Plymouth-late 1935 (taupe finish)	.A-8845	.72
Plymouth Standard-1936	.A-8636	.60
Studebaker Dictator Six-1936	.A-8459	.81
Terraplane-1936	A-8451	.81
	3.07	



#### FLEXIBLE SHAFTS

Shafts and casings may be had with any of the fittings slown in the illustration at the same price. In ordering give the shaft number and length desired.

18	inches	long.	Net,	each	\$0.48
				each	
24	inches	long.	Net.	each	.57
30	inches	long.	Net,	each	.66

#### HOW TO DETERMINE RATIO REQUIRED

First, open the condenser and then count the turns of the flexible shaft required to bring rotor to the fully closed position. Multiply this figure by two to obtain the gear ratio in terms of 360 degrees. Example: If your flexible shaft makes eight complete revolutions to turn the rotor from the open to the closed position the gear ratio is 16 to 1 and you need No. 254 or No. 604 control.

INFORMATION ON DIRECTION OF ROTATION

Tell us whether condenser closes left or right.

# **AUTO IGNITION FILTERS**

IRC

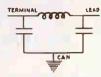
DUBILIER

CARBON

#### CONTINENTAL CARBON FILTERS



DOME LIGHT FILTER



Here is a real dome light filter that will suppress the most obstinate case of radiated ignition noise from this source. May also be used as a primary filter for fans, heaters, etc. Two .5 mfd. condensers and R.F., choke. No. GB05DH. Each....





#### DOME LIGHT FILTER

Regular type filter for dome lights, etc. Consists of single .5 mfd. condenser and R. F. choke.

No. GB05H. Each .....\$0.48



OIL-FILLED VIBRATOR CONDENSERS 2,000 Volts D. C.



#### Type VU-Vibrator Condensers

Cat. No.	Cap. Mfd.	Size L x W x D	List Price
VU-D7	.007	5/8x7/8x9/32	\$0.27
VU-D8	.008	5/8x7/8x9/32	.27
VU-S1	.01	5/8x7/8x9/32	.27
VU-S15	.015	5/8x7/8x9/32	.27
VU-S2	.02	7/8x7/8x9/32	.27
VU-S3	.03	1 1/8x7/8x9/32	.27
	Туре УС-Т	bular Oil Units	
VC-S1	.01	1 5/8x5/8	.18
VC-S15	.015	1 5/8x5/8	.21
VC-S2	.02	1 5/8x3/4	.24
VC-S3	.03	2 1/8x11/16	.30
VC-S5	.05	2 3/16x3/4	.33
VC-S75	.075	2 3/16x13/16	.39
VC-P1	.1	2 3/16x15/16	.45
	Type VI.	-Long-Thin	
VL-S1 (1500V)	.01	3 3/16x17/32x3/8	.36
VL-P5 (200V)	. 5	3 3/16x27/32x3/8	.39





#### CORNELL-DUBILIER GENERATOR CONDENSERS

Regular type, heavy metal case and band, long heav	y lead,
No. SC4P55 mfd., 21/4 in	\$0.36
No. SC4W1—1, mfd., 2¼x1¼ in,	48
FORD TYPE, WITH BRACKET	
No. FC-4P5-5 mfd., 1%x% in	36



#### CONTINENTAL CARBON SUPPRESSORS

CONTINENTAL Suppressors have been subjected to years of laboratory development and actual road service. They effectively remove noise interference from spark discharge at the plugs and high-tension distributor—yet do not in any way affect the motor car ignition system.

They have mechanical strength to withstand the most severe service. The resistance value has been scientifically determined and is not changed after years of the most adverse conditions. Sparking across the terminals is eliminated by careful shaping of the electrodes and cases.

#### AUTO RADIO SUPPRESSORS



IRC Suppressors. Built for the Longest Service On the Toughest Jobs

TO COLOR

Type MD

IRC

Type MC

1MC

Type MS-Standard for spark plugs on most cars,

Type MD-Distributor suppressor.

Type MC-Cable-where cable may be spliced.

Type MCA—For recessed plugs—Buicks, etc.

Type MCB-Extremely light-for Fords.

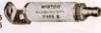
Type MCA ERC #

Type MCB

All types. Price each ...... \$0.18

#### SECURITY VALUE-PLUS **SUPPRESSORS**

No. W100—Spark Plug Type. Each. \$0.15 No. W101—Distributor Type. Each. .15



3700

#### FORD V-8 SUPPRESSOR DISTRIBUTOR BRUSH

#### LYNCH FILTASTATS

Wire wound inductances of low resistance (250 ohms) de-signed to replace carbon sup-pressors, Allows better spark and more gas mileage.

No. L100—Spark Plug type. ach .....\$0.33 Each

Each

No. L400—Cable type. ...\$0.33



#### LYNCH SUPER-FILTASTAT

One main distributor sup-pressor (350 ohms) eliminates the noise in most cars. Very successful,

No. 1800-Distributor Each No. 1801—Cable type. \$1.65

Each

# **Auto Radio Antennas**



#### WARD "LONG RANGE TWINS" Sealed in Rubber

Produce pick-up power equivalent to that of any roof aerial. All leakage from moisture, slush or ice is absolutely eliminated. This aerial has been designed to add grace and beauty to the new streamlined automobile. Weight: 6 lbs., individually packed, 10 to a master carton, 62 lbs.

Model HPR with 66-inch lead wire \$2.40

#### WARD "DUAL MARVELWAVE"

● The Best Buy on the Market! All the benefits of Ward engineers' eight years' experience in building auto aerials, at a price that meets all competition. Same no-drilling quick-installation features as all other Ward aerials. Rubber insulated—rustproof finish.

Model 2MW—Net price . . . . . . . . \$1.65

SINGLE MARVELWAVE

Model 1MW—Net, each ..... \$0.90



#### WARD "RUBBER SEALED" STREAMLINE

The most efficient aerial for one running board. 10minute installation by means of Ward's "magic

Model 4RC with lead wire . . . . . . \$1.77

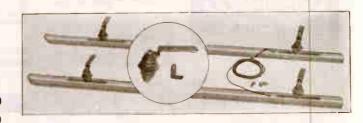
#### WARD "MAGIC-SKI" AERIAL

- No Drilling.
  Quick Installation.
  Permanent Construction.
  Approved by Leading Engineers.
  Efficient Under All Weather Conditions.
  No Fading—Non-Directional.

The scientific combination of the bracket and antenna reduces capacity to car to new low levels, giving added ground capacity, which is directly responsible for such outstanding high efficiency and performance.

Model 2-Ski, dual . . . . . . . . . . . . . \$2.10

Model 1-Ski, single ......





#### WARD LOW LOSS LEAD WIRE

Weather-Proof-Shielded

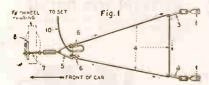
Model No. AL-66—86 in. long. Model No. AL-36—36 in. long. 



#### RCA Dipole Auto Antenna

Constructed of metal tubing coated with durable insulation. 48 [ns. long. 6 ins. wide. The noise-reducing Dipole in operation acts as a counterpoise with the car acting as the aerial. Adjustable. Complete with shielded lead-in, bayonet-type plug and all hardware. No. 9605-Net \$1.55

#### LYNCH AUTO ANTENNA



#### LYNCH AUTO KIT A-1

Especially designed for Turret Top cars. Increases volume-reduces interference.

Installs easily beneath car. Kit consists of 20 feet Lynch "Hi-Mo" auto antenna wire (42 strands-1/2 in. dlameter), rear insulator assemblies, fiywheel housing insulator assembly with tension adjuster, necessary connectors and 10 feet special lead-in wire ..... \$2.10

#### LYNCH KIT A-2

coupling system with a matched im-A coupling system with a matched impedance transmission line which will reduce interference on any existing installation. It will raise volume on any present installation 100% to 300%. Kit A-2 consists of one Lynch auto antenna impedance matching transformer, one auto radio receiver impedance matching transformer, and 10 feet Lynch No. Stat shielded transmission line with hardware for connecting. \$3.00 hardware for connecting......\$3.00

# 

DOUBLET AUTO AERIAL RUNNIN & BOARD

A real noise-reducing car antenna. Comes complete with mounting brackets and



Fine copper mesh moulded into rubber, Insures greater volume—easy to install. No. 325—Complete with hardware...\$1.65

TRIANGLE LO-LOSS AUTO-RADIO AERIAL



An extremely popular type of undercar aerial—good pick-up. 20 feet of heavy phosphor bronze cable together with durable lead-in and all necessary hardware. No. 4342—Net .....\$0.95

No. 4345 **DEDUCT 2% FOR CASH WITH ORDER** 

# EVEREADY

# BATTERIES EVEREADY **RADIO**

Saint Paul



Each new Eveready "B" and "C" battery is equipped with a 3-hole socket and a removable plug. Wires from the set connect to the plug. Put the plug in the battery socket—as easy as putting in a radio tube—and the correct connections are all made. Fool-proof! No wiring troubles! Can be used on old radios as well as new. The batteries marked \* have this wonderful new feature.





Cat No

485\* 486\* 772\* 770\*

771\* 761**T** 763 781 773







EVEREAD



RADIO BATTERY









#### "C" BATTERIES

22 ½ - volt, 5 taps	1 % lbs. 1 lb.	$.66$ $.23\frac{1}{2}$ $.23\frac{1}{2}$	.60 .21 ½ .21 ½
4½-volt, 4 taps, general purpose5 22½-volt, 2 taps, portable	1 lb. 1 1 lbs. 1 lbs.	.58	.53
$4\frac{1}{2}$ -volt, 2 taps, analyzer5 $7\frac{1}{2}$ -volt, 6 taps	% lb.	.49	.44



6	1 1/2 -volt, dry cell												25		lbs.
11	1½-volt, dry cell 3-volt, dry pack				,			•					1	42	lbs.
125	3-volt, dry pack			*	•		٠					٠	1	18	lhs.



#### FLASHLIGHT CELLS

935	Small size	36
950	Standard size	36

.061/2

.18 .28 5.25 2.27



### EVEREADY AIR CELL "A" BATTERY

#### BEADED BATTERY HYDROMETER

each ..... \$0.3
BEADED FLOAT

No. 270B-Net. . \$0, 10 each .....





#### MALLORY BATTERY CHARGERS

1	No. 5535	No. 3
	Charger	Booster
Size 7	34 x3 18 x3 18 in.	5 1/2 x 3 1/4 x 2 1/4 in.
	Approx. 7 lbs.	Approx. 4 1/2 lbs
A.C. cord	12 ft.	7 ft.
D.C. leads	9 ft.	9 ft.
Rectifier	Mallory 16CD3	Mallory 4A3
Charging rate 5	14 amps, taper-	4 amps. taper-
i	ng to 3 1/2 amps.	ing to 2 amps.
Your net cost.	\$6.90	\$1.47



page 36 - Fuses on page 31 -Power Plants on page 33

DEDUCT 2% FOR CASH WITH ORDER





#### GENUINE OXIDITE STORAGE BATTERIES

Heavy duty radio type, %-inch thick plates insure high capacities.

						Rating at		
Cat.						Discharge,	Weight,	Net
No.					Volts	Amperes	Lbs.	Price
417					2	190	22	\$3.10
423					2	280	31	4.35
400	Ċ		Ċ	Ì	6	115	43	5.14
101				i	6	135	49	6.25
103	1	٠.	٠		6	165	5.9	7.35
403			Ĺ	ĺ	6	185	67	8.06
404					6	205	72	10.50

#### CLASS CELL TYPES

	GLASS		1 11	LO
538 738	2 	190 230	148 154	Set of 3 \$18.00 21.00

For the 6-volt "B-less" radios, we recommend the higher capacity batteries for economical operation.

13

#### RADIO TUBES

#### SERVICE SHOP **EOUIPMENT**

National Union tubes are fully guaranteed and are used by more service dealers because of their many sales helps and clean policy regarding resale prices. There are well over 200 types of tubes in the line which makes it possible to service and equip all existing receivers.

GLASS TUBE	SI.	1 81		.40	99X1.09	.55	6K6G	1.85	,68
List			1.35	.68	950 2.20	1.10	6K7G		.65
Type Price			1.09	.55	483 1.65	.83	6L5G		1.05
		34		.68	485 1,45	.73	6L6G	2.10	1.05
DOA\$1.3		85/51		.50			6L7G	1.60	.80
01.4		36		.50	METAL TUBES		6N6G	2.50	1,25
01AA		37		.40			6N7G	1.60	.80
1A4 1.78		38		.50			6Q6G	2.10	1.05
1A6 1,38 1B4/951 2.00		39/44		.50	6K7	30.68	6Q7G	1.35	.68
		41		.50	6A8 1.35	.68	6R7G		.68
1B5/258 1.35 1C6 1.60		42		.55	6J7 1.35	.68	687G	2.10	1,05
		43	1.09	.55	6C5 1.10	.55	6X5G	1.35	.68
1F4 2.30 1F6 1.60					6H6 1.10	.55		1.35	.68
1V	.50	GLA	ASS TUBES		5Z4 1.35	.68	25Z6G	1,35	.68
2A8 1.38		1	List	Net	6F6 1,10	.55			
2A5 1.09		Туре	Price	Price	6L7 1.60	.80	CURRENT REG	ULA	TORS
2A6 1.09		1	\$0.79	\$0.40	6F5 1.10	1.05	1	List	Net
2A7 1.38			1.09	.55	6Q7 1.35	.68		Price	Price
2B7 1.38		47		.50	25A6	.80		1.25	80.63
2E5 1.60			2.60	1.30	25Z6 1.35	.68		1.25	.63
5 <b>Z8</b>			1.09	.55	6R7 1.35	.68		1.50	.75
6A4 1,3			2.60	1.30	6X5 1.35	.68		1.25	.63
6A6 1.38			1.85	.68			10120	1.20	.03
6A7 1.8			1.09	.55	GLASS METAL		MAJESTIC T	CHIDO	6
6B5 2.38		56		.40	("G" Types)				
6B7 1.35		57		.50	1			List	Net
BC6 1,09	.55	58		.50	List	Net		rice	Price
8ID6	.50	59		.68	Type Price	Price	24-8	1.30	\$0,65
6E5	.80	64	2.90	1,45	1C7G\$1.85	\$0.93	27-8	.80	.40
61D6 1.70	.85	65		1.45	1D5G 1.85	.93	35-8 (518)	1.40	.70
6F7 1.60	.80	67		.95	1D7G 1.60	.80		1.70	.85
6G5 1.60	.80	68	2.90	1.45	1E5G 2.00	1.00		1.30	.65
8N5 1.85	.93	71A		.40	1F5G 2.30	1.15		1.75	.88
10 2.10	1.05		1.09	.55	1H4G 1.10	.55	57A-8		.88
12A		76		.40	1H6G 1.60	.80	58-8		.88
12A5 2,20	1.10		1.09	.55	1J6G 1.35	.68	58A-S		.88
12 <u>A</u> 7 2.30		78		.55	5V4G 1.85	.93	85A-S		.85
12Z3 1.09	.55	79		.68	5X4G 1.35	.68		2.30	1.15
15 2.00	1.00	80		.35	5Y3G 1.10	.55		2.30	1.15
19 1.09	.55	81		1.05	5Y4G 1.00	.50		2.10	1.05
20 1.09	.55	82		.50	6A8G 1.60	.80		1.90	.95
22 1.35	.68	83		.50	6C5G 1.10	.55		1.75	.88
24A	.50	83V		.80	6D8G 2.10 6F5G 1.10	1.05		1.75	.88
5Z5 1.09	.55 .35	84-6Z4		.68 .55		.55 .65		1.90	.95
.69 .79	.35			.55		.55		1.90 1.90	.95
				.55	6H6G			1.85	.93
30	.40	100 V	1.03	.00	0010 1,00	*00 l	GOT-AMA	1.00	.03
80	.40 THODE-R	AY TUBES	1.09				t LAMPS	1.00	

Туре	Characteristics	8	pecial Dealers Net Price
908-3-in. Screen; trode, 1500-v.	Focus Electrode, 45 Max.: Grid V. for		
907-5-in. Screen;		0-v. Max.; H.	V. Elec-
903-No. 9-in. Scre Electrode, 300	en; Focus Electro		
907A—5-in. Screen Electrode, 150	; Focus Electrode		

8 1/2 1 0 1 0 2 7	volts volts volts volts	Sizes Available Sizes Available4 amps5 amps7½ amps1 amps.	List Price \$0.60 .60 .60 .75	Net Price \$0.48 .48 .48 .60

BATTERY CHARGER BULBS Net Price \$3.78 2.16 Size List Price ...\$7.00

# NATIONAL

This is a partial list of radio equipment given FREE with the purchase of National Union Radio Tubes. Write us for information as to how you can obtain this

equipment at no cost.

If you don't find an instrument you need listed, ask us.

is completed.	
Dumont Equipment Total Tube Purchases	Purchases
Dumont Frequency Modulator (Type 151) 400	2 years
Dumont Oscillograph (Type 154-8 in.)1250	2 years
Dumont Oscillograph (Type 148-5 in.)1750	2 years
Supreme Equipment	
Model 450—Set Analyzer 650	2 years
Model 400—Tube Tester 725	2 years
Model 525-Triple Heat Soldering Tool 125	1 year
Model 510-Meter Kit 325	2 years
Model 590—Multimeter 850	2 years
Model 580—Signal Generator	2 years
Model 585Diagnometer	2 years
Model 550—Set Analyzer1000	2 years
Model 500—Automatic1250	2 years
Triplett Equipment	
Triplett No. 1503 Multipurpose Tester 800	0
Triplett No. 1250 Vacuum Tube Voltmeter 575	2 years
Triplett No. 1240 Condenser Tester 425	2 years
Triplett No. 1240 Condenser Tester 425	2 years
Readrite Equipment	
Readrite No. 430 Tube Tester 300	2 years

Webster-Chicago Sound Systems			
Webster-Chicago Model PA417-A (Portable). Webster-Chicago Model C-10 Sound System Webster-Chicago Model C-36 Sound System Webster-Chicago Portable Phonograph	1500 800 500 400	2 2	ears ears ears ears
Clough-Brengle Equipment CRA Oscillograph Model 81-A Frequency Modulator Model OCA Signal Generator Model 99 Test Oscillator Model OM-A Signal Generator (Frequency Modulated)	550 500 700	2 3 2 3	ears ears ears ears
Ranger Equipment			
Ranger No. 640-740 Volt-Ohm-Milliammeter. Ranger No. 557 Signal Generator Ranger No. 735 D.C. Pocket Volt-Ohm- Milliammeter	800	2 3	ears ears
Miscellaneous Equipment Hickok OS-11 Oscillator	800 125 100 125	1;	oris ori ori
Hobart Cabinet for small parts stock (100 drawer)	400	2 у	SALE
(50 drawer)  Hobart Cabinet for small parts stock  JFD Remote-O-Cable Replacer  Radio Service Manuals (anyone of six volumes)  (27 drawer)	250 225 700 150 225	1 y 2 y 1 y	oar oars oar oar

A National Union Tube for Any Purpose

CENTINE

Minneapolis

#### SPARTON RADIO TUBES NEW LOW PRICES

There Is a Big Market for Sparton Tubes

Don't overlook this profit-making Always use Sparton Tubes in Sparton Radios-for Sparton Tone. Prices Effective Oct. 1st. 1937

		F11. or	Net
Туре	Description		Price
25-S	Duplex Diode Triode	$\dots 2.0$	\$1.62
70	Duo Control Triode		1.14
181	Power Amp	3.0	1.14
401	AmpDet	3.0	1.14
482-A	D. C. Power Amp	5.0	1.56
484-A	D. C. AmpDet		1.56
486	D. C. R. F. Amp		2.46
These t	hree tubes below are the re		rs and
should	be carried in stock by all	good deale:	rs and
service	men.	Fil. or	Net
Туре	Description		Price
482-B	Power Amp	$\dots 3.0$	\$1.13
483	Power Amp		1.13
485	AmpDet		.99

#### TUNGAR BULBS C. E.

New and Old Style

New Style All Contacts Are in the Base No. 277465-2 Amp. New Type. \$3.00 No. 189049-5 Amp. Old Type

with Top Connector ..... 6.00 No. 289881-0.6 Amp. for Trickle

Charger ..... 3.00

Old Style No. 195528-2 Amp. Old Type.. 3.00 2 Amp.

#### NATIONAL UNION RECTIFIERS

New and Better! Will replace any standard rectifier in all battery charger units. guaranteed. Standard construction.

2	Amp.	Rectifier	Bulb	No.	Nu-2		• •	 (C#				. \$2.	16	
6	Amp.	Rectifier	Bulb	No.	Nu-6	•				٠	1	. 3.	78	



#### GENUINE KELLOGG TUBES

No. 401-Top Heater Connections, No. 403-Top Heater Connections. 3.0 V. Power Amp. ..... 2.70



# RAYTHEON

#### SALES HELPS

FREE TUBE TEST STICKERS 100 in a roll. Space provided for da sold, date re-tested. (Not imprinted.)

#### IMPRINTED TURE TEST STICKERS

Available in rolls of 1,000 at \$1,00 at the norm of imprinted advertising, remember that the order has to go to the factory and it takes nearly one month for completion of order



#### TUBE TECHNICAL DATA CHART

Seventh Edition.
Complete technical information on all receiving mation on all receiving tubes FREE.



TUBE TALKS
48 pages, full of sales ideas, service tips and a complete list of tube layouts in over 2,000 radio sets. \$0.50 net or free with order for 25 tubes.





#### ATR D.C. - A.C. **INVERTERS**

6 Volt 50 Watts

12 Volt \$ | 3.50 50 Watts ..

FOR OPERATING STANDARD 110-VOLT OR 220-VOLT A.C. ADDRESS SYSTEMS, **PUBLIC** RADIOS. ELECTRICAL TESTING EQUIPMENT

Vacuum Cleaners, Fans, Mixers, Hair Dryers, Curling Irons, Medical Appliances, Etc.

See Complete Listing on Page 135

#### ATR BATTERY CHARGERS

#### Automatic **Tapering**

The additional appli-The additional appli-ances—such as auto radios, spot lights, heaters, fans, cigarette lighters, etc. — op-erated from the bat-tery of the modern automobile impose a severe drain.

The ATR Automatic CHARGER cannot overcharge battery due to a ut om a tic tapering charge fea-



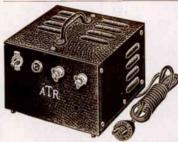
List Price Net Price

Complete as illustrated

ATR DeLuxe Charger—Model 600. Maximum charging rate 6 amperes. Packed one to a carton. Shipping weight, 9 lbs. Complete as illustrated

ATR Master Charger—Model 1000. Maximum charging rate 10 amperes. Packed one to a carton. Shipping weight, 13 lbs. Complete as illustrated

\$5.80 \$ 9.67 6.87 11.45 8.55 14.25



#### ATR A BATTERY ELIMINATOR

for testing and demonstrating

Net Price \$12.95 Complete

As a power supply for field coils, exciter lamps, and relays, or in the laboratory, for supplying various low D.C. voltages by simply using rheostat in one side of the A.C. cord. Ellminates storage batteries and battery chargers. Prevents the possibility of spoiling a sale because of a run-down battery. Operates the set at maximum efficiency at all times. Delivers pure direct current at the correct voltage for the proper operation of any auto radio set. Equipped with full-wave dry-disc type rectifier assuring noiseless, interference-free operation and extreme long life and reliability. Fully automatic and fool-proof.

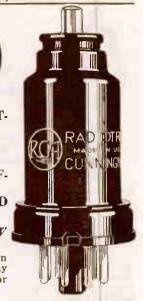
Cabinet is of wrinkled finis weight, 20 lbs heavy gauge metal having attractive black Size 7½ in. x 7½ in. x 5 in. Shipping finish.





- TREMENDOUS PUBLIC ACCEPT-ANCE
- UNIFORM PERFORMANCE
- SEALED CARTON PROTECTION
- **GUARANTEED ATTRACTIVE PROF.** ITS
- MANY HELPFUL SALES AIDS AND WINDOW DISPLAYS
- A COMPLETE STOCK AT THE LEW BONN CO.

Prices shown in columns below are based on 40% discount from R.C.A.'s list and you may deduct an additional 10% if you order 25 or more tubes.





			STANDA	RD GLASS				25 4 20-4
Type	List Price	Net Price	Type	List Price	Net Price	Type	List Price	Net Price
00-A	\$1.25	\$0.75	45	\$0.69	\$0.41	1A4	\$1.50	\$0.90 .75
01-A	.59	.35	46	.99	.59	1A6	1.25	1.05
1-V	.89	.58	47	.89	.53	1B4	1.75	
10	2.00	1.20	48	2.50	1.50	1B5/25S	1.25	.75 .90
īž	1.25	.75	49	.99	.59	1C6	1.50	.90
12	1.25	.75	50	2.50	1.50	1F4	1.50	.90
112-A	.69	.41	53	1.25	.75	1F6	1.50	.75
15	2.00	1.20	55	.99	.59	2 A 3	1.25	.59
19	.99	.59	56	.69	.41	2A5	.99	.59
20	.99	.59	57	.89	.53	2A6	.99	.75
22	1.25	.75	58	.89	.53	2A7	1.25	
24-A	.89	.54	59	1.25	.75	2B7	1.25	.75
26	.59	.35	71-A	.69	.41	5 <b>Z</b> 3	.89	.53
27	.69	.41	75	.99	.59	6A4	1.25	.75
30	.69	.41	76	.69	.41	6A6	1.25	.75
31	.69	.41	77	.99	.59	6A7	1.25	.75
3 2	1.25	.75	78	.99	.59	6B7	1.25	.75
33	.99	.59	79	1.25	.75	6C6	.99	.59
34	1.25	.75	80	.59	.35	6D6	.89	.53
35	.89	.53	81	2.00	1.20	6E5	1.50	.90
36	.89	.53	82	.89	.53	6F7	1.50	.90
37	.69	.41	83	.89	.53	6G5	1.50	.90
38	.89	.53	83-V	1.50	.90	12Z3	.99	.59
39-44	.89	.53	84	1.25	.75	25Z5	.99	.59
40	.69	.41	85	.99	.59	874	4.90	2.94
41	.89	.58	89	.99	.59	876	6.70	4.02
42	.99	.59	V99	.99	.59	886	6.75	4.05
43	.99	.59	X99	.99	.59			
			ALL	METAL TY	PES			
6 A 8	\$1.25	\$0.75	6K7	\$1.25	\$0.75	6X5	\$1.25	\$0.75
6C5	1.00	.60	6L6	2.00	1.20	5W4	1.00	.60
6F5	1.00	.60	6L7	1.50	.90	5Z4	1.25	.75
6F6	1.00	.60	6N7	1.50	.90	25A6	1.50	.90
6H6	1.00	.60	6R7	1.25	.75	25Z6	1.25	.75
6.17	1.25	.75	6Q7	1.25	.75			
""	1.20		,	SERIES TY	PES			
5 V 4 G	\$1.75	\$1.05	6F6G	\$1.25	\$0.75	6Q7G	\$1.25	\$0.75
5X4G	1.25	.75	6H6G	1.00	.60	6R7G	1.25	.75
5 Y 3 G	1.00	.60	6J7G	1.25	.75	6X5G	1.25	.75
6 A 8 G	1.50	.90	6K7G	1.25	.75	25A6G	1.25	.75
6C5G	1.00	.60	6L7G	1.50	.90	25Z6G	1.25	.75
6F5G	1.00		6N7G	1.50	.90			
	1.00	.60	1			DED		
16		DEI	OUCT 2%	FOR CASH V	AIIH OK	DEK	nelles.	7

**World Radio History** 

# A NEW



# "CHECK-UP" CAMPAIGN!!!





# CHECK-UP LIKE "SHOT IN ARM

Say Service Men

### WHY?-

#### RCA—ADVERTISES SERVICE FOR YOU OVER

- 36 broadcast stations
- National magazines
- Newspapers throughout country
- Free mat service (sample on left)
- Eye appeal window displays
- Special check-up reply postcards
- Personalized follow-up sales letters
- See us about "1200 service short cuts"

BERNARD L. COOK COMPLETE LINE

RECOMMEND RCA RADIO TUBES RING YOUR CASH REGISTER WITH RCA "CHECK-UP" PUTS YOU IN TOUCH WITH YOUR OLD CUSTOMERS

See Us For Details













No. 318

STORE HELPS

No. 629





No. 629-Illuminated Carton 12
in. high\$1.00
No. 622—Illuminated Clock 20
in. diameter 5.00
No. 665—Metal Flange Sign 4
color imprinted both
sides 1.00
RC12 —Tube manual (glass
types)
Metal Tube Manual
Technical Book10
RCA Reference Book
free with RC12 and
Metal Tube Manual.
No. 698—O.K. Tags Free
No. 694—DecalcomaniaFree
No. 318—Bill Head imprinted
500 for 1.00

1	No. 474—Letterhead and Envel-
ı	ope imprinted 500 for \$2.75
ı	No. 669—Dummy Cartons Free
l	No. 684—Price Cards Free
I	No. 690—Consumer Price List
ı	(folder)Free
ı	No. 604—Tube Test Stickers im-
ı	printed roll of 2000 1.00
ı	No. 495S—Deluxe Radio Station
ı	Log imprinted 100 for 3.00
Ì	No. 693—Post Cards imprinted
ı	100 for 1.00
ı	No. 692—Post Cards imprinted
ı	100 for 1.00
ı	Shirt (give collar size and arm
ı	length) 1.40
	Counter Coat (give breast, arm,
	, , , , , , , , , , , , , , , , , , , ,



Shirt

**World Radio History** 

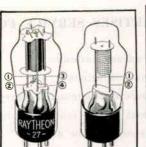
# It always pays

Radio's Highest Quality

Longest Life

Most Sturdily Constructed

RADIO TUBES Raytheon's 4-Pillar construction is tried and proved. Jars and jolts that ruin all other makes of tubes do not affect Raytheon 4-Pillar radio tubes. Raytheon 4-Pillar tubes are used in a large majority of radio-equipped police cars and also are the favored tubes for use in airplane radios where tubes are subjected to heavy vibrations. Raytheon tubes are supplied as original equipment by more manufacturers of auto radios than any other make—because they have learned that Raytheon 4-Pillar construction means better performance and less trouble. You can prove, to all tube customers, that Raytheons are better than other tubes by demonstrating the added volume and the clarity of reception when installed in their radios. Then clinch the sale by pointing out the advantages of Raytheon's 4-Pillar construction.



Raytheon Radio Tubes are divided into three groups-Group 1, Group 2, Group 3. All Group 1 tubes are fast sellers and are guaranteed for six months. Group 2 tubes are medium fast sellers and are guaranteed for nine months. tubes are the slowest sellers and are guaranteed for one year. You will find the group number of each tube listed right with each tube. Raytheon's guarantee includes everything but broken glass and burn-outs and this guarantee is backed 100% by the Lew Bonn Co. The guarantee period is de-

# NEW LOW PRICES

Effective June 20th, 1936 Orders for Raytheon Tubes will always be shipped at prevailing net prices

#### RAYTHEON 4-PILLAR GLASS TUBES

Type No.	List Price	Dealers' Net Price	Type No.	List Price	Dealers' Net Price	Type No.	List Price	Dealers' Net Price	Type No.	List Price	Dealers' Net Price
00-A	\$1.35	\$0.68	6C6	\$1.10	80.55	33	\$1.10	\$0.55	75 76 77	\$1.10 .75	\$0.55 .37
01-A	.65	.32	6D6	1.00	.50	24	1.35	.68	7.6	1.10	55
	1,35	.68	6E5	1.60	.80	35/51	1.00	.50	4.7	1.10	.55 .55
OZ3			6E6	1.70	.85	26	1.00	.50 .37	78	1.35	.68
1 A 4	1.60	.80		1.60	.80	87	.75	.50	80	.65	.68
1 A 6	1.35	.68	6F7			38	1.00	.50	81	2,10	1.05
1B4/951	1.60	.80	6635	1,60	.80	29/44	1.00 .75	.37	82	1.00	.50
1B5/25S	1.35	.68	6N5	1.85	.93	40	1.00	.50	83	1.00	.50
1C6	1.60	.80	6Z4/84	1.35	.68	12	1.10	.55	83-V	1.60	.80
1F4	2.20	1.11	12A5	2.10	1.05		1.10	.55	84	1.35	.68
1F6	1.60	.80	12A7	2.20	1.10	43	.75	.37	85	1.10	.55
1-V	1.00	.50	1223	1.10	.55	4.0	1.10	.55	89	1.10	.55
2 A 3	1.35	.68	25Z5	1.10	1.05	18-5-2	1.00	.50	X99	1.10	.55
2A5	1.10	.55	10	2.10	1.00	191.3	2.60	1.30	V 99	1.10	.55
2A6	1.10	.55	12-A	.75	1.00	20124	1.10	.55	182B	1.65	.83
2 A 7	1.35	.68	15	2.00 1.10	.55	11 11 11	2.60	1.30	183	1.65	.55 .55 .55 .83 .83
2B7	1.35	.68	19	1.10	.55	12	1,70	.85	485	1.45	.78
2E5	1.60	.80	20 22	1.35	.68	13	1.35	.68	950	2.20	1.10
5Z3	1.00	.50	24-A	1.00	.50	5.5	1.10	.55	WD-11	1.35	,68
6A3	1.60	.80	26 A		.32	16	.75	.37	WX-12	1.35	3.77
6A4 (LA)	1.35	.68 .68	27	.65 .75	.37	57	1.00	.50	BA	7.50	3.77
6 A 6 6 A 7	$\frac{1.35}{1.35}$	.68	30	.75	37	5.8	1.00	.50	BH	4.65	2,34
6B5		1,13	31	.75	.37	59	1.35	.68	BR	2.75	1,38
6B7	$\frac{2.25}{1.35}$	.68	32	1.35	.68	71A	.75	.37	LA (6A4)	1.35	.68
0.00	1.00	.90	U M	4.00	.00						

Note: Raytheon 4-Pillar Glass, deduct 10% additional on all orders for 25 tubes or more.

#### RAYTHEON (MAJESTIC) SHIELDED TYPE TUBES

Type No. 2A78 28/48 2Z2/G84 6A78 6B78 6C7	List Price \$2.40 2.75 1.95 2.40 2.20 2.00	Dealers'   Net Price   \$1.21   1.38   .98   1.21   1.11   1.01	Type No. 6D7 6E7 6F7S 6Y5 6Z5	List Price \$1.85 1.85 2.00 2.00	Dealers' Net Price \$0.93 .93 1.01 1.01	Type No. 248 278 358/518 568 568	List Price \$1.40 .90 1.50 1.80 1.40 1.85	Dealers' Net Price \$0.71 .45 .75 .90 .71 .93	Type No. 57AS 58S 58AS 75S 85AS	List Price \$1.85 1.85 1.85 1.80	Dealers' Net Pric \$0.93 .93 .90 .90
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Note: Raytheon (Majestic) Shielded Tubes, deduct 10% additional on all orders for 25 tubes or more

WE STOCK ALL RAYTHEON TUBES. A TYPE FOR EVERY PURPOSE

# to sell the best.

**GUARAN**1

date.

# WITH BIG DEALER DISCOUNTS



MORE PROFITS

A Cleaner Business

LESS TROUBLE

Read This!

The sale of radio tubes should constitute 40 to 50% of your sales volume. Therefore, you should be sure that the radio tube line that you are handling offers you the maximum profit with the least trouble. Raytheon radio tubes are nationally known and have very good consumer acceptance, together with the strongest sales feature possible—4-Pillar construction. Look over the many free sales helps we offer you. Look over the many items of test equipment that you can secure at great savings—see page 8 for full details.

#### 5 IMPORTANT FEATURES!

- A definite guarantee.
- 2. Raytheon quality is unexcelled.
- 3. Nationally advertised real consumer acceptance.
- Complete selection-a tube for every set.
- 4-Pillar construction. The only tube having this patented feature.

#### RAYTHEON METAL ENVELOPE RESISTANCE TUBES

termined by the coding on the code label that is attached to each Raytheon Tube and is computed by adding six, nine or twelve months to the code

example, "74" would indicate shipment in July, 1934. The Lew Bonn Co. is the largest distributor of radio tubes in the Northwest so you are assured of a large, fresh stock of tubes at all times.

The code date consists of two or three fig-The first, or first two, indicate the month of shipment and the last, year of shipment. For

Metal envelope similar in appearance to 5Z4-Capacity 0.3

Raytheon Resistance Tubes replace resistance line cords in A.C.-D.C. receivers and provide, in types equipped with a tap, voltage for the operation of one or two dial pilot lamps.

		vortage	Diai	Net
Type	Resistance	Drop	Lamps*	Price
55A1	185 Ohms	54.1		\$0,60
55A2	185	54.9	one	.66
55B2	185 ''	54.9	two	.66
19 A1	162 Ohms	48,6		.60
19 A 2	162	48.G	one	.66
49B2	162 "	48.6	two	.66
42 A 1	141 Ohms	42.:.		.60
12A2	141 "	42.1	one	.66
12B2	141 "	42.5	two.	.66

- Dial Lamps-Brown Bead No. 40, 6-8 Volt Mazda Pilot Lamp
- 55 Series-For two 25.0 volt and two 6.3 volt tubes.
- 19 Series-For two 25.0 volt and three 6.3 volt tubes 12 Series-For two 25.0 volt and four 6.3 volt tubes.

Base-Octal. 8 Frong.

#### RAYTHEON GLASS ENVELOPE RESISTANCE TUBES

Type	Resistance	Voltage Drep	Dial Lamps*	Net Price
185R	185 Ohms	54.9		80.60
185 R4	185 "	54.9	one	.66
185138	185 "	54.9	two	.66
165R	162 Ohms	48.6		.60
165R4	162 "	48.6	one	.66
165R8	162 "	48.6	two	.66
140R	141 Ohms	42.3		.60
140R4	141 "	42.3	one	.66
140R8	141 **	4:.3	two	.66

\* Dial Lamps—Brown Bead No. 40, 6-8 Volt Mazda Pilot Lamp. 185 Series—For two 25.0 volt and two 6.3 volt tubes. 165 Series—For two 25.0 volt and three 6.3 volt tubes. 140 Series—For two 25.0 volt and four 6.3 volt tubes. Base—Regular. 4 Prong.

#### RAYTHEON "G" TYPES

(Glass Tubes with Octal Bases)

Гуре	List	Dealers'	Type	List	Dealers'
No.	Price	Net Price	No.	Price	Net Price
C7-G	\$1.85	\$0.93	6H6-G	\$1.10	\$0.55
D5-G	1.85	.93	6J5 G	1,10	.55
D7-G	1.60	.80	6J7-G	1.35	.68
E5-G	1.60	.80	6KF-G	1.35	.68
E7-G	1.60	.80	6Kf-G	1.35	.68
F5-G	2.50	1.25	6K7-G	1.35	.68
H4-G	1.10	.55	6L/6-(;	2.20	1.11
116-(;	1.60	.80	6L7-G	1.60	.80
J6-G	1.35	.68	6N6-G	2.50	1.25
V4-G	1.85	.93	6N(-MG	2.50	1,25
X4-G	1.35	.68	6N7-G	1,60	.80
Y 3 - G	1.10	.55	6P7-G	2.20	1,11
Y4-G	1,10	.55	6127-G	1.35	.68
A8-G	1.60	.80	6R7-G	1.35	.68
B4-G	1.85	.93	6X4-G	1.35	.68
136-17	1.50	.75	25A6-G	1.35	.68
C5-G	1.10	.55	2576-G	1.35	.68
F5-G	F. 10	.55	6D*-G	2.10	1.05
Q6-G	2.10	1.05	1E7-G	1.60	.80
L5-G	2.10	1.05	187-G	1.85	.93
87-G	2.10	1.05			
F6-G	1.35	.68			

Note: Raytheen "G" type tubes, deduct 10% additional on all orders for 25 tubes or more.

#### RAYTHEON ALL-METAL TUBES

Type No.	List Price	Dealers' Net Price	Type No.	List Price	Dealers' Net Price
OZ4	\$1.35	\$0.68	6K7	\$1.35	\$0,68
5 W 4	1,10	.55	61,6	2.20	1.11
5%4	1.35	.68	6L7	1.60	.80
6 A 8	1.35	.68	6N7	1.60	.80
6C5	1.10	.55	6Q7	1.35	.68
6F5	1.10	.55	6R7	1.35	.68
6 <b>F</b> 6	F.10	.65	6X5	1.35	.68
6116	1.10	.55	25A6	1,60	.80
6.J.7	1.35	.68	25%6	1,35	.68

Note: Raythcon All-Metal Tubes, deduct 10 additional on all or lers for 25 tubes or more.



Quality Condenser

1.32

Cornell Dubilier Corp. is the oldest and largest organization devoted exclusively to the development and manufacture of electrical condensers. Cornell Dubilier Condensers are precision built, of the finest quality and are designed to give the highest possible standard of service. All Cornell Dubilier

Condensers are built well within the limits of R. M. A. safety requirements and are fully guaranteed. Lew Bonn is proud to be the exclusive distributor of radio's best condenser line-Cornell Dubilier FOR SAFETY'S SAKE—Always Use C-D Condensers

#### **ELECTROLYTIC** CONDENSERS

"525" HANDI-MIKES, CARD-**BOARD CASED DRY** 

ELECTROLYTICS pe RHM — The mo outstanding Midget Condensers

The ... "Handy The widely accepted "Handy Mikes" — now available with mounting feet at no extra cost.

525 V. Peak-Work. V. 450 DC

Cat. No.	Cap. MFD	<b>L.,</b> In.	Size W., In.	D., In.	Net
RHM9010 RHM9020 RHM9040 RHM9080	1	2 1/2 2 1/2 2 1/2 2 1/2	1 1/8 1 1/8 1 1/8	1/2 5/8 3/1	\$0.33 .39 .45 .57
EE9120 . EE9160 .	12	4 3/8	1 1/2	1 1/8 1 1/4	.78

#### "600" HANDI-MIKES



Kit of ten 600volt, compact size, dry electrolytics

\$6.72

"600" Haudi-Mikes; Maximum Surge Volts, 600; DC Working Volts 475

			~~~		
Cat. No.	Cap. MFD	L., In.	W., In.	D., In,	Net
HM11010 HM11020	$\frac{1}{2}$	2 1/2 2 1/4	1 1/8	1/2 5/8	\$0.51 .57
HM11040 HM11060	4	2 1/2	1 1/8	3,4 1 1 8	.69
HM11080	8	2 1/2	1 1/8	1 3/8	.81

#### "300" JUNIOR HANDI-MIKES



Junior kit of "300" Handi-Mikes. Contains ten 300-volt Handi-Mikes and two 35-volt Handi-Mikes.

\$4.74 "300" JUNIOR HANDI-

MIKES DC Working Volts, 250; Maximum

	Surge	Volt	s, 300	)	
Cat. No.	MFD	In.	In.	In.	Net
JHM3004	4	2 1/2	11/4	5%	80.39
JHM3008	8	2 1/2	1 1/8	3/4	.51
J IM3010	10	2 1/2	1 1/8	1 1/8	.57
JIIM3012	12	21/2	11/4	1 1/6	.63

#### CARDBOARD CASED



#### LOW-VOLTAGE HIGH CAPACITY DRY ELEC-TROLYTICS, TUBULAR CONTAINERS

Strong Wire Leads. = H e r meti-cally Sealed.

EH9888



Small, compact, efficient. Equipped with wire leads. Polarity clearly in-dicated on cartridge. Complete range of voltages and capacities for every

DC Working Volts, 450; Maximum Surge Volts, 525

Cat STA			
Callino.	MICD	Size 2 % x 3/4 in. 2 3/4 x 1 in. 2 3/4 x 1 in.	Net
ED9010	1	2 3% x 3% in.	80.33
ED9020	2	2 36 x 1 in.	.:25
ED9040	4	236 v 116 in	14.5
DC Wo	rking V	olts, 300; Max	E PROTECTION
	Surre	Volts, 350	
ED8020	2	Volts, 350 2 % x 7s in. 2 % x1 1s in.	94
ED8040	<u></u>	2.3/ v.1.1/ in	441
DO SEL	wir in a W	olts, 250; Ma:	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
DC W	Summer V	Walter 200	kimum
EDANA	Surge	Volts, 300 234 x % in. 234 x % in. 234 x 1 in. 234 x 1 in.	4541
ED3004	4	2 % X % 111.	
12173000	0	2 % X % In.	.51
12120010	10	2 % XI in.	.57
ED3012	12	2 % X1 in.	.63
DC We	rking V	olts, 200; Max	kimum
7777 = 0.00	Surge	Volts, 250 2 % x ¼ in. 2 % x1 in. 2 % x1 % in.	
ED7020	2	2 3/8 x 3/4 in.	.33
ED7040	4	$2 \frac{3}{8} \times 1$ in.	.39
ED7080	8	2 % x1 1/2 in.	.48
DO W	BENETHE V	uits, loui Mini	Kinium
	Surge	Volts, 200	
ED6040	4	2 3% x 1 in	.26
ED6040	8	2 36 v 1 16 in	45
DC We	rking V	Volts. 200 2 % x1 in. 2 % x1 ½ in. olts. 100: Max	rimnm
20 11 0	Surre	Volte 180	
EDSOSO			
	5	234 v 3/ in	99
ED5100	5	2 3/2 X 3/4 in.	.33
ED5100	5	2 % x ¼ in. 2 % x1 in.	.33 .42
ED5100 ED5250	5 10 25	2 % x % in. 2 % x1 in. 2 % x1 in.	.33 .42 .57
ED5100 ED5250 DC W	5 10 25 orking V	2 % x % in. 2 % x1 in. 2 % x1 % in. 7 olts, 50; Max	.33 .42 .57 timum
	5 10 25 orking V Surge	Volts, 150 2%x % in. 2%x1 in. 2%x1 in. 2%x14 in. Volts, 50; Max	.33 .42 .57 timum
ED3050	5 10 25 orking V Surge	2 % x % in. 2 % x1 in. 2 % x1 ¼ in. 7 olts, 50; Max Volts, 75 2 % x % in.	.33 .42 .57 kimum
ED3050 ED3100	5 10 25 orking V Surge 5 10	2 % x % in. 2 % x1 in. 2 % x1 ¼ in. volts, 50; May volts, 75 2 % x % in. 2 % x % in.	.33 .42 .57 timum .30
ED3050 ED3100 ED3250	5	2 % x % in. 2 % x % in. 2 % x % in.	.30 .39
ED3050 ED3100 ED3250	5 10 25	2 % x % in. 2 % x % in. 2 % x % in. 2 % x 1 % in.	.30 .39 .48
ED3050 ED3100 ED3250 DC We	5 10 25	2 % x % in. 2 % x % in. 2 % x % in. 2 % x 1 % in.	.30 .39 .48
ED3050 ED3100 ED3250 DC We	5 10 25	2 % x % in. 2 % x % in. 2 % x % in. 2 % x 1 % in.	.30 .39 .48
ED3050 ED3100 ED3250 DC We ED2050 ED2100	5 10 25	2 % x % in. 2 % x % in. 2 % x % in. 2 % x 1 % in.	.30 .39 .48
ED3050 ED3100 ED3250 DC We ED2050 ED2100 ED2200	5 10 25	2 % x % in. 2 % x % in. 2 % x % in. 2 % x 1 % in.	.30 .39 .48
ED3050 ED3100 ED3250 DC We ED2050 ED2100 ED2200 ED2250	5 10 25	2 % x % in. 2 % x % in. 2 % x % in. 2 % x 1 % in.	.30 .39 .48
ED3050 ED3100 ED3250 DC We ED2050 ED2100 ED2200	5 10 25	2 % x % in. 2 % x % in. 2 % x 1 % in. 2 % x 1 % in. 10 ts. 25: Max Volts. 35 2 % x % in. 2 % x % in. 2 % x % in.	.30 .39 .48

**MULTIPLE SECTION** Lo-Voltage Dry Electrolytics
DC Working Volts, 25; Maximu 25; Maximum ts. 35 Surge Volts, 35 ED2055 Dual 5 2%x % in. ED2101 Dual 10 2%x1 in.

#### "HI MIKE" ROUND METAL CAN DRY **ELECTROLYTICS**

Inverted Can Negative 525 Peak Volts; 450 DC Work-ing Volts

Net

.63

Cat. No. MFD EP9040 EP0040 Size 3 % x 1 3 % x 1 8 EP9081

#### UPRIGHT CAN **NEGATIVE**

525 Penk Volts; 450 DC Working Volts 1A9040 4 2½x1¾ in. 80.51 1A9080 8 4¾x1¾ in. .63 1A9120 12 4¾x1½ in. .84 EA9040 EA9080 EA9120

#### MULTIPLE SECTIONS

Four leads; common lead.

525 Penk Volta: 450 DC Working Volta Inverted EB4400 4-4 4% x1% in. \$0.78 EB8800 8-8 4% x1% in. .96

#### SINGLE SECTIONS

No Common Lend EB9040 4 2½x1¾ in. 80.51 EB9080 8 4¾x1¾ in. 63 EB9120 12 4¾x1½ in. 84 EB9160 16 4¾x1½ in. 93 .63

MULTIPLE SECTION CAN COMMON NEGATIVE UPRIGHT MOUNTING

525 Peak Volts; 450 DC Working Volts



#### HI-CAPACITY—LOW VOLT-AGE ELECTROLYTICS IN SQUARE METAL CANS

Working Voltage, 12 Volts D. C.

Cat. No.	Cap. MFD	Si	zθ	-1	Net
EVL1210 EVL1220		4 1/4 x 2 6 1/4 x 2 1/4			$\frac{$2.14}{3.79}$
Words to	or Wal	tore 16	Wal	te D	C

\$2.55

x214 in.

EVL1810 1000 EVL1820 2000 EVL1830 3000 4 ¼ x 2 6 ¼ x 3 6 ¼ x 3 .45

20 DEDUCT 2% FOR CASH WITH ORDER

**Leaders Since 1910** 





### NOTICE NEW LOW PRICES!

# Paper Condensers—Cased and Uncased

On CD PAPER Condensers you may deduct 10% if you or-der 10 or more assorted.

#### **BY-PASS TYPES**



D. C. Test V. 800-Peak V. 600-D. C. Work V. 400

	Cap.	Car	Can Dimensions				
Cat. No.	Mfd.	L	W	Н	Price		
DA-4005 DA-4011 DA-4025 DA-4050	.05 .1 .25 .5	1 13/16' 1 13/16' 1 13/16' 1 13/16'	1' 1' 1' 1'	3/4° 1/2° 3/4° 7/8°	\$0.27 .30 .36 .45		
DA-4100	1.0 2.0	2"	1 3/4"	1 1/8	.45 .60 .93		

D. C. Test V. 1200-Peak V. 800-D. C. Work V. 600

DA-6011	.1	1 13/16°	1"	1/2°	\$0.36
DA-6025	.25	1 13/16°	1 1/4"	3/4°	.42
DA-6050	.5	2°	1 3/4"	13/16°	.57
DA-6100	1.0	2"	2"	1 1/8	.90

#### MULTIPLE SECTIONS

D. C. Test V. 800-Peak V. 600-D. C. Work V. 400

DB-4010	11 (	1 13/16°	1 1"	3/4°	\$0.39
DB-4025	2525	2"	1 1/4"	3/4"	.48
DB-4050	55	2"	1 3/4"	1"	.60
DC-4010	111	1 13/16"	1"	3/4"	.51
DC-4025	252525	2"	13/4"	13/16"	.63
DD-4010	1111	2"	1 3/4"	13/16"	.66



#### UNCASED RENEWAL PAPER CONDENSERS

Working Voltage 400 V. D. C.—Equipped with Black Wire leads

. Can

Cat No.	Mfd.	Size L x W x D	Price
RM-4010	.1 .25 .5 1	2 x 3/4x 3/16 2 x1 x 1/4 2 x1 x 1/2 2 x1 3/8x 11/16 2 x1 7/8x1 3 3/8x1 7/8x1 1/8	\$0.24 .27 .33 .45 .69 1.25

Working Voltage 600 V. D. C .- Equipped with Red wire leads

RM-6010	.1	2	x1	X	3/16	1 .2
RM-6025	.25	2	xI		3/8	.3.
RM-6050	.5	2		3/8x		.3
RM-6100	1	2		7/8x		.6
RM-6200	2			7/8x		.8
RM-6400	4	4.1	1/4x1	7/8x1	3/8	1.5

Working Voltage 800 V. D. C.-Equipped with Green wire leads

RM-8010	.1	2 x1 x 7/16   .3	0
RM-8025	.25		9
RM-8050	.5		0
RM-8100	1		5
RM-8200	2	4 1/4x1 7/8x1 3/8   1.3	0

Working Voltage 1000 V. D. C.—Equipped with Blue wire leads

RM-10010	.1 1	2 x13/8x	7/16	.35
RM-10025	.25	2 x17/8x	5/8	.45
RM-10050	.5	3 3/8x1 7/8x		.60
RM-10100	I	4 1/4x1 7/8x		.90
RM-10200	2	4 1/4x1 7/8x1	3/4	1.50



#### DWARF MIDGET DRY ELECTROLYTIC CONDENSERS

TYPE JR Dwarf Midget Dry Electrolytic Condensers

Tiny Silver\_Coated Cardboard Containers

Tiny Silver Coated Cardboard Containers Equipped with Color-coded Flexible Wire Leads and Mounting Feet Compact, dependable and inexpensive. Excellent electrical characteristics. For use in limited space and tight-squeeze radio service jobs. Adequately protected against humidity. No need for an endless variety of special expensive exact duplicate replacements. 200 V. D.C. Working Voltage—250 V. SINGLE Section Units; Red Lead Posi-

SINGLE		Units: Red Lead	LOSI-
	tive: B	lack. Negative	
Cat.	Cap.,		Net
No.	Mfd.	Size	Price
JR-204	4	2-7/16x %x1/2	\$0.39
JR-208	8	2-7/16x1 x 9/16	.48
JR-210	10	2-7/16x1 x 9/16	.54
JR 212	12	2 7/16x1 %x11/16	.57
JR-216	16	2-7/16x1 %x11/16	.63
DUAL	and TRI	PLE Sections, Sep	arate
	Units.	No Common	

	Units,	No Common	
Cat.	Cap.,		Net
No.	Mfd.	Size	Price
JR-244	4-4	2-7/16x1 1/16	\$0.54
JR-248	4-8	2-7/16x1 1/8 x 1/8	.69
JR-288	8-8	2-7/16x1 1/8 x1	.75
JR-2816	8-16	2-7/16x1 1/4 x1 1/8	.87
JR-2888	8-8-8	2-7/16x11/x11/a	1.14
450 V.	D.C. W	orking Voltage 524	5 V.

D.C. Peak Voltage

SINGLE Section Units; Red Lead, Posi-

	tive; r	siack,	Nega	uve	
Cat.	Cap.,				Net
No.	Mfd.		Size		Price
JR-502	2	2-7/1	6x %x	1/2	\$0.39
JR-504	4	2-7/1	6x1 x	9/16	.45
JR-508	8	2-7/1	6x1 1/8 x	11/16	.57
JR-510	10	2-7/1	6x1 1/8 x	7/8	.69
JR-512	12	2-7/1	6x1 1/8 x	1	.78
DUAL	Section	as, Sei	parate	Units,	No
		Mam m			

Cat. No. JR-544 JR-548 JR-588 Cap., Mfd.



TYPE JEH

Rated at 150 V. D.C., 200 V. D.C. Peak Solve the Many Problems of A.C.-D.C. and Midget Repairs Dual section separate lead sections, color-coded, in flange type cardboard containers, made by the famous "Hi-Formation" construction. Finest electri-

cal charac	cteristics.		
Cat.	Cap.,		Net
No.	Mfd.	Size	Price
JEH-6404	4-4	2 % x1 ½ x 3/4	\$0.51
JEH-6408	4-8	2 % x1 ¼ x1	.57
JEH-6808	8-8	2 % x 1 ¼ x 1	.72
JEH-6416	4-16	2 % x1 ¼ x1 ¼	.75
JEH-6816	8-16	2 % x 1 ½ x 1 ½	.81



With Heavy Tinned Wire Leads

D. C. Test V. 1200-Peak V. 800-D. C. Work, V. 600

Cat. No	Cap. Mfd.	Diameter	L	Price
DT-6D1	.001	.440*	1 3/16"	\$0.09
DT-6D2	.002	.440"	13/16"	.09
DT-6D4	.004	.440"	1 3/16"	.09
DT-6D5	.005	.440"	1 3/16"	.09
DT-6D6	.006	.440°	1 3/16"	.09
DT-6S1	.01	.440"	1 3/16"	.09
DT-6S2	.02	.440°	17/16"	.12
DT-6S5	.05	.578"	1 7/16"	.12
DT-6P1	.1	.688*	2"	.15
DT-6P25	.25	.813*	2°	.21
DT-6P5	.5	1.	2"	.30

D. C. Test V. 800-Peak V. 600-D. C. Work. V. 400

DT-4S1	.01	.440*	1 3/16"	:09
DT-4S2	.02	.440*	1 3/16"	.09
DT-4S5	.05	.440"	1 7/16"	.09
DT-4P1	.1	.578"	1 7/16"	.12
DT-4P25	.25	.688°	1 15/16"	.15
DT-4P5	.5	.813"	2 1/16"	.21
DT-4W1	1.0	1,189"	2 1/4"	.30

#### MULTIPLE SECTIONS

D. C. Test V. 800-Peak V. 600-D. C. Work. V. 400

BC-4S1	.0101	.5007	1 11/16" 1	.24
	.0505	.775"	2 1/4"	.30
	.11	.775"	2 1/4"	.33
BC-4P25	.2525	.975°	2 1/4"	.51



#### ELECTROLYTIC TYPE PAPER CONDENSERS

#### CARDBOARD CONTAINERS

450 V. D. C. Work, Volt-600 V. D. C. Peak

	Cap.		Size		Net
Cat. No.	Mfd.	L	W	D	Price
PE-C4002 PE-C4004 PE-C4008 PE-C4404 PE-C4808	2 4 8 4-4 8-8	4 1/8° 4 1/8° 4 1/8° 4 3/8° 4 3/8°	1 3/8° 1 3/8° 1 3/8° 1 1/2° 1 1/2°	11/16" 11/16" 15/16" 1 1/8" 1 1/2"	\$0.45 .54 .69 .90 1.14

600 V. D. C. Work, Volt-800 V. D. C. Peak

PE-C6002	2	1.4	1/8"	ı 1	3/8"	ī	15/16"	1	.60
PE-C6004	4	1 4	1/8"	1	3/8"	1	15/16"	н	.72
PE-C6008	8	1.4	3/8	1	1/2"	1	1 1/8"	ı	.96
PE-C6404	4-4	1.4	3/8"	1	1/20	1	1 1/2"	П	1.20
PE-C6808	8-8	1.4	3/8"	l 1	1/2"	П	1 1/2"	-	1.59

#### ROUND METAL CONTAINER

600 V. D. C. Work, Volt.-800 V. D. C. Peak

PE-B6004	4	2 1/2°x1 3/8°	.81
PE-B6008	- 8	4 3/8°x1 3/8°	1.05
PE-B6404	4.4	4 3/8'x1 3/8'	1.35
PE-B6808	8-8	4 3/8°x1 1/2"	1.68



# FAMOUS ELIM-O-STATS FOR RADIO NOISES EXACT DUPLICATE ELECTROLYTICS

# SOLAR Elim-O-Stat

RADIO NOISE SUPPRESSORS

#### FOR USE DIRECTLY AT THE RECEIVER







# FOR USE WITH DISTURBING ELECTRICAL DEVICES

Type AD—Designed for use on small appliances and really reduces radio noises over a wide frequency range. Plugs into power line and requires a short return wire to frame of appliance. Max. current 5 amps.





Type AF—Designed for heavier duty work. This is a capacitive-inductive type and should not be confused with cheap filters. Max. current 5 amps.

Net price.....\$2.10



It is impossible in this limited space to list all the Elim-O-Stats for suppressing noise so we urge you to write us for the size and type you need. Special filters can be made up for various applications.















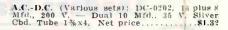








0609



DC-0544-B, Orig. No. 30091-1, 8 plus 8 Mfd., 500 V. plus 8 Mfd., 525 V. plus Dual 12 Mfd., 35 V. Cbd. Box, 2 ½ x2 ½ x1 %. Net price \$2.16

DC-0596, Orig. No. 7589, 4 plus 4 Mfd., 450 V. Cbd. Box, 3 4 x 1 ½ x 1. Net price... 80.72

SPARTON (SPARKS-WITHINGTON): DC-0607, Orig. No. A-9550, 5 plus 25 plus 5 Mfd., 175 V. Cbd. Box, 1%x1%x2-5/16. Net \$1.17

The SOLAR line of exact duplicate dry and wet electrolytics is the most complete available. We only list a few popular dry replacements above. If the condenser you want is not listed, write us for it—we have it or will get it. If necessary, SOLAR will make it up for you at no extra cost,

all.

# FAMOUS "LITTLE GIANTS" **MOULDED "DOMINO" CONDENSERS** PRECISION CAPACITOR ANALYZER





# INTRODUCES

#### BAKELITE MOULDED PAPER CONDENSERS



These new domino shaped condensers are moulded into treated bakelite, sealed against moisture and having permanent qualities not found in ordinary tubulars. Canacity Working W

			Cap			vorking	V .	Price
No.	MP413	5		.01		600		\$0.15
No.	MP413	7		.02		600		.18
No.	MP413	9		.05		600		.18
No.	MP414	1		.01		400		.12
No.	MP4143	3		.02		400		.15
	MP414					400		.15
No.	MP414	7		.1		400		.15
	MP415					200		.11
No.	MP415	3		.02		200		.12
	MP415					200		.12
	MP415					200		.12
No.	MP4163	2		.25		200		.18
	Box	of 10	, any	one	size,	deduct	15%	

# NEW! SOLAR LITTLE GIANTS with "FLEX-MOUNT"







"FLEX-MOUNT" REVERSES! Mount Either Flat or On Edge

SINGLE "little giant" Dry Electrolytic Condensers with Leads

Catalog No.	Capacity Mfd.	Working Volts D.C.	Din Length	nensions, II Width	nches Thickness	Net Price
LG5-4	4	450	2 7	1	16	\$0.45
LG5-8	8	450	2 16	1 1/8	11	.57
LG5-10	10	450	$3\frac{3}{16}$	1 1/8	11	.69
LG5-12	12	450	$3\frac{3}{16}$	1 1/8	11	.78
LG2-4	4	200	$2\frac{7}{16}$	3/4	16 1/2	.39
LG2-8	8	200	$2\frac{7}{16}$	13	9	.48
LG2-12	12	200	$2\frac{7}{16}$	1 1/8	116	.95
LG2-16	16	200	$2\frac{7}{16}$	1 1/8	116	.63

DUAL "little giant" Dry Electrolytic Condensers with 4 Leads

Separate Section Construction. Boxes have flanges. easily detached if not needed.

Catalog No.		Working Volts D.C.			s, Inches Thickness		Net Price
LG5-44	4+4	450	27	1 3	1	215	\$0.72
LG5-88	8+8	450	27	1 7	1 1/8	215	.90
LG2-44	4+4	200	$2\frac{7}{16}$	$1\frac{3}{16}$	13	215	.54
LG2-88	8+8	200	$2\frac{7}{16}$	$1\frac{3}{16}$	13 16 13 16	$2\frac{15}{16}$	.75

THE EYES HAVE IT



Precision PACITOR ANALYZER

#### HERE IS WHY YOU WILL LIKE IT

- 1 Measures Capacity—of electrolytic, paper, mica, and air condensers. Range .00001 to 70.0 mfd.
- 2 Measures Power Factor-of any electrolytic condensers, directly on a scale, in percentage.
- 3 Measures Resistance-directly in ohms, of resistors of all types. Range 50 to 2,000,000 ohms.
- 4 Measures Insulation Resistance—of condensers and insulation. Tests are made at voltages up to 450 volts D.C., provided by built-in power supply.
- 5 Detects Defective Condensers—directly indicates leaky, shorted, wrong capacity units, and "intermittents."
- 6 Is a Useful Continuity Meter-for any circuits,
- 7 Color-Coded Scales mean fool-proof operation. 45 linear inches of scales mean accuracy.
- 8 Direct Reading of all measurements eliminates extra charts and annoyance.
- 9. Cathode Ray Tube Balancing—the magic 6E5 tube gives sensitive visual balance-"quick as a
- 10 Self-Contained—Compact—Portable,

TYPE CB160. 110 volts, 60 cycle. Dealer's net.... DEDUCT 2% FOR CASH WITH ORDER 23

# SECURITY CONDENSERS

### **ROCK BOTTOM PRICES—ON QUALITY CONDENSERS**

We guarantee all Security Condensers to be brand new, fresh, first quality Produced by one of the largest and best known condenser manufacturers. Do not compare Security Condensers with cheap, job lot "close-outs." You are getting real honest high grade quality condensers-fully guaranteed under the Standard R. M. A. guarantee.



#### COMPACT **TUBULAR** CONDENSERS

D. C. Test V. 1500-D. C. Work V. 600

	Cap.	S	128	Net
Cat. No.	Mfd.	L	D	Price
ST-6001	.001	l'	7/16"	\$0.08
ST-6002	.002	1"	7/16"	.08
ST 6003	.003	1"	7/16"	.08
ST-6005	.005	1"	7/16"	.08
ST-6006	.006	1"	7/16"	.08
ST-601	.01	1"	7/16"	.08
ST-602	.02	1"	1/2"	.08
ST-605	.05	1 1/4"	9/16"	1 .09
ST 61	.1	1 7/16"	11/16"	.11
ST-625	.25	1 3/4"	15/16"	.16
ST-65	.5	2"	1 5/16"	.24

D. C. Test V. 1000-D. C. Work V. 400

ST-401	.01	1 1"	7/16'	\$0.07
ST-402	.02	1"	7/16"	.07
ST-403	.03	1.	1/2"	.07
ST-405	.05	1 1/8"	9/16"	.07
ST-41	.1	1 7/16"	9/16"	.08
ST-425	.25	1 5/8"	13/16"	.11
ST-45	.5	1 3/4"	15/16"	.17
ST-140	1.	2"	1 1/4"	.27

You may deduct 10% from your net cost if you purchase 20 assorted Security if you purchase 20 assorted Security Condensers in one order.

#### **MICA** RECEIVING CONDENSERS



TYPE MA All 1,000 Volts D.C. Test. D.C. Work Volts, 500. .00005, .0001, .00015, .0002, .0003, .0004, .0005, .00075, .001. Each ....\$0.08 .002, .003. Each . . . . . . . . . .004, .005, .006. Each . . . .

#### SOLAR DOME LITE FILTER



RF-0143-Contains a condenser a choke in metal container. Each. \$1.20

SECURITY VALUE-PLUS **GENERATOR** CONDENSERS

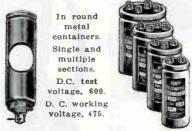
24



Standard type, metal case and band, long lead, 200 volts D. C. No. GC5-.5 mfd..... No. GC1-1. mfd,.....

#### 4 for \$2.10 SPECIAL VALUE

#### DRY ELECTROLYTICS



		Si	ze	Net	Ten	
Cat. No.	Cap. Mfd.	H .	D	Price	For	
SDC-8U	8.	3 1/8"	1"	\$0.42	\$ 3,95	
SDC-81	8.	3 1/8"	1"	.42	3,95	
SDC-88	8-8	41/4"	21/2"	.72	6.90	
SDC-515	5-15	4 1/4"	21/2"	.87	7.85	
SDC-888	8-8-8	41/4"	3"	1.08	9.90	
SDC-9918	9-9-18	414"	3"	1.47		

#### TUBULAR CARDBOARD CONTAINERS

SDC-1685	16-8 200V.	5-5 35V.	4 3/8"	13/8"	\$0.95	
SDC-245	24-12 200V.	5-5 35V.	4 3/8"	11/2"	1.05	000

CASED PAPER CONDENSERS

Standard Sizes



Cat. No.	Cap.		Size		Net
Cat, No.	Mfd.	L	W	D	Price
SC-1SC-25SC-5	.1 .25 .5	1 3/4" 1 3/4" 1 3/4"	1, 1,	3/4° 3/4° 3/4°	\$0.23 .27 .35

### UNCASED PAPER TYPE

Test V

-D. C. Work V. 400 Net Price W D SU-450. SU-410. SU-420. \$0.19 .29

D. C. Test V. 1500--D C Work V 600 SU-510

#### **SPARTON** TYPE CONDENSERS

25 Mfd.--500 Volt Ten for No. 1. Mfd.—20 SDS-25 1. Mfd.—200 Volt... Ten for No. SDS-10

# **Dry Electrolytics**

Cardboard Containers



Sealed construction. Each lead separate commons. Mounting flanges. Adcurate ratings.

D. C. Test V. 600-D. C. Work V. 475

Cat. No.	Cap. Mfd.	Size L W H	Net Price	Ten For
SDE-4	4. 8.	238" 78" 78"	\$0.30	\$2.70
SDE-44	4-4	2 3/8" 7/8"1 5/8"	.47	4.30
SDE-88	8-8	131/8"1" 11/8"	.59	5.30

LOW VOLTAGE FOR AC-DC SETS D. C. Test V. 325-D. C. Work V. 250

SLVS-4	4. 8.	3"	" ½"1¼" 1½"1"	\$0.29	\$2.60 3.50
D 0	TAV	200 D	0 14/ 1 1/	150	

	C. Test V. 200	-D. C. Work V.	150	
SLVS-4 SLVS-8 SLVS-12 SLVS-44 SLVS-88 SLVS-88 SLVS-816. SLVS-866.	4. 8. 12. 4-4 4-8 8-8 8-12 8-16	2 18" 34" 34" 2 18" 34" 14" 2 18" 34" 14" 2 18" 34" 14" 2 18" 78" 14" 3" 1 15" 14" 3" 1 15" 14" 4 18" 78" 114"	\$0.28 .32 .35 .42 .45 .50 .60 .65	\$ 2.20 3.00 3.30 3.90 4.20 4.55 5.40 6.00
SLVS-1685	16-8 5-5 200V. 35V.	238" 78"158"	\$0.52	\$5.00
SLVS-2455	24-12 5-5 200V. 35V.	3 1/8"1" 15/8"	.61	

SLVD-55 5-5   2 1/8" 3/4" 3/4" \$0.32 \$3.00 SLVD-1010   10-10   2 1/8" 7/8" 7/8"   .33  3.10	D. (	C. Test V.	35—D. C	. Work V.	25
			2 1/8"	3/4" 3/4" 7/8" 7/8"	\$0.32 \$3.00 .33 3.10

#### DRY ELECTROLYTICS



D. C. Test V. 600-D. C. Work V. 475

Cat. No.	Mfd.	LII	D Price	Ten For
SDE-1SDE-2	1 2	21/4"	\$0.20	\$1.90 2.20

D. C. Test V. 200-D. C. Work V. 150

D. C. Test V. 150-D. C. Work V. 100

D. C. Test V. 75-D. C. Work V. 50 SDLV-550..... \$2.10 2.40 3.50

SDLV-525. SDLV-1025 5

#### NEW SMALL SIZE REPLACEMENT CONDENSERS

# P.R. MALLORY & CO. Inc.

#### Cellophane Separators, Etched Anodes, Stitched Leads

TYPE RS



Separate leads, not grounded to the can

in any case.			
	LE SEC	TIONS	
	Working		Net
Type No. Cap.	Volts	Inches	Price
RS203 8	250	2 3/4 x 1	\$0.57
RS211 4		2 % x 1	.51
RS213 8	450	2 3/4 x 1	.63
RS21512	450	3 x1	.81
MULTI	PLE S	ECTIONS	
RM2528-8	250	3 x1%	.87
RM255 8-8-8	250	3 1/4 × 1 3/4	1.26
RM257 8-8-16	250	3 16 x 1 36	1.41
RM2614-8	450	3 x13%	.87
RM2628-8	450	3 x13%	.96
RM265 8-8-8	450	4 x 1 3%	1.38
CARD.	-		

BOARD CARTON FILTER SECTIONS



Separate Leads in Each Section SINGLE SECTION TYPE

		WOLKING	Size	net
Type	Cap.	Volts	Inches	Price
CS121	4	250	1/2 - 3/4 -2-7/16	80.39
CS123	8	250	8 - 7/8 -2-7/16	.48
CS151	10	250	%-1 -2-7/16	.57
CS125	12	250	8-1 -2-7/16	.60
CS126	16	250 11/1	16-1%-2-7/16	.66
CS130	2	450	16- 34-2-7/16	.39
CS131			% - % -2-7/16	.45
CS133	8	450	8-1 -2-7/16	.57
CS134	10	450 11/1	16-11/8-2-7/16	.69
CS135	12	150 11/1	16-11/8-2-7/16	.78
	MILLETTI	PLE SEC	TION TYPE	1

Size Working Volts Inches % -1 1/4 % -1 1/4 ype M160 M161 M162 M165 Can Price \$0.54 .69 .78 1.17 76 - 1 1/4 - 3 1 3/8 - 1 - 3 3/4 - 1 1/8 - 3 1 3/8 - 1 - 3 1 1/2 - 1 1/4 - 3 1 1/2 - 1 1/2 - 3 250 8-8-8 250 8-8-8 450  $\frac{1.32}{1.08}$ 



#### TUBULAR ELECTRO-LYTICS

SMALL SIZE, LOW VOLTAGE, HIGH

	(211.16	LEX	
	Working	Size	Net
Type Cap.	Volts	Inches	Price
TS1011	0 25	1 34 - 34	\$0.30
TS1022	0 25	2 14 - 7/8	.36
TS105	5 50	1 % - %	.30
TS1061	0 50	2 14 - 76	.39
TN1105-		1 34 - 34	.45
TN11110-1		2 1/4 - 7/8	.15
TN1135-	5 50	2 1/4 - 7/8	.45

METAL CAN BY-PASS UNITS



Type BN 225 Type BN 226



#### WET ELECTRO. LYTICS

Regulating Type. Self-Heal-ing. More Capacity at Less Cost. Working Voltage, 475

WE 847- 8 mf.	1 x446	80.57
WE1217-12 mf.		
	1 % x 4 1/2	.81
WE3540-35 mf.		1.05

(WE3540-400 volts.)



#### UNIVERSAL CONDENSER MOUNTING

To adapt screw can to double spade mounting. No. 101 — 1. Net price ...... \$0.06

NOTE: WE STOCK ALL YAXLEY-MALLORY PARTS.





UNITS

ę,

Type A016

Type A-017

3

Type 015-1 Type 015-2

UR181—3-2-1-1 mf., 450 volts........81.26 Suggested for Phileo 16, 17, 18, 116, 118. 200, 201, 640, 650, 660, 680.

UR182—5-25-10 mf., 150 volts.....\$1.17 Suggested for **Belmont** 53, 425, 440, 525, 530, 540, 625, 650.

530, 540, 523, 550.

Also Echophone 7114 (Sears-Roebuck);
Emerson H5, 30AW, 33AW, 250, 250AW,
321AW, 350AW, 30LW, 33LW, 250LW,
221LW, 350LW; Grunow 5B, 501, 550;
Wells-Gardner 05A, 5B; Zenith 701, 702, and 801.

UR183-4-4-4 mf., 150 volts........\$0.81 Suggested for Kadette F, Jr., early and

#### TERMINAL CONNECTORS

l'sed where splices are neces-sary. This tie strip will make the job neater.

No. A016-Net price, each \$0.03

### ACCESSORIES FOR MOUNTING



#### MICA RECEIVING **CONDENSERS**

Type 3

Size 1"x 5% "x 1/4"

1,000 Volts D. C. Test 600 Volts D. C. Working





	-	-	-	-		_	-							Т				т	
Mfd.							1	Price	Mfd.										Price
.00004							. :	\$0.09	.001										80.1
.00005								.09	.002		ı.		ĺ.	i					.2
.0001								.09	.003										.2.
.00015								.12	004							ì	ì	į	.2
.00025								.12	005	i	ì	ì	ı		ì	i	Ĺ		.3
00037								.12	.006									ĺ.	.3
.0005					٠			.12	•										

#### CORNELL-DUBILIER ABSOLUTE DUPLICATE PAPER CONDENSERS

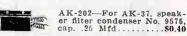


#### ATWATER KENT

AK-201-For Model 37. Bypass No. 9494 3X.25....\$1,00

AK-204-For AK 37-38 condenser bank including filter and speaker chokes.....82.70





AK-203-For AK-84Q, capacity .1x.25

MAJESTIC



NEW LOW PRICES.
Don't buy job lot Junk
when you can get genuine Dubiliers at these low prices. MC101 (PL1309) — For 7BP6—10. Mfd. . . . . \$2.70

MFD.

MC102-For 7P6............9. MC103 (PL1765)-For 8P6.. 9. MC104 (PL1766)-For 9P6.. 7.

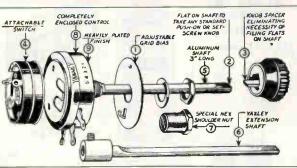
#### **SPARTON**

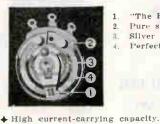
No. A5032-1. Mfd., 200 V....\$0.55 No. A5033-25 Mfd., 500 V... .50



25

#### REPLACEMENT VOLUME CONTROLS





- "The Roller That Does Not Roll."
- Pure silver shortouts!
- Silver to silver contacts!
- l'erfect smooth taper!



FREE! NEW EDITION VOLUME 2 YAXLEY VOLUME CONTROL. GLIDE

#### UNIVERSAL CONTROLS—

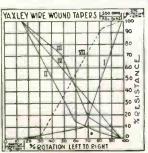
SINGLE	
Catalog No Type Ohms	Taper
Catalog No. Type Ohms Q WW 2	IV
R WW 6	I V
S	IV
T	IV
U WW 30	I V
V	IV
W	I V
X	IV
A	I
	I
C• ww2M	<u>1</u> I
C12•2M	I
D•	II
D7	VII
D12* W.W 3M	1
E•	11
E7* WW5M	
E12 Carbon 5M F* WW7,500	1
F*	37.7.7
F12Carbon7,500	T
G•	TT
G7•WW10M	VII
G12Carbon10 M	T
H*WW15M	II
H7 WW 16 M	VII
HI19 Carbon 15M	T
V	I
J Carbon 25 M	II
K	II
K12 Carbon 50M	I
Z Carbon 75 M	II
Z12 Carbon 75 M	I
L Carbon 100M	<u>I</u>
MCarbon 250M	<u>I</u>
N	1
O Carbon 1 Meg.	
P Carbon. 2 Meg. UC-500. WW. 1M	TT
UC-500 WW1M UC-501 Carbon 10M	II
UC-502Carbon 150M	
UC-503 Carbon 750M	i
UC-504Carbon 3 Meg.	T
UC-505 Carbon 4 Meg.	Ī
UC-506 Carbon 5 Meg.	Ī
UC-507 Carbon 5 Meg.	II
UC-508 Carbon 9 Meg.	I
IIC-509 Carbon 250 M.	II
UC-510 Carbon 100M	1I
UC-511† Carbon 250M	I
IIC-812t Carbon 500M	I
·-Has exclusive Yaxley	adjustable
blas feature.	
+-Has slotted shaft for	automobile
receivers	

receivers.

WW-Wire Wound.

Net price.

\$0.60



#### ♣ Low humidity coefficient. ♦ Negligible voltage coefficient. ♦ Low temperature coefficient.

No. Type													Price
6-9-S.P.S.T.		٠					,	۰					\$0.30
8-S.P.D.T.													.36
7-D.P.S.T.													.36

ATTACHABLE SWITCHES

#### EXTENSION SHAFTS



Type 1-1, ngth 4 in. RS-242-1/4 In. diam., 1/32 in. flat. RS-243-% in. diam., 3/32 in. flat. RS-244-3/16 in. diam., 1/64 in. flat. Any size. Price, each.....\$0.18

#### SPECIAL EXTENSION SHAFTS

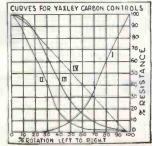
Type B-2 in. long, ¼ in. diameter with 3/32-in. slot. Enclosed in tight-fitting 3/32-in. slot. tube (D). RS-245—Price ......\$0.21 Type C-2 in. long. ¼ in. wide, 3/32 in. thick. Tongue shaped and fitted with tube (D). For use in auto receivers. RS-246-Price .....\$0.21



#### VOLUME CONTROL WRENCH

Repairs damaged threads. Tightens nuts in close quarters. Fits control bushings and nuts.

80.12 Controls



#### UNIVERSAL "DUAL" CONTROLS

Catalog		Ohms Res	istance
No.	Туре	Front	Rear
CE	ww	2 M	5 M
GE (Formerly			
DRP-192)	ww	10M	5 M
GG	ww	10M	10M
GK	Carbon	10M	50M
LL	Carbon	100M	100M
LM	Carbon	100 M	250 M
M M	Carbon	250M	250M
MN	Carbon	250M	500M
NN	Carbon	500M	500M
Net price.		\$1	.50

#### UNIVERSAL "LINEAR" CONTROLS

Catalog No. Type	Ohms	Taper
A400P WW	400	Linear
A550P WW	550	. Linear
A1MP	1M	Linear
A2MP*WW	2 M	Linear
A3MP*WW		
A5MP*WW		
Y5MP Carbon .	5M	Linear
A10MP*WW		
Y10MPCarbon.		
A20MP*WW		
Y25MPCarbon.		
Y50MP Carbon.		
Y100MP Carbon.		
Y200MPCarbon.	200M	Linear
Y250MP Carbon .	250 M	Linear
Y500MPCarbon.		
Y1,000MP Carbon.		
*Has exclusive	Yaxley	adjustable
blas feature.		1
WW-Wire Would	nd.	

#### UNIVERSAL "TAPPED" CONTROLS

\$0.60

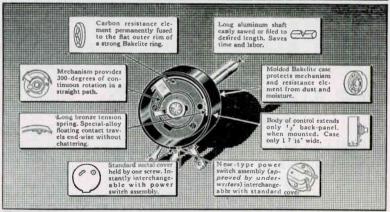
Net price.

	CONTRO	LS
Catalog No.	Total Resistance	Tapped at Ohms
TRP 600	6 M	2,500
TRP 601	30 M	6,000
TRP 602	63 M	\$,000
TRP 603	250 M	Center Tapped
TRP 604	350M	25,000
TRP 605	350 M	75,000
TRP 606	500M	100,000
TRP 607	500M	Center Tapped
TRP 608	1 Meg	200,000
TRP 609	1 Meg	Center Tapped
TRP 610	1 Meg	20,000
TRP 611	1 Meg	170,000
TRP 612	2 Meg	25,000
Net price.		\$0.90
Each		40100

Prices do not include switch or accessories

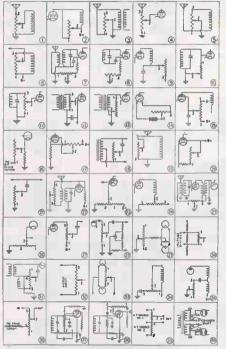
NOTE: WE STOCK ALL YANLEY-MALLORY PARTS.

#### **New ELECTRAD CARBON VOLUM**



#### · · LONG-LIVED SMOOT OUIET

#### **VOLUME AND TONE** CONTROL CIRCUITS





New 1937 Electrad 100 Page 614 x 914 Volume Control Guide Free

Contains a complete list in alphabetical order of receiver models for which Electrad standard or special Replacement Volume Controls are made. The name of the manufacturer and the model number of the set are given with the proper Electrad Replacement Control. Resistance values and list prices are also stated. Ordering the control specified by this reference guide assures the use of the proper replacement unit in every case. Tear off fiap of new Electrad Volume Control carton and mail to Electrad, Inc., 175 Varick St., New York City, and the manual will be sent to you by return mail.

#### FADER UNITS

Taper E

Resist

Circuit

Part No. 890

896T

890 891	0,	39	E	30,000
892		39	E	500,000
897W		39	E	400.000
	Net	price.	each,	\$0.90
	DU	AL C	ONTR	ROLS
	]	P. P.	Grids	3
874T			E	200,000
893T			E	{.500,000 .500,000

250,400 E price, each, \$1.50

NEW!

NEW!

# LECTR

Carbon Volume Controls

Be Wise-Make It ELECTR AD On Your Next Order



New! Utilizes a perfected graphite resistance element baked at high temperature on a solid bakelite ring. Impervious to humidity. Self-wiping contact shoe. Smooth and quiet aiways. Molded bakelite case 1-7/16 in. in diameter, ¼ in. thick with metal end cover and long ¼ in. diameter shaft. All controls indicated with "W" are wire wound. All standard controls have insulated shafts.

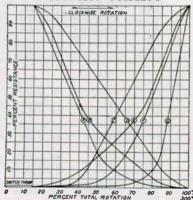
#### NEW ELECTRAD STANDARD REPLACEMENT CONTROLS

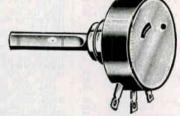
No	t Used in Circuit No.	Taper	Total Resistance in Ohms
204	W-14	<u>D</u>	10
209	W—14	<u>D</u>	20
971	W—14	<u>D</u>	30
271	W—14, 23	<u>D</u>	50
272	W-14, 23	<u>D</u>	100
2/3	W—8, 23 W—8, 23	<u>D</u>	200
214	vv —8, 23	<u>D</u>	400
331	W-8, 23 W-8, 23	ก	500
275	W—8, 23 W—8, 23	,D	600
		ը	800
210	W—2, 23 W—8, 15, 23	<u>p</u>	1,000
224	W—8, 15, 23 W—1, 4, 8, 15, 23	<u>n</u>	1,500
232	W —1, 4, 8, 15, 23	<u>p</u>	2,000
277	W—7, 8, 15 W—7, 8, 15, 23	B	3,000
224	W_7 15 92	<u>D</u>	4,000
278	W—7, 15, 23	🛱	5,000
993	3374 7	D	5,000
994	W-4, 7 W-1, 7		6,000 7,500
560	-4, 7		7,500
	-15 23	<u>p</u>	10,000
995	—15, 23 W—15, 23	D	10,000
240	7		10,000
573	—8 ·······	R	12,000
201	-1, 2, 3, 4, 5, 6, 7	C	15,000
279	-15	. Ď	25,000
280			25,000
241	-21 -21	- F	30,000
997	-8, 9, 21	B	40,000
205	—15	D	50,000
202	-8. 9	A	75,000
242	$-12, 13, 18 \dots \\ -12, 18 \dots$	E	100,000
281	—12, 18	D	200,000
998	—9, 18, 21, 35 · · ·	A	250,000
208	-11, 12, 13, 18	E	250,000
203	<b>—10. 11. 12. 13</b>	E	500,000
894	-36		500,000
	Tapped a		
206	—12, 18	F.	1,000,000
895	-36	Э	1,000,000
			4,000,000
999	Tapped at	120.000	9 000 000
333	—18, 21, 28, 32		2,000,000
	All Electrad Sta	ndard C	ontrols
	N.T .	00 (	0

Net price, \$0.60

#### SNAP-ON AC SWITCHES

#### TAPER CHART





The Electrad BN Attenuators replace the Electrad Attenuator Type TN, LN and U. These new BN Attenuators have advantages of greater attenuation, true logarithmic attenuation and lower noise level. This attenuator involves a new principle in design which makes it possible to obtain a substantially constant impedance unit whose attenuation is linear in db. and continuously variable over the entire range.

**DEDUCT 2% FOR CASH WITH ORDER** 

**NEW ATTENUATORS** 

TYPE BN \$1.80 all values

The attenuation is accomplished by means of an infinitely variable ladder net work. Total attenuation—60 db.

Kating, 11/2	Watts.	
Туре	Line Impedance	Net
No.	in Ohms	Price
BN15	15	\$1.80
BN50	50	1.80
BN100	100	1.80
	200	1.80
	500	1.80
TRATORA	3000	1.80
TODATAGOO	4000	1.80
	7000	1.80
	10000	
D1110000	10000	1.80
		97
-		21

**World Radio History** 

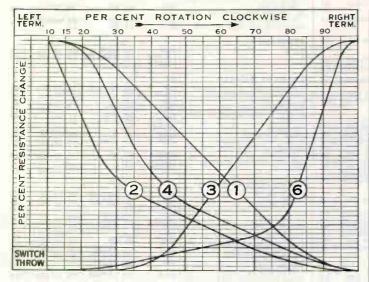
# BONN REPLACEMENT VOLUME

Manufacturer and Set Models	Electrac No. N	d Tet	Yaxley No. Net	Centra No.	lab Net	Manufacturer and Set Models	Electra No.	Net		et 1	Central No.	lab Ne
LYRIC-WURLITZER	RI 1907 .	90		70-501	1.50	FADA (Cont.) 35C. 40AC. 41, 42, 44, 46, 47. 43, 762, KF, KG. 45, 45KU, 51, 53, 57, KX61, 66, 66KX, 171, 173. 48, 49, 51KO, 86KB. RP62CA, RP62UA, RP65CA, RP65UA, 262CA, 262UA, 265CA, 205UA,	206*		0*	60 7	74-513 72-116*	.6
	2052 .	90	G* .60	70-501 74-548	1.50 1.50 1.50	43, 762, KF, KG	633T 283*	.60	ORP119 1.	60	62-114*	1.5
PEX—See U. S. Radio & Tel. TWATER KENT						48, 49, 51KO, 86KB RP62CA, RP62UA, RP65CA,	203*	.60	N* .	60	62-105*	.9
		30	SRP239 .30	72-105* 70-204*			60 1848T	.90 1.50		60		
6, 55C, 55F, 56, 57, 60, 61, 61C,	278AS* .	90				78RC, 79RC 78/10, 79/10, 133, 134, 135, RW 73, 74, 76, 79, 83, 85, 88, 89, KY, RA, RC, RE.	822P	1.20	0* .		62-116* 62-116*	.9
5, 55C, 55F, 56, 57, All Late		50	SRP241 .30 GE 1.50			RA, RC, RE	206AS* 381G	9.0	ASMP*	60	72-105*	.6
8	2106 T 242*					842	383 G 385	.90	SRP134 . SRP153 .	90	72-105* 72-109*	.6
), 74, 76, 76Q, D, F, L1, L2, P 2, H1, H2	1-T 1. 1757T 1. 460P 1.	.50	LM 1.50 E* .60	4010902 25-426 2011905	1.50	T41, RC3	570T 2066P 2094P	1.80 1.20 1.20	DRP116 1.		1220002	1.5 .9 1.2
2, 82F, 85, 85F. 4 Early, 84D, 84F, 84Q, 89P, 92,	433P 1	.20	A550P .60	62-118*	.90	106 M51, M56 GENERAL MOTORS S1A, S1B, 216, 217, 219, 250 S2A, S2B, S3B, 251, 252, 253, 254,	111P				62-103*	.9
92F, 96, 96F, 99, 99F, 99P, 145, 155, 165Q, 185, 188, 188F, 206, 228D, 228F, 236, 246, 260.						S2A, S2B, S3B, 251, 252, 253, 254, 255, 256, 257, 258	156P 132P	1.20 1.20	G, S* G, S*	90	62-114° 52-011	.9 1.2
266, 325, 376, 387, 425, 427Q, 448, 460, 467, 469, 480, 525,						255, 256, 257, 258 S4A, S4B 120A, 120B, 130A, 130B, 140A, 140B, 1001, A	567T	1.50	SRP270 .		74-535 72-114*	1.5
555, 559, 588, 612, 627, 605, 666, 788, 808, 812, 926,	203AS* 462PG 1	20	CDD2E4 91	62-105* 62-111*	.90	MA, MB Delco 3010, 3002. GRAYBAR ELECTRIC	1387	.90			70-028	.9
6	463PG 1 277* 233*	.60	SRP254 .90	62-118* 72-109* 62-109*	.90 .60	8	382 383 G		ASMP* . SRP144 .	60	72-119* 72-105* 72-100*	.6 .6
7 4, 94F 65, 217, 275, 310, 427D, 510, 667, 708, 711, 808A 36, 756 67, 567F	952P 1	20	N S* 90	62-105*	.90	700, 770, 900	381 G	.90	ASMP*	60	72-109*	.6
01, 0012	954 460P 1	.90	N, S* .90 E* .60	51-122* 62-110*	.90	HS1, HS2, HS3, HS4-1, HS4-2, HS4-3, 89	234AS*	.90	E, S* .	90	62-110* 70-204*	.9
ELMONT 0 Series, 50 Series, 70 Series,	202*	.60	G* .60	52-205*	.90	8 11700, 770, 900 A. H. GREBE & CD. HS1, HS2, HS3, HS4-1, HS4-2, HS4-3, 89. AC6, AC7, 428. HS6, HS7, HS12, 111B. GRUNDW RAOID	203 A S*	.90		90	62-105*	.5
425, 430	240* 240AS*	C n	G* .60 G, S* .90	52-205* 62-113*	.90	GRUNDW RADIO 8A, 500, 801	2091P 206AS	1.20 .90	O. S*	90	62-116* 62-105*	
		.90	D. S* .90	72-116* 62-103* 62-105*	.90	JACKSON BELL	999	60	Pé	60	72-132*	.6
OSCH , 7, 7A, 7C, 20, 20J, 20K, 20L,						25, 60, 84, 87, 88, 89A, 96 25A, 25U	240* 240AS* 573AS*	.90	G* G, S* G, S*	90	62-113* 52-205*	
7, 7A, 7C, 20, 20J, 20K, 20L, 31, 32, 36, 37, 73, 74, 133, 135, 238, 237, 305A A, 200, 201, 205, 208, 210, 211.	493P 1 409P 1	.20	G. S* .90	62-114* 52-205*	.90	26, 51	201* 233*	.60	G*	90	79-006* 62-108*	
A 200, 201, 203, 205, 210, 211 0, 46, 58, 60, 63, 96, 107, 116, 126, 136, 146, 166, 176, 242, 0, 41, 251, 350, 355, 360, 370 8, 29, 29, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20	240*	.60	G* .60	72-114*	.60	JACKSON RELL 25, 60, 84, 87, 88, 89A, 96. 25, 27, 28, 547. 26, 27, 28, 547. 26, 57, 64, 54, 54, 54, 54, 54, 54, 54, 54, 54, 5	1714TP	1.80	C* GE 1.	.50	75-507	1.
243, 250, 312, 313	203* 492P 1	.20	N* .60 N. S* .90	72-105* 62-185*	.60	G Jr	1745TP	1.80	ORP119 1	- 1	72-114	• • •
8, 29 8, 49, 54	1747 1832T 1 495	.50	GK 1.50	72-207 74-510 74-501	1.50 1.50	26, 36, 38, 40, 526, 826	479T	.60 1.50 .60	GK 1	.50	74-602 72-114*	
REMER TULLY 4, 21, 31 BRUNSWICK	494 202AS*	.90	J* .60	72-166 52-206*	.90	52, 52A 62A, 66, 66A, 66B	450 G 2033	.90	65 P	.60	62-117* 62-105*	:
8 ŘÚŇSWICK 4, 21, 31, 81, 821 7, 24, 25, D 114, 821, S31, 881, S82		.60	06. • د	52-206° 72-105°	.90	32, 34, 42, 44, 48, 50 52, 52, 62, 66, 66B, <b>KOLSTER</b> 15, 16, K20, K21, 22, K23, K24, K25, K27, K28, K30, K32, 37, K42, K70, K72, K80, K82, K90, K92, 950, 961, 1, 02, 04, 05, 07, C1, C2, C4, C5, C6, C7, 205, 980, 31, 33, K60, K62, K43, K44, K44						
LAKIUN	424P 1	.20	A3MP* .60	62-1084	.90	K42, K70, K72, K80, K82, K90, K92, 950, 961	201* 280*				72-102° 72-102°	
See Trans. Corp. of Am. ROSLEY	1712	.90	SRP185 .90	51-037	.90	C1, C2, C4, C5, C6, C7, 205, 980. 31, 33, K60, K62	203*	.60	A5MP*	. 6 o	72-116* 72-110*	:
1, 41A, 42, 2nd 706	1725 1839	.90	SRP185 .90	51-037	.90	K110, K112, K113, K120 to		1.50	DRP244 1 N, S*	- 1	62-105*	1.
0, 21, 22 Bat	504	.60	L* .60	70-202 72-045 72-019	.90	MAJESTIC 15, 150, 151, 153, 154, 155, 156 20, 21, 22, 23	440PG	1.20	H, S*	.90	55-010	1.
3, 54, 57, 58	686 1687	.90	SRP263 .90	72-111	.90	20, 21, 22, 23 30, 31 44, Chassis 440, 194	1513PG 1741TP 900PG	1.20 1.80 1.20	A5MP* ORP122 1 F, S*	50	2011908 75-537 2111037	1.
	1687 592G	.90	SRP188 .90 SRP263 .90	79-006	.60	50, 51, 52 55, Chassis 500, 59, 75, 85, 86, 195, 560, 566, 998 Chassis 800	1810T	1.50	DRP122 1	.50	74-523 2012901	1.
20	240* 2086P	.60 L.20	SRP264 .90	72-105	.60	25 Chassis	4441 0	1.20 1.20 1.20		.90	55-014 2011910	1.
24, 125. 26. 27.	282* 203*	.60	SRP264 .90 SRP226 .90	72-121	.60	25B 60, 61, 62, 160, 163 67, 68, 69, 196, 460, 461, 463, 666, Chassis 460, 776, 886, Century Six, Master Six, Park Ave.	441	.90	SRP223	.90	72-073	
28, 131. 29, 133, 141, 146, 147, 148, 167.	232° 278*	.60	SRP262 .90	62-110	.90	Six, Master Six, Park Ave., Ritz, Lido, Riviera.	889	.90	M+	.60	1010962	
32, 136. 63, 166, 172, 176. 34, 134-1	234*	.60	E7* .60	62-110	.90	Ritz, Lido, Riviera	2380	.90	c.	.60	72-180 72-100*	
EARL	236	.90 1.50	DRP240 1.50	101098	1.50	103 Sensitivity	1688 2381	.90	Z*	.60	78-007 70-063	
11, 32, 41 18, 328, 338, 315, 371	202* 1833TG	.60	K* .60	70-202	.60	100, 180, 181 100B, 102, 103 118 Ford Car Set.	1809T 715T 982	1.50 1.50 .90	DRP222 1	.50	74-562 25-421 1010983	1
DISON 1, M6 Rear, E175, SC 11 Front, C2 Front, R2 Front,		.90				120, 120B 130, 130A, 131, 132	1880T 438	1.50	GG 1	.50	74-548 72-181	1
SRC3 Front, MS Front Il Rear, C2, R2 Rear, R3, SRC3 Rear, M5, M6	1713	.90		24-008	.90	120, 120B 130, 130A, 131, 132 160, 163. 200, 201, 203, 204.	441 549 739T	.90 .90 1.50	N*	.60	72-156	1
SRC3 Rear, M5, M6	2077 2177TP	.90 1.80		26-021 74-512	.90 1.50	230A, 233	904 P G	1.20	Y, S*	.90	2112961	ī
R2, R3, 61, 62, 63, 250 0. 81P, 82P	201° 283°	.60	G	52-205 72-117	.60	13, 15, 16, 16X, 18, 18X, 20W 26PX, 26P, 49, 65520, 1522 1562, 1611, 1711, 3035, 3037						
7 38 30 230	208*	.60	L* .6	72-116	.90	3063, 3065, 3067	240	.60	G*	.60	72-113*	
5, KY66, RE76, RE87, RE88, RE89 :10, 225, 271A :1, 225, 245, 257	1714TP :	.60		75-506 52-205	1.80	26W.27W. Cavaller, Commande	677	.90	G*	.60	99-006* 62-114*	
EVEREADY 1, 2, 3 Series 30 and 40	1747	.90 .60	SRP179 .9 A550P* .6	0 72-107	* .60	62-104.	\$/3A5*	.90		.90	99-006 72-105	
Series 50	202* 478T	.60 1.50		. 70-202	.60	62-38, 62-40, 62-50, 62-91, 62-93 1355, 1955, Fantasy, Recita	203*	.60		.60		
FAOA 7AC, 10, 10Z, 11, 11Z, 30, 30Z, 31, 31Z, 45/72, 50, 70, 71, 72, 475 WA, 475 CA						82-80 62-103 62-105	206AS*	.60	0, 5*	.90	72 -116* 62 -116* 62 -113*	
475WA, 475 CA		.90		0 70-017	.90	62-96, 62-98 62-97, 62-97X, 62-99, 62-99X 62-101, 62-101X, 87	240AS*	.90		.90		
15M, 15MZ, 20, 20Z, 25, 25Z, 75, 77 16, 16Z, 17, 32, 32Z		.90		0 79-019		2822, 2827, 2895, 2897	274*	.60	A400P*	.60		٠.

# CONTROL GUIDE... Electrad—Yaxley—Centralab

Manufacturer and Set Models	Electrad No. No	Yaxley No. Net	Centralab No. Net	Manufacturer and Set Models	Electrad No. Net	Yaxle y No. Net	Centralab No. Net
MATARALA	RL			STEINITE	- 70		- 100
36, 44, 77	959P 1.2	0		15, 16, 26, 40, 40C, 50, 50C, 70, 80, 90, 95, 102, 102C, 210, 230, 412, 420, 421, 423, 425, 450,			
K40	959P 1.2	0 N* .60	70-936 .90		202* .60	Z* .60	70-202* .60
PHILCO	2082 .9	0 D+ .60	72-106* .60	22, 28, 203, 261, 262, 600, 605, 630, 635, 642, 643,	240* .60	The same of the sa	99-006* .90
2, 3, Auto Sets				642B, 700, 701, 705, 706, 725	277* .60	D* .60	
581 7 15-23¥ 47DC	1664 .9	0 G * .60	24-016 .90	STERLING			
581	479 .9	0 N* .60	1210907 .90	3A, 4 F.	240* .60 1745TP 1.80	DRP11951.50	44-059 1.20 75-507 1.80
	2076P 1.2 834P 1.2	0 TRP604 .90	2211900 1.20	E	1817TP 1.80		
18		0 TRP604 .90		STEWART WARNER	RI		
10 20A, 20, 21, 41DC, 42DC, 77, 77A, 220, 220A 28, 29, 45 30 Bat., 96, 96A, 111, 111A, 112, 112A, 112E, 212, 212A, 212E, 296, 296A	1735T 1.5	0 DRP114 1.50	74-579 1.50	R100A, R100B, R100E, 950AC R100C, 950 Bat., 970, 980	298 .90 1759T 1.50	SRP245 .90 E7* .60	74-602 1 50
28, 29, 45 30 Bat., 96, 96A, 111, 111A, 112,	2083P 1.2	0 TRP605 .98	2221901 1.20	R100C, 950 Bat., 970, 980 R101A, R101B 102A, 103B, 102E, 801. R104A, R104B, R104E. R106A	201 .00	61" .00	72-113* .60 72-114* .60
112A, 112E, 212, 212A, 212E, 296, 296A	4799	0 N* .60	72-177 .90	R104A, R104B, R104E	611P 1.20	N-S* .90	62-117* .90
38, 38A Bat	975T 1.5 2568 .5 203AS* .5	0 CE 1.50 0 Y* .60	4010907 1.50 1010980 .90 2021907 1.20	R106A 108, 108X Series 109, R110 R111, R115, R116, R119. 300, 305, 310, 315, 320, 325, 340, 345, 350. 500, 520, 525, 806, 811, 900. 530, 535.	203AS .90 682P 1.20	N-5* .90	62-105° .90 62-106° .90
13, 44, 54, 118, 504	1823T 1.	0 CE 1.50	74-559 1.50	R111, R115, R116, R119 300, 305, 310, 315, 320, 325, 340,	683P 1.20		62-105* .90
53	2489 832P 1.	0 E* .60 V, S* .90	51-076 .90 2021904 1.20 2021905 1.20	345, 350 500, 520, 525, 806, 811, 900	274 W* .60 2158P 1.20		79-006* .60
57	835P 1.3 833P 1.3	0 N, S* .90	2021001 1.20	530, 535	234W* .60	E* .60	72-110* .60
82, 65	233W* .	0 A2MP .60	1010978 .90	STROMBERG CARLSON			
270, 270A, 370, 370Å, 470, 470A, 570, 570A	1824T 1.5	0 DRP114 1.50	74-579 1.50	10, 11, 25, 26. 12, 14, 27.	481 .90 483 .90	SRP260 .90 SRP213 .90	72-107* .60
71 Series	2493 .: 2081 .:	0		19, 20, 21, 202	2533TP 1.80 803T 1.50		
80	2087P 1.2503		1010982 .90 2021906 1,20 1020903 .90	10 11, 25, 26 12, 14, 27, 26 12, 10, 21, 202 37, 20, 21, 202 37, 20, 21, 202 38, 49, 40, 41 52, 54, 50, 51 55, 56	1872TP 1.80 800T 1.50	MM 1.50	75-545 1.80 52-041 1.20
89	915P	0 N+ .60	1020904 .90 24-264 .90	52, 54 55, 56	801T 1.50 967 .90		62-121 .90
Model N Ford Auto Set	2079P 1.	0	2221904 1.20	Double Shaft, 635AC, 636, 638. Short Shaft, 635, 636 Long Shaft, 638.	1437 .90	SRP961 .90	72-162 .90
R. C. A. VICTOR R4, R6, R7A, R9, Superette			72-1090 .60	Long Shaft, 638	372 .90		72-161 .90 72-210 .90
R5, R5X	401 .	0 Y* .60 0 SRP145 .90	72-100* .60	Double Shaft, 641, 641A, 641B, 641C, 642, 652, 654  Long Shaft, 641, 641A, 641B, 641C, 642, 652, 654, 846, 848  Double Shaft, 846, 848	1436 .90	SRP960 .90	72 -160 .90
R5, R5X			72-100* .60	641C, 642, 652, 654, 846, 848.	31 .90		72-159 .90
R21, RO23, RAE26	385 570TT 1.	0 SRP153 .90 0 DRP116 1.80	1210900 .90 74-526 1.50		1684 .90	SRP962 .90	72-206 .90
R14, R15, R42, R48	1706T 1.	0 DRP115 1.50	74-680 1.50	TEMPLE			(846, 848 Rear) 72-205,
33A	272W 2062P 1.	0 SRP144 .90 0 SRP251 .90		5-55, 8-61, 8-81, 8-91 8-60, 8-80, 8-90	1618T 1.50	DRP240 1.50	74-515 1.50
R34, R35, R39, RE57, RE73	336T 1.	0 DRP250 1.50	74-524 1.50	8-60, 8-80, 8-90	201* .60	E12* .60	70-2044 .60
R37, R38, 120, 124, 331	2063	0 TRP607 .90 0 SRP142 .90	72-109* .60 72-108* .60	TRANS. CORP. OF AM.			
57	725T 1.	0 SRP138 .90	72-103* .60	25-60, 51, 53, 55, 60. 25-94, 90 to 95. 40, 100, 220. 61, 70	205* .60	Y* .60	51-005 .90
64. 67	405	0 SRP141 .90		40, 100, 220	274* .60 277* .60	A5MP .60	62-118* .90
R90, 260, 261, 280	2066P 1.	20 E, S* .90	72-110* .60 62-109* .90	80, 81, 84, 85, 120, 121	201° .60 573° .60	G* .60	79-006* .60
RC106, 140, 141, 240	916 .	0 TRP603 .90	1210901 .90	240, 260.	276* .60 784P 1.20	UC503* .60	62-107* .90 72-105* .60
121, 122, 221	917	0 TRP603 .90	62-108* .90		789 .90		72-105* .60
220, 222	918 .	0	62-108* .90	U. S. RADIO AND TEL.— APEX GLORITONE			
33A M34 AR5006 M105 R34 R85 R89 RE57 RE73 R35 R39 RE57 RE73 R35 R39 R257 RE73 R35 R35 R39 R257 R273 R37 R38 R39 R257 R273 R38 R39	2066F 1.	0 Y5MP* .60	72-110* .60	8, 10	206* .60		72-116* .60
111, 1370, 1390, 1400, 1402, 1404,	5728		99-006* .90	20, 26, 29, 30, 31, 32, 33, 49, 99 26P	240 .60 677 .90	G12* .60	79-006* .60 72-113* .60
501 502 1580, 1582, 1584, 1590, 1592 1703, 7064 1700, 110, 7062 1704, 1706, 1707, 7070, 7071, 7072	201° . 201AS .	0 H. S* .90	72-115* .60	27	276° .60 678P 1.20	G-125* .90	99-006* .90
1703, 7064	930P 1. 233AS* .	29 M. S* .90	99-006* .90 62-131* .90	27. 28, 29, 32, 41 to 48. 36, 37, 50, 60, 80, 90.	274* .60 201* .60	A400P* .60	72-118* .60 70-204* .60
1704, 1706, 1707, 7070, 7071,	929P 1.		62-108* .90	WELLS GARDNER			
1705 1708, 1709, 1720, 1725, 7065 1710	925TP 1. 926T 1.	80 A550PS* .90	62-195* .98 1219901 .98	13. 80A 20A, 30A 22A, 32A, 42A, 108. C, CG	2571G .91	D* .60	55-005 1.20
1710. 1711, 7079	931 933	N, S* .90 U* .60	72-105* .60	22A, 32A, 42A, 108	779 P 1.20	N* .60	
1714	932 924T 1.	90	72-132* .60		232* .66		74-509 1.50
1714 1721, 1722, 1732 7091 to 7094 FF, K H, Mentor	927P 1.	20 N. S* .90	62-105* .90	WR5, WR6, WR7, WR8	381G .91		72-109* .60
H. Mentor	1812TP 1.	60 G, 12* .60 G, 12* .60		WR10, 10A	383 G .90		72-199* .60
SENTINEL 8. 9, 29, 30, 5000, 5100. 10 to 16, 440, 570, 599. 104, 500, 561 108, 109, 110, 111 108B, 117. 114, 118 118AM, 602, 1020A, 1030A	573° .	0 H, 12* .60	79-006* .60	ZENITH			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
104, 560, 561	201AS* .	0 H, 125* .91	62-115* .90 99-006* .90	10, 70, 71, 72, 73, 77, 82, 89, 102,			
108, 109, 110, 111	248* 283AS*	F, S* .90	72-113* .60 62-114* .90	10, 70, 71, 72, 73, 77, 82, 89, 102, 122, 712, 722, 732, 772, 822, 892, Hyper 11 to 17, 27, 33 to 42, 55, 333, 342, 352, 353, 362, 422, 57, 60, 61, 62, 64, 67, 70 early, 212, 522, 532, 542, 602, 613, 622, 642, 672, 11, 11, 11, 11, 11, 11, 11, 11, 11, 1	1434TP 1.80	SRP261 .90	75-614 1.80
114. 118.	560° .		72-100* .60 62-105* .90	11 to 17, 27, 33 to 42, 55, 333, 342, 352, 353, 362, 422	771P 1.20		1
444, 660, 666C	203AS* .	00 N. S* .90	62-105° .90 72-115° .60	57, 60, 61, 62, 64, 67, 70 early, 212, 522, 532, 542, 602, 613			
622, 623, 634, 635 SPARTON	208AS* .	.61 M	62-121* .90	622, 642, 672 80, 2004, BH, LH, WH	205P 1.20 205* .60	SRP261 .90	62-042 1.20 72-103* .60
				01 02		ASMPS .90	72-10360
69, 79A, 89, 101, 103, 109, 301 591, 593, 930, 931	357 202*	60 MI* .61	1010963 .90 62-121* .90	230, 240, 245, 474, 475, 701, 705, 706, 707, 711, 712, 715, 750, 755, 756, 760, 765, 767, 2052,			
18. 28. AR19 Auto. 25. 26.	361P 1. 283AS .	20 H, S .91	52-205* .90 62-114* .90	2054, 2059	203AS* .96 573AS* .96		62-105* .90
AR19 Auto	489 358P 1.	20 E. S* .9		260, 272, 410, 411, 420, 650, 651,			52-205* .90
27A, 28	2092G 206*	G* .6	62-114* .90 72-116* .60	270-5, 2021, BH 2012, 2012J, AH	203° .66		70-205* .60
33A, 33B, 62, Triollan	2039P 1.	20 M* .60					1111111111111
25, 26. 27A, 28. 31, 55. 33A, 33B, 62, Triollan 34, 40. 71, 71B, 72, 78. 72, 74, 78	2017P 1. 2019	20 M, S* .91	62-121° .90 72-121° .60	Ford Car Radio	2388P \$1,26		2011113 1.20
81 82. 89A. 103, 11A, 564, 570, 574, 589, 600, 610, 620, 737, 740,	2016	Y* .6	72-102* .60	* Standard Control. AS and	S indicate the	use of a Switch	Plate which t
00m, 100, 11m, 00%, 070, 074,				included in the price show	n.		
589, 600, 610, 620, 737, 740,	655	ON SPP164 A	1010964 60	N. B. The like of avact dun	licate Valume	Controls is re	commended to
589, 600, 610, 620, 737, 740, 750, 870		90 SRP154 .91		N. B. The use of exact dup best performance. If an * a special exact duplicate p	does not appe	Controls is re ear after the Pa	commended for rt Number it is

# Replacement **Volume Controls**

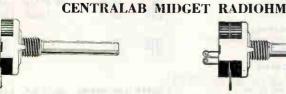


#### SELECTING THE PROPER VOLUME CONTROL

Curve form or taper of a variable resistance is more important to satisfactory control than its maximum resistance. Every Centralab control is made to a particular curve that is numbered and charted above. This chart indicates the per cent resistance change with rotation.

The ten heavy vertical lines represent every 10% the knob is rotated, the LEFT TERM. indicating the minimum volume end of rotation. The horizontal lines proportion the resistance change and divide equally whatever maximum resistance may be established for the curve.

Curves 1, 2 and 4 are illustrated as measured from the right terminal because they commonly carry a substantial amount of current from that end. Curves 3 and 6 are measured from the left terminal because they are principally used in shunt circuits where the taper from the left end is most important.



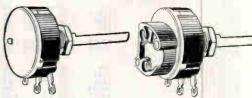
80,60 Less Switch

\$0.90 With Switch

Small diameter controls for auto radio or midget set replacements. Case diameter 1-3/64 in. Depth-less switch 25/64, with switch 23/32 in. Soft aluminum shaft 24 in, long milled 1/32 in. full length. Easily cut to length required. Due to type of construction, separate switches are not available.

Catalogue No. Less With Switch Switch	Usual Circuit Location Resistance Ohms Cur	
N 100 P 100	Antenna, C-bias	3
N 101 P 101	Antenna, C-bias	3
N 102 1 102	Audio (frid or Tone	6
N 103 P 103	Audio Grid or Tone	6
N 104 I 104	Audio Grid or Tone 1 Meg.	6
30	DEDUCT 2% FOR CASH	WI

### STANDARD RADIOHMS



Less Switch

Case diameter 1 % in. Depth 9/16 in.

Shaft 2 1/4 in. long, milled flat. May be cut to exact length needed.

ı		Numb	er	
I	Withou		Resistance	В
i	Switch	Switch	Usual Circuit Location Ohms Cui	rve
I	72-118	62-118	Voltage Divider 500	1
ı	72-107	62-107	Voltage Divider 1000	-
I	72-101	62-101	Voltage Divider 2000	1
ı	72-108	62-108	Voltage Divider 3000	-
ļ	72-109	62-109	Voltage Divider 4000	
I	72-110	62-110	Voltage Divider 5000	
į	70-204	52-204	Antenna Shunt   5000	- (
ì	72-114	62-114	Antenna, C-bias 10000	- 1
ĺ	72-113	62-113	Antenna, C-bias of One	
ı			Tube 10000	- 1
ı	70-205	52-205	Antenna C-bias of Two	
I			Tubes 10000	4
1	72-100	62-100	Antenna Shunt 10000	-
ĺ	72-115	62-115	Antenna, C-bias 15000	3
I	79-006	99-006	Antenna, C-bias 15000	4
I	72-119	62-119	Antenna, C-blas 20000	3
į	72-111	62-111	Voltage Divider 25000	1
ı	70-206 72-102	52-206	C-bias 25000	4
Į	72-102	62-102	Antenna Shunt 25000	3
ı	72-103	62-103 62-117	Voltage Divider 50000	1
ı	72-123	62-117	Tone Control 50000	6
ı	70-202	52-202	Tone Control 75000	6
I	72-104	62-104	C-bias 75000	4
l	72-104	62-104	Voltage Divider100000	1
l	72-120	62-120	Audio Grid or Tone100000	6
l	72-131	62-131	Audio Grid or Tone200000 C-bias	1
l	72-121	62-121		4
l	72-105	62-105	Audio Grid or Tone250000	6
I	72-106	62-106	Audio Grid or Tone500000	6
l	70-203	52-203	Voltage Divider500000 Series in R. F. Piate500000	1
ľ	72-134	62-134	Tannad Audia Caid Sanaa	2
ļ	72-116	62-116	Tapped Audio Grid 500000 Audio Grid or Tone 1 Meg	
l	72-135	62-135	Tapped Audio Grid 1 Meg	6
ı	72-132	62-132	Audio Grid or Tone3 Megs	6
ı	202	202	Megs	0

#### SEPARATE RADIOHN SWITCH COVERS

Any plain Radiohm may be converted to the switch type by replacing the plain cover with this switch cover.



No. 10 Switch Cover, Single-pole-Single throw No. 11 Switch Cover, Single-pole Double-

throw No. 12 Switch Cover, Double-pole-Singlethrow

No. 13 Switch Cover, Heavy Duty—Single-pole—Single-throw

Ask for the 1937 VOLUME CONTROL **GUIDE** FREE

# ELECTRA

#### VARIOHM

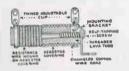


#### VITREOUS ENAMELED ADJUSTABLE LUG RESISTORS

Monel metal end lugs are used to insure against weak connections with the resistance wire. The adjustable lug has been designed to provide long life without undue wear of the resistance wire. The ratings of Electrad Vitreous Resistors are based on a load in watts that will produce not more than 250° C.  $(450^{\circ} \text{ F.})$  rise at the hottest point on a two-terminal resistor suspended in one foot free air. All tolerances  $\pm$  5%. ALSO AVAILABLE IN 200 WATTS.

5% "x2 1/2" TUBE	56 "x4 36" TUBE	56"x6 1/2" TUBE	1"x7" TUBE	1 14 "x10 1/4" TUBE
25 Watts	50 Watts	80 Watts	100 Watts	200 Watts
Ohms         Max. Cur.           5         .2450           10         .1738           25         .1090           100         .545           500         .245           1000         .173           1500         .141           2000         .122           2500         .109           5000         .77           10000         .54           15000         .44           2000         .38           25000         .38           25000         .34	Ohms         Max. Cur.           100         740           500         330           1000         234           1500         190           2000         165           3000         135           5000         104           10000         74           15000         60           20000         50           25000         45           30000         45           30000         37           50000         34           40000         37           50000         34	Ohms         Max. Cur.           100         865           250         545           500         387           1000         270           1500         223           2000         190           2500         173           5000         122           10000         36           15000         70           20000         61           30000         50           40000         43           50000         39           10000         27	Ohms         Max. Cur.           100         1000           500         445           1000         315           3000         180           5000         140           10000         100           15000         81           20000         70           25000         63           30000         57           40000         50           50000         44           60000         40           75000         36           100000         36           100000         17.3	Ohms         Max. Cur.           500         632           1000         447           1500         365           2000         316           2500         283           3000         258           5000         200           10000         141           20000         30           35000         75           50000         63           75000         51           100000         44           150000         44           150000         20
5 to 5,000 ohms \$0.51 6,000 to 15,000 ohms57 17,500 to 25,000 ohms61 Type No. 3 EXTRA ADJ	6,000 to 25,000 ohms	30,000 to 50,000 ohms	6,000 to 25,000 onms \$1,20	Net price, each, \$0.06

#### TRUVOLT ADJUST-ABLE RESISTORS



Truvolt patented construction offers greater radiating surface -cooler operation, a heat conducting copper core which insures more uniform heat dis-tribution. Tolerance plus or minus 5%.

Net,	all	values.			•	٠			. 9	10.30
Extr	a. s	liders.	E	a.c	h					.06

#### TYPE A

NAT & PROPERT 3/ 11 - 4 3/ 11

10 WATTS,	% "X1	94
Type Ohms	MA.	Volts
A022	2200	4.5
A110	1000	10
A1515	815	12
A2525	630	16
A550	450	22
A7575	360	27
A-1100	315	31
A-3300	180	55
A-5500	141	70
A-101000	100	100
A-151500	81	122
A-202000	70	141
A-252500	63	158
A-303000	56	173
A-505000	45	222
A-10010000	31	316
A-15015000	26	388
A-25025000	16	400

#### ELECTRAD PRECISION RESISTORS

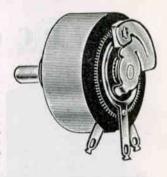
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NEW! TYPE BN **ATTENUATOR** 

See page 27

#### ELECTRAD POWER RHEOSTATS

Vitreous enameled rheostats applicable as speed controls for small motors, temperature controls and general voltage and current regulators. Ruggedly designed and constructed for long life at rated current loads. The contact shoe, of special metal graphite composition, contacts the wire-wound element on the outside surface. This insures smooth, noiseless action and long life.



25-WATT		RATING		50-WATT		RATIN	RATING		100-WATT RATING		
Ohm. 1. 1.5 2 3 4 6 8 10 15 20	Amp 5.0 4.0 3.5 2.9 2.5 2.0 1.8 1.6 1.3	Ohm. 60 80 100 150 200 300 400 600 750	Amp64 -56 -50 -40 -35 -25 -25 -20 -18 -16 -11	Ohm. ,5 1.0 1.5 2.5 3 4 5 6 8 10	Amp, 10.0 7.0 5.8 5.0 4.5 4.1 3.5 3.1 2.9 2.5	Ohm. 40 50 75 100 150 200 300 500 800 1000	Amp. 1.1 1.0 .81 .70 .58 .50 .41 .25 .22	Ohm, 1 2 3 6 8 10 15 20 30	Amp, 10.0 7.1 5.8 4.1 2.5 3.2 2.6 2.2 1.8	Ohm. 60 109 150 200 300 600 750 1090 1500	Amp. 1.29 1.00 .81 .71 .58 .41 .36 .32 .26
Above	Net I ohm 1-750 ohi 750-2,000	1500 2000 Prices	\$2.70 2.40	Above	1 8 1 4 1 3 Net I 2 ohms 2-590 ohm	ms	2.70	Above Above Also a	Net P 3 ohms 3-750 ohm 750-1,500 vailable in to 2,000	ns oh.ms n 150-wa	4.20

#### **UNIVERSAL 200-WATT** 10-Section Vitreous Resistors



# 11/4 x 101/2-IN. CERAMIC

Sizes 500, 1,000, 5,000 ohms. Net price, each\$2.10
Sizes 10,000, 20,000, 30,000, 40,000 and 50,000 ohms.
Net price, each

DEDUCT 2% FOR CASH WITH ORDER

31

### NEW LOW PRICES! on

QUIET
DURABLE
MOISTUREPROOF

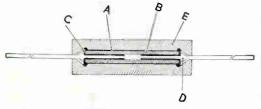
RELIABLE

INSULATED IR C Metallized

NOW
2 WATT
RESISTORS
OF THIS
TYPE ARE
AVAILABLE

# TYPE RESISTORS

The Outstanding Resistance Development in Years



- Conductive coating of measured resistance value.
- B. Glass tube.
- Positive contact permanently bonded to leads.
- D. Special alloy wire terminal.
- E. Molded insulating sheath.



BT-1 Made in all popular sizes between 50 ohms and 10 megohms; 5/4 x3/16 in. See list- \$0.10 ing for sizes carried in stock....

BT-1 All sizes between 50 ohms and 10 megohms as listed carried in stock 1 1/4 x 1/4 in.

BT-2 All sizes from 450 ohms to 10 megohms carried in stock; 1% x5/16 in..........

10

THE RESIS

RESISTO-CHEST



Just the Thing for Your Service Bench—Holds Several Hundred Resistors—Has Dozens of Other Uses. Complete

\$6.72

S0.90

Contains 56 BT 1 resistors in 8 drawers, 2 each of the most popular size, 1 watt resistors. Attractive and handy.

#### STANDARD STOCK RANGES

Subject to the minimum and maximum values shown for each of the various types of Type "BT" Resistors.

50	ohms	1,625	ohms	12,000	ohms	90,000	ohms
100	ohms	1.750	ohms	12,500	ohms	0.1	meg.
150	ohms	1.875	ohms	15,000	ohms	0.125	meg.
200	ohins	2,000	ohms	17.500	ohms	0.15	meg.
250	ohms	2,250	ohms	20,000	ohms	0.2	meg.
300	ohms		ohms	22,500		0.25	meg.
350	ohms	2,750	ohms	25,000	ohms	0.3	meg.
400	ohms	3,000	ohms	27,500		0.4	meg.
450	ohms	3,250	ohms	30,000	ohms	0.5	meg.
500	ohms	3,500	ohms	32,500	ohms	0.6	meg.
600	ohms	4,000	ohms	35,000	ohms	0.75	meg.
	ohms	4,500	ohms	40,000	ohms	1.0	meg.
750	ohms	5,000	ohms	45,000	ohms	1.5	meg.
800	ohms	6,000	ohms	50,000	ohms	2.0	meg.
	ohms	7,000	ohms	55,000	ohms	3.0	meg.
	ohms		ohms	60,000	ohms	4.0	meg.
1,125		8,000	ohms	65,000	ohms	5.0	meg.
	ohms	9,000	ohms	70,000	ohms	6.0	meg.
	ohms	10,000		75,000	ohms	7.0	meg.
1,500	ohms	11,000	ohms	80,000	ohms	10.0	meg.

# IRC DUAL RESISTOR INDICATOR Fuse Protected

\$2.70

32



Range from 100 to 100,000 ohms. Metal case, ball-bearing slide; tapered, insulated clips. Range may be extended by using series resistors. The handiest tool of all.





#### IRC BT1 ASSORTMENT



#### KIT NO. BT1-20

20—1 watt type BT resistors, of most popular sizes. Net price ......\$2.35

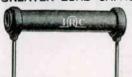
MOISTURE-PROOF

NON-POROUS CERAMIC CORE

GREATER LOAD CAPACITY

LONGER LIFE

GREATER MECHANICAL STRENGTH



60,000 List

0.1 meg.

Built to stand overloads, in-tense heat, dampness—we'll guar-antee these new IRC CEMENT COATED resistors as the finest Power Units you have ever tried. You will find them by far the coolest, longest-lived power wire wound resistors for every service replacement, amateur transmit-ting, experimental, broadcasting and industrial use.

IRC
ADJUSTABLE
POWER
WIRE WOUND
RESISTORS



		. BL	and	1
TYPI	E PB		1	
10 Watts	Fixed			
Max.			fax.	
Current	Range		ent	
m. a.	Ohm	11	1. a.	
	1,000		100	
3,150 2,210	1,125 1,250		95 90	
1 990	1 275		97	

	Each	\$0.24		17,500 1	0 50,000
L	ist Price-	-All Siz			500 ohm
0	108	25,000	20		
0	112	22,500	21		List
0	115	20,000	22		
0	125	17,500	23		
0	140	15,000.	- 25	2,000	100
0	148	12,500	28	1.850	104
0	157	12,000	28	1,750	
0	169	11,000	30	1.500	115 107
0	175	10,000	31	1,400	
0	200	9,000	33	1,250	129
0	220	8,500	34	1,200	129
0	260	8,000	35	1,000	141
0	315	7,500	36	850	153
	325	7,000	37	800	158
	340	6,000	41	750	163
	360	5,000	4.5	500	200
	400	4,500	47	400	224
1	440	4,000	50	350	238
	500	3,500	53	300	258
	580	3,000	57	250	282
	640	2,750	60	200	316
	720	2,500	63	150	365
	820	2,250	67	100	447
	1,000	2,000	71	75	517
)	1,150	1,750	75	50	633
5	1,420	1,500	83	25	895
	1,830	1,375	87	10	1,415
	2,210	1,250	90	5	2,000
	3,150	1,125	95	1	4,400
	0.150	1,000	100	Ohm	,
am	nent Chi	Ohm	100	Range	m. a.
inge	m. a.	Range	m.a.	0	urrent
	Current		urrent		Max.
	Max.	~	Max.		
	Size 1%	X9/10			Size 2

		4.0414						
TYPE PG								
10		ts-Fixe						
		1 1%" d:						
Mounti		ackets in						
	Max.		Max.					
	urrent	_	Current					
Range	m. a.	Range	m. a.					
Ohm		Ohm						
100	1,000	1,500	250					
250	632	2,000	220					
500	447	2,500	200					
750	365	3,000	180					
1,000	315	5,000	140					
1,250 List	280		80.00					
7.500	115	20,000	\$0.90					
10,000	100	25,000	70 63					
15,000	80	25,000	0.3					
List	ov		\$1.05					
30,000	58	50,000	44					
40,000	50	50,000	77					
Liet	50		£1 00					

TYPE PC
20 Watts—Fixed Size 2"x9/16"
26.

ı		Max.		Max.
ı	Cu	rrent		Current
ı	Range	m. a.	Range	m. a.
ı	Ohm		Ohm	
ı	1	4,400	2,250	94
ı	5	2,000	2,400	91
ı	10	1,415	2,500	89
ı	25	895	2,750	85
ı	50	633	3,000	81
1	75	517	3,500	75
1	100	447	4.000	70
1	150	365	4,500	66
	200	316	5,000	63
1	250	282	6,000	57
	300	258	7,000	53
J	350	238	7,500	51
	400	224	8,000	50
	500	200	9.000	46
	750	163	10,000	43
	800	158	11,000	41
	850	153	12,000	40
	1,000	141	12,500	39
	1,200	129	15,000	35
1	1.250	126	20,000	30
	1.500	115	25,000	28
1	1,750	107	30,000	25
	1.850	104	35,000	23
	2,000	100	40,000	22
	-,		50,000	20
۱			20,000	20
		List	Price	
v				

			L	ist	1	T	10	8			
1	to	1,50	0 0	hm	s.						\$0.39
17	,50	0 to	50	,000	0	h	m	8			.45

TYPE PJ							
2	00 Watt						
	10 1/2"						
		iameter					
Mount	ing Brac	ckets incl	uded				
	Max.		Max.				
	Current	Cu	rrent				
Range	m. a.	Range	m. a.				
Ohm		Ohm					
100	1,414	2,000	316				
250	894	2,500	283				
500	632	3,000	258				
750	515	5,000	200				
1,000	447	7.500	163				
1,500	365	10,000	141				
List			.\$1.50				
15,000	115	50,000	63				
20,000	100	60,000	57				
25,000	90	75,000	51				
30.000	81	0.1 meg.	44				
40,000	70						
List .			.\$1.80				

#### TYPE PXA

25 Watts-Adjustable 2½" long by 9/16" diameter

Extra bands. List		0/10	CARCIAL OCC.	
Current Range         M. a.           0hm         5,000         500         224         500         182         182         100         1,500         182         182         182         1,000         158         150         129         141         150         129         141         150         129         150         129         150         129         150         129         150         129         120         150         129         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120 </td <td>Extra</td> <td>bands.</td> <td>List</td> <td>.\$0.12</td>	Extra	bands.	List	.\$0.12
Range Ohm         m. a.         Range Ohm         m. a.           Ohm         5,000         500         224           10         1,680         1,000         182           10         1,580         1,250         141           50         719         1,500         129           75         575         2,000         112           100         500         2,500         100           150         409         3,000         91           250         320         4,000         79           400         250         5,000         71           List         \$0.50           6,000         64         12,000         45           7,500         58         15,000         41           10,000         50         15         15,000         32           List         \$0.57         20,000         32         32				Max.
Ohm         Ohm           1         5,000         500         224           5         2,200         750         182           10         1,580         1,000         168           25         1,000         1,250         141           50         719         1,500         129           75         575         2,000         112           100         500         2,500         100           150         409         3,000         91           250         320         4,000         79           400         250         5,000         71           List         *80.50           6,000         64         12,000         45           7,500         58         15,000         41           10,000         50         **         **           List         **         **         **           20,000         35         25,000         32		Current	C	urrent
Ohm         Ohm           1         5,000         500         224           5         2,200         750         182           10         1,580         1,000         168           25         1,000         1,250         141           50         719         1,500         129           75         575         2,000         112           100         500         2,500         100           150         409         3,000         91           250         320         4,000         79           400         250         5,000         71           List         *80.50           6,000         64         12,000         45           7,500         58         15,000         41           10,000         50         **         **           List         **         **         **           20,000         35         25,000         32	Range	m. a.	Range	m. a.
1         5,000         500         224           5         2,200         760         182           10         1,580         1,000         182           25         1,000         1,250         141           50         719         1,500         112           100         500         2,500         100           150         409         3,000         91           250         320         4,000         79           400         250         5,000         71           List         \$0.50           6,000         64         12,000         45           7,500         58         15,000         41           10,000         50         \$0.57           List         \$0.57         \$0.57           20,000         35         25,000         32			Ohm	
5         2,200         750         182           10         1,580         1,000         158           25         1,000         1,250         141           50         719         1,500         129           75         575         2,000         112           100         500         2,500         100           150         409         3,000         91           250         320         4,000         79           400         250         5,000         71           List         \$0.50           6,000         64         12,000         45           7,500         58         15,000         41           10,000         50         \$0.57           List         \$0.57           20,000         35         25,000         32		5.000		224
10				
25				
50 719 1,500 129 75 575 2,000 112 100 500 2,500 100 150 409 3,000 91 250 320 4,000 73 400 250 5,000 71  List \$0.50 4 12,000 45 7,500 58 15,000 41 10,000 50 \$0.57  List \$0.57 20,000 35 25,000 32				
75 575 2,000 112 100 500 2,500 100 150 409 3,000 91 250 320 4,000 75 400 250 5,000 71 List \$0.50 6,000 64 12,000 45 7,500 58 15,000 41 10,000 50 List \$0.57 20,000 35 25,000 32				
100         500         2,500         100           150         409         3,000         91           250         320         4,000         79           400         250         5,000         71           List          \$0.50           6,000         64         12,000         45           7,500         58         15,000         41           10,000         50          \$0.57           20,000         35         25,000         32				
150     409     3,000     91       250     320     4,000     79       400     250     5,000     71       List     \$0.50       6,000     64     12,000     45       7,500     58     15,000     41       10,000     50       List     \$0.57       20,000     35     25,000     32				
250				
400     250     5,000     71       List				
List \$0.50 6,000 64 12,000 45 7,500 58 15,000 41 10,000 50 List \$0.57 20,000 35 25,000 32				
6,000 64 12,000 45 7,500 58 15,000 41 10,000 50 \$0.57 List \$0.57 20,000 35 25,000 32	400	250	5,000	71
6,000 64 12,000 45 7,500 58 15,000 41 10,000 50 \$0.57 List \$0.57 20,000 35 25,000 32	Liet			<b>60</b> 50
7,500 58 15,000 41 10,000 50 \$\$ 15,000 41 \$\$ 10,000 \$\$ 50 \$\$ 25,000 \$\$ 35 \$\$ 25,000 \$\$ 32	Dist			. 00.00
7,500 58 15,000 41 10,000 50 \$\$ 15,000 41 \$\$ 10,000 \$\$ 50 \$\$ 25,000 \$\$ 35 \$\$ 25,000 \$\$ 32	6 000	64	19 000	4.5
10,000 50 List\$0.57 20,000 35 25,000 32				
List\$0.57 20,000 35 25,000 32			15,000	31
20,000 35 25,000 32	10,000	50		
20,000 35 25,000 32	List			\$0.57
	20.000	35	25.000	32
List\$0.65	_ 0,000	00	-0,000	02
	List			\$0.65
	_			

#### TYPE PEA

50 Watts-Adjustable 4 1/4 "x 3/4" Brkts, included

- 1				
Ì	Extra	bands.	List	\$0.08
		Max. Current		Max.
١	Range	m.a.	Range	m. a.
ı	Ohm 10	2,230	1,000	215
ı	50 100	1,000	1,500 2,500	175 135
ı	250	440	4,000	105
ı	500 750	300 250	5,000	95
ı	List			\$0.80
	6,000 7,500 8,000 10,000	85 77 75 66	12,000 15,000 20,000 25,000	63 56 48 43
	List .			\$0.90
	30,000	39 34	50,000	30
	List			\$1.00
	60,000	28	75,000	25
	List			\$1.20

#### TYPE PGA

100 Watts-Adjustable

M	tg. Brack	10 ½ "X1 %"						
Extra	_	List		Mt	g. Brac	kets in	clude	d
	Max. Current	C	Max.	Extra	bands.	List	1	30.09
Range Ohm 500 1,000 1,500 2,000 List		Range Ohm 2,500 3,000 4,000 5,000	m. a. 200 180 155 140 \$1.20	Range Ohm 500 1,000 1,500	Max. Current m. a. 632 447 365	Ran Ohn 2,50 3,00 5,00	Cui ge	Max. rrent m. a. 283 258 200
7,500 8,000 10,000		15,000 20,000 25,000	80 70 63	2,000	316	10,0		141 <b>81.80</b>
	58 50	50,000	44	30,000		50,0 60,0 75,0 0.1	00	63 57 51 44
60,000 75,000 List		0.1 meg		40,000 List		· · · · · · · · · · · ·		\$2.10

#### TYPE PJA

200 Watts-Adjustable 101/2"x11/4"

Extra	banus.	Librara	
	Max. Current		Max.
Range	m. a.	Range	m. a.
Ohm		Ohm	
500	632	2,500	283
1,000	447	3,000	258
1,500	365	5,000	200
2,000	316	10,000	141
List .			\$1.80
15,000	115	50,000	63
20,000	100	60,000	57
25.000	90	75,000	51
30.000	81	0.1 meg	. 44
40,000	70		
			00 10



\$1.33

31

WW-2 (2-15/16x% in.)

Carried only in ranges over 1/2 meg.

Meg	ŗ.																Net Price
0.6			,													. 5	\$2.55
0.75																	2.70
0.9	٠							<b>/</b> 4	٠	٠		٠				٠	2.85
																	3.15
											-		-	-			4.50
	-	•		•	-								-		•	•	6.00
2.5																٠	7.50



WIRE WOUND RESISTORS

WW-4	(1x9/16 in.)	WW
Resistance	,	Resistanc
Value		Net Value
Ohms		Price Ohms
0.1*		80.51 12.500
0.5*		51 15,000
		51 20,000
10		51 22,500
25		51 25,000
50		51 30,000
100		51 40.000
200		51   50.000
250		51 60,000
300		51 75.000
		51 Meg.
1,000		54 0.1
		54 0.125
2,000		54 0.15
2,500		54 0.175*
4,500		
5,000		60   0.225 *

- 1		33	V V	-	4		(1	X	9	/ 1	6	in	ì.	)				
	Resis	ta	no	9														
:	Value	9													1	N	et	
e	Ohms	3													F	r	ic	e
ĭ	12,500	)															.6	6
î	15,000																.0	
î	20,000																.8	
î	22,500																.8	
î	25.000																.8	
î	30,000																.8	
i	40.000																.8	
1			٠.														.8	
	50,000		٠.															
1	60,000																.8	
1	75,000	)		٠.		٠		٠	٠	٠.		 ٠	٠	٠	٠		: 9	M
1	Meg.															_		
4	0.1	٠.	٠.									 ٠		+	٠		.1	
4	0.125		٠.			٠	٠.		٠					٠	٠		.2	
4	0.15		٠.						٠				٠		٠		.4	
4	0.175	B		٠.													.4	
0	0.2*															1	.4	IJ
0	0.225															1		66
ñ	0.25*															1	B	1



WW-4 (1x9/16 in.) Resistance Value Ohms 0.4\* 7. 2.04

81 For list prices of odd ranges
81 not shown, use same price as
81 not shown, use same price as
96 given for next higher size.
96 NORMAL TOLERANCE OF
18C PRECISION WIRE
1.11 WOUND RESISTORS IS 1%.
1.26 CLOSER TOLERANCES MAY
1.41 BE OBTAINED AT SLIGHT
1.41 INCREASE IN REGULAR
1.41 PRICES AS FOLLOWS: for
1.56 % tolerance add 10%; for %
1.56 of 1% add 15%; for 1/10 of
1.71 1% add 25%.

5,000 7,500 10,000 .60 | 0.25\* .60 | 0.3\* **DEDUCT 2% FOR CASH WITH ORDER** 

33

# Centralab Controls for Sound Projection

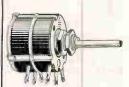
CONSTANT RESISTANCE ATTENUATORS

"T" Pad, Fader and 10 watt "L" Pad in dust tight bakelite case illustrated at right. Size  $3\frac{1}{2}$ x1% inches deep. Single or three-hole mounting. 1 watt "L" Pad in bakelite case illustrated below. Size  $1\frac{1}{4}$ x% inches. 25 watt "L" Pad all wire wound with open assembly for heat dissipation. Use Dial Plate No. K110 for 1 watt "L" Pads. Use Dial Plate No. K112 for all others.



#### Order by Line Impedance

Impedance Matching Resistance	1 Watt "L" Pad  \$1.80 Part No.	4 Watt "L" Pad *2.40 Part No.	10 Watt "L" Pad \$3.00 Part No.	25 Watt "L" Pad \$3.00 Part No.	"T" Pad \$4,20 Part No.	C. I. Fader \$4.80 Part No.
10,000 Ohms 5,000 Ohms 1,500 Ohms 500 Ohms 200 Ohms 100 Ohms 50 Ohms 15 Ohms	74-544	96-003 96-002 7 96-007 96-006 96-005	94-006 94-005 94-004 94-003 94-002 94-001	47-209 47-208	93-008 93-001 93-002 93-003 93-004 93-005 93-006	83-006 83-002 83-003 83-004



#### Watt "L" Pad

### Series II Sound Controls



New controls of the finest type for input

New controls of the finest type for input circuits in broadcast stations, public address systems, and recording apparatus of new or old design. Will prove faultless in the most critical service. Centralab Series II Controls have all resistors of the non-inductive carbon type specially tapered for constant impedance. Attenuation is continuously variable and practically straight line for 46 decibels at all frequencies up to 16,000 cycles. Long life is insured by the patented Centralab non-rubbing contact. This contact NEVER REQUIRES CLEANING. Centralab controls remain noiseless and accurate through years of service. service.

Electrostatic and electromagnetic shielding provided by a black finished steel case. Bakelite screw type terminal strip on back of case. All resistance elements insulated from shaft and bushing. Single hole mounting. Mounting bushing two locknuts and lockwashers. Case diameter 2% inches. Depth back of panel "T" Pad, 2% inches; Gain Control, 1% inches. Maximum load dissipation, 1 watt. For detailed information, write for technical booklet.

3-inch black dial calibrated in silver and large pointer knob-furnished with control.

	Line Impedance	Resistance	Resistance Each Side of Center	Part Number	Price
"T" PAD ATTENUATOR	500 Ohms 200 Ohms 50 Ohms	Constant Ir to Both In Outp	put and	7-010-852 7-010-851 7-010-850	* 7.50 7.50 7.50
"T" PAD FADER	500 Ohms 200 Ohms 50 Ohms	Two Con Impeda Legs on Bo	ance	7-210-852 7-210-851 7-210-850	\$11.25 11.25 11.25
"L" PAD ATTENUATOR	500 Ohms 200 Ohms 50 Ohms	Constant I to One Sid		4-010-852 4-010-851 4-010-850	\$ 3.75 3.75 3.75
GAIN CONTROL		250M Ohms 500M Ohms 1 Megohm		1-010-852 1-010-851 1-010-850	3.00
STRAIGHT FADER	High In	ystal or ipedance cups	500,000 100,000 50,000	1-210-852 1-210-851 1-210-850	3.75

### Twin Replacement Controls



base10,000	
base10,000	

DUAL GRID VOLUME CONTROL Price 4010805—Both bases....100,000 ohms 4010807—Both bases....250,000 ohms bases....250,000 ohms bases....500,000 ohms

#### Dial Plates and Knobs







Series II

Series II
Attenuator Fader Part. No. Use with Price
Part. No. Use with Price
K109—Dial. All Series I controls except 1
L watt and C. I. fader
K110—Dial. 1 watt "L" pad
K111—Knob. All Series I controls
K112—Dial. Series II "T" and "L" nad atten-
uators, gain control
K113—Dial. Series II "T" pad fader, straight
fader
K114—Knob. All Series II controls
These dials are attractive in appearance and calibrated to match C.R.L. controls in rotation.



### Head Phone Modu Plug

Price \$1.50

An attractive small bakelite case and knob housing a variable resistance and clips for attaching head phones. Potentiometer connection to control volume while maintaining constant resistance in the line. Especially adapted to deaf installations in schools, churches, etc., or in hospitals where multiple head sets are used.

Cord type is similar, but a 30-inch long phone cord replaces the stem.

Cord type 302-029..... 5,000 ohms Cord type 302-028......10,000 ohms Cord type 302-030......20,000 ohms

#### FREE-Centralab Manual-FREE Series II Sound Projection Controls

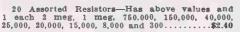
If interested in these controls, ask for this 15-page booklet with your next order to Lew Bonn Co. It gives complete information on the New Series II Sound Pro-jection Controls, showing construction, application and many hints of value to you. Complete details.

## CARBON RESIST



We guarantee these resistors to be the finest made, in every respect. They are much more accurate and will carry two to three times heavier load than ordinary carbon resistors. Every resistor has its resistance value plainly marked on it in addition to carrying the regular R. M. A. Color Code.

Service Resistor Assortments—10 Assorted Resistors—1 each: 500,000, 200,000, 100,000, 50,000, 25,000, 10,000, 5,000, 2,000, 1,000, 500......\$1.20





#### REPLACEMENT LINE BALLASTS

Replace Duresite Tubes, Amperites and other types of line ballasts-last much longer. \$1.15 Each .....

(Except No. 2000 and 2200)

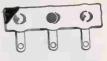
		Ballast
Manufacti	urer	Туре
		No.
Belmont		. 2518
Bremer-Tully		
S-81, S-82		
S-83, S-84		. 2169
25 cycles		. 2518
Brunswick S-14; S-	21: S-31	6412
25 cycles		
Clarion-51; 53; 55.		
Erla		
Grebe		
		. 6310
mm 0 1 0 1 0160 1		
TT		
HS 8 Single Pent.		. 0608
Hammarlund Rober		
HiQ 30		
HiQ 31		. 2408
Kennedy		
426, 526, 626, 726,	826, 632, 1030	. 6412
, , ,		
Manufa	oturar	
Manuta	Cturer	



426, 526, 626	. 726.	826,	632.	10:	30	6412		U	U
	anufa								Ballast Type No.
Kylectron									
K-71, K-72									6310
Majestic, 60 c 70-71 Power		7 D	2 10	9.0					1516
Power Pack	7BP	5. 19	29	40 .					
180-181 Pow	er Pa	ick 8	3P6						
90-91-92-100									
Majestic, 25 c									
181-8-P3									
70-7-B-P-3 90-9-P-3									
Peerless 71. 72									
Roger Majesti	c								
400, 60 cycl									
400, 25 cycl									
480, 490									2734
Scott A. C. 10 Silver-Marsha	) 11								2178
30B, 30, 60E		75B	75.	95 7	Highl	nov .			2179
Sonora	, 00,	,				203			2110
A30, A32, A	40								
A36, A44, A									4210
Stewart Warn									5000
900									
950 R-100									
United Repro-									0000
21, 22, 23, 2									6310
UV876 Tube									2200
UV886 Tube									2000
NOTE t: Mo	Pul B	O SIG	1)011	hle	Leng	th Ca	Ze-Net	price	\$2.50

#### CENTER-TAPPED RESISTORS ELECTRAD

Flat Type—Illustrated.
Size %"x%"x1%" Type EF
Round Type
Size 1%"x\""-2" leads. Type ER
fully protected with a moisture-proof enamel. Values imprinted and color coded stock resistance values-10, 15, 

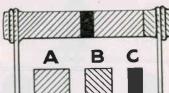


R. M. A. STANDARD RESISTOR COLOR CODE.

The body color (A) represents the first figure of the resistance value. One end (B) is colored to represent the second figure. A band, or dot, (C) of color, represents the number of ciphers (0) following the first two figures.

, -				_
g.	Color	Fig.	Color	c (O)
0	Black	5	Green	
1	Brown	6	Blue	4
2	Red	7	Violet	
3	Orange	8	Grey	

White



EX	AMPL	ES OF	COLOR CODE	_	-
250 ohms Red ,000 ohms Brown ,500 ohms Orange ,000 ohms Brown	B Green Black Green Black		A 12,000 ehms Brewn 25,000 ehms Red 250,000 ehms	Red Green Green	Orange Orange Yellew Green

# CLAROSTAT



Yellow

The leading line of power control devices. Line voltage controls, line ballasts, heavy duty variable resistors.

#### AUTOMATIC LINE VOLTAGE REGULATORS



\$0.57 types....... Rating For Use with Туре Watts Sets Consuming Up to 60 Watts O ..... 50 .....100 60 to 100 Watts .....150 100 to 150 Watts 150 to 200 Watts R .....200 • .....250 • .....100 200 to 250 Watts 60 to 100 Watts NOTE\*: For use with 220-volt receivers.

#### CLAROSTATS

#### To Reduce 220 Volts to 110 Volts

Milliampere			Resistor
	Voltage		
300 - 340.	220	110	7724
350 - 390.	220	110	7720
400 - 440.		110	7626
450 - 500.	220	110	7622

All types, \$1.25

#### WIRT VOLTAGE REGULATOR

No. 211-Variable voltage control for 6 tube sets or less.....\$0.95 No. 211B-Variable voltage control. 150 watt. For all 7 tube and larger sets.....\$1.80



#### **Brown Devil Resistors** Rheostats

## HMITE

#### Tap Switches Short Wave Chokes



#### ALL-PORCELAIN HEAVY **DUTY TAP SWITCHES**

Has many uses including switching taped transformer circuits, as a control of high voltage therapeutic equipment, to control radio transmitters, to change a transmitter over quickly from phone to key, etc. Vitreous enamel coated, contact shoe is special low resistance silver. Diameter of units up to eight are 2% in. Nine to twelve point units are 3% in.

#### TRANSMITTING BAND-SWITCHES



-		-	シ				_		a
NON-			1	2		G			
	N	0.						Lis	
	Co							Pric	
T504	-4							\$2.8	5
T506	6							3.1	5
T508	8							3.4	5
T100	10-	-10						4.9	5
T100	12-	-12		٠	ì	٠	٠	5.2	5

SHORTING TYPE	
No. List	
No. Contacts Price	
T504S-4\$2.55	
T506S-4 2.85	
T508S-8 3.15	
T10010S-10 4.65	
T10012S-12 4.95	

HANDBOOK
Pages
458-459
CATALOG
SECTION
Send for the eniarred OHMITE
A M A T E U R
H A N D BOOK.
Useful, interesting, clear. Helpful charts and

#### **OHMITE "WIREWATT"** 1 Watt Wire Wound (Resistors)

OMOGE MATIE

Noiseless in op-eration. No volt-age character-istics. Negligible inductive effects.





"BROWN **DEVIL"** VITRE-OUS RESIST-ORS

Brown Devil resistors are made in both 10-watt and 20-watt sizes. They have a real vitreous enamel coating instead of the high temperature cement used on the Red Devils. Brown Devil resistors should be used where there is excessive moisture; they should not be used at more than their rated wattages

tables.	10	cents.
OMMITE A	MAT	EUR OK
1111111		

		TOUR	ALUES	,	
Ohms	Max. Current Mills.	Max. Volts Across Unit	Ohms	Max. Current Mills.	Max. Volts Across Unit
100	100	10	2,250	21	46
125	89	11	2,500	20	50
150	81	12	3,000	18	54
200	70	14	3,500	16	56
250	63	15	4,000	15	60
300	57	17	4.500	14	63
350	53	18	5,000	14	70
400	50	20	6,000	12	72
500	4 4	22	7,000	11	77
600	4 0	24	7,500	11	82
700	3 7	26	8,000	11	88
750	3 6	27	9,000	10	90
800	35	28	10,000	10	100
900	33	29	12,500	9	110
1,000	31	31	15,000	8	120
1,100	30	33	16,000	7	112
1,200	28	33	17,500	7	122
1,250	28	35	18,000	7	126
1,500	25	37	20,000	7	140
1,750	23	40	22,500	6	135
2,000	22	44	25,000	6	150

#### STOCK VALUES 10 Watt Size

Ohms         Milliamps.         Cur. Milliamps.           1         3.150 amps.         1.000 amps.         100 amps.           1         3.150 amps.         1.000 amps.         100 amps.           2         2.230 amps.         1.100 amps.         95 amps.           3         1.825 amps.         1.200 amps.         91 amps.           4         1.580 amps.         1.250 amps.         78 amps.           7.5         1.155 amps.         1.750 amps.         74 amps.           10         1.000 amps.         2.000 amps.         61 amps.           12         9.10 amps.         2.250 amps.         64 amps.           20         707 amps.         3.500 amps.         61 amps.           20         707 amps.         3.500 amps.         61 amps.           30 amps.         575 amps.         4.000 amps.         40 amps.           40 amps.         5.000 amps.         40 amps.         3.500 amps.           100 amps.         3.500 amps.         3.500 amps.         3.500 amps.           125 amps.         2.23 amps.         3.000 amps.         3.500 amps.           125 amps.         2.23 amps.         3.000 amps.         3.500 amps.           250 amps.         2.25 amps.		10 114	II SIZE	
2 2.230 1,100 95 3 1,825 1,200 91 4 1.580 1,250 89 5 1,415 1,500 79 7.5 1.155 1,750 74 10 1,000 2.000 63 12 910 2.250 64 15 815 2.500 61 20 707 3.000 56 30 575 4,000 47 35 535 4,500 44 40 500 5,000 44 40 500 5,000 33 125 283 8,000 31 125 283 8,000 31 125 283 8,000 31 125 283 8,000 31 125 283 8,000 31 125 283 8,000 31 125 283 8,000 31 125 283 8,000 31 150 285 10,000 26 150 144 1,750 11 150 250 150 150 150 150 150 150 150 150 150 1	Ohms	Cur.	Ohms	Max. Cur. Milli- amps.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 3 4	2.230 1,825 1,580	1,100 1,200 1,250	100 95 91 89 79
30 575 4,000 42 35 535 4,500 44 40 500 5,000 44 50 447 6,000 36 75 365 7,000 32 125 283 8,000 32 150 288 10,000 22 200 223 12,000 22 250 200 12,500 26 300 182 14,300 18 350 169 15,000 12 600 129 8,000 17 600 129 8,000 16	10 12 15	1,000 910 815	2,000 2,250 2,500	7 4 6 9 6 4 6 1 5 6
75 365 7.000 33 100 315 7.500 32 125 283 8.000 31 150 258 10.000 24 2200 223 12.000 26 250 200 2.500 20 350 182 4.300 18 350 169 15.000 18 400 158 (6.000 17 500 129 18.000 16	30 35 40	575 535 500	4.000 4.500 5,000	51 47 44 40
250 200 2.500 20 300 182 4.300 18 350 169 15,000 18 400 558 16.000 17 500 141 17.500 16 600 129 18,000 16 750 119 20.000 18	75 100 125 150	365 315 283 258	7.000 7.500 8.000 10,000	3 3 3 2 3 1 2 4
500 141 17.500 17 600 129 18.000 16 700 119 20.000 17 750 115 22.500 15	250 300 350	200 182 169	12.500 14.300 15,000	20 18 18
	500 600 700	141 129 119	17.500 18,000 20.000 22.500	17 16 18

Size 1 % x % in.

10-watt. All sizes . \$0.24

#### STOCK VALUES 20 Watt Size

Ohms	Max. Cur. Milli- amps.	Ohms	Max. Cur. Milli- amps.
5	2,000	3.000	81
10	1,415	3,500	75
25	895	4,000	70
50	633	4,500	66
75	517	5.000	63
100	448	6,000	57
150	365	7,000	53
200	316	7,500	51
250	283	8,000	50
300	258	10,000	43
350	239	12.500	39
400	223	15,000	34
500	200	20,000	27
630	175	25.000	25
700	169	30,000	21
750 800 850 1,000 1.200	163 158 153 141 129	35.000 40.000 45.000 50.000 55.000	18 17 13 11
1,250	126	60,000	10
1,500	115	65,000	10
1,750	107	70,000	9
1,850	101	75,000	9
2,000	100	80,000	8
2,250 2,400 2,500 2,750	94 91 89 85	95,000	6.5 6

Size 2x 1/2 in.

CENTER-TAPPED FILAMENT RESISTORS

Net Pric	Type Resistor	Total Resistance	Filament Voltage
\$0.2	 WIREWATT	20 ohms	2.5
	 BROWN DEVIL	20 ohms	· 2.5
	 WIREWATT	25 ohms	5.0
2	 WIREWATT	50 ohms	6.3
	 BROWN DEVIL	50 ohms	7.5
3	 BROWN DEVIL	100 ohms	10.0

#### HIGH FREQUENCY CHOKES



#### OHMITE ALL-PORCE LAIN RHEOSTAT-**POTENTIOMETERS**



Ohmite rheostats are made entirely of porcelain and metal; their construction is the only real improvement in rheostat design in the last 25 years. Made in 25, 50, 100, 150, 300 and 500 watts, and in a large range of resistance values, these units are ideal for all amateur and broadcast station work. The exclusive features of these units include insulated shafts and bushings, all-porcelain consruction, flat contact surface, large number of contact steps. carbon-graphite contact shoes. FILAMENT TRANSFORMER PRIMARY RHEOSTATS

Max. Current Milliamps. Secondary Rheostat Ohmite Cat. No. Volt-Ampheres Resistance Watts Price 5 7 10 14 19 24 32 48 68 107 147 500 ohms 350 ohms 250 ohms 0156 0155 0154 25 25 222 267 \$2.40 2.40 2.40 2.40 2.40 2.40 2.40 2.70 2.70 10 14 19 24 32 to 25 25 25 25 315 375 445 ohms ohms to to to to 125 25 25 25 500 575 709 0150 0149 0317 48 68 75 ohms 50 ohms 107 147 200 ohms 50 50 to 16 ohms

For information on other sizes write for new Ohmite Catalog.

# DIALS

## CROWE MICROMASTER DIAL



#### CROWE AIRPLANE DIAL

I. D. of escutcheon 3% inches. Wedge drive with geared connection to the pointer. Ratio 7 to 1 in 180°. Pointer travels 268°. Bronze escutcheon. Ivory translucent dial, one pilot bracket included. An all-wave dial—4 channels.
No. 1591.—Condenser closes left.
No. 159R.—Cond. closes right.





#### CROWE AIRPLANE DIAL

2% inches across face inside escutcheon. Friction disc drive. Ratio 7% to 1 in 180°. Includes pilot lite sockets. Bronze escutcheon. Black translucent dial. Convex glass. Two channels. An attractive dial. No. 1661—Condenser closes left.

No. 1668—Condenser closes | \$1.50

right. Each.....

#### CROWE AIRPLANE DIAL

Friction disc drive. Ratio 9 to 1 in 180°.

I. D. of escutcheon 2% in. Bronze escutcheon. Ivory translucent dial with four channel markings. Convex "Croglas" dial. Includes pilot lite sockets.

No. 183L—Condenser closes left.

No. 183R—Condenser closes

right. Each.....





#### AIRPLANE DIAL

2%-inch black with white graduations Pyrolin dial. Bronze escutcheon. Convex glass. Ratio 1% to 1, 180°. Friction drive. No. 125—Right or left close.......\$1.20

MICROMASTER DIAL

Similar in construction to No. 301 dial, described above. Bronze escutcheon; 3% in inside diameter, pilot lite brackets included.

No. 316R—Condenser closes right. No. 316L—Condenser closes left.

Each .....\$3.25



#### LINE CORD RESISTORS FOR AC—DC RADIO SETS.

Replacement for Voltage Re-sistor Cords in AC-DC sets. Cord has built-in resistor as third wire for reducing line voltage to the correct value voltage to the correct for the tube filaments.



STOCK VALUES							
Stock	Total Voltage Drop	Resistance					
No.	in Filaments	of Cordohm					
	18.0 to 24.0						
	45.0 to 55.5						
Net price, all types, each \$0.33							



#### AIRPLANE DIAL

I.D. of Escutcheon, 2% in. Ratio 7 to 1. Pyralin scale with peach with brown graduations. Bronze escutcheon. No. 123R—Condenser closes left. No. 123R—Condenser closes right.

.....\$1.80

#### AIRPLANE DIAL

I.D. of Escutcheon, 21/2 in.

Ratio 4 to 1. Pyralin scale with black and white graduations. Oxidized silver escutcheon. No. 124L—Condenser closes left. No. 124R—Candenser closes right.





#### REPLACEMENT FAN DIAL

O.D. of Dial, 3% in.

Ratio 6 to 1. Wedge drive. 1. Fan pyralin scale. No escutcheon. No. 46L-100-0. No. 46R-0-100.

Each .....\$0,72

O.D. of dial 3 in.

Ratio 4 to 1. Shadow scale. Wedge drive. No escutcheon.

No. 83L—Condenser closes left.

No. 83R—Condenser closes right.

#### DIAL PLATES AND NAME PLATES BLACK WITH SILVER MARKINGS Rectangular plates



Calibrated 0 to 10 in 300° one \$0.12 Gain" 12 12 12 12

### DOLLARD DI ARROLT IN DIAMETER

ROUND PLATES 1/8-IN. DIAMETE	4
No. 262-180°. Plain: etched brass. \$0.9	1
No. C263-270°. Plain: etched brass	1
No. C264-270°. Gain; etched brass	2.4
No. C27-180°. Oscillator: cond-aluminum	17
No. C28-180°. Detector: cond-aluminum	0.7
No. C569-180°. Plain aluminum	17
No. C25-Arrow. Volume. Aluminum	
No. C29-Off-On. Beat Osc. Aluminum	
No. C26-Tone. Aluminum	
No. C560—Off-On. AVC. Aluminum	
No. C562—Send-Rec. Stand-by. Aluminum	
No. C572—Pitch control. Aluminum	





#### **OFF-ON PLATES**

Aluminum and black.

C278.

## **CROWE CHANGE-O-NAME PLATES**

548-A-. \$0.21 No. 543-A—Calibrated 0 to 100 in 270°; 2% in diameter. Reads: Fader, gain, master volume, micro. 1, micro. 2, radio volume, record volume, tone, volume, "write your own." ...\$0.36 Each DEDUCT 2% FOR CASH WITH ORDER

**World Radio History** 

37

#### **FUSES**



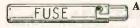
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E	Box	0	f	5.		٠.			٠.				٠.	٠.			٠	.25

#### **FUSE MOUNTINGS**

Single and Double



No.	103-Single,	for	3AG.	Each.		.\$0.09	
No.	127—Double,	for	3AG.	Each.		.15	



Auto Radio Fuse Retainer

No. 1070—Takes 3AG fuse. Used in "A" and "B." Each......\$0.08



Auto Radio Antenna Coupler

1071o. 1071—Also a handy item for radio repair shops. Each......\$0.06



No. E - 272 — Set screw type. Height 37/64-inch. Depth of hole, 7 / 16 - inch Black or walnut. List price, each 12c Not E-271 — Set screw type. Height, 33/64-inch. Depth of hole, 13/32-inch. Black or walnut. List price, each 10c List price, each 10c Net price, each 6c

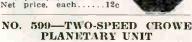


No. E-148M — Set screw type without pointer. Height, 25/64-inch, Depth of hole, 19/64hole, 15/0. Black or inch. walnut. List price, ea. 10c Net price, each 6c



No. E-127 — 1 1/4 -inch ornamental top — set type. 14 -inch ornamental top—set screw type. 4-inch plain hole with set screw. Walnut only. List price, each...10c Net price, each 6c

No. E-146 — 1-1/16-inch octagon pyramid pointer top—set screw type. Walnut only. List price, each.....20c Net price, each.....12c





Used as auxiliary speed reducer on many types of controls. Mounts on condenser, on back of panel with shaft projecting through panel, or on the knob shaft of many dials. Slow ratto about 7 to 1 and

One-third actual size.

#### **DUPLICATION DRIVE** BELTS AND CABLES

DELIS AND	CADLES
AK36-Set of 3	
AK60-61-Set of 3	
AK35-37—Set of 2	
AK40—Set of 2	
AK46—Set of 2	
AK52-53—Set of 2	
AK55—Set of 2	
Bosch—28, 29, tuning.	
Dosch—26, 29, tuning.	control
Bosch—28, 29, voltage Bremer-Tully—14, 21,	control
Bremer-Tully-14, 21,	31
Brunswick-S14, 21, 31	
Brunswick-15, 22, from	nt
Brunswick-15, 22, rear	r
Crosley-40S, 804	
Crosley-601, 602	
General Motors—"A".	
General Motors-"A".	
Majestic-70, 71, 72	
Nine for	\$1.00
Majestic-15B	
Philco-65. Set of 2	
Phileo-71	
Philco-91, 14	
Phileo 111, 112, 112A.	
Philco-76, 86, 87, 95.	Set of 236
RCA-16, 17, 18	
RCA 80, 82, 86	
RCA-42. 48	
Silver Marshall-726	
SM726SW—Belts. Set	2
SM30, 32, 30A, 36A	
SMINU. 34. 8UA. 30A	
A DAYS TIPS	TOTAL TO

#### **AMPERITE** Replacement Regulators for 2. Volt Battery Sets

	2. Von Battery Se	113
Set Name	Set Model	Amperite Part No.
Silvertone	326, 242, 65 1576, 1712, 1713, 1714 223 X, 224 X, 266, 267 1710, 1711 331 334, 324 359	30 (1A2)* 31 (1B2)* 31 (1B2)* 52 (1C2)* 1B1 1E1 1F1 1G1
Air Line	91 77, 95	10AB 6AA
Bosch	042	5E1 (1A1)*
Erla	660 7700	5F1 (1A1)* 6-1 (1J1)*
Philco	34-A	7H1 (1C1)*
Sentinel	7700	6-1 (1J1)*
Sparks With'gton	81. 82	5E1 (1A1)* 2HI (1D1)*
New RM	A numbers.	\$0.95

#### **FUSE CLIPS**

For Littelfuses and 3AG type. Best grade phosphor bronze. Spring will not lose tension. .\$0.05



BAR KNOBS

Made of black bakelite. Fits any ¼inch shaft. Nos. 587
and 588 are very
attractive modern
design.
No. 587 - 2¼-inch
black bakelite har
knob.
Net price, each 12c
No. 588 — 1¼-inch
black bakelite bar
knob.



Net price, each 9c
No. 286 — 14-inch
black bakelite bar
knob. Net price, each &c No. 285 — 214-inch black bakelite bar knob.



Net price. each 9c 286 No. E-17—1-inch dia., with set screw filled arrow. Black with

#### INSULATED GROMMETS

4-inch hole, 7/16-inch diameter. Made in red, green, blue, and yellow. No. 162-Net price, each 6c



#### DRUM DIAL CABLE, BANDS AND BELTS



		le—Bes bronze.	1	g	ra	a.	d	e	n	n.	B.	d	е	•	ŀ	4 3	2	- 5	зt	rand
Price	per	foot 25 feet 100 fee							٠								٠			.75

#### LINEN CORD DRIVE CABLE

Very high grade. Breaking strength, 200 pounds per foot. 

 Per foot.
 \$0.06

 Per 25 feet.
 .95

 Per 100-foot spool.
 3.00

#### PHOSPHOR BRONZE BELTING

	3/16	in.	w	de	bу		008	;	in.	th	ick	
												\$0.08 1.50
Per	20 1	eet.				٠.						. 1,50

#### PILOT LITES Genuine Mazda

						1
3.2-volt.						
6.3-volt.						
2.5-volt.	Box o	f 10.				.60
Less tha	n box,	each				.10
2.0-volt.	Box o	f 10.				1.20
Less tha						
Pilot Lit	es. Sin	gle le	ots,	ea	rh	.10
110-volt	Pilot :	Lites	for	1.	le-	
tor. E	ach					.30

No. E-259—Set screw type. Height, 7/16-inch. Depth of hole, 5/16-inch. Black or walnut. List price, each...10c Net price, each 6c No. E-260—Set screw type with projecting pointer. Height 7/16-inch; depth of hole, 5/16-inch. Black or walnut. List

each 8 price, each.





No. E-110 — 1%-inch 2-tone knob—no skirt—set screw type.
List price, ea. 14c
No. E-123—1-inch.
2-tone knob—no skirt—set screw
type. %-indh plain hole with set screw. Two-tone walnut only. walnut only. List price, jea. 12c Net price, each 8c

E-132-1-1/16-inch octagon pyramid top— set screw type. ¼-inch plain hole with set screw. Walnut only. List price, each....14c Net price, each.....9c





No. E-282-Set screw type. Height, 4-inch; diameter, 29/32-inch. Black or walnut.

List price, each ... 10c Net price. each 6c

#### CONDENSER CUSHION

Used to eliminate acoustic feedback. No. 501-Four for ..., 10a



## **SOLDER**



#### KESTER SOLDER ROSIN CORE

1-1b. spool ......\$0.60 5-1b. spool ..... 2.75

#### KESTER ROSIN CORE



4-oz. handy spool. \$0.15

KES	TER	ACID	CORE
			\$0.56

#### KESTER ALUMINUM SOLDER

	Instructions	
	spool	
1-lb. spool		 1.80



#### KESTER SOLDERING PASTE

2-oz. can ......\$0.12

#### KESTER TRICHLORON SOLDERING SALTS

1-lb.																
5-1b.	pail			,	,	٠	,	,	۰						,	. 1.75

#### FRICTION TAPE

Highest Quality. Fresh Stock 

#### RUBBER SPLICING TAPE

# **MENCHEN'S**



#### SCOTCH TAPE



A new kind of tape having high insulating properties and will not corrode. Formerly available only to man u facturers, this new tape now comes in a ½-in. by 10-yard roil at a price which enables every radioman to try it. Include a roil with your order. Net cost, only ....\$0.30



No. 45-Pee Wee Clip; length 11/2 in.,
jaw spread 1/2 in.; Cadmium plated.
Each\$0.05
Box of 10
No. 48B-10 amp, clip; length 2 in.; jaw
spread 9/16 in.; Cadmium plated.
Each\$0.05
Nox of 10
No. 24A-25 amp.; length 21/2 in.; jaw
spread 1 in.; lead coated. Each\$0.09
Box of 10
No. 21A-50 amp.; length 3% in.; jaw
spread 114 in.; lead coated. Each. \$0.14
Box of 10 1.20

#### RUBBER INSULATORS For use with above clips



Protects against electrical shocks.

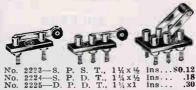
	For use with	d tello pittoit,	Lot
No.	Clip No.	Each	of 10
47	45 Pee Wee	\$0.07	\$0.50
49	48B	.09	.60
26	24 A	.15	1.40
23	21 A	.21	2.10
87	85 .	.05	.35

#### **SPECIAL** SOLID COPPER RADIO FREQ. CLIPS



#### ALLIGATOR TEST CLIPS

#### MIDGET KNIFE SWITCHES Bakelite



#### PORCELAIN KNIFE SWITCHES Small Size



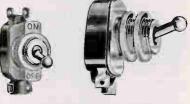
No. 235 S. P. S. T... No. 236—S. P. D. T... No. 237—D. P. S. T... No. 238—D. P. D. T... No. 239—Triple P. D. T...

SEE SOLDERING IRONS ON PAGE 87

SEE TERMINAL STRIPS AND TIE POINTS ON PAGES 40-85

SEE HARDWARE ON PAGES 90-91

## **SWITCHES**



#### CARLING TOGGLES

Very Good Quality. All Rated at 6 Amps., 125 Volts

No. SS100-Single pole, single Long or short shank. throw. Each . 80.17 No. SD200—Single pole, double throw. Long shank only. Ea. \$0.25 No. DS300-Double pole, single throw. Long shank only. Ea. \$0.28 No. DD400-Double pole, double throw. Long shank only. Ea. \$0.40



Long shank % in.

Short shank ¼ in.

#### HART HEGEMAN TOGGLES Best quality obtainable. All rated

at 6 amps., 125 volts. only. Each . . . . . . . . . . . . \$0.35 No. HH4-D. P. D. T. Long shank only. Each .....\$0.45



#### ROTARY SWITCH

3 amps. Rating 1-in. shaft.

No. 499—Single pole, single throw.. \$0.24 No. 1071—Single pole, double throw .30

#### ROTARY CANOPY SWITCH





#### G. E. ROTARY AC SWITCH

Regular rotary "ON" and "OFF" switch. 3 amp.

125 V. Underwriter approved; 8-in. insulated leads; shaft ½ in. long.

No. SGE-99—Each, with knob.....\$0.09

Ten for \$0.85

#### **SNAP-ON KNOB**

Ten for \$0.35

# Sockets - Shields - Binding Posts

#### AMPHENOL SOCKETS



The most perfect contacts and sturdiest constructed. Made of molded bakelite. Held to chassis with locking ring of spring steel. Mount in 1-5/32 in, hole—large size comb, in 1-5/16 in, hole. Locking ring included.

Type S-In 7 small and 7 large combination and 8 octal. Each......\$0.00

**AMPHENOL ADAPTER** PLATE



...\$0.08

The type S sockets can be had as illustrated at right with steel plate. Slotted mounting hole centers from 1½ to 2 in. Ten for ....

Type RS—In 7 small and 7 large combination and 8 octal. Each......\$0.09



#### TUBE SHIELD BASE

Made 1-19/32 in. for standard tube shields. Fits under amphenol sockets and chassis Each ......\$0.02 plugs.

"Above chassis" type socket. Mount with one screw if desired.



No. ACS—in 4-prong to 7-prong. Each....\$0.07 8-prong octal. Ea.....99



Bakelite prong plug—fits chassis or any Amphenol accessory. May be had in 4 to 7 prongs, inclusive. Price each .... \$0.061/2

#### TUBE SHIELDS



No. 392—For new Dome type tubes, 3-piece ventilated aluminum, 1-27/32 in. mounting centers.

large round top tubes, 1-27/32 in. only. Each ......\$0.10





#### **GLOVE-TITE** TUBE SHIELDS

No. ST-12 fits 57, 58, 2A7 and similar tubes.
Each \$0.07

No. ST-14 fits 24A, 35, etc. Each \$0.07

These shields come in two pieces, complete with all hardware.

#### COIL SHIELDS

#### **ALUMINUM**

With detachable base which makes it possible to lift the shield off the base.

No. 1539-21/4 x3 in. high \$0.15 No. 1540-2% x3% in. high .18



#### **AMPHENOL** STEATITE SOCKETS

One of the strongcontent of the strong-est sockets made. Low-loss socket di-ameter 1 1/4 inches; mounting centers slotted 1 1/2 in. to 2 in.

Type RSS-In 4, 5, 6 and 7s. Each. \$0.24 Type RSS-In 7L and 8 octal. Each .30

#### **INSULEX** WAFER SOCKET





cont	tacts.									
	2600-4-prong						 			.\$0.24
	2601-5-prong									
No.	2602-6-prong				٠		 			27
No.	2603-7-prong,	large	*	٠		٠	 		٠	30
	2604-7-prong,									
MO.	2605—8-prong,	octal	*	٠	٠	٠		٠	•	33

#### **INSULEX BASE BOARD SOCKET**

A real socket for H. F. work and Transmitters. In-sulex is a white colored ceramic material, glazed

No.	290-4-prong						٠														\$0.30
No.	291-5-prong			٠		٠		٠		٠	٠			٠		٠					.30
NO.	292-6-prong	_	÷	٠	٠	٠	٠		:	:	٠	٠	:			٠	٠			٠	.33
	294-7S and																				
NO.	300—8 octal	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	.36

#### WAFER TYPE **SUB-PANEL** SOCKETS



Tight grip, long-lasting contacts. Standard Size

1-27/32 in. Mounting Holes 

Midget Size

11/2 in. Mounting Holes Type M-In 4, 5 and 6 prongs....\$0.06 

#### EBY SOCKETS

**TYPE 12** 

Molded Bakelite Sockets



Connections from below or above sub-pan-el. 1-11/16 in, mounting centers

		Each	5 for
No. E124-4 prongs			\$0.80
No. E125-5 prongs			.80
No. E126-6 prongs			1.00
No. E127SL-Comb. large at	n d		
small 7 prongs			1.00
No. E12C5-6-Comb. 5 and	6		
prongs		.22	1.00
No. E128-8 octal		.27	



#### TYPE 8 Molded Bakelite Socket. Sub-panel

Connections. 1-11/16 in. Mount-ing Centers.

No.	E84-4	prongs										5 for \$0.55
No.	E85-5	prongs		i	ì	ì	ì		ì	Ĺ	.15	.70
No.	E86-6	prongs		Ĺ	i	Ì	ì		ì		.15	.70
No	E87S	7 prong	S.		S	n	18	ίl	ì		.15	.70
	E87L-											.70
	E88-8											

#### MAGIC EYE SOCKET ASSEMBLY



#### ICA TERMINAL STRIPS

ICA Terminal Strips are specially adapted for ampliflers, mixing panels, radio sets, short-wave radio sets and other uses. Made of black heavy bake-lite with specially designed nickel plated phosphor bronze screw terminals with non-removable collars.



		INPUT								
	Desc									Net
	Terminal									
ing		<del></del> .							 ٠	\$0.09
2414- 3	Terminal	Strip				+			 ٠	.12
2413 4	Terminal	Strip								.18
2405 5	Terminal	Strip								.21
2404-6	Terminal	Strip.								.24
2412 7	Terminal	Strip.								.30
2410 8	Terminal	Strip.							 	.36
2424 9	Terminal	Strip.		٠				1		.42
2422-10	Terminal	Strip.	٠.					4		.18
Centers 1	Between 1	ermina	ls		5/8		I	n	A	part

#### TWIN AND TRIPLE POSTS

No. 21S-Ant. Gnd. \$0.21 No. 21T-L. Ant. S. Ant. Gnd. .....





#### MOULDED TWIN JACK

Plain No Marking. No. 17-Net each. \$0.15

#### LAMINATED JACKS

Plain No Marking. No. 18—Twin Jack, Each ......\$0.06 Jack.





#### BINDING POSTS

Famous Eby bakelite bindnior' ing post. Each \$0.10

Eby "Sergeant" brass binding post. Each ......\$0.15



#### FITTINGS - ADAPTERS MICROPHONE

#### CABLE AND MIKE CONNECTORS

Bronze contacts moulded in bakelite. Standard threads, % -27, can be fitted into microphone housings or stands.



(CO)

		Net	9	Eacn
No.	MC3M-3_prong	(male)		\$0.60
No.	MC4M-4-prong	(male)		60
No.	MC3F-3-contact	(female)		60
No.	MC4F-4-contact	(female)	٠	66



#### CHASSIS CONNECTOR

		Net, Each
	(Requires 13/16	-inch hole)
No.	PC3F-3-contact	(female) \$0.30
No.	PC4F-4-contact	(female)33
No.	PC4M-4-contact	(male)33



MIKE STAND CONNECTOR (Use CSR Cable Strain Relief) No. SC3F—3-contact (female). Net, each...\$0.60 No. SC4F—4-contact (female). Net, each.....60

#### MICROPHONE SHOCK ABSORBER

Made of polished chrome plated brass with para gum rubber cushion. Will improve performance of any microphone. No. MSA3-7/16-inch hole for wire. Net, each \$0.60



#### SIDE CABLE OUTLET

For use where it is undesirable to run cord down through stand. Will hold cable firmly so that it cannot be pulled loose from microphone elements. No. SCO3-Outlet. Net, each.....

#### CABLE STRAIN RELIEF



A dependable gadget to prevent sudden jerking from pulling mike cable loose from its connections.

No. CSR3-Strain relief. Net, each.....\$0.15



#### OCTAL CONNECTORS

(Cord Type)

Of same general construction as above connectors but permitting use of up to 8-wire cable.

Net. Each No. 08M—Male connector.....\$0.75 No. 08F—Female connector......75



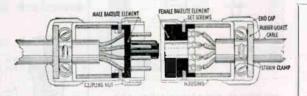
08F

#### OCTAL CHASSIS CONNECTORS

(Require 1-7/36-inch hole)
No. POSM — Male connector. Net. N e t, each .....\$0.36 No. POSF — Female connector.



**Cut Away View** OCTAL CORD CONNECTOR



#### MICROPHONE PLUGS AND **JACKS**





Net, Each

No. 1057-	-3-way plu	g, bakelite		\$0.45
No. 284-				
No. 230-				
		g, shielded		
No. 1058-		k, panel m		
No. 1059-		nector, ba		
No. 283-	-3 way con	nector, sh	ielde	1 .57

NOTE: 3-way connectors can be used with 2-way plugs.

Speaker Plugs

#### MICROPHONE STAND ADAPTERS



These adapters will fit any stand having a 4.in, thread so that any type of microphone can be used.

No. B7	55-4 pipe	to	5/8	-27.	Net	\$0.15
No. B7	56-14 pipe	to	1/2	pipe.	Net	
	57—¼ pipe 58—¼ pipe				Net	.15

#### MODEL FJ600 SWIVEL JOINT



#### HEAVY DUTY RUBBER PLUGS

Handle is durable rubber 1% in. long. Plugs are of Bakelite.

	Ma	ale.		Female.
No.	Net I	rong	s No.	Net
104RS	80.12	4	99A4	\$0.12
106RS	.12	5	99A5	.12
106RS	.12	6	99A6	.15
107RSA	.12	78	99A7S	.15
107RS	.12	7L	99A7L	.15

#### **EASY-GRIP** BAKELITE SPEAKER **PLUGS**



	Male		Fen	nale.
No.	Net	Prongs	No.	Net
984	\$0.18	4	984F	\$0.24
985	.18	5	985F	.24
986	.18	6	986F	.24
9878	.18	78	987SF	.24
187L	.18	7L	987LF	.24
600	20	8	9881	26

#### **AMPHENOL** CABLE CONNECT-

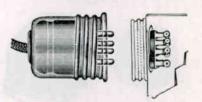


Strong amphenol plugs housed in steel caps. and sockets

#### Unbreakable.

	Male.		Female.						
No.	Net I	Prongs	No.	Net					
PM4 PM5	\$0.15 .15	5	PF4 PF5	\$0.15 .15					
PM6 PM7S	.15	6 7S	PF6 PF7S	.15					

#### CABLE CONNECTOR COVERS



A threaded steel shell consisting of a male and female section. These shells are slipped over the regular cable connectors and serve to lock the two sections together.

No. C-CAB-2 pieces. Per pair .... \$0.15

#### CHASSIS TYPE COVERS

Consist of CAB shell and threaded chassis ring. Excellent to lock cable plus to amplifier chassis.

No. C-CHA-Shell and ring. Each \$6 **DEDUCT 2% FOR CASH WITH ORDER** 

## Snapit "Underwriters Approved" Electrical Items



#### RAKELITE TWIN SOCKETS

Angle type. No. 1500 . . . . . . . . \$0.08



Offset type. No. 1502.....\$0.08

#### BAKELITE 3-WAY TAPS

Straight current tap without control.

No. 1501-Net price .....\$0.08



#### PULL CHAIN TAP

With control of bottom outleft.

No. 1505-Net price....\$0.18



#### BAKELITE 3-WAY CUBE



No. 60-Net. each .....\$0.06

BAKELITE 3-WAY SERV-ICE TAP



No. 67-Net, each ......\$0.06

#### BAKELITE CONVENIENCE OUTLETS



Single. No. 50.....\$0,09



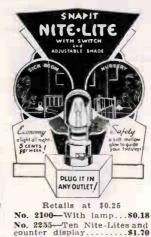
#### **FUSED CUBE** TAP

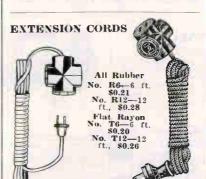
42



#### SNAPIT "NITE-LITES"

With switch and adjustable shade.





#### 20-FOOT HEAVY DUTY ALL-RUBBER CORD SET



RUBBER TROUBLE LAMP

With Switch No. 504—

15 ft. ... \$0.65

No. 506—

20 ft. ... .75

No. 508—

25 ft. ... .85

Without Switch No. 504N— 15 ft......80.55 No. 506N— 





"O. K." FUSES

As illustrated, you can see at a glance when a fuse is "shot." Sizes 10, 15, 20, 30 amps.
Box of five.....\$0.18

ATTACHMENT CAPS



No. 350-Bakelite. \$0.03 No. 370--Rubber. \$0.04



#### BAKELITE CAP AND BASE



No. 475-Cap 

#### BRASS SHELL SOCKETS



No. 2207-Chain socket .

### BAKELITE APPLIANCE PLUGS



1,000 watts No. 323P-No switch.

No. 13Pswitch. With



#### APPLIANCE CORDS



6-foot rayon cord, 1,000 watts capacity. No. 423P-No switch.....\$0.23 

#### EAGLE ELECTRIC DESK LAMP

Flexible arm, 12-in. gooseneck, heavy cast-iron base, large size reflector with turnknob socket. No. 395—Net ......\$0.98



## **Electrical Specialties and Equipment**

#### SWITCHES—RECEPTACLES



TOGGLE SWITCH No. 211-Ea. ...\$0.10

SINGLE RECEPT-ACLE No. 204— Ea. ...80.06 DUPLEX RECEPTA-CLE No. 203-Ea. ...8 ...80.07

#### BAKELITE COVER PLATES







TOGGLE PLATE No. 101— Ea. ...\$0.05

SINGLE PLATE No. 104— Ea. ...\$0.06

DUPLEX PLATE No. 103— Ea. ...\$0.05

#### RADIO WALL OUTLETS





One Outlet Polarized

and radio cap

No. 4594I—Same in ivory

No. 4595B—Brown bak, triplex radio outlet complete with wall plate, box divider, radio cap and two attachment plus

\$1.05 No. 4505I-Same in ivory ...... 1.35

#### APPLIANCE PLUGS

(Unapproved)



No. 313-Without switch ..... \$0.05 

#### VALUE PLUS (Unapproved)



No. 433-660 watt, 6-ft. cord.

#### SOCKET AND PLUG

The handlest and heatest way to connect A.C. to a receiver or transmitter!





The socket countersinks into appliance with a nickeled mounting ring flush.

The plug is connected to A.C. cord and plugs right into the socket.



#### WEST BEND Aluminum Electric GLOW LAMPS

Satin finish—9 inches high—shade tilts to any angle. Very attractive—nice for that desk in the "Ham Shack."

#### SURFACE AND FEED-THRU SWITCHES





SURFACE TOGGLE No. 200-Ea. 80.10

FEED-THRU SWITCH No. 30-Ea. .. \$0.12

CLEAT RECEPTACLE WEATHER-PROOF SOCKET





BAKELITE No. 2150— Each .....\$0.06

BAKELITE 

#### CEILING RECEPTACLES



PORCELAIN

Without pull-chain switch. No. 2133-.....\$0.10

pull-chain No. 2110 A— Each ......\$0.16

HEATING ELEMENTS



No. 2418—Iron elemen Each ......\$0,5 .....\$0,20 No. 2417—Heater element. Each ......\$0.17

### SNAPIT COMBINATION OUTLETS, SWITCHES AND PILOT LITES

















The Perfect Answer to a Properly Wired Test Bench

Double Outlet and Cover No. 105-Net, each .....\$0.16

Switch-Receptacle and Cover Plate.

Switch-Pilot Lite and Cover No. 106-Net, each.....\$0.31 No. 107-Net, each .....\$0.54

Receptacle-Pilot Light and Plate No. 108-Net, each .....\$0.50

## BELDEN-Aerial-Hook-up-Electrical-WIRES

PLAIN AND ENAMELED ANTENNA WIRE



Guaranteed Full Lengths Full Sizes

#### PLAIN

								٠.	4.4	46		,					
.80.30					)	2	(2		1 4		Vο	1	rand	st	7	ft.	100
23					) .	2	(2		14		Vο	1	rand	st	7	ft.	75
24					) .	4	(2		16		Vο	1	rand	st	7	ft.	100
17		 *			)	4	(2		16		Νo	3	rand	st	7	ft.	75
						)	Н		Đ	M	A	N	E				
.80.42					)	2	(2		14	١.	٧c	1	rand	st	7	ſt.	100
34					)	2	(2		1 4	١.	٧c	1	rand	st	7	ft.	75
35					)	4	(2		16	١.	Vo	1	rand	st	7	ft.	100
27					)	4	(2		16	١,	٧c	1	rand	st	7	ft.	75
			)	c 1	E	L	E	M	A	N	ŀ	D	OLI	8			
.\$0.50													12	o.	N	ft.	100
75										٠.			12	o.	N	ft.	150
. 1.00					٠						٠.		12	o.	N	ft.	200
. 1.50	,												12	0.	N	ft.	300

 100 ft. No. 14
 .34

 150 ft. No. 14
 .51

 200 ft. No. 14
 .68

 300 ft. No. 14
 .02

#### COPPERWELD ENAMEL

Has steel core with copper welded on outside. Is the perfect wire for transmitting antenna as it will not stretch even 1%. No regular copper wire compares with copperweld.

No.	12	ge	11	u	g	e	,	•	91	n	а.	n	1	el	le	Ċ	1	C	0	Ţ	)]	pı	21	- 1	w	e	1	d	wire	
100																														
150	feet	t.																		٠									1.35	5
200	feet	t.																											1.80	)
300	feet	t.																											2.70	)

#### SPECIAL

75 ft. special,			
enameled wire	specified	by	Philco for
all wave aerials			
100 ft. special, a	as above.		

The market on copper is up. We expect to be able to supply our Fall trade at the above prices, but the supply is limited.

### ★ OUR BEST SELLER ★

Here is the handlest all-purpose wire on the market. Use it for car radio aerials, inside or outside lead-ins, hookup wire, etc.

No. 18-16 strand, tinned, shiny black rubber covered with cotton serving inside. 1/64-in. insulation. Include a coil or spool on your next order.

\$3.40	. :		٠							6	-1	18-	No.	1	poo	8	)-ft.	1,00	
1.80										6	-1	18-	No.	1	poo	9	)-ft.	500	
.95						٠					-16	18-	lo.	N	oil	C	)-ft.	25	
1120	ra	R	1 4		'n	N	,	1	١,		ve	a ho	9.9	FA	wi	i a	sa m	The	

 250-ft. spool No. 16—24
 1.45

 100-ft. coil No. 16—25
 .60

 50-ft. coil No. 16—24
 .30

44

#### HOOK-UP WIRE



No. 9830—No. 18 stranded tinned copper, 1/32" R. C. with a real heavy braid over-all thickly lacquered. This is a fine wire for high voltage work in Xmtrs. 40-ft. spool. Five colors. Ea. \$0.39

No. 9827—No. 14 stranded copper wire. 3/64" R. C. with braid over-all, this is an ideal heavy duty filament wire. 35-ft. spool. Black. Each.............\$0.39



### BELDEN MAGNET WIRE

										Double	Donote
								e		. Cov.	Silk Cov.
									30.17		
							i		.17		
									.17	80.20	80.26
	*	*	٠	*	*						
									.17	.22	.27
									.18	.24	.29
									.18	.26	.34
				1							
									.20	.31	.40
									.21	.36	.47
									.23	.42	.54
						. ,			.26	.51	.72
									.38	.81	1.32
	•	•	•	•	•			•		spools.	21010

#### Table Showing Feet Per Pound

	Double		Double	
	Cotton	Plain	Silk	
Gauge	Covered	Enameled	Covered	
14		80		
16		125		
18	192	202	199	
20	298	319	314	
22	464	506	494	
24	711	804	778	
26	1.080	1,280	1,220	
28	1,630	2,030	1,910	
30	2,420	3,220	2,960	
32	3,500	5,100	4,570	
36	6,660	12,800	10,500	
		20,300	15,500	
• •		32,100		
		0=,=+0		

#### SOLID LEAD-IN WIRE

VALUE-PLUS

Heavy braid			
ped.			
Per coil			
Ten colls			
Twenty-five c			
Fifty coils	 	· · · · · · · · ·	4.50

#### SHIELDED LEAD-IN WIRE

Stranded tinned copper wire, 1/32" rubber insulation with tinned copper shleld over-all.

 No. SL-18—18 gauge.
 Per ft.
 \$0.01½

 100-ft.
 spool
 1.00

 No. SL-16—16 gauge.
 Per ft.
 .02

 100-ft.
 spool
 1.50

## 3=====

CENTER-RIP A. C. CORD

## RUBBER COVERED A. C. CORD

A heavy duty utility wire, No. 18 gauge, each wire separately insulated with cotton serve and rubber Heavy rubber insulation over-all. Black.

No. 8972. Per ft. \$0.023/2
10 ft. for ... 18
250-ft. spool ... 4.00

# COTTON LAMP CORD TWISTED PAIR

 Each conductor No. 18 stranded copper, cotton served, rubber covered with a heavy cotton braid over-all. Black with racer. 1/32" R/C.
 No. TPAC. Per ft.
 \$0.02

 10 ft, for.
 .15
 .360

 250-ft, spool
 3.60



## PARALLEL SILK CORD

Each conductor No. 18 stranded copper, cotton served, 1/32" rubber insulation with heavy silk braid over-all Brown only.

No. PSAC.	Per	ft.								٠				ļ				\$0.02
10 ft 250-ft. sp	ool.		:	•	:	•			•		•	٠	•	ì	•	•	•	4 00

#### COPPER SHIELDING BRAIDS



Heavy Duty-Tinned.

No. 8935—13/64 in... \$0.18 \$0.70 \$ 2.94 No. 8936—25/32 in... 80 3.50 15.24

#### SHIELDED WEATHERPROOF LOOM



Heavy impregnated loom tubing covered with tinned copper shielding braid.  $\frac{1}{4}$ " I. D. $-\frac{5}{1}$ 6" O. D. Per foot.... $\frac{5}{1}$ 0.05. Per foot.... $\frac{5}{1}$ 0.05.



#### LOW CAPACITY SHIELDED CABLE

For auto aerial lead-in. No. 18 stranded copper. Rubber insulated, jute filler with tinned copper sleeving over-all. Permits shield grounding without signal

\*This is same as regular Aerial Cordage except it has a heavy Rubber-Cover Over-all Weatherproof.

#### BIRNBACH MAGNET WIRE

\$0.25 Per Spool

Plain enameled, double cotton covered and double slik covered magnet wire put up in proportionate lengths in even sizes from No. 14 to No. 40.

## BELDEN WIR



## **ACCESSORIES**

#### TWISTED PAIR A. W. LEAD-IN WIRE



Belden wire, specially designed for all-wave reception. Two conductors No. 20 tinned stranded copper, paper wrap. 1/32 in. rubber wall, over-all braid of black cotton. waxed, color-coded.

No. 8834-80-ft. coil
Per ft., cut lengths—\$0.01\(\frac{1}{4}\).  No. 8844—500-ft. spool
No 8841-For transmitters and link cir-
cuits, surge impedance, 93 ohms. No over-all braid. Size 19 conductors, enam-
eled with pushback insulation. Waxed.
100-ft. spools\$1.29
Cut lengths, 10 ft. for

#### INDOOR AERIAL WIRE

Used on A.C.-D.C. sets. No. 20 wire, 60 strands with cotton wrap and brown braid.

No.	8842-60-1	t.	BP	001						٠	.44
Cut	lengths, 1	0	ft.	for.			٠		٠	٠	.08



Twisted pair, No. 18 stranded copper wire, 1/32 in. rubber insulation; a good weatherproof wire.

No. AW1135-Cut lengths. 10 ft. for \$0.11 80-ft. coil... .75 500-ft. spool.. 4.50 50-ft. coil...\$0.50 110-ft. coil....95

#### ANALYZER CABLE

8 and 9 conductor. Has two heavy leads for filament circuits. Heavy black glazed braid with red tracers over-all.

No.	8958-8-conductor.	Per	ft\$0.08	
	8959-9-conductor.			

#### RADIO BATTERY CABLE

Has two heavy leads for filaments. Wires color-coded. Durable brown braid overall.

No.	8953-3	wires.	Per	ft\$0.03	
No.	8984-4	wires.	Per	ft	,
No.	8985-5	wires.	Per	ft	,
No.	8956-6	wires.	Per	ft	ı
No.	8857-7	wires.	Per	ft	

#### MULTI CONDUCTOR SHIELDED CABLE



No. 20 tinned stranded copper paper wrap, 1/64 in. rubber, color-coded, lac-quered cotton braid with tinned copper shield overall.

No. 8962-2-wire. Per ft\$0.	.03
100-ft. spool	.67
No. 8963-3-wire. Per ft	.04
100-ft. spool	
No. 8964-4-wire. Per ft	.05
100-ft. spool 4	
No. 13208-5-wire. Per ft	.06
100-ft. spool 4	.50

#### MULTI CONDUCTOR COTTON BRAID OVERALL SHIELDED



No. 20 tinned stranded copper; 1/16 in. rubber wall; lacquered cotton braid; tinned copper shield with durable brown cotton braid overall.

No. 8962-2-wire; can be used as double	
button mike cable unsing shield as	
ground. Per ft\$0.03	
100-ft. spool	
No. 8963-3-wire. Per ft	
100-ft. spool	
No. 8964-4-wire. Per ft	
100-foot spool 4.40	
and the proof of t	

#### MULTI CONDUCTOR RUBBER COVERED

No Shieid.



No. 18 stranded copper, cotton serve 1/64 in. rubber, color-coded, with filler, cotton braid, heavy rubber coat overall. No. 8972—2-wire. Per ft. \$0.025 No. 8973—3-wire. Per ft. 035 No. 8974—4-wire. Per ft. 045 250-ft. coil 9.63 This 4-wire cable is ideal for speaker work on P. A. jobs. No. 8975-5-wire. Per ft.....\$0.06

#### MULTI CONDUCTOR SHIELDED AND RUBBER COVERED



For all microphone use and for particu-lar installations of speakers, remote lines and photo cell work. This is the finest grade of wire, 13x36 tinned cop-per, two serves of celanese, two braids of celanese, four braids of cotton, waxed: tinned copper shield; heavy rubber cover overall.

100-ft. spool. 6.33

No. 8877—2-wire, each conductor 26x34 tinned copper; rubber wall color-coded; cabled and cotton wrapped; tinned copper shield; cotton wrap over shield and rubber sheath overall. For 2-button mikes, transmission lines and remote control work. Per ft. \$0.05

No. 8874—3-wire, same construction as No. 8877—for carbon mikes which do not employ a grounded center tap or which couple to a mixer panel. Per ft... \$0.05 100-ft. spool. 4.32

No. 8847-6-wire, same as No. 8877. Per 

DEDUCT 2% FOR CASH WITH ORDER

#### LIGHTNING ARRESTERS



Belden bakelite, \$100.00 insurance, convenient small size. A real, high quality A real, high quality arrester 



WINDOW LEAD-IN STRIPS

No. C7

DOUBLET LEAD-IN STRIPS No. C788





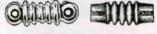
#### NOC-OUT GROUND **CLAMPS**

No. KO-10—Ea-10 for .... KO-10-Each .... \$0.05

**CLAMPIPE** GROUND CLAMP 



9-IN. COPPER STRAP GROUND CLAMPS



No. C-1—34-in. Glass Insulator—special tempered—finest quality. Each...\$0.04 



WE'T PROCESS QUALITY STRAIN **INSULATOR** 

A new and handy item. No. PP2588. Each....

SCREW-EYE **INSULATORS** 



Center of porcelain-mounted in galva-nized screw-eye. No. P1926—3-in. 10 for. No. P1925—734-in. ....\$0.03 .25 35 P1924—12-in, 10 for .09



NAIL-IT KNOBS 

PORCELAIN WALL TUBES



100 for .....

45

1.70

## SHORT WAVE — ALL WAVE AERIAL SYSTEMS "NO RADIO IS BETTER THAN ITS AERIAL"

RCA SPIDER-WEB **ANTENNA** 

\$5.37 Stock No. 9685





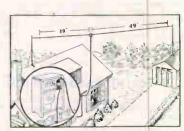
RCA **RK-40 DOUBLET** ANTENNA \$3.30

Stock No. 9631



The RCA Spider-Web An-The RCA Spider-Web Antenna System gives excel-lent signal pickup over the frequency range from 140 to 23,000 kc. By add-ing the Stock No. 9689 High Frequency Kit, Net Price \$0.90, the range is increased to 70,000 kc. with full noise reduction. All parts as shown in the All parts as shown in the illustration are contained in the kit which is assembled completely and can be installed in a very few minutes after ports are up.

The new RCA RK-40 Antenna is a simplified antenna system designed to reduce the time and labor required for antenna installation in the most difficult of locations. Merely attach each end to supports and make connections to the receiver. The time and money saved means more business and more profits for you. All parts as illustrated are included in the kit which is factory assembled and ready to install. All joints soldered.





#### FAMOUS "NOISE-MASTER" DE LUXE

This kit is recommended where "manmade" noises interfere with both the shortwave and broadcast bands. Licensed under Amy, Aceves & King patent No. 19,854 (re-issue). A highly engineered product which makes one aerial act electrically as two perfect antennas, by automatically selecting the varying frequencies of shortwave and broadcast signals. Two or more sets can be operated at the same time by using a transformer unit on each set. This kit assures the highest efficiency in eliminating "manmade" static over the entire radio receiving band.

#### Parts List

- 2-30 ft. coils 7/24 stranded copper antenna wire
- 1 upper transformer assembly
- 2 glass insulators
- 75 ft. twisted pair down lead
- 3-6 in. screw eye insulators
- 1 No. 755 dual lead-in strip
- 1 lower transformer unit 1-4 in. porcelain tube
- 1 instruction sheet

All parts assembled and ready to install, Model 14

\$4.05 Net price .....

**POPULAR MODEL 18** "NOISE-MASTER"

For the first time at this popular price— a licensed Amy, Aceves & King antenna! Recommended for locations where "man-made" static interferes with short wave but not with ordinary broadcast recep-

but not with ordinary broadcast toon.

Due to the SELF-SELECTING characteristics of the transformer used in this installation, "NOISE-MASTER" is fully AUTOMATIC electrically . . . giving perfect reception on any wave length without adjustment or manual operation.

#### Contents

2-30 ft. coils 7/24 "TRI-COR" aerial wire

2 No. 2 glass insulators
1 triangular porcelain center insulator
50 ft. stranded down lead
10 ft. coil twisted lead-in for inside use
3-6 in. screw eye insulators
1 No. 755 dual lead-in strip
1-4 in. porcelain tube
1 No. 129 Self-Selecting transformer
1 instruction sheet

1 No. 129 Sen-Seit-1 instruction sheet

Model 18





#### **GENUINE "NOISE-MASTER"** Model 19

This antenna is a de luxe doublet, employing a No. 129 Amy, Aceves & King licensed SELF - SELECTING matching transformer and a junction-box in the antenna line. Easy to set up, and is fabricated at our factory, obviating the soldering of joints at time of installation. When properly erected, it assures excellent all-wave reception.

It is fully AUTOMATIC electrically, requiring no adjustment or manual operation after it has been correctly set up.



2-30 ft. coils 7/24 aerial wire
2 No. 2 glass insulators
1 junction-box assembly
75 ft. No. 123 twisted pair down lead
3 6 in. screw eye insulators
1 No. 755 dual lead-in strip
1-4 in. porcelain tube

1-4 in. porcelain tube 1 No. 129 Self-Selecting transformer 1 instruction sheet

Model 19 Net price \$2.58

## ALL WAVE AERIAL SYSTEMS "No Radio is Better than its Aerial"

#### LYNCH ANTENNA SYSTEMS

The Arthur Lynch Co. has been a real leader in the presentation of short-wave and all-wave aerial systems. You will find listed below all of the latest Lynch antennas. (All Arthur Lynch antenna devices are licensed under A. K. K. patents.)



### LYNCH Assembled

#### HI-FI ALL-WAVE ANTENNA SYSTEMS

Noise reducing on all waves; efficient on all waves. Completely factory wired—just string up between masts. These are the new 1936 models and results will amaze you.

#### "JUNIOR" SYSTEM

Consists of: 1 Hi-Fi Coupling System with 50-ft. Twisted Pair Transmis-sion-Line. | Sion-Line. | 41-ft. Doublet 1/22 Copper Wire. | 2 Commercial Type Insulators. | 1—3-inch Emily Screw Eye. | 2 Nallit Knobs. | 1—4-inch Porcelain lead-in tube. | 1.50—With 50-foot twisted pair lead-in. | \$4.05 No. 1151—With 100-foot twisted pair lead-in. | 4.95 No. 1151—With 1

"STANDARD" SYSTEM

**MASTS** 



#### LYNCH "GIANT KILLER" KIT

A very popular kit—low priced. Includes all of the basic material for the latest type antenna system and the additional units may be added at any time. Standard kit includes: 35 ft. glant killer cable. 50 ft. Hi-Mho (heavy grade) ant. wire, 3 Lynch commercial type insulators, 1 stand-off. 2 Nailits, 1 porcelain tube and complete instructions.

No. 1010-As listed ..... No. 1041-Same but 50-foot Giant Killer Cable ...... 2.65

#### LYNCH BOOSTER COUPLER

As the name implies the Lynch Booster Coupler will increase the signal when used with any doublet system in which an antenna transformer is not used. Especially recommended for use with the Giant Killer All-Wave antenna system.

No. 1706 . . .



#### LYNCH GIANT KILLER CABLE

New improved transmission cable with two conductors covered with latex rubber. Will stand 20,000 volts. Excellent for transmitters up to 600 watts. No. 1060-50-foot coil.....

No. 1061-100-foot coil.. ..... 6.00

## ALL WAVE RECEIVER COUPLER

(Variable)

Makes it possible to match the doublet antenna to all broadcast and short wave receivers. A switch converts doublet to conventional "T" antenna on broadcast fre-

No. 8919-Net, each.....\$1.29



#### WHEEL STATIC ELIMINATORS

Take out noise from brakes, etc. Net price (pair).....\$0.18



## **ANCHORS**

#### PREMAX Telescoping Tubular STEEL MASTS

All-wave sets demand antennas. These masts antennas. These masts meet every demand for a strong, inexpensive, weatherproof and good-appearing aerial support. Premax masts are made up of tubular steel sections — telescoping within each other. Can be firmly locked at any adjustment. Sections are uniform and inter-No. M-84-Two sec. mast-7 ft.-5 M-120-Three sec. mast-10 ft. M-156-Four sec. mast-13 ft. No.

Extra base flanges with bolt-per

Individual sections-B-C-D. Each ..

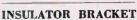
# REMAX



PREMAX MASTS

Illustrated on right. Made of soild % in. rod—rust-proof finish. Adjustable base. Large double-grooved insulator. 3%

ft. high. No. R148—Less brackets \$0.33



GALVANIZED GUY WIRE 50 ft. steel wire—non-stretching.
No. G-50—Per coil......\$0.15

#### ANTENNA TENSION INSULATOR



.60

An insulator and a heavy spring. At-taches to any style mast. No. TI-1-Each \$0.06

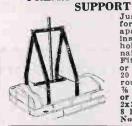
#### AERIAL SPRING ADJUSTER



Eliminates sag in antennas. As shown. No. BAS-60.....\$0.30 DEDUCT 2% FOR CASH WITH ORDER

### TENSION SPRINGS PREMAX PARAPET MAST

**GUY WIRE** 



graph of the standard of the s lbs. e. PS-18..\$1.50

#### PREMAX TRUSS BRACE

An arrangement that permits locating masts at extreme end of roof. Fits round masts from % to 2 ins.—square up to 2x2 ins. Length 24 ins. Weight, 2 lbs. No. TB-24—Each \$0.45



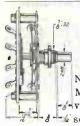
#### USE THE BEST

Always to be found in LEW BONN CO. STOCK

#### New Type **Switches**



### Jacks-Jack Switches Tip Jacks - Rectifiers



#### YAXLEY CIRCUIT SELECTOR. TAP AND SHORT-WAVE **SWITCHES**

No. 1200 and 1300 Series Single and Multiple Gangs, providing single and divarious circuit combinations on each section.

#### SINGLE GANG SWITCHES

		DI. GEE GILLO DWITCHES
	Non	
Short-		•
ing	ing	Net
Туре	Type	Price
Y1216	Y1316	Single Circuit 1 to 6 points each circuit \$0.60
Y1211 Y1215	Y1311	Single Circuit 1 to 11 points each circuit 70
Y 1213	Y1315 Y1313	Two Circuit 1 to 5 points each circuit
Y1212	Y1312	Three Circuit 1 to 3 points each circuit 80
11212	11312	Four Circuit 1 to 2 points each circuit85
		TWO GANG SWITCHES
Y1226	Y1326	Two Circuit 1 to 6 points each circuit \$0.95
Y1221	Y1321	Two Circuit 1 to 11 points each circuit 1.05
Y1225	Y1325	Four Circuit 1 to 5 points each circuit 1.20
	Y1323	Six Circuit 1 to 3 points each circuit 1.25
Y1222	¥1322	Eight Circuit 1 to 2 points each circuit 1.35
		THREE GANG SWITCHES
Y1236	Y1336	Three Circuit 1 to 6 points each circuit \$1.30
Y1231	Y1331	Three Circuit 1 to 11 points each circuit 1.40
Y1235	Y1335	Six Circuit 1 to 5 points each circuit 1.50
		FOUR GANG SWITCHES
	Y1346	Four Circuit 1 to 6 points each circuit \$1.65
	Y1341	Four Circuit 1 to 11 points each circuit 1.80
Y1245	Y1345	Eight Circuit 1 to 5 points each circuit 2.10
		Instructions in each box.

#### YAXLEY SINGLE SECTION SWITCHES

Giving combinations from single pole, single throw to six pole, double throw.

No. Y2742—Single Section Switch gives the following combinations: Single Section Switch, 11/2-inch diameter,

Single pole, single throw.
Single pole, double throw.
Two pole, single throw.
Two pole, double throw.
Two pole, double throw.
Two pole, double throw. Net price, each .....

No. Y2762—Single Section Switch, 2-inch diameter, provides all of the combinations available in the 2740 type Switch and also provides for: Six pole, single throws. Five pole, single throw. Five pole, double throw.

Net price, each Instructions in each box.

#### YAXLEY CIRCUIT OPENING SWITCH

This new switch will "open" any one of the twelve "lines" for the insertion of a current reading meter such as a milliammeter and maintain a "through" circuit on the other eleven lines. Used in tube checkers, analyzers, etc. 1% ins. long x 2% ins. wide; %-in. bushing and %x%-in. shaft.
No. Y1400—Complete with knob and dial and instructions. \$2.70

#### SPECIAL 15-POINT TAP SWITCH

Shorting type-single gang only, includes dial plate.

#### **JACKS**

48

Size % inch deep.

#### RECTIFIERS

Туре	4A1B-Replacing XB4. Set of 3	40
туре	12C1—Replacing U12-X12. Each 2. 12A1BY—Replacing UP8-XP12. Each 2.	40
Type	16U3—Replacing X16 Each	20
AATICE	16C3B—Replacing XB16. Each 4.5 for special Mallory Rectifier Catalog giving con	20
plete	information if interested.	-

#### PUSH BUTTON SWITCHES

Widely used in tube checkers, analyzers.

No. Y2001-S. P. make contact				. 80.54
No. Y2002—S. P. Break contact				5.4
No. Y2003—S. P. double throw				-60
No. Y2004-2 Pole-Make 2 contacts				72
No. Y2005-2 Pole-Break 2 contacts			-	72
No. Y2006—2 Pole—Double throw				94
No. Y2007—Make 2, break 1			. 1	78
No. Y2008-Double Pole-Make before by	rea	k		90
These switches can be furnished locking of	or r	on-	10	cking
Specify "L" for locking and "NL" for no	n-l	lock	in	g.
			_	



#### JUNIOR JACK SWITCHES

We stock all types but will show only the good selling

3		ij pes.	
	No.	Y760—Double Pole, Double Throw	80.75
	No.	Y740—Double Pole, Single Throw	
		Tarias	
	N7 -	With center "off" position	
	NO.	I (32-Single Pole Double Throw	80
	No	V764 Four Pole Double Thow.	. 1973
	140.	Y764—Four Pole, Double Throw	1.17

#### JUNIOR JACKS

	Mount in 7/16 in. panel hole and extend 1 1/4 in. back of panel.
ł	No. Y701 —Open Circuit
ı	No. V702 Circuit Clerit
ı	No. Y702 — Circuit Closing
ı	NO. I (VAA—I WO CITCUIT
ı	NO. I 102D-Inrea Circuit Microphone 1 99
ı	No. I (Va-Single Circuit Ellament Control
r	
ı	No. 1703A—Circuit Reversing
ı	No. 1 (vac—Double Circuit
ı	No. 1 (V4—Interstage
ı	AV. I (U4A-TWO CIPCUIT BIJament Control
Į	
ŀ	No. 1705—Into Circuit Filament Lighting
ı	No. Y706—Interstage Filament Control



No.

#### YAXLEY INSULATED TIP JACKS

Red, Black, Yellow, Green, Blue

No. Y422—Pair—red and	black
IJacii	oove jacks—Long .09

#### NO. 407 INSULATED TIP JACKS Round Bakelite Head

No. Y407—One pair—red and black No. Y407—Each—green, red and black No. Y415—Tip Plug for Y407 type jacks.	 *d 6h
METAL TIP JACKS	

#### Round and Hex. Heads o. Y416—Round 5/16-inch hole—use washers No. 204-214 on metal panel. O. Y417—Hexagon, <sup>1</sup>4-inch hole—use washers No. 205-213 on metal panels \$0.06

.06 INSULATING WASHERS \$0.15 No. Y205—Extruded, ½-in. O. D. x ¼-in. I. D.; 10 for No. Y212-.15 -Flat, ¼-in. O. D. x %-in. I. D.; 10 for. -Flat, ½-in. O. D. x ¼-in. I. D.; 10 for.



### ETCHED DIAL PLATES Match Yaxley Gang Switches, Y370 Series

OO.

.09

Any markings desired from "1 to 2" up to "1 to 12." Each.....\$0.09 Can also be furnished marked "off 1 to 3" up to "off 1 to 10." Ea. \$0.09

## PHOTOELECTRIC PARTS — EQUIPMENT

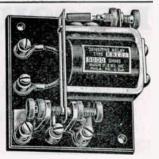


\$3.25 each

#### EBY ELECTRIC EYE

\$4.25 each

Cach
This radically new and different photo-electric cell has a ruggedness and response heretofore unattainable in a cell of twice the
price. It is an electronic device consisting of two metal electrodes
between which the light sensitive material is exposed to incident
light rays. It is not affected by continued exposure and may be
operated on voltages as high as 250. Responds to frequencies as
high as 9000 C.P.S. and is sensitive through the entire visible
spectrum. The relay is a sensitive high speed type, suitable for
use in vacuum tube plate circuits and operates on 11.25 milliwatte.
Standard coil resistance 5000 ohms. Contacts handle 2.5 amps. at
115 volts—SPDT armature permits use in either closed or open
circuits.



#### EBY EXPERIMENTAL KIT

Consists of photo cell, relay, sockets, potentiometer resister, condenser, terminal strip, and the electric eye handbook described below. Many interesting and practical experiments possible. Your net cost. \$10.00

#### TYPE G POWER RELAY



For operation with either A.C. or D.C. on the coil and for use



#### ELECTRIC EYE BOOKLET

HOUNTET

This 32-page booklet,

"The Electric Eye in
Theory and Practice," written by Eby
engineers contains
complete details on
all electric eye types
and much helpful
information on this
important industrial
development. Fully
illustrated with 30
diagrams. List price,
50c; net .....\$0.35



#### LIGHT SOURCES

No. 1227A—Light source for photo-electric applications re-quiring a light beam projected up to 25 feet. A 6 voit lamp is mounted in a steel case 4 inches high. Net price..\$6.75 



#### CELL HOUSINGS

No. 1226 — Has a 1½-inch diameter tube 3 aperture tube 3
inches long. Has
socket for Visitron
Type A Cell. Net
price .......\$5.50

#### REFLECTING **MIRROR**





#### TYPE E **ELECTRO-**MAGNETIC RELAY

For operation on D. C. and full or half-wave rectified current.

These relays are an improved form of sensitive electromagnetic relay which are especially suitable for use in D. C. control circuits involving either "on-off" or marginal operation. They are particularly useful in electronic devices in conjunction with thermionic or gas filled discharge tubes. High speed of operation, ruggedness of construction, accuracy of alignment, large current capacity of the contacts and ease of adjustment are but a few of their features.

Operating characteristics of Standard D. C. Relays on Con-

under Cui	Temp.			
0-4-27-	Res. of	Volts	Amps.	Net
Cat No.	Coil-Ohms	Pick-Up	Pick-Up	Price
E63CAB	6,300	32	.005	\$3.30
E10CAB	1,000	12.5	.0125	2.65
E10XAB	100	4	.040	2.40



No. 71A.

## PHOTOELECTRIC CELLS

Visitron Type A Cells are gas filled. They carry a full guarantee of one year and under normal operation their life greatly exceeds the guarantee period. Visitron quality can be evaluated in terms of high sensitivity, long life, high glow voltage, stability and high frequency response. The inserted metal plate construction is a decided improvement over older types of cells in which the sensitive surface was deposited on the linner wall of the glass envelope. envelope.



1 metal chassis ...... \$ 1.25 1 10,000-ohm poten-

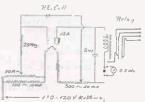
1 10,000-ohm potentiometer
6 feet A.C. cord and plug
1 short toggle switch
4 binding posts
1 No. 145 knob
Miscellaneous nuts, bolts and wire



#### ELECTRONIC RELAY CONTROL UNIT

#### **GAIN PHOTO-ELECTRIC EXPERIENCE**

This relay control unit makes use of the Visitron 71A cell and the E63 CAB relay in an A.C.-D.C. circuit as shown below. The relay has two separate sets of switch contacts so that the unit can be made to either start or stop the device to be controlled. We do not furnish it wired or assembled but will supply any or all parts as per the prices listed. Every business concern is a prospect for one of these units and live wire servicemen are going to cash in on this business while it is new.







#### RADIO MEN EVERYWHERE

RADIO MEN EVERYWHERE

Are commencing to learn the fundamental principles of photo-electric applications to industry. The prospects of business in this field are staggering and we are sure have gone unnoticed by the radio service profession. We hope that, by taking the lead in this branch of radio, we are going to point the way toward future profits for you. The uses of photo-electric equipment are too numerous to mention more than a jew: counting, sorting, lighting control, alarm service, safety devices, door openers, announcers, etc. More specific applications might be: determining foul line in bowling alleys, sorting colors, lighting signs when headlights approach, signaling the entrance of a customer to office or store, or turn on street lights when sun sets, and many others.

 $.21 \\ .25$ 

.36

.50

\$18.01

#### ASK FOR ONE

when you order:

G.M. Lab's Catalog Eby Radio Catalog

WRITE US FOR SUG-GESTIONS AND FUR-THER INFORMATION AT ANY TIME.

## R F COILS—TRIMMERS—CHOKES



#### ALL WAVE COIL ASSEMBLY



Consists of antenna, R.F., and oscillator coils for all bands, 15 to 550 meters, when used in conjunction with the DeJong 3-gang 370 mml. condenser shown below. Includes wave change switch and all padding and trimming condensers.

No. 5780-Net price, each . . . . \$8.10

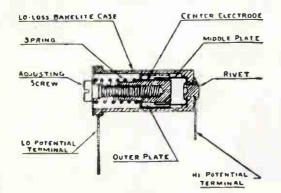
## DEJONG BAND-SPREAD CONDENSERS WITH AIRPLANE DIAL



A new band-spread tuning unit providing electrical bandspread by a single dial and knob. Main tuning condenser drives one pointer; auxiliary bandspreading condenser drives other pointer. 4-inch Airplane Dial has dual scale, 0-100 and 0-10. Ingenious single knob drives both tuning and band-spread condensers.

Cat. No.	Bands	Mmf.	Price
No. DJ2140	2	370	\$6.30
No. DJ2370	2	140	6.30
No. D.J3140	3	370	6.90
No. DJ3370	3	140	6.90

## NEW ALIGN-AIRE TRIMMERS AIR-DIELECTRIC



Here at last is a reasonably priced small space aligning condenser which is free from microphonic noises and drifting.

Available in 4 sizes.

No.	15230- 1- 12	Mmf.	9/16x11/4	in.	Each	\$0.30
No.	15232- 3- 25	Mmf.	9/16x11/4	in.	Each	.36
No.	15240-25- 50	Mmf.	1x1½ in.	Eac	eh	.45
No.	15200-55-110	Mmf.	1x1 1/2 in.	Eac	ch	,75

#### MEISSNER-FERROCART IRON CORE R.F. CHOKES

	ease g																										eir
high	ier "O"	an,	d lo	// C	e'	r		d:	18	t	ri	lb	u	t١	90	ı	1	G	BL.	р	a	C	11	ij	7.		
	6834-																										
	6836-																										
	6838-																										
	6840-1																										
	68423																										
No.	6844	50 M	.H.		٠		٠			٠	٠	٠	٠.		٠	٠	٠	٠	٠		٠	٠	٠	٠	٠	٠	.60





11

#### STANDARD R. F. CHOKES

Lattice wound of green silk and enamel covered wire on genuine Isotex forms. These chokes have very low D. C. resistance and low distributed capacity.

	0							
No.	B1212-	2.5	M.H.	 . \$0.24	No.	B1217—16	M.H\$	0.33
No.	B1213-	3.4	M.H.	 24	No.	B1218-30	М.Н	.33
No.	B1214-	5.5	M.H.	 24	No.	B1219—60	M.H	.36
					No.	B1220-80	M. H	.39
No	B1216-1	In N	/I H	 27				

#### LINE FILTER CHOKES

Eliminates high frequency pick-up from power lines. Very fine for amateur transmitters—reduces BCL complaints.

	FINE	F	Οŀ	R $TRA$	N	S	м	ľ	$\Gamma$	ľΙ	GΙ	3.5	3					
No.	M7825-Up	to	2	amps.												. 5	50.60	
	M7826-Up																	
	M7827-Up																	
No.	M7828-Up	to	20	amps.							٠.		٠.		٠	٠	2.10	



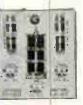
#### RECTIFIER PLATE CHOKE

SEE NATIONAL CHOKES ON PAGE 95 SEE HAMMARLUND CHOKES ON PAGE 101

## MILLER PRESELECTOR COIL KIT Covers 12 to 200 Meters

A high gain, 2 stage TRF amplifier for use ahead of any S.W. receiver. Self contained power supply. High gain coils. Absolute image suppression. Operates on either single wire or doublet antenna. Band-change switch. Tubes used: two 58 (or 6D6) and one 80. Full instructions and diagrams furnished.

M302 1.35
No. M302C—Metal cabinet for M302 3.90
No. M150 Airplane dial for M302 1.95
(2-gang .00035 Mfd. condenser used.)



#### MILLER SHORT WAVE CONVERTER COIL KIT



A truly efficient short wave unit—built-in power supply. Can be used with supers or TRF sets. Tubes used: one 2.47, one 5.8 and one 30. Three bands covering 12 to 200 meters. Full instructions and diagrams furnished with each kit. Kit contains all necessary coils, band-change switch, trimmers, padders and chokes.

No. M301

No. M301DC—Drilled chassis for

No. M301DC—Drilled cnassis to M301

No. M302C—Metal cabinet drilled for M301

No. M150—Airplane dial for M301

(M301 uses regular 2-gang .00035 Mfd. condenser.)

## **GUTHMAN RECEIVER COIL KITS**



530-1500 Kc: 18-2.5 Mc 200-550 and 17-120 Meters—3 Gang Condenser

new superhet. A new superhet, coil kit for the set-builder who is interested in foreign short-waves as well waves as well as domestic broadcast. Easily built, this set is the equal in per-formance of any commercial set

of its type. Advanced circuit d 80 or equiva-all illustrated) employs latest tubes: 6A7, 6D6, 76, 6C6, 42, and 80 or equivalent ALL-METAL tubes. Kit of six coils (all illustrated) includes an Antenna, R. F., two Oscillator coils, and two double-tuned I. F. transformers. Litz-wound, accurately peaked at 456 Kc., and mounted in square shield cans 1% ins. square by 3 ins. high. All leads color-coded. Circuit diagram included with each kit.

Complete Kit of 5 Matched Coils, including circuit diagram, less variable condenser. Shipping weight, 3 lbs.

#### 7 TUBE SUPERHET. BROADCAST COIL KIT



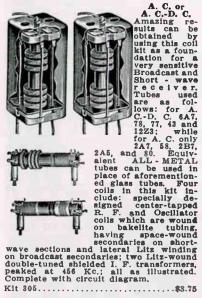




Complete Kit of 5 Matched Colls, including circuit diagram, less variable condenser. Shipping weight, 2 lbs.

Kit 310.....\$3.95

#### 5 TUBE SUPER COIL KIT 15-50 and 200-550 Meters

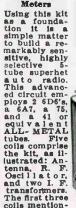


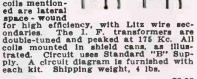
A. C. or
A. C.-D. C.
Amazing results can be
obtained by
using this coil
kit as a foundation for a
very sensitive
Broadcast and
Short - wave

Kit 305.....\$3.75

#### 5 TUBE AUTO KIT

## Superhet. 200-550 Meters





Kit 400......\$3.25

#### 5 TUBE SUPER HET. COIL KIT 200 to 550 Meters



2 Gang Condenser A. C. Only



An accurately designed kit of four coils for constructing the most modern type of 5-tube A. C. Broadcast receiver This receiver. This circuit em-



Kit 308.....\$2,95

#### VARIABLE CONDENSERS



With Trimmers For tuned radio frequency, ¼ in. shaft, either right or left hand.

Two-gang, .000365 mf, Price ......\$1.00 Three-gang, .000365 mf. Price ......\$1.50 Price

#### FOR SUPERHETERODYNES

 $\frac{1}{4}$  in. shaft, right or left hand, oscillator section either end.

Two-gang, 456 kilocycles, tracking section. Price......\$1.00 Three-gang, 456 or 176 kilocycles, tracking section. Price......\$1.5

Four-gang, 175 kilocycles, tracking section. Price......\$2.00

For all-wave sets. 1/4 in. shaft, clock-wise only.

Two-gang, 410 mmf. each section. Price ..... Three-gang, 410 mmf. each section.

#### HAMMARLUND PADDING AND TRIMMING CONDENSERS



Equalizing condenser for neutralizing, balancing and trimming, 1% by % in.

EC-35-(3 to 35 mmf.) ... \$0.15

EC-80--(25 to 80 mmf.) ... \$0.15

#### Isolantite Base

MICS70 - (10-70 mmf.) .....\$0.30 MICS140--- (70-140 mmf.) ....\$0.36 MICS220— (140-220 mmf.) ....\$0,42 MICS1000 — (600-1000 mmf.) ..\$0.60



#### Isolantite Base



MICD70-(10-70 mmf.) \$0.48 MICD140---(70-140 mmf.) \$0.54 MICD220— (140-220 mmf.) \$0.60

#### **GUTHMAN** F. TRANSFORMERS F. AND R.

#### R.F. AND ANTENNA COILS

R.F. AND ANTENNA

175 to 550 Meters

Matched real hi-gain
coils for T.R.F. receivers. Litz bank-wound
secondaries with either
high or low impedance
primaries, as desired.
Supplied complete with
mo un ting bracket,
dowel and brass mounting screws. Coil diameter %x2¼ in. long.
For use with standard
00036 mfd. variable
condenser. Coil connection diagram with each.
Excellent for replacement for constructors.



ment	for	construc	tors.	
Part		Туре	Prim.	Your
No.		Coil	Imp.	Cost
A1008		Ant.	Low	\$0.29
B1008		R.F.	Low	.29
A1001		Ant.	High	.34
B1001		R.F.	High	.34

SHIELDED LITZ R.F. & ANT. COILS
175 to 550 Meters
For T.R.F. or
Su perhetero-



Sor T.R.F. or Su perheterodyne receivers, when used with proper oscillator coil. Precisely matched. Completely matched. Completely matched. Completely matched. Completely mover of the matched. Completely mover of the mover of

Part	Туре	Prim.	Your
No.	Coil	Imp.	Cost
A1007	Ant.	Low	\$0.34
A1018	Ant.	High	.40
B1007	R.F.	Low	.34
B1018	R.F.	High	.40

#### MIDGET ANTENNA R.F. AND OSCIL-LATOR COILS

1½x1¾ in. high. A2098—Ant. Coil. B2098—R.F. Coil. O3098—Oscillator Coil. ...\$0.45 Price .....



Small size high gain shielded coils. Designed for Superheterodyne and T.R.F. receivers requiring compact efficient coils. Newest type Litz wire sectional winding with low R.F. resistance and distributed capacity. For use with .00385 (.0035) mid. variable condensers. All coils may be used in any combination desired, Supplied complete with wiring diagram.

#### ANT. R.F. & OSC. COILS



15-55 and 200-550 Meters
Very popular style of coll. Covers two most coil. Covers two most desired ranges, domestic broadcast and foreign short-waves. Short-wave section is space-wound on threaded bakelite. Mounting boits on dowel stick facilitate proper installation. For use with .002365

-	-			with		
variable co	ndenser	(sta	ndaro	l type	1).	Sup-
plied with						List
A2050—Ant	enna Co	il				\$0.70
O3090—Osc	illator	Coil	(456	K.C.)		.60
B2050-R.F	. Coil.					70

#### SHORT-WAVE SHUNTS



No. 2018—Price, each \$0.17
Enables receivers designed only for the regular 200 to 550 meter band to include 75 to 200 meter short-wave bands. Small size, %x % in. high. Dlagram showing how to connect in the circuit included. One short-wave shunt is required for each antenna and each R.F. coll in set. Get police calls on car sets—used with a switch,

#### ANTENNA AND OSCILLATOR COILS FOR SUPERHETS



Lateral-wound oscillator and antenna coils for superhets. Coils can be used separately if desired, or can be used in pairs. These coils make ideal replacements for standard sets. Broadcast coils wound on a dowel, ½x1 in. long. Broadcast-short-wave coils wound on a dowel, 5/16x1% in. long. Instructions and diagram with each coil. Broadcast coils cover 1,500 to 550 K.C., and combination short-wave and broadcast cover 1,500 to 550 K.C. and 4,000-1,500 K.C. No. A2015—Short-Wave and Broadcast Coil List.

	st Coll. List	.57
V.a	Broadcast Oscillator Colls	***
No.	03014—175 K.C. 03019—465 K.C.	.50
No.	O30800-465 K.C.	.50
		****

Short-Wave and Broadcast Oscillator

BT -	00040 + 55	20	**	8											
NO.	O3042-175	K.C.			٠	*					٠	٠		٠	. \$0.65
No.	O3015-465	K.C.		٠		٠	٠	٠	٠	٠					65

I.F. TRANSFORMERS n Metal Shield with Tuning Condensers



as Can b For use as replacements or in new set design. Can be used in any combination required for i.F. stages. Tuning condensers are of the mica compression type, on Isolantic bases and are adjustable from the top of the shield can. Leads are color coded. Diagram furnished with each unit. The inductances are the lattice wound type mounted on wood forms specially impregnated and impervious to moisture. Colis in round and square shields have same electrical characteristics and are interchangeable. as replacements or in new

## I.F. COILS IN ROUND SHIELD Shield Size 2-1/16 in. Diameter x 3 High. Spade Bolt Mounting Centers

**	1-15/16 in.	
Double	Peak Frequency	Frequency
Tuned	in Kilocycles	Range
No. 3018	465	442-470
No. 3052	380	365-395
No. 3012	175	168-180
Price		\$0.80

I.F. COILS IN SQUARE SHIELD Shield Size 1% in Square x 3 in High

	Mounting Center	
<b>Do</b> uble	Peak Frequency	Frequency
Tuned	in Kilocycles	Range
No. 3103	465	442-470
No. 3050	380	365-395
No. 3032	175	168-180
Price		\$0.82

#### DELUXE I.F. TRANSFORMER HIGH "Q" WINDINGS

Coils are new triple section series wound type. R.F. resistance and distributed capacity are reduced to a minimum giving a maximum "Q". Highest practical sensitivity and selectivity, Trimm. condenser adjustable from top of shield can. Double tuned 4-lead transformers. Diagram showing coding of leads included. Size: 1% in. square, 5 in. high. Spade bott mounting, centers 1% in. Double Peak Frequency Frequency Tuned in Kilocycles Range

Tuned No. 3107 No. 3120 in Kilocycles 465 380 Range 442-470 365-395

CENTER TAPPED SECONDARIES For Use with Diode Tubes, 55s, 75s, etc.

Type "C" Large No. 3070—465 K.C. No. 3074—465 K.C. Price \$0.95 Price \$0.85

#### UNSHIELDED R.F. COILS 80 to 550 Meters



Compact and efflcient short-wave and broadcast coils. Short-wave and biscolis. Short-ware coils. Short-ware and to 200 meters. Broadcast range 200 to 550 meters. Lateral aries. For ch.

meters. Lateral secondaries. For lagram with each. wound primaries and Diagram condenser. .000365 No. A2021—Antenna Coll. P No. B2021—R.F. Coll. Price.

### & BCL HI-GAIN LITZ COILS

120 to 200 Meters 200 to 545 Meters C o mpletely shielded 2-band coils. Comprises hi - impedance primary with





hi - impedance primary with Litz wound secondary tapped for low wavelengths. For use with .0035 mfd. variable condenser. Can 1% in. diameter and 2% in. high, with spade bolts for mounting. Also diagram. No. Al022—Antenna Coll. Price....\$0.47 No. B1022—R.F. Coll. Price.....\$0.47

#### UNSHIELDED ANT. & R.F. COILS



75 to 550 Meters
High impedance primary of plain enamel
wire. Has shunt windmary of plain enames wire. Has shunt winding adjacent to econdary to cover the short-wave band, recommended for maximum efficiency in comparison to the tapped coils. Tunes with usual .00365 mfd. variable condenser. Covers 75 to 200 and 200 to 550 meters. Wiring diagram furnished showing coil connections. Coil size is %x2% in long. Mounting bracket and dowel, brass mounting screw and boit furnished.

No. A120—Antenna Coil. Price.....\$0.33

COMPOSITE UNITS

#### COMPOSITE UNITS

High-gain composite coil used as combination I.F. High-gain composite coin used as combination I.F. and oscillator. Designed for the special tracking section on the variable condenser. Top tuning. This unit is furnished in 175 K.C. and 456 K.C. frequencies, mounted in a shield 1% in. in diameter by 3½ in. in height. Equipped with two spade-mounting spade-mounting with





#### COMPACT HIGH-GAIN BROAD-CAST AND POLICE BAND COIL



High impedance primary, triple election Litz wire secondary, for use with .000366 condenser. Covers a range of 75 to 200, and 200 to 540 meters. Band switching may be accomplished with a double pole single switch. Colis are diameter x 1½ in. long, impregnated form. with co. A1066—Antrina Coil. Price. \$0.30 to 1066—Interstage R.F. Coil.

#### PRIMARY REPLACEMENT WINDING



## R. F. And I. F. Transformers

#### For Better Radio marlund PRECISION PRODUCTS



#### I. F. TRANS-FORMERS Air-Tuned

"drift." Reduces creased selectivity and sensitivity. Size, 5x2-3/32 inches.

ATT176—(175 K.C.) ATT465—(465 K.C.) ATT525—(525 K.C.) ATO465—(465 K.C.) beat oscillator)... 2.70 2.70 2.70

The three I. F.'s listed can be had center-tapped. Just add "C.T." to catalogue number.

#### BEAT FREQUENCY OSCILLATOR

Adjustable, \$x1% inches MC465.... .....\$1.05



#### TYPE "T" I. F. TRANSFORMERS



All transformers are tuned grid, tuned plate type with lattice wound coils impregnated to prevent moisture effects. Litz windings are used in 465 K.C. short wave transformers. Tuning condensers are mica type mounted on Isolantite and adjustable from top of the shield can. Leads R.M.A. color coded and tagged. Secondaries are either plain for standard screen grid tubes or centertapped for tubes requiring split input circuits such as Wunderlich tubes, 55's, 75's. 83's. 2A6's, etc. Aluminum shield cans measure 2½ in. O. D. by 3½ in. high. Mounting is on 2-inch centers. All transformers are tuned

T465(465				
T175—(175				
TBO-Beat T465-CT.				
T175—CT.				

#### MIDGET I. E. TRANSFORMERS

Square aluminum shield can. 3½ in. high by 1-7/16 in. square. Same round can type T listed below.

ST-465-465 K.C. ...\$0.99 ST-465 C. T.-465 K.C. center-tapped ST-175-175 K.C. . . . . .99 .99 ST-175 C. T.-175 K.C. center-tapped .99





#### NATIONAL "I. F." TRANSFORMERS

Air dielectric condenser tuned, steatite insulation, Litz wound coils, alumi-num plates. Furnished in 456 K.C.

No. NIF .....\$3.00

Beat Oscillator Unit. Same features as National "I. F." transformers and knob tuning.

No. NBO .....\$3.00



# Aladdin Polyiron R. F. and I. F. TRANSFORMERS



#### IRON CORE I.F. COILS WITH ADJUSTABLE COUPLING

Similar to paragraph 1, col-umn 2 1135 Data Sheet en-closed.

Stock No. A101 A101M A100 A201 A200M A175 A275	Frequency 465 K.C. 465 K.C. 465 K.C. 465 K.C. 465 K.C. 175 K.C.	Use Converter Converter Interstage Diode Diode Converter Diode	Between 6A7-6D6 6A8-6K7 6D6-6D6 6D6-75 6K7-6H6 6A7-6D6 6D6-75

Also available in input and output types for 115, 260, and 370 K.C. Specify frequency and use.

Net price any type.....\$1.80

#### MIDGET "METAL TUBE" I.F. TRANSFORMERS

Small, Litz-wound Polyiron core inductively coupled coils designed for use in metal tube circuits. In copper cans with black enamel finish. 2½ in. high by 1½ in. square. Ideal for auto sets and portables. Top tuning. Color coded leads.



M 465 K.C. Converter 6A8-6K7-6K7
M 465 K.C. Interstage 6K7-6K7
M 465 K.C. Dlode 6K7-6H6
6K7-6H6 Beat Freq. Osc. 6C6 Net price any type.....

#### AIR-TUNED I.F. TRANSFORMERS



Shield size 1-7/16 in. x 1%

Type	Use	Between		Net Price
GA101	Converter	6A7-6D6		\$3.90
GA101M	Converter			3.90
GA101A	Interstage		or	
C + 001	D1 - 1	6K7-6K7		3.90
GA201 GA201M	Diode	6D6-75		3.90
GAZUIM	Diode	6K7-6H6		3.90



#### FIXED COUPLING, AIR TUNED I.F.'s

Similar to the above but with fixed coupling.

Type	Frequency	Use	Between
G101	465 K.C.	Converter	6A7-6D6
G201	465 K.C.	Diode	6D6-75
G101A	465 K.C.	Interstage	6D6-6D6
G101M	465 K.C.	Converter	6A8-6K7
G201M	465 K.C.	Diode	6K7-6H6
Net pri	co any tyne		68 30

#### INDUCTANCE TUNED I.F. TRANSFORMERS

TRANSFORMER
In Type P. inductance adjustment replaces the usual condenser trimmers to produce an advanced design I.F. transformer. Fixed sealed condensers provide permanency of alignment. Both primary and secondary coils are tuned by adjustment of their Polytron cores. Correct coupling is secured by mounting the Litz-wound coils on separate axes. Type P transformers may be used with either glass or metal tubes.

Shield size 1 7/16 in. x 1%



Shield size 1 7/high aluminum. 1 7/16 in. x 1% in. x 4 in.

Available in the following types at \$2.10 each, net.

Type	Frequency
P101	465 K.C.
P100	465 K.C.
P200	465 K.C.

Converter Interstage Diode

#### ANTENNA & R.F. COUPLERS



High gain coils using Polyiron cores. Higher gain and sharper resonant curve than is possible with air core coils. Inductive and capacitive coupling. All are Litz-wire wound. Fig. 1 illustrates unit in round copper shield 1½ in. Fig. 2 bx 2½ in. high. Fig. 2 shows ALAD-DIN shield 2 in. x 2 in. x 3 in.

	Difference a sint		****
Stock	k Range	Type	Illustrations
1501	530-1500	Antenna	Fig. 1
3001	530-1500	R.F.	Fig. 1
503	530-1500	Antenna	Fig. 2
1001	530-1500	R.F.	Fig. 2
507	550-1725	Antenna	Fig. 2
1007	550-172 <b>5</b>	R.F.	Fig. 2
Not	price sech		£1 9f

#### CARRON EXACT DUPLICATE REPLACEMENT COILS

These coils are exact duplicates of the original in physical and electrical characteristics. All coils are thoroughly impregnated to withstand any and all atmospheric conditions.

IMPORTANT! If the coil you want is not listed, send us the old coil and its mate, if any, model number and all pertinent information regarding same, and we will duplicate same.

		information regarding same,	sand we w		
	Our		Net	Our	Net
		odel	Price	Part No. Model	Price
	APEX GLORI	TA 00 1et IE Cell only	80.81	D4198—Model 440, 1st I.F.T. complete D4211—Model 460-520, Osc. Coil	36
AS ALTH	D4155—Model	7A-99, 1st I.F. Coil only 7A-99, 1st I.F. and Osc. comp	oloto 1.50	IN4919 Model 460 490 900 TOTO Coll	48
	174151—Model	7A-99, Preselector	00	IM218Model 460-670 Ant Coil	48
	Daigi_Model	24 Chassis 400 Autodyne, 1st	TE	D4111—Model 460 1st IF Coil complete	90
- NA	nanouer and	Osc	1.5	D4112—Model 460-800, 2nd I.F. Coil only	51
A	D4088-Model	28. R.F. Coil	66	D4038-Model 460-570, R.F. Coil only	48
of all ha	D4190-Model	28, R.F. Coil 32, R.F. Coil, less can 47, Aut. Coil, less can	66	D4213—Model 460-570, Ant. Coll	48
	D4136-Model	47. Aut. Coil. less can	60	D4118-Model Ford Police, 1st I.F. complets. D4119-Model Ford Police, 2nd I.F. complets.	. 1.20
	1)4137-Model	47, R.F. Coll, less can	60	D4119-Model Ford Police, 2nd I.F. complets.	1.20
	D4189Model	49. R.F. Coil. less can			
15-12	D4202—Model	31, 2nd R.F., less can	,60	D4227—Model 14, 18, R.F. D4228—Model 14, 28, 29, 45, I.F. D4228—Model 14, 28, 29, 45, I.F. D4230—Model 14, 28, 29, 45, I.F.	42
4	D4203—Model	31, 3rd R.F., less can 511, 515, 1st I.F. and Osc	60	D4228—Model 14, 28, 29, 45, I.F	39
	I)4379Model	511, 515, 1st I.F. and Osc	1.50	174229Model 14, 28, 29, 45, 1.F	39
	ATWATER-K	ENT		D4132—Model 14, Osc.	45
	D4000-Model	55, Ant., less shield		D4232—Model 14, Osc.	30
	1910%—Model	g Trans., Part No. 13668	24	D4232	.54
	BRUNSWICK	g Irans., Fait No. 19000		D4234Model 14, 91, R.F	45
- The state of the	1)4167-Model	S14 Ant Coil less shield	60	D4235-Model 14, 91, R.F	30
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D4378-Bruns	S14, Ant. Coil, less shield wick, S14, 21, 31, 81, 82, R.F	,60	D4236—Model 15, R.F.	24
Charles !	CLARION		1	1)4237—Model 15, R.F	60
3-0	D4123-Model	100, 2nd I.F. Coil only 140, 2nd I.F. Coil only	60	IM238—Model 15, R.F	33
CT-CTURE OF B	D4124-Model	140, 2nd I.F. Coil only	60	D4239—Model 15, Osc	30
BAA 3 # 9 # # #				1)4240—Model 15, 90, 490, 1.F	
PH1 111	D4125—Model	220, 1st I.F. and Osc. comple	te 1.50	1)4241Model 15, 1.F.	33
111 111.	D4074—Model	220, Output I.F. Coil only	60	D4200-Model 20, 21, R.F	63
	D4126—Model	220, 18t I. F. and Osc. comple 220, 1st I.F. and Osc. comple 220, Output I.F. Coil only	00	D4270—Model 20 R F	45
	194170-Model	200, 18t I.F. Coll only	80	1)4271—Model 30 R.F.	72
	1)4171—Model	320, 2nd I.F. Winding only	60	D4272—Model 32, I.F.	36
	Th 4 4 0 0 0 1 4 - 3 - 1			1)4273—Model 32, R.F	42
	D4129Model	320, 2nd I.F. Coil complete	90	D4274-Model 32, R.F	30
ST PRIVING	D4129	320, Preselector Coil		14237 — Model 15, R.F.   14238 — Model 15, OSC.   14249 — Model 15, OSC.   14240 — Model 15, 90, 490, I.F.   14241 — Model 15, I.F.   14266 — Model 20, 21, R.F.   14270 — Model 20, 21, R.F.   14270 — Model 30, R.F.   14272 — Model 30, R.F.   14272 — Model 32, R.F.   14273 — Model 32, R.F.   14274 — Model 32, R.F.   14274 — Model 35, OSC.   14297 — Model 35, OSC.   14297 — Model 47, I.F.   14289 — Model 47, I.F.   14298 — Model 47, I.F.   14301 — Model 48, 51, 52, I.F.   14301 — Model 48, SI, 52, I.F.   14302 — Model 48, R.F.   14303 — Model 48, R.F.   14303 — Model 50, R.F.   14303 — Model 50, R.F.   14309 — Model 51, 52, R.F.   14309 — Model 51, 52, R.F.   14309 — Model 50, R.F.   14309 — Model 50, R.F.   14309 — Model 50, R.F.   14328 — Model 70, 35, 470, R.F.   14328 — Model 70, 35, 470, R.F.   14328 — Model 70, 35, 470, R.F.   14328 — Model 70, 470, OSC.   1	.54
<b>国际</b>	D4131-Model	340, 1st I.F. Coil only	60	D4276—Model 35, Osc	36
	D4132-Model	360, 1st I.F	60	Diza — Model 47, R.F.	27
- CO. L. CO.	D4191-Model	360, 2nd I.F	,60	D4900 Wodel 49 51 59 TE	36
ACA SHOWS M	IJ4 19%—Mouel	400. Ant. Con		D4900 Model 49 51 59 1 F	72
(A) HIGH #		500, Osc. Coil		D4901_Model 48 Osc	51
	CROSLEY	90 DE Cell only	48	D4802—Model 48 R F	39
./	D4070Model	20, R.F. Coll Offig		D4303—Model 48. R.F.	39
	1)4075	20, R.F. Coll only		D4308-Model 50, R.F.	54
	D4078—Model	26, Ant. Coil only		D4309—Model 51, 52, R.F	54
				D4326—Model 70, 35, 470, R.F	45
	I)4140-Model	27, Ant. Coll only	60	D4327—Model 70, 35, 470, R.F	39
	D4079-Model	27, Art. Coll only		D4328—Model 70, 470, Osc.   D4329—Model 70, 470, I.F.   D4330—Model 70, 71, R.F.   D4331—Model 70, 71, R.F.   D4333—Model 70, 71, R.F.   D4333—Model 84, R.F.   D4333—Model 84, R.F.   D4335—Model 84, R.F.   D4336—Model 84, Osc.   D4336—Model 84, I.F.   D4337—Model 86, 87, 511, R.F.   D4338—Model 80, R.F.   D4339—Model 80, R.F.   D43370—Model 80, R.F.   D4370—Model 490, R.F.   D4377—Model 490, R.F.   D4377—Model 490, Osc.   D4377—Model 490, Osc.   C. A.   C.	36
	D4165—Model	20S, R.F. Coil only		D4920	36
	1)4080—Model	40S, R.F. Coll only		D4381-Model 70, 71, ICF	30
	D4083Model	58, R.F. Coll only	78	D4332-Model 71, 47, R.F.	54
	D4082 Model	53, 54, 57, R.F. Coil only 53, 54, 57, Ant. Coil only 58, Ant. Coil only Buddy and Chum, R.F. Coil Buddy and Chum, Ant. Coil	60	D4333-Model 84, R.F.	36 24 24
	D4084Model	58. Ant. Coll only		1)4334—Model 84, R.F	24
<b>22</b> 2 11	D4085-Model	Buddy and Chum, R.F. Coil	only .60	D4335—Model 84, Osc	24
	D4086-Model	Buddy and Chum, Ant. Coll	only .60	D4336—Model 84, 1.F.	63
San San Control				D4337-Model 86, 87, 511, R.F	72
	D4143-Model	124, 2nd I.F	45	D4390-Model 80 Osc	30
	1)4169—Model	125, Output I.F.T., less sniero	l60	D4370—Model 200 I F T	
	1)4141	124, 2nd I.F 125, Output I.F.T., less shield Showboy, R.F. Coil. Showboy, Ant. Coil.	60	D4376—Model 490, R.F.	30
	1)4142-Model	130, Ant. Preselector Coil	60	D4377—Model 490, Osc.	36
	GENERAL M			R. C. A.	
	D4146-Model	9A. Osc. Coil, less can	60	D4054-Model 80, 82, 86, RAE 68, 1st I.F. Co	oil
	D4162-Gulbra	ansen M-23 Osc. Coil		only	60
100 may 117 ma	D4226—Model	9A, Osc. Coil, less can ansen M-23 Osc. Coil 211A, S10A, S10B, 220, Outp	ut	D4055-Model 80, 82, 86, RAE 68, 2nd l.F. C	.011
P 13 11	1, F,	Coil	45	D4058—Model 80, 82, 86, RAE 68, 3rd I.F. C	60
a r ven and	MAJESTIC	15 15D 1st I D.C. and Osa	1.80	only	
	1)4080—Model	15 15P 2nd I FT complete	00	D4057Model M34. M105, 1st I.F	48
	D4090-Model	15-15B, 1st I.F.T. and Osc 15-15B, 2nd I.F.T. complete 15-15B, 1st R.F., less can 15-15B, 2nd R.F., less can 20, 1st I.F. Coil complete	60	D4058—Model M34, M105, 1st I.F	48
	1)4091—Model	15-15B 2nd R.F., less can	45	D4153-Model R7, R7A, R9, 10DC, RAE 16,	
	D4121-Model	20, 1st I.F. Coil complete	1.50	2nd I.F	60
	D4122-Model	zu, znu i.r. Com complete	I.OU	D4067-Model 60, I.F. Section, Coil only	60
100 Col	1M009	95 let IF Coil complete	1.0%	SPARTON	
	D4093—Model	25, 2nd I.F. Coll complete	1.05	D4183-Model 10, 1st and 2nd I.F. Transforme	ar,
GAR	D4177-Model	25, 2nd I.F. Coil complete 25-210, R.F. Chokes, Coil only 25, R.F. Coil Plate Choke 35, 1st I.F. Coil complete 35, 2nd I.F. Coil complete	730	Coil only  D4184—Model 12, 1st and 2nd I. F. Transform Coil only  D4185—Model 14, 1st I.F. Transformer, Coil on	60
C L C C C C C C C C C C C C C C C C C C	IM150 Model	25, R.F. Coll Plate Choke	1.50	D4164-Model 12, 1st and 2nd l. F. Transform	er.
	DA148.—Model	35 2nd I F Coil complete	90	DA18K-Model 14 1st TE Transformer Call or	nly .60
G	D4172-Model	55. 1st I.F. and Osc	1.65	D4186-Model 14 2nd IF Transformer with	, .00
	D4214-Model	55, 1st I.F. and Osc		D4186—Model 14, 2nd I.F. Transformer with Center Tapped Secondary D4187—Model 15, 1st and 2nd I.F. Transforme	75
	D4215-Model	55, 2nd R.F. Coll only	45	D4187-Model 15, 1st and 2nd I.F. Transforms	er.
	D4094-Model	60-160, 1st I.F. Coll complete	1.80	D4188—Model 16, 1st and 2nd I.F. Transforms	60
	D4095-Model	60-160, 2nd I.F. Coil complete	1.80	D4188-Model 16, 1st and 2nd I.F. Transforms	ar,
0	134221 Model	60-160, I.F. Coil only	45	Coll only	60
	1)4196—Model	70-70B, R.F. Coll. less can	60	STEWART-WARNER	
	1)4197—Mouel	10-10B, Ant. Coll	30 @n	1)4068-Model R116. Ant. Coil complete	60
	I)4220-Model	110. Broadcast Rand Transfe	rmer 1.05	D4068—Model R116. Ant. Coil complete D4069—Model 118, Osc. complete D4070—Model 118, R.F. complete	60
	1)4098—Model	120, 1st I.F. Coil complete	1.35	D4070-Model 118, R.F. complete	60
	D4909-Model	120, 2nd I.F. Coil complete.	1.35	DAISA Model 1991 Diggs Coll only	60
	D4040-Model	120B, R.F. Coil		1)4155—Model 102A, Ant. Coll only	60
100 May 100 Ma	I)4049—Model	120B, 1st I.F. Coil complete	1.50	194201—Model K125, Altt. Coll	00
WE TO BUT	D1036—Model	60-160, I.F. Coil only 70-70B, R.F. Coil, less can 70-70B, Ant. Coil. 100, Broadcast Band Transfo 120, 1st I.F. Coil complete 120, 2nd I.F. Coil complete 120B, R.F. Coil 120B, 1st I.F. Coil complete 220, 1st I.F. Coil complete 220, 2nd I.F. Coil complete 310A. 310B. 330. 340. 360. 360. 390.	1.50	UNITED MOTORS—CHEVROLET	1.00
	DH180—Model	220, 2nd l.F. Coll only		D4178—Model 36441, 1st I.F. and Osc D4179—Model 36441, Ant	1.20
The state of the s	Dillo Model	220, 3rd L.F. Coll complete	90	ZENITH	
	10.1109-Wodel	310A, 310B, 330, 340, 360, 390 , 1st I.F. Coil complete	), 90	D4072-Model 462, Hudson 1985 R.F. Coil con	n-
	I)4104—Model	310A, 310B, 330, 390, 2nd I.F.		plete	60
	Col	lonly	49	D4073-Model 462, Ford R.F. Coil complete	60
	D4105-Model	320, 1st I.F. Coil complete 320, 2nd I.F. Coil complete 360, 2nd I.F. Coil only	1.20	TAIR Model 600 Amt Coll	an an
	D4106-Model	320, 2nd I.F. Coll complete.	1.50	D4157-Model 210, 18t I.F. complete	75
	D1108—Model	350, 2nd I.F. Coll only	36	D4159-Model 91 R F Coll	75
	1)4208—Model	370 let IE and One committee	48 te90	D4157—Model 210, 1st I.F. complete. D4158—Model 210, 2nd I.F. complete. D4158—Model 91, R.F. Coil. D4160—Model 91, 1st I.F. Coil complete.	90
	DAILO Model	370-400, 2nd I.F. Coil	90	MAJESTIC REACTANCE DIMMER ASSET	CBLY
	D4109—Model	390, 2nd I.F. Coil only	48	S561-Pt. 7785, used in Majestic Models 300	, 300A,
	D4210-Model	440, Osc. Coil	36	320, 360 and other models using pilot light	dimmer
	TATOTA - MODE	740. Allt. Coll		circuit. Complete ready to install. Uses	heavier
	D4181—Model	440, 1st I.F. Coil only	45	built primary than original. Will outlast 0	⊮iginal.
= A	TA A DO T TA OCT 6	440. 2nd I.F. Coil only	45	Each	

## CARRON AUTOMOBILE SPEAKER REPLACEMENT CONES

Our No.		O. D.	Net	Our No. O. D.	Net
ARVIN 1172 1204	Model 10 (Operadio)	. 5 . 6 1/2	\$0.90 1.05	1201   Model 44 (Utah 5D)   5   1185   Model 44 (Magnavox 165)   5   1271   Model Super 6 (Utah 6L)   6 1/2	\$0.90 .90 1.20
ATWA1 1271	FER-KENT Model 666 (Utah)	. 6 1/2	1.05	1198 Model 34 (Quam) 5 1199 Model Dual 6 (Jensen) 6 1/2 1200 Model Twin 8 (Magnayox) 8	.90 1.05 1.50
BELMO 1201 1282	Model 660 (Utah)		.90 .90	*NASH 1203 *Model J (Philco Pt. 02861)	.60
CHEVR 1254 1200	OLET Models 600,565, 600,249 (Grunow) Models 601, 038	. 8	1.50 1.50	1269 *Model Q (Phileo Pt. 36-3157)	.60
*CHRY				1342 405045 61/2	1.05
1245 1269	*Model R (Philco Pt. 02861)  *Models D, E, G (Philco Pt. 36-3159)  *Model G-122 (Philco Pt. 36-3157)	7 %	.60 .60	*PHILCO 1079 *Pt. 02996, Model 3	.75 .60
CORON 1282	Model 670-A (Rola DP4)	. 5	.90	12, 800, 800-122, PAD, PBD, C, C-122,	
CROSLI 1212	EY Models 103, 167	. 6	1.20	D, D-122, E, G, H. H-122	.60 .60
*DE SO 1245 1269	PTO *Models E, G (Philco Pt. 36-3159) *Model G-122 (Philco Pt. 36-3157)	. 5 % . 7 ½	.60	*PLYMOUTH 1203 *Model R (Philco Pt. 02861)	.60 .60
1245	E Model R (Philco Pt. 02861) Models E. G (Philco Pt. 36-3159) Model G-122 (Philco Pt. 36-3157)	7 %	.60 .60	*RCA-VICTOR 1091 *Model M34, 105	.60
FORD 1156 1205	Model 118 (Majestic)	. 6	.90	1204 Model 600 (Operadio) 6 ½ 1267 Model 510 (Quam) 6	1.05 1.05
*GENE	RAL ELECTRIC  Model B40 (RCA M34)		1.20	STEWART-WARNER         1294         Model R-231	.90
нирмо			.00	*STUDEBAKER 1203 *Model J (Philco Pt. 02861) 5%	.60
1245 1269	Models E, G (Philco Pt. 36-3159)	5 % 7 %	.60 .60	1245 *Models C, C-122, D (Philco 36-3159) 7 % 1269 *Model Q (Philco Pt. 36-3157) 7 ½	.60
MAJES 1156			0.0	UNITED MOTORS	
MOTOR 1277			.90	1118 Model 2035 (Utah Large Cub No. 3)	1.35
1291	Models 5T71, 6T12, 7T38, 7T47A (Jensen) Models 5T71, 6T12, 7T58, 88, 61 (Jensen)	8	1.35	1342 Model B0P (Operadio)	1.05
1137 1042	Model 6T12 (Jensen D14) Model 6T12 (Jensen J1)	6 1/6	1.44 1.20	1172 Model 052 (Operadio) 5	.90
1128 1125	Models 88, 61 (Wright DeCoster 345) Model 61 (Wright DeCoster 155)	. 6	1.50 1.20	ZENITH	
1054 1233	Models 55, 77 (Magnavox 150) Model 77A, 77B	. 6	1.20	1205 Models 462, 650, 808 (Utah, 62E) 6½ 1251 Models Jr. No. 7 (Jensen T5)	1.20

### CARRON REPLACEMENT FIELD COILS

PEX	GLORITONE						*JENSI	EN—Continued					
art		I. D.	O. D.	L.			Part		I. D.	O. D.	L.		
Vo.	Model Speaker	In.	In.	In.	Ohms	Price	No.	Model Speaker	In.	ln.	In.	Ohms	Price
000	20 2714	1	2 1/4	7/8	5,935	\$1.50		*Models D12-D1					\$1.50
001	26 2286	1 1/4	2 %	1 1/2	11,500T	1.65							I.50
002	26A 2467	1	2 1/4	1 %	11,500T	1.65							1.50
003 004	26P 2758 26P 2925	1	2 1/4	1 %	11.500T	1.65						4.2	1.3
005	26P 2925 26P 3261	% %	2 1/4	1 3/	11,500T	1.65		*Model K2				2,500	1.50
006	27 1936	1 1/4	2 1/4	13/16	1,000 11,000	1.65 1.65						3,200	1.50
07	32 2505	1 74	2 1/4	1 1/2	700	1.65	MAGNA						
800	8A 2801	36	2 1/4	1 74	6.600T	1.65	3075	9 in. (Medium)	D7, D8			2,500	3.9
009	10B 2802	1 1/4	2 %	1 %	6,600T	1.65	3076	9 in. (Medium)					4.50
010	99A 3261	13/16	2 1/4	17/16	1,000	1.65	3077	Early Model					3.81
12	46	11/16	3	3	2,500	2.64	3078 3079	Model 126					2,40
		7.20					3080	Model 130 Model 138					2.40
	TER KENT	40 40	1. Tax				3081	Model 150					2.40
17	Models 46, 53, Late 55K	47 (Spea	ker F2)	Early,	1.700	3.60	3082						2.40
18	(Speaker F4)	Farly on	d Late	55 60		3.60	3083	Model 12 in				2.500	3.30
19	(Speaker F6)	Early and	d Late,	61 66	700	3.60	PHILCO					_,,,,,	
		234.13		01, 00	.00	0.00		*Model 20				3.100	1.20
	SWICK							*Models 86, 87, 6	5. 95. 7	6. 96. 77		3.200	2.70
24	Models D11, 1					2.52	3195	*Model 70				3,600	1.20
30	Models 15, 22,	32, 42			2,500	3.60	RCA-VI						
ROSI	LEY						3131					2,500	2.40
40	Model M45				350	2.34	3132						2.85
41						2.64	3133						2.52
142						2.88	3134						3.00
43						2.40	3135					500	2.40
44						2.40	3136	Model RC3				3,000	2.40
)45 )46						2.40 2.40	ROLA						
)47						2.10	3137						1.65
48						2.40	3138						1.71
149						2.10	3139 3140						2.10
					-,000	2.10	3141						2.40
RLA	37 3 3 5 5 6 7 7											2,000	4.20
65	Model 271 (Je	nsen DII	)		720	1.50	3149	ART-WARNER Model 950				10.000	4.04
ENS	EN						3150						4.80
57	Models D4-D5				2.250	2.64	3191						2.40 3.60
58	Models D7-D8				1,500	2.64	3192						8.60
59	Models D7-D8					8.00	UTAH	110001 20021				1,0001	0.00
160	Models D9-D1					1.50	3164	Model 9 in., A-1	0.0			9 500	3.60
161	Models D9-D1					1.56	3165	Model Little Gi	ant (Ten	dyne		2,500	2.04
62	Models D9-D1					1.56	3166	Model Stadium				2,500	4.20
63 64	Models D9-D1					1.56	VICTO					2,000	7.50
65	Models D9-D10 Models D10-D				720	1.50 1.50	3167	Models R32, 45,	75			9.050	9.40
00	mousis Did-D			_								2,900	3.48
			D	EDUC.	<b>1 2</b> %	FOR C	ASH \	WITH ORDE	K				55

## CARRON REPLACEMENT SPEAKER CONES

CARRONRL		LAULMILNIS		LANLRUUN	<b>L</b> 3
Part No. Manufacturer O.D.	Net		Net	Part No. Manufacturer OD	. Net
AIR LINE (Mont. Ward & Co.) 1122 Models 28-22, 28-95; 10,000 6200; 14,000 (Utah A100) 9		FADA 1029 Models KO-C, 10 Series,	24.44	LYRIC (All-American Mohawk) 1047 Model D No. 9191	4 \$1.50
6200; 14,000 (Utah A100) 9 11109 Models 1800; 14, 11 8 1/2 1117 Models 1238, 1838, 13, 15,	\$1.65 1.20	Shallow 8½ 1030 Models 20, 32, 15, 25, 15B,	\$1.65	1 1039 Model St. S7 (Jensen	
16, 18 (Utah Large Cub No. 2)		15C, 15 Series Deep 8½ 1133 Models KU45, 65, 41, 412, 42, 422, 44, 46, 47, 12A-	1.00	D15)	4 1.44
1123 Models 2955, 3065 (litah	1.74	12.5	1.74	1143 Model S80	1.35 1.50 .84
Stad.)	1.05	*GENERAL ELECTRIC 1088 *Models T41, H31, H51,		1081 Model S-50 (Rola F5)	1.05
1049 Models 360 (Magnavox 130)	1.35	H34, H72, S22, S132, K62, S42B, (RCA 106)10 %	1.20	NAGNAVOX	
1039 Models 24 (Jensen D15) 8 1	1.35	1089 *Models J80, J85, J75 (RCA 48)10 1163 *Model J125 (RCA R78)10	.90 .99	1048 Models D7, D8, D6, 80, 90, 100, used in Sparton 737, 931, Newcomb-Haw-	
2 pt 6 1115 Models 45, 47, 70, 72, 81 (Utah Cub, 3 pt.) 6 1037 Models 39, 24 (Jensen D9)	.90	1164 *Model J82 (RCA R71) 71/2	.75	ley NH9, Ever Ready 30, 40, Bosch 29A, Kellogg	
(Utah Cub, 3 pt.) 6 1037 Models 89, 24 (Jensen D9)	.90	109 (RCA R74)10 1091 *Models B40, 65	.99 .60	523	1.65
1172 Models 96, 98, 104 (Op-	.90	1225 *Models K60, K65, K63, K64, B81, B86, K58 61/2	.60 .60	Zenith A, B, C, D 8	1,50
eradio)		GENERAL MOTORS		1050 Models 130, 138, 401, used in Crosley 249, Columbia 110, Audiola 31, Sparton	
Giant No. 1)	1.20 1.74	1084 Model 120 (Rola "J") 9 1/2 1085 Model "Little General" (Rola "K") 7 1/2	1.65 1.50	600, Jackson-Bell 68, 88,   89A, 89, 99	4 1.50
pt	1.50 1.44	1080 Model 1907 (Rola F5) 6	1.05	1051 Models 140, 142	½ 1.50 ¼ 1.65
1074 Models 11,000, 33-35 (Ox- ford) 844	1.44	*GRAYBAR ELECTRIC 1088 *Models GB678, GB700,		Crosley 124 7	1.35
1137 Models 11,000, 33-35 (Jensen D12, D14) 8 1/2	1.44	GB770, GB900, GB100 (RCA 106)	1.20	Sparton 333	1.05
ATWATER KENT 1000 Pt. No. 15142, for Models		(RCA 106)	.90	C-80-A	1.05 1.35
43, 46, 55, 60, 66, 67, 64, F4	1.20		.99	1200 Models 154D, 158, 2 pt., used in Motorola Twin	1.00
1001 Pt. No. 14374, for Models 43, 46, 55, 60, 66, 67, 64,	1.20	1164 *Models GT10-69, GT10- 88, GC10-99 (RCA R74).10	.75	8, Crosley 325-4	1.50
1001 Ft. No. 143/4, 10r Models 43, 46, 55, 60, 66, 67, 64, F2	1.20	JENSEN 1136 D1-Used in Silver Mar-		201, 401, 403, 405 (shallow)1	1.74
	1.05	shall, Model JT 61/2 1034 D4, D5 91/2	$1.35 \\ 1.74$	1145 Models 410, 412, 414, 416, 418, 116, 118, 210 (deep).11 1259 Model 111	
1003 Pt. No. 18081. for Models H2, L, F, P, H10 %	1.20	1035 D7, D8, Used in Dayton Navigators, Sparton 737, 921, Silver Marshall C,		1221 Models 152X, 160, used in Crosley 170	½ 1.74 1.65
BEST 1006	1.05	etc., Air Line 2955, How- ard "Green Diamond," Gulbransen 727, Grebe AHI, SK4, Edison R7, Kennedy 22, etc		1185 Models M44, 158, 165, used in Motorola 44 \$	.90
1159 D5	.90 1.05	Gulbransen 727, Grebe AH1, SK4, Edison R7,	1 74	1242 Model 195 5 MAJESTIC	.84
BOSCH 1007 Models 48, 58 9 %	1.65	1036 D9 (Outside Spider) 11% 1037 D9 (Inside Spider) used in Zenith 92, Crosley 124,	1.74 1.74	1058 G1 for Models 71, 72 9 1059 G2 for Models 71, 72, 91, 92, 181 9	1.17
BRUNSWICK 1017 Model 10 (Clarion 60) 8%	1.50			1060 G3 for Models 90, 91, 93,	1.17
1017 Model 10 (Clarion 60) 8 % 1012 Model 1), 11, 12 9 1013 Models 16, 18, 33, 17, 24,	1.50	etc., Air Line 89, 2411 4	1.65	101, 102, 103	1.20 1.20
2512 CLARION	1.74	Silver Marshall ABC, etc., Silver Marshall ABC, etc., Air Line 89, 24114/ 1038 D10, D11, used in Air Line 83, Kennedy 42 8 1137 D12, D14, used in Silver Marshall 782, Lyric "1"  Vershall 782, Lyric "1"	1.44	1062 G5 for Models 131, 132, 233, 61, 62, 163	1.74 1.50
1017 Models 60, 80, 81, 85, 90, 91, 100, 120, 25-60	1.50	DI., AH LINE 11,000, 33-		1064 G7 for Model 2110 1065 G8 for Model 2212	$\frac{1.50}{1.74}$
25-53, 25-55	1.65	35	1.44	1066 G9 for Model 2312 1067 G10B, G10C, G10D, G10E	1.74
COLONIAL	1.50	nedy 52, 56, Lyric S6, S7. 8½ 1040 D16, used in Majestic 311.		for Models 151, 153, 154, 155, 156	1.20
1098 Model 36 (Symington) 9% 1099 Models 33, 38	$\frac{1.50}{1.74}$	Kennedy 52A, etc 8 1217 D17	1.35 1.35	1068 G11B, G11C for Models 251, 253, 254, 201, 203, 204, 211, 21410	1.44
97, 51, 53 9%	1.50	1044 D19 (Short 3 pt. Spider) 10 1300 D19 (Long 3 pt. Spider) 10 1301 D19 (Inside Spider) 10	1.65 1.65 1.50	1069 G13B, G13C for Models	1.35
CROSLEY  1027 M45, Models 262, 425, 625, 40S, 30S, Dynacoil 9	1 20	1302 DA7 Auditorium13	3.00 3.00	1070 G14, G14B, G14C, G14D, G14E, G14F for Models 351, 353, 223, 221, 40712	1.00
1117 Model 124 (Utah Large Cub No. 2)	1.50 1.35	1042 J1, J2, used in Stewart- Warner 206A 6½ 1139 K1, K2 6½	1.05 1.05	1040 GJ16B for Model 311 (Jensen D11)	1.20
D3-1. S.)	1.65	1218 K3, K4	1.05	1071 G19A. G19B, G19C, G19F, G19G for Models 291, 293, 294, 303, 304, 324,	2100
1053 Model 124 (Magnavox 144)	1.35		1.05 1.35		1.20
1118 Model 125 (Utah Large Cub No. 3)	1.35	1140 P. M. 1 8½ 1184 P. M. 2 8½ 1285 Series "R" 6 1286 Series "R" 5 1138 T1, T2 5	1.35 1.05 .90	1072 G22A, G22B, G22C, G22D, G22E, G22K for Models 336, 344, 363, 39312	1.20
1115 Model 148 (Utah Cub 3	1.35			1151 G5, Improved Type, Mod- els 131, 132, 233, 61, 63,	1.20
pt.) 6 ½ 1211 Model 159 6 ½	.90 1.05 .90	175 Roamio 5 KENNEDY	.84	1152 G6, Improved Type, Mod-	1.74
1281 Model 166	.90 .84	1017 Model 20 (Clarion 60) 8% 1037 Model 220 (Jensen D9)11%	$1.50 \\ 1.65$	els 51, 52, 53	1.50
1221 Model 170 (Magnavox 152X)	1.65	1035 Models 22, 26, 30, 36, 38, 40 (Jensen D7)	1.74	el 21	1.50
152X)	.90 .84 .84	Little Giant No. 1) 8	1.44	1155 G9, Improved Type, Mod- el 2312	1.74
1049 Model 269 (Buddy Boy) 8 1/2 1050 Model 249 (Magnavox	1.50	1037 Models 50, 56, 62, 64, 220 (Jensen D9)114 1039 Models 52, 56 (Jensen	1.65	1156 G24 for Model 116—Ford Auto	.90
1200 Model 325-4 (Magnavox	1.50	1039 Models 52, 56 (Jensen D15) 814   1040 Models 62A, 62D, 66B	1.35	1157 G25 for Model 381—Pirate Chest	.84
154, 2 pt.) 146, 168 8 EVER READY	1.50	(Jensen D16) 81/2	1.35	1158 G26A, G26C for Models 371, 373, 411, 413, 411A, 413A	.87
1048 Models 30, 40 (Magnavox D7) 9 1028 Models 50, 5210	1.65 1.50	KOLSTER 1141 K70, K20, K608 1219 B-159%	1.35 1.65	1159 "Best D5" for Models 371, 373 5	.90
1007 Models 52 (Bosch 48) 9 % 1099 Models 50, 52 (Colonial	1.65	1045 K90, K48, K44, K45, K48,	1.74	1160 "Best D65" for Model 331 6	1.05
<b>56</b>	1.74 DÉD	UCT 2% FOR CASH WITI	1.20	1284 G28A for Model 460A 8	1,50
		World Radio History	• • • • • • • • • • • • • • • • • •		

## CARRON REPLACEMENT SPEAKER CONES

art No. Manufacturer O. D.	Net	Part No. Manufacturer O. D. Net	Part No. Manufacturer O. D. I	Net
PERADIO 172 Used in Sentinel 560, Truetone, Airline 96, 98,		340, 340E, 341, 380	1114 Cub 6C, 2 pt. Spider, used	
Truetone, Airline 96, 98, 104, Arvin 10. Wells Gardner 052		1164 *Pt. 8984, Model R-3B		0,90
of inside spider	\$0.84 1.05	(RUA R(1)	Airline 45, 47, 70, 72, 81,	
68 8 04 Used in Sentinel 600, Ar-	1.20	1165 *Pt. 9432, Models R-510, R53B, 135B, 235B, 236B (RCA R74)	Crosley 148 6 1116 Large Cub, No. 1 Speaker	.90
vin 20A 6 ½	1.05	*Pt. 9471. Models 91B. 102 (MAG 5 in.)	8L, Inside Spider 7% 1	1.20
XFORD 62 Joy Kelsey Type Model		1164 *Pt. 9539, Models 135B, 235B (RCA R71) 7 1/4 .7!	Spider, used in Crosley	
62 Joy Kelsey Type Model 23	1.50 1.35	1225 *Pt. 9588, Model 103 (RCA R37)	13, 15, 16, 13	1.3
074 Models 23, 31, 59, 24, used	1.35	ROLA	Spider, used in Crosley	
75 2 pt. Spider (oval)	1.50	1167 F4, used in Crosley 167, Dewald, Wells Gardner. 5 .84	125, Airline 52, 45, 47, 70, 72, 84, 94, 79, 49, 76 734, 1119 Little Giant No. 1, inside	1.3
or Models 23, 31, 59, 24, used in Wells Gardner No. 9,		1080 F6A, used in General Mo-		
Gulbranson 62, Airline AE10	1.50	tors 1907	700, 749, Zenette, Airline 33-25, 62,000, 11,000. Ken-	
Zenith 5212	1.74	1082 J10 "Old Model" 7½ 1.50	1120 Little Giant No. 2, 2 pt.	1.2
Pilito		1082 J10 "Old Model"	1121 Little Giant No. 3, 3 pt.	1,3
78 °Pt. 36-3170, Models 40, 41, 42, 65, 76, 77, 87, 90,		1084 D90, D110 Old Model "J." used on Silver Marshall	Spider	1.3
95, 96, 111, 112	.84	850 Day Fan, General	6200, 14,000, Balkeit 8%	1.6
95, 96, 111, 112	.75	Motors 120	1123 Stadium, 66A, 66B, used	1.7
	.60	"Little General" 1	1 1230 Model 12R 3 nt Spider	1.2
43 °Pt. 36-3000, Model 53 5% 44 °Pt. 36-3029, Models 54. 57 5%	.60	1086 K9, inside Spider11 1.6 1226 K9, 3 pt. Spider11 1.7	16 0hm VC 12	1.7
57. 36-3159, Models 6. 7. 8. 9, 10, 12. 14, 15, 19, 43, 47, 71, 89, 91		1188 K7 used in United Motors 4037, Chevrolet 4037, 64 used in Coronado 5 used in Coronad	1931 Model 124 Incide Cuides 19	1.5
43, 47, 71, 89, 91 7%	.60	tors 4037, Chevrolet 4037, 612, .90		1.5
60	.60 .90	1282 DP4. used in Coronado 5 .90 1311 F6B 8 1.20	1201 Model 5D, used in Motor- ola 44. Emerson KS-38,	
48 *Pt. 02625, Models 14, 15		SILVER-MARSHALL	Atwater Kent 155, Gru- now 501, 550 5	.5
44, 91	.84	1036 Models A, B, C, D. E, EP, G, J, Q, Z, 726-SW, 773 (Jensen D9)	1205 Model 62E, used in Zen- ith 462, 650, 808 6 ½	1.0
1710% 269 *Pt. 02887, Models 35, 37,	.84	1035 Models C. 33A, 34A, 35A,	Motorola Super 6 616	1.0
50, 51 8 %	.75	36A, 40. 41, 30, 1021 (Jensen D8)11 1/4 1.7		1.7
RCA-VICTOR 87 *Nos. 104. 105 8	1.20	(Jensen D8)	U. S. APEX GLORITONE	1.3
88 Pt. 8558, Speaker 106, Models RE20, R34, R35,	1.20	1084 Mudels Spu. (b) (Nota J). 3 12 1.00	1103 Model 20, Speaker 2714 6 1104 Model 26, Speaker 2286 846	1.5
R39, R50. R55. RE57, RAE59, RAE79, R80.		1084 Model 30 (Rola J) 9 1/2 1.6/ 1098 Or (Symington)	1105 Model 26A, Speaker 2167. 8	1.5
	1.20	1137 Model 782 (Jensen D12) 8 1/2 1.4	1107 Model 26P. Speaker 2925 8	1.3
R7, R-7A, R-7LW, R8,		SH VERTONE (Sears-Roebuck & Co.) 1098 Models 111. 1322 (Syming-	1109 Model 27, Speaker 1936 81/2	1.5
89 °Pt. 8601, Models 48, R6, R7, R-7A, R-7LW, R8, R9, R-9DC, R-10, R-10DC, R-11, R12, R14, R15, RE16, RE-16A, RE17, RE18, RE-18A, RE19, R21, R0-23, RAE-26, CE-29, R34, R42, R-43DC, RE73		ton)	1194 *D 29 45 65 50	
RE16, RE-16A, RE17, RE18, RE-18A, RE19.	4		1088 *RE 57, 34, 35 (RCA 106) .101/4	1.5
R21, RO-23, RAE-26, CE-29 R34 R42 R-		1208 Models 376, 1404, 1580, 1582, 1586, 1588, 1589, 1650, 1670, 1590, 1592	WELLS-GARDNER 1076 No. 9 (Oxford 3 pt.)10 1167 Model 621 (Rola F4) 5	1.5
43DC, RE7310	.90	(Colonia) 37)	WRIGHT DECOSTER	.8
90 *Photophone	.60	1258 Models 1640, 1652, 1722, 1732, 1722X, 1732X, 1721, 1726, 1726X, 1822, 1831	1125 Model 155, used in Motor- ola 6, 61, 88 6 1/2	1.5
91 °Pt. 9023, M34, M105 5 36 °Pt. 8987, Models R28, R28P, K22, R-28EW, RE-40, RE40P, 100, 101, 110, 111, 114, 115, M116,		(Colonial 71)		1.
RE-40, RE40P, 100, 101, 110, 111, 114, 115, M116,		SONORA 1098 Model 3010 1.50	I IIZX MODEL 34b. Used in Motor-	1.8
	.60	1099 Model 3012 4 1.74	1129 Model 10710	1.0
25 *Pt. 9428, Models R37, R37P, R38, R38P, 112, 120, 121, 122, 124, 126B,		SPARTON 1048 Models 737, 89A, 99, 101,	1232 Model 225	1.
142B, 241B, 310. 320 6 1/2 63 *Pt. 8916, Models R78,	.60	109, 110, 11, 301, 589, 591, 593, 740, 750, 930, 931	GENUINE WRIGHT DECOSTER	
CRD-9AC. CRD-9DC.		(Magnavox D7) 9 1.6. 1035 Models 737, 921 (Jensen D7)	WD_25CB Model 530 6%	1.
RAE-84	.99	1039 600 Series (Jensen D15) 8 1.3	WD275CD Model 79010 %	1.
R71B, SWA-3, R24 7½ 65 • Pt. 8935, Models R74.	.75	1050 600 Series, 610 (Magna- vox 138)	WD400CF Model 2940	2.
65 Pt. 8935, Models R74, R70, R73, R75, R76, R77, RE81, 128, 128E, 210, 211, 221, 223, 224, 224E,		1085 Model 410	WD500CH Model 5800	2.
211, 221, 223, 224, 224E, 322, 322E10	.99	1083 Model 10, 14, 15, 56, 72 (Rola F6)		2
66 *Photophone 7½	.90	STEINITH	WD500CN Model 207121/4	2.
24 Pt. 10801, Models R32, R35, E35, RE45, R52, R75, E-135, E152, RE154,		1093 (All Models)	WD500CL Model 309	2.
R75, E-135, E152, RE154, RE156	1.05	STEWART WARNER 1094 Models 200A, 445A. 565A,	WD500CM Model 3191218	2.
64 *Pt. 7236, Models R5, RX5, R-5DC (RCA R71). 7 1/2		440, 950, 201A (2 pt. Spider) 9 1.6	WD400CE Model 425121/8	2.
*Pt. 7442. Model R4 (RCA	.75	1095 Models 445A, 200A, 565A, 440, 950, 201A (2 pt. Spi-	ZENITH 1077 Models 52, 72 (Oxford)12 1077 Models 52, 72 (LL18)1214	1
R71)	.75	der) 9 1.6 1096 Model 104A, R206, R204A, 8 1.54	1099 Models 52, 72 (Magnavox	1.
34 *Pt. 7598. Models R-18W.	.75	1097 Model R202A	1016 Model 92 (Jensen D9)11 4	1.
R27 (Dynamic). (GE RL56)	.60	1283 Model R-123-A, R224A 6 1.0 1190 Model R203A 6 1.2	1130 Model 103 (Peter-Smith).12	1.
Pt. 8359, Model R22 (RCA 100)10	.90	SYMINGTON	navox 136)	1.
64 •Pt. 8829, Models M30, P31 (RCA R71)71/2	.75	1098 LL18, used in Colonial 36, Sonora 30 9 % 1.5	Little Giant No. 1) 7% 1114 Model 705 (Utah Cub) 6	1.
64 Pr X962 Model M32		1099 LL18, used in Zenith 52, etc., Silvertone, Sonora	1291 Model 755 (Jensen D16-	1.
(RCA R71) 7 ½ Pt. 9869, Models RE80, AVRI, AVR-SA, R72, R73A, R75A, R90, R90P,	.75	3012 1/4 1.7	1205 Models 650, 462, 808 (Utah	1.
AVKI, AVK-SA, K72, B73A B75A B90 B90P.		<b>TEMPLE</b> 1100 9-inch Speaker 9 1.5 1101 11-inch Speaker 11 1.6	1199 Model 825 (Jensen) 6 1/2	1.
140, 141, 141E, 220, 222, 240, 242, 260, 261, 262,				

## Speaker Accessories



#### CARRON SPEAKER CENTERING SHIMS

For adjusting cone in pole piece. 16 shims assorted in 4 sizes—.005, .0075, .010 and .0125 in. In handy leather case.

\$0.35 Per Set.

#### EVEREADY SERVICE **CEMENT and SOLVENT**

oz. bottle......\$0.15



# EVEREADY

#### DIAL LITE COLORING

#### COLOR CODING ENAMEL

Handy item for coding coil forms, jacks, terminal strips, etc. Four bottles of enamel—green, blue, red and yellow—and one bottle of thinner, together with four brushes.

No A190



#### PERMEABILITY COIL DOPE

To increase inductance of low coils or match up odd ones. Just smear it on and let it dry. May also be applied to inside of form.



#### **EVEREADY LIQUIDOPE**

An ideal coll dope, specially prepared for holding windings to coll forms. Tightens the windings and gives an all-weather coat to windings as well as protection against scratches, etc. 2 oz. bottle.





#### **UTAH ORTHOVOX COILS**

High Impedance, 7000 ohms Med. Impedance, 4000 ohms Low Impedance, 2000 ohms



#### BEST KINEMATIC COILS

										F	r	:1	С	е	Each
	Impedance Impedance														
Low	Impedance	tubes.													. 0.45
RCA	100-100A, et	c. Pa:	r		٠			٠	٠						. 0.45





#### WRIGHT-DECOSTER MULTI-TEST **SPEAKER** \$30.00 List

Universal output transformer Universal voice coil transtransformer.

\* Universal field coil trans.

former \* Matches all tubes.

Matches all output transformers.
Matches all set field combinations

#### DE HOW TO GET ONE TO

Upon deposit of \$15.00 with us, we will ship you a Wright-DeCoster Multi-Test Speaker. We will accept 75 of these Wright-DeCoster coupons any time on or before the expiration date of this offer as a merchandise credit of \$7.50 against your deposit of \$15.00. Thus making this Wright-DeCoster Multi-Test Speaker. Multi-Test Speaker

Cost You Only \$7.50

These valuable coupons are packed with all Wright-DeCoster products:

1 coupon with each Model 5 and 6-inch speaker.
2 coupons with each Model 8-inch speaker.
3 coupons with each Model 10-inch speaker.
5 coupons with each Model 12-inch speaker.
10 coupons with each stadium model speaker or horn. This offer expires January 1, 1937.

#### CAMPBELL'S BLACK WRINKLENE LACOUER

This lacquer will give any metal part that professional appearance. You can easily crackle your own panels, chassis, etc. Complete directions furnished.

No. CL2-1/2 pint No. CI-Pint can



#### HIGH VOLTAGE INSULATING CAMBRIC

#### A.C. - D.C. FIELD COILS

U300—1000 ohms. U301—1500 ohms.

No. U301—1500 ohms.
No. U302—2000 ohms.
No. U302—2500 ohms.
No. U304—3000 ohms.
Furnished with extra gaskets and additional

Cores. Your price

Each ..... 90c



#### LOUD SPEAKER GRILL CLOTH

Beautiful designs to harmonize with finish of cabinets. nished in squares 12 in. x 12 in. No. G100

No. G101 21c Mahogany ..... 300 Walnut .....



This system consists of a compact amplifier of special design, housed in an attractive crystalline finished metal case, and two identical station units with the necessary cables for quick installation. Each station unit consists of a high grade P. M. speaker, encased in a fine hand rubbed walnut finish cabinet. The "Talk-Listen" switch is of the quick acting push button type, employing special alloy contacts in the springs.

#### EXCLUSIVE CARRON FEATURES

-Only one electric outlet needed for the entire system. Can be installed by anyone in five minutes. No splicing or screws

-Can be instance by anyone in the influtes. An opining of solers to loosen.

-Voice is reproduced as clear and distinct as a radio. No blasting —speak at arm's length.

-As many as four station units may be used with one amplifier in much the same way as a four party telephone line.

-More economical in first cost, as well as upkeep, than any other everage on the market.

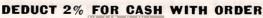
system on the market.

### EITHER A.C. OR D.C.

Will Handle Up to Four Stations

Extra Station Units \$7.20





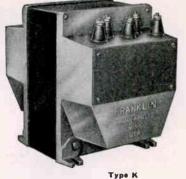


# FRANKLIN TRANSFORMERS FOR TRANSMITTERS

#### PLATE SUPPLY

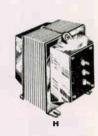
# PLATE and FILAMENT FILAMENT

# DRIVER and MODULATION TRANSFORMERS



#### PLATE TRANSFORMERS

Туре	Volts AC RMS	Mills	Mounting	Mounting Area	Tubes	Price
FTP-1	1500 1000	175	К	5¾x6¼x6¼	03A-211-T55-50T-35T- 830B-800-RK20	\$11.25
FTP-2	2000 1500	250	K	5% x7 1/3 x 6 1/4	HD203A-852-150T-822-814- T155-T200-RK36	15.95
FTP-4	1000 750	300	K	5 1/4 x 6 x 6 1/4	Pair 800's-T55's-03A's-211's- 825's-35T's-845's-841A's	8.90
FTP-5	2500 1500	250	K	5% x81/3 x61/4	HD03A-814-822-204A-303C- 150T-T155-RK36-852	17.75
FTP-7	500	150	D	3½x5½x4¾	Pair 10's-801's-802's-RK23- 25-841's-RK10's	4.50
TP-8	750	200	P	3¼ x5¼ x4¾	Pair 10's-T55's-825's-756's- 35T-RK10's-RK35	5.50
TP-51	500	300	P	3 1/4 x 5 1/4 x 4 1/4	6L6's-10's-801's-35T-841's- RK10's-RK35's-T55's	6.00
TP-52	1500	600	K	5 1/2 x 9 1/2 x 6 1/4	Both Class C and Mod. Pair 03A's-T55's-50T's-RK20's, etc.	18.00
TP-53	3000 2000	200	K	5% x9 x6 1/4	150T-852-RK36-T155-814- 822-04A	21.00
TP-54	3000 2000	350	K	5% x10 x6%	Pair 150T's-852's-RK36's- T155-814-822	25.00
TP-55	1200 1100 1000	300	K	5¾ x6 x6¼	Bridge—Not C. T.	7.50
FTP-56	1200 1100 1000	600	K	5% x7% x6%	Bridge—Not C. T.	9.50



#### PLATE AND FILAMENT TRANSFORMERS

Type	Volts AC RMS	Mills	Mounting	Mounting Area	Tubes	Price
FT-3	750, 7.5V-3A, 7.5V-3A, 5V-3A	300	K	5% x6 x6 ¼	10's-825's-T55-RK10's-756's- 801's-800's	\$ 7.30
FT-6	400, 7.5V-3A 7.5V-3A	100	P	3% x5% x4%	50-81-10-841-801-RK10	4.00
FT-11	600, 2.5V-414 A 5V-3A	150	К	3¼ x5¾ x4¾	46's-RK23-45's-RK34, etc.	6.50
FT-182	350, 2.5V-3A 2.5V-3A, 5V-3A	200	D	3 1/4 x 3 x 4 1/4	Pair 46's-45's-2A3's-53's- RK34-59's-47's-2A5's, etc.	4.75
FT-282	450, 2.5V-3A 2.5V-9A, 5V-3A	200	D	31/4 x5 1/4 x4 1/4	Mod. and Low Power Stages 2A3's, 45's-59's-47's, etc.	5.00
FT-283	600, 7.5V-3A, 5V-3A	150	P	3% x5% x4%	801-10-RK-10-825-756-841- 50's-T55	5.40
FT-284	600, 2.5V-3A 5V-3A	150	P	3% x5% x4%	46's-RK23-45's-RK34	5.40



#### **FILAMENT TRANSFORMERS**

Type No.	Windings	Style	Insulation	Tubes	Net Pric
FTF-10	7.5V-7.5V-3.5ACT- 3.5ACT	P	7500	801-10-RK10-825-756-T55- 800-841A, etc.	\$ 4.0
FTF-20	10V-10ACT	P	7500	03A-11-814-822-T155-845- HD-03A-852	4.7
FTF-25	11V-10ACT Use Pri. Rheostat	P	7500	T200-204A	5.2
FTF-30	12V-8ACT Use Pri. Rheostat	P	7500	T200-204A-849	4.7
FTF-40	2.5V-10ACT	P	7500	46's-45's-RK23-47-53's-82	3.2
FTF-41	2.5V-5V-12ACT-3ACT	0*	1000	46's-45's-RK23-2A5-53-47-80- 83-83V-5Z3, etc.	1.4
FTF-42	2.5V-2.5V-2.5V-12ACT- 3ACT-3ACT	O.	1000	46's-45's-RK23-2A5-53-47-80- 83-83V-5Z3, etc.	1.6
FTF-43	7.5V-5V-3ACT-3ACT	0,	1000	RK 10-801-825-T55-50-81-523- 83-83V-80	1.4
FTF-45	7.5-4ACT	0*	1000	10-801-825-T55-50-81-523	1.2
FTF-46	5V-5V-8ACT-3ACT, 3A	CT D	1500	Bridge Rect. for 80-83-5Z3, etc.	2.6
FTF-47	2.5V-10ACT	0*	3000	46's-45's-2A3's-2A5-47, etc.	1.5
FTF-48	2.5V-2.5V-2.5V-10ACT- 10ACT-10ACT	Ď	6000	Bridge Rect. 82	4.4
FTF-49	7.5V-6.5ACT	0*	1000	RK10-801-825-T55-50-81, etc.	1.6
FTF-50	5V-20ACT	P	7500	872'8	4.7
FTF-72	10V-10ACT	P	2500	03A-110-800	3.4
FTF-76	6.3V-5V-6ACT-3ACT	O*	1000	6L6's	1.6
	Lugs instead of Wire Leads,	•	2000	0200	2.0



#### DRIVER AND MODULATION TRANSFORMERS

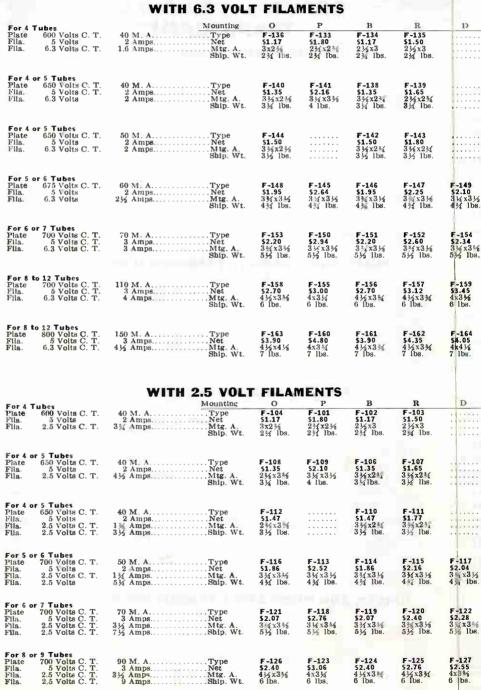
Туре	Purpose	Pri.	Sec.	Class C Load	Mtg. Fig.	Watts Output	Price
F-559 F-560	Output	2-46's 1-46	5000 2-46's	500V-100MA	P	20	5 3.30 2.25
F-565 F-564	Output	79, 2A6, etc. 89, 2A5, etc.	4000 2A6, 53, etc.	180V-45MA	P	5.5	2.25 2.25
F-581 F-580	Output	10's, 841's, etc. 45's, 2A3's	5000 10's, 841's, etc.	750V-150M A	P	50	5.70 2.25
F-288	Output	800's	5000, 20000	1000V-200MA 2000V-100MA	K	100	8.75
F-287	Output	203A's	2500, 10000	1000V-400M A 2000V-200M A	K	200	12.50
F-286	Driver	2-2A3's	800's-03A's		P		3.75
*FT-601	Driver	2-6C5's	2-6L6's	Max DC in Sec.	P		1.80
*F-602	Output	2-6L6's	7500 <b>5000</b>	150MA 200MA	P	30 Cl. A.	
*See June is	sue "QST"		2500	250MA		60 Cl. B.	4.80





# FRANKLIN UNIVERSAL TRANSFORMERS

#### NEW PLATE AND FILAMENT TRANSFORMERS FOR EXISTING RECEIVERS, AMPLIFIERS, PUBLIC ADDRESS and POWER SUPPLIES





For 10 Plate Fila. Fila. Fila. o 12 Tubes 700 Volts C. T. 5 Volts C. T. 2.5 Volts C. T. 2.5 Volts C. T.

F-129 53.30 41/431/4 7 lbs.

F-128 54.05 4x3¾ 7 lbs.

\$3.30 416 x416 7 lbs.

110 M. A. 3 Amps. 3½ Amps. 14 Amps.

# FRANKLIN

## AUDIO TRANSFORMERS FILTER CHOKES TRANSMITTING CHOKES



**AUDIO INPUT TRANSFORMERS** 

		ILLUSTR <i>A</i>	TION F & P		
Туре	Ratio	From	То	Core	Net Type "F"
F-201 F-202 F-203	3 to 1 3 to 1	Plate Plate	Grid PP Grids	56x56* 56x56*	\$0.96 1.05
F-203 F-231 F-232 F-233 F-234 F-235 F-252 F-252 F-253 F-255	3 to 1 2 to 1 4 to 1 3 to 1 2 to 1 4 to 1 3 to 1 2 to 1 3 to 1 2 to 1	Plate PP Plates	Grid Grid Grid PP Grids	34 x 34 † 36 x 36 † 1 x 1 1 x 1 1 x 1 1 x 1	1.05 1.05 1.05 1.11 1.11 1.50 1.50 1.50



\*Available in Type "F" only. †Available in Type "P", add 15c to net price. 1" core sizes, add 20c to net price for Type "P."

#### AUDIO INPUT CLASS B OR AB

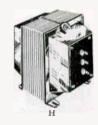
		ILDUSTRA	TION P OF E		
Туре	Driver	PP Output	Ratio Pri: ½ Sec.	Core	Net Type "F"
F-243 F-245 F-246 F-256 F-257 F-258 F-259	30 2A5, 56 6A6 6F6 PP 6F6 59 56	19 45, 2A5, 2A3 6A6 6L6 6L6 59 2A3	2.66 1.70 5.00 1.00 1.00 3.00	36x34† 36x34† 36x34† 1*x1* 1*x1* 1*x1*	\$1.11 1.11 1.50 1.65 1.50



\*Available in Type "F" only. †Available in Type "P", add 15c to net price. 1' sore sizes, and 20c to net price for Type "P."

#### OUTPUT TRANSFORMERS TO 6 OR 15 OHM VOICE COIL

`	ILLU	STRATION F & P		
Туре	Tubes	Plate to Plate Load	Core	Net Type "F"
F-204 F-205 F-206 F-207 F-237 F-238 F-238 F-239 F-241 F-260 F-261 F-262	PP 19, 43, 31, etc. Single 12A5, 48, 43, etc. Single 2A5, 42, 41, etc. Single 2A5, 42, 41, etc. Single 38 PP 53, 19, 43, etc. PP 2A5, 42, 33, etc. PP 89, etc. Single 43, 48, etc. Single 2A5, 33, etc. PP 2A3, 45(AB) PP 46, 59 PP 6A6, 69	8M to 10M Ohms 10M to 14M Ohms 5M to 7M Ohms 1.5M to 4M Ohms 4M to 7M Ohms 3M to 5M Ohms 5M to 6M Ohms 8M to 10M Ohms	56 x 56 % 56 x 56 % 56 x 56 % 56 x 56 % 54 x 54 † 51 x 54 † 51 x 54 † 52 x 54 † 53 x 54 † 54 x 54 † 55 x 54 † 66 x 57 † 67 x 57 † 68 x 58 † 68 x 58 † 69 x 58 † 60 x 5	\$0.72 .66 .66 .05 1.05 1.05 .99 1.65 1.65



\*Available in Type "F" only.
†Available in Type "P", add 15c to net price.
1' core sizes, add 20c to net price for Type "P."

#### REPLACEMENT FILTER CHOKES

	ILLUSTRATION F & P										
Type	Henries	M. A.	D. C. Resistance	Core	Net Type "F"						
	15	40	200 Ohms	%x5%*	\$0.54						
F-208	15	40	300 Ohms	54 v 54 *	.54						
F-209	10			62062 m	.60						
F-210	15	40	400 Ohms	28A281	.00						
F-211	15	40	500 Ohms	28 X 28 T	.60						
	15	40	550 Ohms	%x %*	.60						
F-212		50	250 Ohms	% x % †	.99						
F-249	30		400 Ohms	12U124	.99						
F-249 F-250	30	50		29.529.1							
F-251	30	50	600 Ohms	26 X 24 T	.99						
E 262	30	50 80	250 Ohms	1/4 X 1/4 **	1.20						
F-263 F-264	30	70	350 Ohms	36 x 76 *	1.20						
F-264			100 Ohms	72 w 72 *	1.20						
F-265	10	100		78.478	1.65						
F-266	20	200	50 Ohms	1"x1"	1.03						
F-267	30	150	150 Ohms	1"x1"	1.95						



\*Available in Type "F" only. †Available in Type "P", add 15c to net price. 1' core sizes, add 20c for Type "P."

#### TRANSMITTING FILTER CHOKES

				ILLU	STRATION	F&P			
Туре	Mtg.	L.	W.	H.	Henries	M. A.	Ohms	Ins.	Price
FTC-1 FTC-2 FTC-3 FTC-4 FTC-5 FTC-7 FTC-8 FTC-9 FTC-10 FTC-11	K H K P P P P K H	34444444444444444444444444444444444444	535522333333	4%4 4%4 4%4 33% 4 4 4 4 4 4 4 4 4 4 4	30 30 10 30 25-5 10 10 25-5 25-5 25-5	300 150 500 500 150 150 150 150 500 350	150 200 70 100 135 100 100 100 100	7500 5000 5000 7500 1000 1000 5000 5000	\$ 8.85 4.50 8.00 10.60 2.00 3.60 8.00 5.00



#### GENERAL REPLACEMENT **TRANSFORMERS** RECEIVERS • • • • **AMPLIFIERS**





#### HALF SHELL MOUNTING—TYPE 2H

#### 4 TURES-2 5 VOLTS

For 2-57, 58; 1-2A5; 1-80.

Secondary—560 V.C.T. at 30 m.a. 2.5 V. at 3.5 amps. C.T. 5V. at 2 amps. Primary-V.A. 30. Dimensions-3x2 1/2 x2% ins. high.

Mounting holes-2-3/16 in. Weight-3 pounds. T-6049—Price .....\$1.20

5 TUBES--6.3 VOLTS

For 2-76; 2-42; 1-80. Secondary—610 V.C.T. at 125 m.a. 6.3 V. at 2 amps. C.T. 5 V. at 2 amps. Primary-V.A. 75. Dimensions-3%x34x3% ins. Mounting holes-3 1/4 x 2 1/2 in. Weight-6 pounds. T-7547—Price .....\$2.25



For 2 or 3-77, 78, 6K7, 6F5; 1-42, 6F6; 1-80, 5Z4. Secondary—600 V.C.T. at 50 m.a. 6.3 V. at 2 amps. C.T. 5 V. at 2 amps.

Primary-V.A. 45. Dimensions-3%x2%x3 ins. high. Mounting Holes-2% in. Weight-4 pounds. T-7020—Price .....\$1.65



#### 5 TO 9 TUBES-2.5 VOLTS

For 4-24, 27, or 7-56, 57; 1-47, 2A5; 1-80. Secondary-700 V.C.T. at 70 m.a. 2.5 V. at 8.5 amps. C.T. 5 V. at 2 amps. Primary-V.A. 65. Dimensions-3%x34x3% ins.

high. Mounting holes-31/2 x21/2 in. Weight-5 pounds. T-4900—Price ..... ........\$1,95 6 TO 9 TUBES-2.5 VOLTS

For 6-27, 24 or 9-56, 57; 1-47, 2A5; 1-80. Secondary—700 V.C.T. at 70 m.a. 2.5 V. at 7 amps. C.T. 2.5 V. at 1.5 amps. C.T. 5 V. at 2 amps. Primary—V.A. 65. Dimensions—3 %x3 ¼x3 % ins. Mounting holes-3 1/2 x 2 1/2 in. Weight-5 pounds. T-6362—Price .....\$2.10

6 TO 8 TUBES-6.3 VOLTS AND 2.5 VOLTS For 5 or 6-76, 77, 78, 6C5, 6K7, 6F5; 2-47, 2A5, 45; Secondary—700 V.C.T. at 70 m.a. 6.3 V. at 3 amps. C.T. 2.5 V. at 4 amps. C. T. 5 V. at 2 amps. Primary—V.A. 70. Dimensions—3%x3¼x3¾ ins. Mounting holes-3%x2% in. Weight-5 pounds. T-7021—Price .....\$2.10

7 TO 12 TUBES-2.5 VOLTS

For 5-24, 27, or 9-56, 58; 2-47, 2A5, 45; 1-80. Secondary—700 V.C.T. at 80 m.a. 2.5 V. at 9 amps. C.T. 5 V. at 2 amps. Primary—V.A. 75. Dimensions—3%x3%x3% ins. Mounting holes-3 % x2 % in. Weight-6 pounds. 

#### UNIVERSAL MOUNTING—TYPE 2U

9 TO 13 TUBES-2.5 VOLTS For 6-24, 27 or 10-56, 57; 2-47, 2A5; 1-80, 5Z3.
Secondary—700 volts C.T. at 110 m.a. 2.5 volts at 10.5 amps. C.T. 2.5 volts at 3.5 amps. C.T. 5 volts at 3 amps.
Primary—V.A. 100. Dimensions—3 % x3 % x4 % ins. Mounting holes-2 1/2 x3 1/2 in. Weight-7 pounds. 

#### UPRIGHT SHIELDED MOUNTING—TYPE 2G



#### 10 TUBES-1.5 VOLTS

For 5-26; 2-27; 2-71A; 1-80.

Secondary—650 volts C.T. at 70 m.a. 1.5 volts at 1 amp. 1.5 volts at 4 amps. 2.5 volts at 3 amps. C.T. 5 volts at 5 amps. C. T. 5 volts at 2 amps. Primary-V.A. 60. Dimensions-3 % x3 % x4 % in

Mounting holes-2%x3 in. Weight-7 pounds. T-5601—Price .....\$2.70

#### 8 TUBES-6.3 VOLTS

For 5-76, 6C6, 6D6, 6K7; 2-42, 6F6; 1-83, 5Z3, 5Z4, Secondary—775 volts C.T. at 200 m.a. 6.3 volts at 3 amps. C.T. 5 volts at 3 amps. Primary-V.A. 135. Dimensions-3%x4%x5

Mounting holes-3x3 1/2 in. Weight-10 pounds T-6935—Price ..... . . \$4,20

#### 11 TO 13 TUBES-6.3 VOLTS

For 8 to 10-76, 6C6, 6D6, 6C5, 6K7, 6F7; 2-42, 6F6; 1-80, 5Z3, 5Z4.

Secondary-745 volts C.T. at 145 m.a. 6.3 volts at 4.5 amps. C.T. 5 volts at 3 amps.

high.

Primary-V.A. 110. Dimensions-3%x3%x5 ins. 

#### 11 TUBES-6.3 VOLTS AND 2.5 VOLTS For 5-76, 6D6; 4-2A3; 1-82; 1-83.

Secondary—870 volts C.T. at 250 m.a. (Bias at 80 volts). 6.3 volts at 1.5 amps. C.T. volts at 10 amps. C.T. 2.5 volts at 3 amps. volts at 3 amps. Primary-V.A. 160. Dimensions-3%x4%x5 lins.

high. Mounting holes-3%x3% in. Weight-10% pounds.

#### 10 TUBES-6.3 VOLTS

For 6-76, 6C6, 6J7, 6C5, etc., 2-42, 6F6, etc.; 1-82; 1-83, 5Z3, 5Z4.

Secondary—880 volts C.T. at 125 m.a. (Bias tap for 38 volts). 6.3 volts at 3.3 amps C.T. 2.5 volts at 3 amps. 5 volts at 3 amps. -V, A. 105. Dimensions—3 % x3 % x5 ins. Primary-

Mounting hoies-3x3 1/2 in. Weight-8 pounds. T-7428—Price ......\$3.90

#### 8 TUBES-7.5 VOLTS AND 2.5 VOLTS For 2-50; 5-56; 1-83.

Secondary—1100 voits C.T. at 150 m.a. 7.5 voits at 2.5 amps. C.T. 2.5 voits at 5 amps. C.T. 5 at 2.5 amps. C.T. volts at 3 amps. Primary-V.A. 160. Dimensions-3 % x4 % x5 ins.

Mounting holes—3%x31/4. Weight—10 T-6826—Price holes-3%x31/a. Weight-101/2 pounds.

For 5 to 9-56, 57; 2 to 4-2A3; 1-83, 5Z3; 1-82. Secondary—700 volts C.T. at 200 m.a. 2.5 volts at 15 amps. C.T. 5 volts at 2 amps. 5 volts at 3

Primary -V.A. 135. Dimensions-3 % x4 % x5 ins. high.

#### 9 to 14 TUBES-2.5 VOLTS

#### SPEAKER FIELD SUPPLY

Secondary will furnish: 115 volts D.C. at from 50 to 250 m.a. for 1 to 6 fleids. 5 volts at 3 amps. for 83.

Primary-V.A. 55. Dimensions-3 % x3 4 x3 4 ins.

DEDUCT 2% FOR CASH WITH ORDER



2B

## **AUDIO TRANSFORMERS**

# INPUT - INTERSTAGE



Гуре		DRI		_	_										
vne	P	LATE TO	GRID I		STA	GE TI	RANS	FOI	RMF	RS	ns	Mtg.	Wt.	Net	
No.	Applica	ation	Rati	Pri			M.A. I			W.	D. 1	Holes	Lbs.	Price	
5738	10,000 ohm plat	e to grid	3:1	10,0	00 9	0,000	8 2		3	214	21/2	2 1/8 2 1/8	2 1¾	\$1.95 1.80	
5737 -300					MC 10	000	2	2A :	3	213	21/2	2x2 1/2	2	2.10 1.20	A A
5736 2999			3.2:	1 10,0	000 10	000,000	2	2B 2	23/8	2	2	23/8	11/4	1.05	
100	10,000 ohm plat		3:1			0,000				2	1 1/8	Univ.	1	1.05	2 4 4
·		PUSE	I-PULL		ed. in		Pri. M			nensio	ns	Mtg.	Wt.	Net	(16 to 16 to
ype Vo.	Applica	ation	Rati	o Pri		Sec. I	VI.A. I	Fig.	H.	W.	D. H	loles	Lbs.	Price	-
-5741	10,000 ohm plat	e to P. P. grid	ds 3:1 3.2:	1 10,0	000 9 000 10	90,000			3 23/8	21/2	21/8	2 1/8 2 3/8	2	\$2.10 1.35	2 <b>A</b>
5739 3391			0.2.	1 10,0	000 10	30,000	2	2B :	21/8	2	2 1 1/8	2 1/8 2 1/8 Univ	112	1.20 1.35	
-101 -7431	10,000 ohm plat	e to P. P. grie	ds 1:1	10,6	000 1	10,000	8 2	2C 2F	3	21/2	21/2	2 1/8	2	2.10	
-5742*	10,000 ohm plat	e to P. P. grie	ds 3:1	10,0	000 8	90,000			3	216	2 16	2 1/8 2 1/8 2 1/8 2 1/8	13/4	1.95 2.10	
5743* 7197	8,000 ohm plate	to P. P. gride	2.7:	1 8,0	000 4	14,000			31/2	21/2 2 1/8	2 1/2 3	3 1/8	31/4	3.00	A
	(Single 45 to	P. P. 845's) PUSH-PU	ITT IN	TEDE	TAGI	r TPA	NGE	ORX	ÆR	g					THE IS
уре		PUSH-PU	IIII IN			Ohma		Itg.	Din	nensio		Mtg.		Net	A LEGAL
No.	Applie	ation	Rati	io Pr	i.	Sec.	M.A.	Fig.	H.	W.	D.	Holes	Lbs.	Price	
-6434	P. P. 10,000 ohi power tube gi	rids Cl. A.	1,3:			33,800	8	2B	3	21/2	2 21/2	2 1/8 2 1/8	134 2	\$2.10	
-5870	P. P. 10,000 oh:	m plates to P.	tuboe						3					2.25	00 00
7557	P. P. 45 8 to 84	osr.r.Ci.	8 78 37	5 16,	000 13	17,000 5,85 or	40** : 57 77	and a	316 6C6 +	2 1/8	3 as tri	3 %	3¾	3.00	2 <b>B</b> —2E
10	o Kilds of will fur	tea oberaving i	II CAMOD IN	week ac	livering	gunder	15 was	tts, or	2B6	and 6	B5 t	ubes.			
*1	ligh peak for pow	ver detector.	**Per 8	ide.		TOR									
Type No.						At. M	ax. D.	C. N	Mtg.		nensi		Wt.	Net Price	<
No.	Application Plate Impedance	for Detector	Type Tub		nries M 080	1.A. M. .5			Fig. 2F	H. 2¾	W. 2	D. 1 1/8	LDS.	\$1.05	
-5298 -2927	Plate Impedance tubes or grid imp	pedance	6C5, 6F5-	6J7	500	.0	5 0		2B	2 8	23/8	11/2	î	.90	ALC: HOLE
	LOW IMPE	DENCE SO	URCE	(MIC	ROPI	HONE	. LIN	VE.	MIX	ER)	T	GF	(II		
	TO A IMILIAN		T	RANS:	FOR	MERS									
Гуре	A 37	etion	In	npedanc Pri.	e in Ol Sec.	hms Ov	erall N	Atg. Fig.	H. Dir	nensio W.	ns D	Mtg. Holes		Net Price	
No. -3020	Applie DB mike to gri			00 CT	100,0	000 1:2	2.2	2A	3	21/2	21/2 21/8	2x23	62	\$2.10	2C
-5837	DB mike to gri	d		00 CT 100	100,0	000 1:	22.2	2F 2B	2 % 2 % 2 % 2 % 8	2 2	21/8	23/8	11/2	1.35 1.05	20
-8602 -5516	Single button n Dyn. mike, line	or mixer to s	ingle 2	200/50	100,0 CT	000 1:	22.3	2F	2 3/8	2	1 5/8 2 1/8	238	11/2	1.65	
-6194	or P. P. grids Line to single o			00/125	100	000 1:	14.1	2F	3	21/2	21/2	2 1/8	2	2.25	
	Class A			500	CT		3.2	2F	3	21/2	21/2	2 1/8	2	2.25	Ne -
-8321	Line to P. P. gr Class B, etc.	11u8 UI 4U, 21U	'1	000	12,5					-/2	-/2	-/8			
	MICROPH	ONE OR	PICKUE	OT '	LINE	OR	MIXI	er 1	FRA	NSF	ORN	<b>IER</b>	S		
Гуре				1:	mpeda Pri.	nce in C	hms N	Atg. Fig.	Dir H.	nensic W.	ns	Mtg. Holes	Wt.	Net Price	3
No. - <b>6196</b>	Applic Pickup or line		er		500/12	25 20	0/50	2F	3	21/2	21/3 21/8	2 7/8	2	\$2.40	The second
-6374	Pickup to line	or mixer			000/20	000 20	0/50	2F	23/8			2	11/2	1.80	1
	TUBE 7	TO LINE	OR MIX	KER 7	FRAN	SFOF	RMEF	RS (	LO	W L	EVE	L)	***		
			I	mpedan Pri.*	ce in O	hms Sec.	Pri. I	Mtg.	Dia H.	mensi	ons	Mtg. Holes	Wt. Lbs.	Net Price	2D
		eation	15.0	000/10,0	000 2	00/50	8	2F	23/8	2	216	286		\$1.65	
No.			15 (	000/10,0 20,000	000 5	$00/125 \\ 00/125$	8	2F 2F	2 1/8	2 2	21/8 21/8 21/8	23/8	11/4 11/4 11/4 11/4	1.65 1.80	
No. -5515 -6226	Plate to line or Plate to line or	mixer	10,0						-49			-/0	4 1 9		
No. -5515 -6226 -7211	Plate to line or Plate to line or P. P. plates to	mixer line		20,000	91	00 /50	皇本庫	2F	2.96	2	21/8	28%	1/2	1.80	
No. -5515 -6226 -7211 -7573 *15,000	Plate to line or Plate to line or P. P. plates to P. P. plates to ohms for 864 an	mixer line line or mixer d 30 tubes; 10	0,000 ohms	20,000 s for 56,	76, 37	00/50 7, 27, 01	8** A, 55,	2F	2.96	77 and	21/8 6C6	28%	as tri	1.80 odes.	TANFONEIM
No. -5515 -6226 -7211 -7573 *15,000	Plate to line or Plate to line or P. P. plates to P. P. plates to ohms for 864 an	mixer line line or mixer d 30 tubes; 10	0,000 ohms	20,000 s for 56, R TR	, 76, 37 ANSF	00/50 7, 27, 01 ORM	8** A, 55, ERS	2F 85 or	57, 7	77 and	1 6C6	2% tubes	as tri	odes.	TROPERESON
No. -5515 -6226 -7211 -7573 *15,000 *Per sic	Plate to line or Plate to line or P. P. plates to P. P. plates to ohms for 864 ande.	mixer line line or mixer d 30 tubes; 10	DRIVE	20,000 s for 56, R TRA	76, 37 ANSF	00/50 7, 27, 01 ORM! Imped.	8** A, 55, ERS Pri. 1	2F 85 or Mtg.	2% 57, 7	77 and	ons	23/8 tubes Mtg.	wt.	odes.	TEOPERATION
No. -5515 -6226 -7211 -7573 *15,000 *Per sic Type No.	Plate to line or Plate to line or P. P. plates to P. P. plates to ohms for 864 ande.	mixer line line or mixer d 30 tubes; 10  Output Tubes	DRIVE	20,000 s for 56, R TRA tio Pri. o Sec.	76, 37 ANSF	00/50 7, 27, 01 ORM! Imped.	8** A, 55, ERS Pri. 1 M.A.	2F 85 or Mtg.	57, 7	77 and	ons	2% tubes	wt.	odes.	TOPPOSEIN
No. -5515 -6226 -7211 -7573 *15,000 *Per sic Type No. -7846	Plate to line or Plate to line or P. P. plates to P. P. plates to dohms for 864 and de.  Driver Tubes 1-30	mixer line line or mixer d 30 tubes; 10  Output Tubes 1-19 2-30	DRIVE	20,000 s for 56, R TRA tio Pri. o Sec. 2,4:1 2	76, 37 ANSI Ohms Pri. 20,000	00/50 7, 27, 01 ORM Imped. 1/2 Sec. 3,500	8** A, 55, ERS Pri. 1 M.A.	2F 85 or Mtg. Fig. 2B	2% 57, 7 Di H.	mensi W.	ons D. 15%	23% tubes Mtg. Holes 21/4	Wt. Lbs.	Net Price \$0.99	TARRESTAN
No. -5515 -6226 -7211 -7573 *15,000 *Per sic Type No. -7846	Plate to line or Plate to line or P. P. plates to P. P. plates to ohms for 864 ande.	mixer line line or mixer d 30 tubes; 10  Output Tubes 1-19 2-30 1-53 2-53	DRIVE Rai Class to B 2 B 5 B 5	20,000 s for 56, R TR tio Pri. o Sec. 2.4:1 2 5.25:1 2 5.22-1 1	76, 37 ANSF Ohms Pri. 20,000 27,000 3,500	00/50 7, 27, 01 CORMI Imped. 1/2 Sec. 3,500 1,000 500	8** A, 55, ERS Pri. I M.A. 7	2F 85 or Mtg. Fig. 2B 2F 2F	2% 57, 7 Di H. 2	mensi W. 15%	ons D. 15%	23% tubes Mtg. Holes 21/4	Wt. Lbs.	Net Price \$0.99	TANGALI IN
No. -5515 -6226 -7211 -7573 *15,000 *Per sid Type No. -7846 -6747 -6790	Plate to line or Plate to line or P. P. plates to P. P. plates to Ochms for 864 and de.  Driver Tubes 1-30  1-53 Cl. A	mixer line line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-53 2-46	DRIVE Rai Class to B 2 B 5 B 5	20,000 s for 56, R TR tio Pri. o Sec. 2.4:1 2 5.25:1 2 5.22-1 1	76, 37 ANSI Ohms Pri. 20,000	00/50 7, 27, 01 ORM Imped. ½ Sec. 3,500 1,000	8** A, 55, ERS Pri. I M.A. 7	2F 85 or Mtg. Fig. 2B 2F 2F 2F	2 2 1/8 3 3 3	mensi W. 1 1 1 1 2 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ons D. 15% 21% 21%	23/8 tubes Mtg. Holes 21/4 23/8 23/8	Wt. Lbs. 11/2 2	Net Price \$0.99 1.65 2.25 2.10	Table 11 to 1
No. -5515 -6226 -7211 -7573 *15,000 *Per sid Type No. -7846 -6747 -6790 -6778	Plate to line or Plate to line or P. P. plates to P. P. plates to O ohms for 864 and de.  Driver Tubes 1-30  1-53 Cl. A 2-53 Cl. A 1-46 or 59  Push-pull	mixer line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-46 2-59 2-42	DRIVE Rac Class to B 2 B 5 B 5	20,000 s for 56, R TRA tio Pri. o Sec. 2.4:1 2 5.25:1 2 5.22-1 1 2.2:1 1	76, 37 ANSF Ohms Pri. 20,000 27,000 3,500	00/50 7, 27, 01 CORMI Imped. 1/2 Sec. 3,500 1,000 500	8** A, 55, ERS Pri. I M.A. 7	2F 85 or Mtg. Fig. 2B 2F 2F	2% 57, 7 Di H. 2	mensi W. 15%	ons D. 15%	23% tubes Mtg. Holes 21/4	Wt. Lbs.	Net Price \$0.99	2F
No. -5515 -6226 -7211 -7573 *15,000 *Per sid Type No. -7846 -6747 -6790 -6778	Plate to line or Plate to line or P. P. plates to P. P. plates to Ohms for 864 and de.  Driver Tubes 1-30  1-53 Cl. A 2-53 Cl. A 1-46 or 59  Push-pull 76	mixer line line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-53 2-46 2-59	DRIVE Rac Class to B 2 B 5 B 5	20,000 s for 56, R TRA tio Pri. o Sec. 2.4:1 2 5.25:1 2 5.22-1 1 2.2:1 1	76, 37 ANSF Ohms Pri. 20,000 27,000 3,500 3,000	00/50 7, 27, 01 ORM Imped. ½ Sec. 3,500 1,000 500 2,700	8** A, 55, ERS Pri. I M.A. 7	2F 85 or Mtg. Fig. 2B 2F 2F 2F	2 2 1/8 3 3 3	mensi W. 1 1 1 1 2 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ons D. 15% 21% 21%	23/8 tubes Mtg. Holes 21/4 23/8 23/8	Wt. Lbs. 11/2 2	Net Price \$0.99 1.65 2.25 2.10	
No. -5515 -6226 -7211 -7573 *15,000 *Per sid Type No. -7846 [-6747 -6790 -6778 [-7432	Plate to line or Plate to line or P. P. plates to P. P. plates to Ohms for 864 an de.  Driver Tubes 1-30  1-53 Cl. A 2-53 Cl. A 1-46 or 59  Push-pull 76 56 6C5-6C6	mixer line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-53 2-46 2-59 2-42 2-2A5 2-6F6 4-2A3	DRIVE Ras Class t B 5 B 5 B 5 B 5	20,000 s for 56, R TRA tio Pri. o Sec. 2.4:1 2 5.25:1 2 5.22:1 1 2.2:1 1	76, 37 ANSF Ohms Pri. 20,000 3,500 3,500 3,000	00/50 7, 27, 01 FORM! Imped. ½ Sec. 3,500 1,000 500 2,700 7,700	8** A, 55, ERS Pri. 1 M.A. 7 10 10 32 10	2F 85 or Mtg. Fig. 2B 2F 2F 2F 2F	2% 57, 7 Di H. 2 23% 3 3 3 3	mensi W. 15% 2 21/2 21/2 21/2	ons D. 15% 21% 21% 21% 21%	23% tubes Mtg. Holes 21/4 23% 27% 27%	Wt. Lbs. %4 11/2 2 2 2	Net Price \$0.99 1.65 2.25 2.10 2.25	
No5515 -6226 -7211 -7573 *15,000 *Per sid  Type No7846 -6747 -6790 -6778	Plate to line or Plate to line or P. P. plates to P. P. Sande.  Driver Tubes 1-30  1-53 Cl. A 2-53 Cl. A 1-46 or 59  Push-pull 76 56 6C5-6C6 P. P. 56 1-6F6	mixer line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-53 2-46 2-59 2-42 2-2A5 2-6F6 4-2A3 2-45 2-6F6	DRIVEI Rac Class t B B B B B B B C Class t Cla	20,000 s for 56, R TRA tio Pri. o Sec. 2.4:1 2 5.25:1 2 2.2:1 1 3:1 7	76, 37 ANSF Ohms Pri. 20,000 27,000 3,500 3,500 70,000	00/50 7, 27, 01 PORM! Imped. ½ Sec. 3,500 1,000 500 2,700 7,700	8** A, 55, ERS Pri. I M.A. 7 10 10 32 10	2F 85 or Mtg. Fig. 2B 2F 2F 2F 2F 2F	2% 57, 7 Di H. 2 23% 3 3 3 3 3 3	mensi W. 15% 2 21/2 21/2 21/2	0 ns D. 15% 21% 21% 21% 21% 21% 21% 21% 21% 21% 21	23% tubes Mtg. Holes 21/4 23% 27% 27%	Wt. Lbs. %4 11/2 2 2 2	Net Price \$0.99 1.65 2.25 2.10 2.25	
No5515 -6226 -7211 -7573 *15,000 *Per sid  Type No7846 -6747 -6790 -6778	Plate to line or Plate to line or P. P. plates to P. P. plates to O ohms for 864 and de.  Driver Tubes 1-30  1-53 Cl. A 2-53 Cl. A 1-46 or 59  Push-pull 76 58 6C5-6C6 P. P. 56	mixer line line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-53 2-45 2-59 2-42 2-2A5 2-6F6 4-2A3 2-45 2-6F6 2-10-801-	DRIVE Rac Class t B 2 B 5 B 5 B 5 A 8	20,000 s for 56, R TRA tio Pri. o Sec. 2.4:1 2 5.25:1 2 2.2:1 1 3:1 7	76, 37  ANSF Ohms Pri. 20,000 3,500 3,500 3,000 70,000 3,300 25,000	00/50 7, 27, 01 ORMI Imped. ½ Sec. 3,500 1,000 500 2,700 7,700 9,500 11,000 6,250	8** A, 55, ERS Pri. I M.A. 7 10 10 32 10	2F 85 or Mtg. Fig. 2B 2F 2F 2F 2F 2F 2F 2F	2% 57, 7 Di H. 2 2% 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	mensi W. 15% 2 21/2 21/2 21/2 21/2	0 ns D. 15% 21% 21% 21% 21% 3	23/8 tubes  Mtg. Holes 21/4 25/8 27/8 27/8 27/8 35/8	Wt. Lbs. 11/2 2 2 2 31/4	Net Price \$0.99 1.65 2.25 2.10 2.25 2.25 2.70	
No5515 -6226 -7211 -7573 *15,000 *Per sid  Type No7846 -6747 -6790 -6778  -7432  -7201 -8142 -5100	Plate to line or Plate to line or P. P. plates to P. P. Sande.  Driver Tubes 1-30  1-53 Cl. A 2-53 Cl. A 1-46 or 59  Push-pull 76 56 6C5-6C6 P. P. 56 1-6F6 P. P. 56 1-6F6 P. P. 45 P. P. 42, 2A5	mixer line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-53 2-46 2-259 2-46 2-2A5 2-6F6 4-2A3 2-45 2-6F6 210-801- 35T-50T, et 838, 830B,	DRIVEI Rai Class t B B B B S B A B A A B C C C C C C C C C C C C C C	20,000 s for 56, R TRA tio Pri. o Sec. 2.4:1 2 5.25:1 2 2.2:1 1 3:1 7	76, 37 ANSF Ohms Pri. 20,000 27,000 3,500 3,500 70,000	00/50 7, 27, 01 PORM! Imped. ½ Sec. 3,500 1,000 500 2,700 7,700	8** A, 55, ERS Pri. I M.A. 7 10 10 32 10	2F 85 or Mtg. Fig. 2B 2F 2F 2F 2F 2F	2% 57, 7 Di H. 2 23% 3 3 3 3 3 3	mensi W. 15% 2 21/2 21/2 21/2	0 ns D. 15% 21% 21% 21% 21% 21% 21% 21% 21% 21% 21	23% tubes Mtg. Holes 21/4 23% 27% 27%	Wt. Lbs. %4 11/2 2 2 2	Net Price \$0.99 1.65 2.25 2.10 2.25	
*Per sic Type	Plate to line or Plate to line or P. P. plates to P. P. Sandal	mixer line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-53 2-46 2-59 2-42 2-2A5 2-6F6 4-2A3 2-45 2-6F6 210-801-35T-50T, et 838, 830B, 800 2-203A	DRIVEI Rai Class t B B B S B S B A B A A B C C B C C B C C C C C C C C	20,000 s for 56, R TR.4 tio Pri. o Sec. 2.4:1 2 5.25:1 2 5.22:1 1 2.2:1 7 1.7:1 2:1 2	76, 37  ANSF Ohms Pri. 20,000 3,500 3,500 3,000 70,000 3,300 25,000	00/50 7, 27, 01 ORMI Imped. ½ Sec. 3,500 1,000 500 2,700 7,700 9,500 11,000 6,250	8** A, 55, ERS Pri. I M.A. 7 10 10 32 10	2F 85 or Mtg. Fig. 2B 2F 2F 2F 2F 2F 2F 2F	2% 57, 7 Di H. 2 2% 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	mensi W. 15% 2 21/2 21/2 21/2 21/2	0 ns D. 15% 21% 21% 21% 21% 3	23/8 tubes  Mtg. Holes 21/4 25/8 27/8 27/8 27/8 35/8	Wt. Lbs. 11/2 2 2 2 2 3 1/4 5	Net Price \$0.99 1.65 2.25 2.10 2.25 2.25 2.70	
No5515 -6226 -7211 -7573 *15,000 *Per sid No7846 -6747 -6790 -6778 -7432 -7432 -75100 T-8054	Plate to line or Plate to line or P. P. plates to P. P. Sandal	Mixer line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 11-53 2-53 2-46 2-245 2-6F6 4-2A3 2-45 2-6F6 210-801-35T-50T, et 838, 830B, 800 2-203A 2-150T	DRIVEI Rai Class t B B B S B S B A B A A B C C B C C B C C C C C C C C	20,000 s for 56, R TR. tio Pri. o Sec. 2.4:1 2 5.25:1 2 5.25:1 2 2.2:1 1 3:1 7 2.7:1 7 1.7:1 2:1 2	76, 37  ANSF Ohms Pri. 20,000 27,000 3,500 3,500 70,000 70,000 8,000 8,000	00/50 7, 27, 01 7, 27, 01 70 RM Imped. ½ Sec. 3,500 1,000 2,700 7,700 9,500 11,000 6,250 500	8** A, 55, ERS Pri. I M.A. 7 10 10 32 10	2F 85 or Mtg. Fig. 2B 2F 2F 2F 2F 2F 2F 2G	2% 57, 7 Di H. 2 23% 3 3 3 3 3 3 3 3 4 5 6	77 and W. 15% 21/2 21/2 21/2 21/2 21/2 33%	0ns D. 15% 21/2 21/2 21/2 21/2 3 31/2	23% tubes  Mtg. Holes 21/4 23/6 23/6 23/6 23/6 23/6 24/6 35/6 24/6	Wt. Lbs. 11/2 2 2 2 2 3 1/4 5	Net Price \$0.99 1.65 2.25 2.10 2.25 2.25 3.30	
No5515 -6226 -7211 -7573 *15,000 *Per sid *1,000 *Per sid *1,000 *Per sid *1,000 *Per sid *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000 *1,000	Plate to line or Plate to line or P. P. plates to P. P. Sande.  Driver Tubes 1-30  1-53 Cl. A 2-53 Cl. A 1-46 or 59  Push-pull 76 56 66 P. P. 56 1-6F6 P. P. 56 1-6F6 P. P. 45 P. P. 42, 2A5 triodes P. P. 2A3	mixer line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-53 2-46 2-2-2A5 2-6F6 4-2A3 2-45 2-6F6 210-801-35T-50T, et 638, 830B, 800 2-203A 2-150T 2-211 2-50T	DRIVEI Rai Class t B B B S B S B A B A A B C C B C C B C C C C C C C C	20,000 s for 56, R TR. tio Pri. o Sec. 2.4:1 2 5.25:1 2 5.25:1 2 2.2:1 1 3:1 7 2.7:1 7 1.7:1 2:1 2	76, 37  ANSF Ohms Pri. 20,000 27,000 3,500 3,500 70,000 70,000 8,000 8,000	00/50 7, 27, 01 7, 27, 01 70 RM Imped. ½ Sec. 3,500 1,000 2,700 7,700 9,500 11,000 6,250 500	8** A, 55, ERS Pri. I M.A. 7 10 10 32 10	2F 85 or Mtg. Fig. 2B 2F 2F 2F 2F 2F 2F 2G	2% 57, 7 Di H. 2 23% 3 3 3 3 3 3 3 3 4 5 6	77 and W. 15% 21/2 21/2 21/2 21/2 21/2 33%	0ns D. 15% 21/2 21/2 21/2 21/2 3 31/2	23% tubes  Mtg. Holes 21/4 23/6 23/6 23/6 23/6 23/6 24/6 35/6 24/6	Wt. Lbs. 11/2 2 2 2 2 3 1/4 5	Net Price \$0.99 1.65 2.25 2.10 2.25 2.25 3.30	
No5515 -6226 -7211 -7573 *15,000 *Per sid No7846 -6747 -6790 -6778 -7432 -7432 -75100 T-8054	Plate to line or Plate to line or P. P. plates to P. P. Sande.  Driver Tubes 1-30  1-53 Cl. A 2-53 Cl. A 1-46 or 59  Push-pull 76 56 66 P. P. 56 1-6F6 P. P. 56 1-6F6 P. P. 45 P. P. 42, 2A5 triodes P. P. 2A3	mixer line or mixer d 30 tubes; 10 Output Tubes 1-19 2-30 1-53 2-53 2-46 2-59 2-42 2-2A5 2-46 2-2A5 2-46 2-6F6 4-2A3 2-45 2-6F6 210-801-35T-50T, et 838, 830B, 800 2-203A 2-150T 2-211	DRIVEI Rai Class t B B B S B S B A B A A B C C B C C B C C C C C C C C	20,000 s for 56, R TR. tio Pri. o Sec. 2.4:1 2 5.25:1 2 5.22:1 1 2.2:1 1 7.7:1 2:1 2 4:1 1.67:1	76, 37  ANSF Ohms Pri. 20,000 27,000 3,500 3,500 70,000 70,000 8,000 8,000	00/50 7, 27, 01 FORM Imped. ½ Sec. 3,500 1,000 500 2,700 7,700 9,500 11,000 6,250 500	8** A, 55, ERS Pri. I M.A. 7 10 10 32 10 10 31 40 40 130	2F 85 or Mtg. 2B 2F 2F 2F 2F 2F 2F 2F 2F 2F 2F 2D	2% 57, 7 Di H. 2 23% 3 3 3 3 3 3 3 3 4 5 6	mensi W. 15% 2 21/2 21/2 21/2 21/2 33% 33%	1 6C6  D. 15%  D. 15%  21%  21%  21%  21%  31%  35%	23% tubes  Mtg. Holes 21/4 23/6 23/6 23/6 23/6 23/6 24/6 35/6 24/6	Wt. Lbs. % 11/2 2 2 2 3 1/4 5 5	Net Price \$0.99 1.65 2.25 2.10 2.25 2.25 3.30	





## PLATE TRANSFORMERS FILAMENT TRANSFORMERS **SMOOTHING CHOKES**



TYPE 2M



Type No.	Sec. A. C. Load Volts	D. C. Volts	D. C. M. A.‡	Mtg. Fig.	Н.	Dimensions W.	D.	Wt. Lbs.	List Price
T-6280	725-0-725	525	150	2L	614	436	4 1/8	1034	5 5.40
T-7041	725-0-725	525	250	21	614	412	5 8	15	6.00
T-6257	750-0-750	625	200	2E	614	412	35/8	121/2	6.00
T-5448	800-0-800	680	150	2E	614	412	31/2	101/2	4.80
T-6412	980-0-980	750	350	2M	874	634	63/8	2914	10.80
T-6411*	1600-0-1600	1250	280	2 M	8	634	71/2	361/4	13.80
	1290-0-1290	1000	=00		O	0/4	172	0074	13.00
T-7033*	1620-0-1620	1250	500	28	11	634	61/2	411/2	24.00
	1330-0-1330	1000	• • • •			0/4	072	41.5	24.00
T-5489	1270-0-1270	1000	400	2M	8	634	6 1/8	3234	13.20
T-6282	1335-0-1335	1000	500	28	11	634	614	411/2	21.00
T-7351*	2275-0-2275	1750	500	28	îî	634	71/2	53	28.80
	1950-0-1950	1500	000	20	11	074	1 72	00	20.00
T-6283	2350-0-2350	2000	250	28	11	684	61/2	41	21.60
T-6284	2420-0-2420	2000	500	28	11	684	834	71	33.60
T-6285	3630-0-3630	3000	380	28	ii	634	10	83	39.00
*Var	istion in secondary						10	00	33.00

ariation in secondary voltages obtained by changing primary taps.

‡D. C. volts measured out of filter with choke input. If transformer is used with bridge rectifier (choke input) current should be reduced to 50% of this rating.



#### FILAMENT TRANSFORMERS

Type	Insul-			Mtg.		Dimensions	4	Wt.	
No.	ation	Volts	Amp.	Fig.	H.	W.	D.	Lbs.	Price
T-5061	1,600	2.5	3.5	2B	1 1/8	2	23/8	1	\$0.90
T-6433	7,500	2.5	10	2D	336	2 3¾	4	5	3.30
T-7423	1,600	5.25	12	$^{2}D$	33.78 3.78 2.78 2.12 3.8	31 <sub>2</sub> 37 <sub>8</sub> 3	4	5	3.00
T-7424	1,600	5.25	20	$^{2}D$	3 1/8	3 7/8	45%	6	4.20
T-7360	1,600	6.3	5	$^{2}D$	2 1/8	3	3¾ 3¼	31/2	2.25
T-6413 T-6414	1,600	7.5	2.5	$^{2}D$	21/2	3	31/4	21/2	1.95
T-6185	1,600 1,600	10 6.3	6.5	2D	3%	35/8	4	5	3.30
1-0103	Tanned.	at 5V and	2.5	$2\mathbf{E}$	2	268	$2\frac{1}{4}$	11/4	1.30
T-5466	1,600	7.5	2.5	2E	284	3	384	31/4	1.95
		7.5	2.5					-74	
T-7984	1,600	$\begin{pmatrix} 6.3 \\ 2.5 \\ .5 \end{pmatrix}$	3.5	2G	31/4	33/8	458	41/2	2.85
T-6094	1,600	5 2.5	6 14	2G	33/8	31/2	4 5/8	5	2.85
		2.5	3.5						
T-7585	3,000	5 5	3	2D	2 1/8	3	31/4	4	3.30
T-6421	3,000	5	3.	2N	33/8	334	4	5	3.60
		2.5	10			1112			7.55
T-7046	5,000	5 5 5	6 3 3	2N	31/8	4	4	6	4.65
T-8514	10,000	2.5 2.5 2.5 2.5	10 5 5	2Q	51/2	7 1/8	51/2	15	10.50



TYPE 2K

#### INPUT CHOKES

Type No.	Insul- ation	Mills	Henrys	Ohms	Mtg. Fig.	Н.	Dimensions W.	D.	Wt.	Price
T-4991 T-5753 T-6749	1,600 1,600 1,600	120 110 200	$\frac{4.2}{9.5}$	160 200	2F 2B	2 2	$\frac{2}{2}$	2½ 3	1 1 3 <sub>4</sub>	\$0.81
T-2353A T-7429	1,600 1,600 2,000	200 200 150	5 10	80 80 200	2F 2I) 2G	2 7/8 2 7/8 3 1/2	3 3 3¾	3½ 3½ 4%	3 3 5	1,95 2.10
T-6405 T-7551	2,000 1,600	150 250	10 12.9	200 121	2D 2G	31/2 33/4	3 % 3 % 3 %	45/8	5 73 <sub>4</sub>	2,75 3.00 3.60
T-6315 T-6406 T-6316	5,000 5,000 5,000	280 380 500	12.3 10.4 8.2	156 93 70	2J 2J 2J	4 4 3 4 5	4 1/4 5 5 1/2	614 678 678	11 18 18 23	5.10 7.20

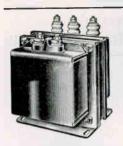


TYPE 2N

			2141	OUIN	IIIG	CHUI	VES			
Type No.	Insul- ation	Mills	Henrys	Ohms	Mtg. Fig.	Н.	Dimensions W.	D.	Wt.	Price
T-7430 T-1892 R-105 T-4707 T-6807 R-196 T-7549	1,600 1,600 1,600 1,600 1,600 1,600	15 35 75 75 85 85 120	42 22 10 12 15 15	2100 405 226 290 375 375 290	2B 3B 2C 2B 2B 2A 2B	1 ½ 2 1 ½ 2 1 ½ 2 2 2 2 2 2 2	2 3 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5 6 2 1 5	2 2 1/4 21/2 21/4 3 3	1 1/4 1 1/4 1 1/4 1 1/4 1 1/4 1 1/4	\$ 0.90 1.05 1.05 1.05 1.20 1.50
T-1700B T-1700 T-6409 T-5450 T-6408 T-6407 T-6410	1,600 1,600 2,000 1,600 5,000 5,000 5,000	130 130 150 250 280 380 500	12 12 19.7 12.9 23.6 20 16.5	231 231 275 121 190 160 110	2F 2D 2D 2B 2J 2K 2K	2 78 2 78 3 78 3 4 1/2 6 6 1/2	3 3 4 3 4 1/2 6 <sup>3</sup> / <sub>4</sub> 6 <sup>3</sup> / <sub>4</sub>	31/2 31/2 4 1/2 4 5/8 6 8/4 7 5/8 7 5/8	3 14 3 14 6 34 7 34 13 25 27	1.95 2.10 3.30 3.00 6.00 9.60 10.20



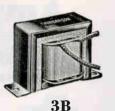
TYPE 2Q





# HORDARS(

#### AUDIOS TRU-FIDELITY MODULATION





MODILIATION TRANSFORMERS

			MU	DULA	HUN	INAIN	SrUi	UNTER	,			
	m 1 -		Ohms Im	nadanaa	Max. D. C.	Max. Audio	Mtg.		Dimensions		Wt.	Net
Type No. T-6769 T-6759	Tube Type 1-19 1-53	Class B B	Pri. 10,000 10,000	Sec. 2,700 3,000	Sec. M.A. 50 100	Pr. Watts	Fig. 2F 2F	H. 21/4 3	W. 2 21/2	D. 2 21/2	Lbs.	Price \$ 1.65 2.10
1-6133	1-6A6 1-RK34	B					01)	01/	444	F1/	1.0	6.00
T-8470	2-6L6 2-35T	AB B	3,800	2,500 5,000 7,500	250 200 150	75	21)	614	4%	514	13	6.00
T-7202	2-2A3 2-45	AB AB	5,000	3,000 5,000	125	50	2D	5	436	434	5	3.90
T-6426	2-16 or 59 2-250	B AB	5,800	5,000 10,000	100	40	21)	4	31/4	3 1/4	5	3.60
T-6699	4-46 or 59	В	2,900	500 3.500 6,250	215	150	2Q	614	51/4	8	20	9.00
T-6425	4-250 2-210	AB B	8,000	5,000	200	40	21)	4%	3 1/6	414	8	5.40
T-6424	2-208A 2-211 2-242A	B B B	8,000	10,000 2,500 10,000	400 200	300	2Q	7 %	5 1/4	81/2	28	13.20
T-6430 T-7084	2-830-B 2-204A 2-801 2-210	B B B	8,800 10,000	5,000 4,500 6,250	500 200	700 150	21° 2Q	12 ¾ 6 ¼	9 ¼ 5 ¾	7 1/4 8	85 20	75.00 9.00
T-8225	2-35T 2-805 2-HD203A	B B B	8,000	6,250 12,500 4,000 6,000	500	650	2K	8	634	8	40	24.00
T-7511	2-822 2-838	B	10,000	8,000 2,500	400 200	300	2Q	714	5 1/4	814	28	13.20
T-8208	2-50T	В	6,000	10,000 5,000 20,000	200 100	150	2Q	614	5%	8	20	9.00
T-8209	2-50T	В	20,000	2,500 10,000	400 200	300	2Q	71/4	5%	914	22	14.40
T-8210	2-150T	В	11,000	4.000	500 330 10DULATI	650 ON TRAN	2Q SFORM	9¾ ERS	7%	7%	38	24.00
			01		Max.	Max. Audio	Mtg.		Dimensions		Wt.	Net
Type No. T-6773	Modulator Tubes 1-46 or 59	Class	Pri. 6,300	Sec. 5,400	D.C. Pri. M.A. 32	Pr. Watte	Fig.	H. 3	W.	D. 21/2	Lbs.	Price \$ 2.40 3.06
	70 70 45 040	A.D	E 000	5 000	60	20	21)	3 1/2	2 1/6	3	314	3.00

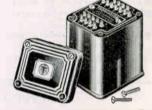
T-6774 Modulator Tubes 42's or 2A5's Class AB Type No. T-7994





# ru Fidelity

THORDARSON



These new High-Fidelity Transformers are designed for highest efficiency, ease of installation, and permanent performance. The single hole mounting feature allows the transformer to be rotated to any angle to balance hum and allows mounting so terminal board is on top or bottom. Threaded to fit standard microphone input plugs, etc. Response obtained from 20 to 20,000 C. P. S. and flat from 30 to 10,000 C. P. S.

C. P. S. and flat from 30 to 10,000 C. P. S.
Line, mixer, or microphone to single grid.
Primary-500*/383/250/200*/125/50 ohms.
Max, operating level plus 10 D. B.
Secondary-75,000/18,750 ohms.
T-9000—Net price
Primary-20,000/5000 ohms for 56, 76, 864, 6C6, or 6J7 triodes.
Max. operating level plus 20 D. B.
C
T-9001—Net price
Primary-20,000/5000 ohms for 56, 76, 864, 6C6, or 6J7 triodes,
May operating level Dius Ib D. D.
Georgians, 5000 /998 /950 /900* /125 /50 Ohms.
T_0002—Net Drice
Single Plate to single grid.
(No D. C. in primary)
Primary-10,000/2500 ohms for 56, 76, 864, 6C6 or 6J7 triodes,
Max. operating level plus 15 D. B.
Secondary-40,000/10,000 ohms.
T-9003—Net price
(No D. C. in primary)
Primary-10,000/2500 ohms for 56, 76, 864, 6C6 or 6J7 triodes.
Max. operating level plus 15 D. B.
Secondary—160.000/40,000 ohms.
T-9004—Net price
Push-pull plates to push-pull grids.
Primary-20,000/5000 ohms for 56, 76, 864, 6C6 or 6J7 triodes,
Max. operating level plus 20 D. B.
AF 000 /11 050 alama

DEDUCT 2% FOR CASH WITH ORDER

65

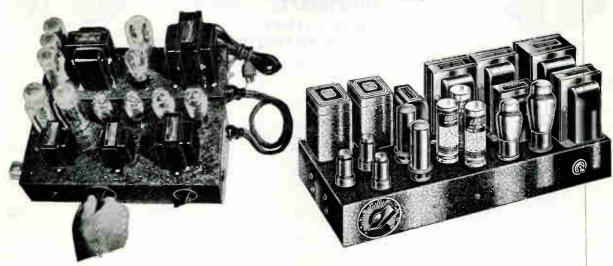
**PUBLIC** ADDRESS

## **Amplifier Kits**

OUTPUT TRANSFORMERS

## **THORDARSON**

AMPLIFIER FOUNDATION UNITS



#### NOW YOU CAN BUILD THE FINEST 6-18-30 OR 60-WATT AMPLIFIER!

#### Note These Outstanding Features:

- Crystal, Ribbon, Dynamic, or Carbon Microphone may be used without changing the circuit!
- New input circuit—over-all gain compensated for any type input circuit.
- Low and high impedance input terminals for radio, phono-pickup, or line input!
- Ample microphone current for double-button carbon
- Pre-amplifier is an integral part of the circuit.
- Entire amplifier operates from 110-120 volts, 60-cycle
- All parts of standard manufacture and readily obtainable.

Complete building instructions including diagrams, lay-

## 6 Watt Foundation Kit

Consists of drilled chassis, sub assembly, inpuroutput terminal strips and complete instructions.
No. T-7506—Net input and

#### 18 Watt Foundation Kit

Consists of power supply base with sockets, amplifier base with sockets, sub assembly, input and output terminal strips, complete instructions, diagram, and assembly.
No. T-7518—Net \$3.60

#### 30 Watt Foundation Kit

Power supply base with 4 sockets, amplifier base with 12 sockets, sub assembly base, input and output terminal strips and complete instructions, assembly plans 

#### 60 Watt Beam Power Amplifier Kit

Circuit diagram and complete parts list available on request.

#### OUTPUT TRANSFORMERS TO LINE OR SPEAKER (HIGH LEVEL) Class A, AB and B

Туре	Tube	C1		mpedance	Pri.	Max. Audio Power	Mtg.		mensi		Mtg.		Net
No.	Type	Class	Pri.	Sec.	M.A.	Watts	Fig.	Н.	W.	D.	Holes	Lbs.	Price
T-6754	2A3 PP 45 PP 19 PP	AB AB B	5,000	4-8-15-500	60	30	2F	3½	2 1/8	3	33/8	31/4	\$2.40
T-6792	2A3 PP Par. 45 PP Par. 2A5 PP	AB AB AB	1,500	4-8-15-500	80	40	2F	31/2	2 1/8	3	33/8	31/4	2.40
T-6594	42 PP 50 PP 79 PP 2B6 PP	AB A B A	8,000	4-8-15-500	55	40	2F	31/2	2 1/8	3	33%	31/4	2.40
T-7575	6A6, 6N7 6B5 PP 6F6, PP	B A AB	10,000	4-8-15-500	45	40	2F	31/2	2 1/8	3	33/8	314	2.40
T-8458	6L6 PP 2A5 PP	AB	3,800	4-8-15-500	160	60	2G	45/8	33/8	384	2 1x3	6	3.60
T-6751	47 PP 79 45 PP	A B A	14,000	4-8-15-500	40	20	2F	3	21/2	21/2	2 3/1	2	2.10
T-6748	71 PP 43 PP 53 46 PP	A A B B	8,000	4-8-15-500	36	25	2F	3	21/2	212	2 1/8	2	2.10
T-6752	59 PP 6F6 PP 53 PP Par.	AB B	5, <mark>800</mark>	4-8-15-500	60	30	2F	31/2	2 1/8	3	33/8	3¼	2.40
T-5701 R-107	Univ. Single or PP Tubes	A 8	4,000/7,000 ,000/10,000 14,000 CT	Adjust- able .1 to 29	36	8	2E 2C	$\frac{2\frac{3}{8}}{2\frac{1}{2}}$	2 21/8	2 1 %	23 <sub>8</sub> Univ	11/2	1.20 1.35

### STANDARD TRANSFORMER CORPORATION



## **Exact Replacements** for

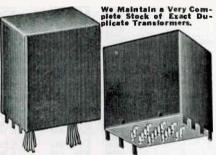
### RCA-VICTOR, MAJESTIC, PHILCO, APEX, BOSCH, SPARTON, A. K. AND OTHERS



Make Model No.	Price i
	\$3.60
	2.34
	2.34
	3.24
	3.63
	5.04
Apex	3.03
AK	3.20
AK-Late55-55C P 913	3.84
AK-Early55-55C P 918	3.78
AK60-b0C P1066	3.63
AK-(Plate)	3.75
AK	3.48
AK	3.48
AK82-85 P1084	3.48
AK-Early and Late84 P1086	3.48
AK87, 89, 83P P1089	3.78
Rosch 29-825 P 859	4.32
Bosch	
521, 581, 582 P1112	4.11
Clarion	2.67
Clarion	3.72
	2.55
	3.87
	3.51
	2.94
	2.94
Eveready	
Gloritone	3.24
Gloritone	3.63
Gloritone	2.34
Gloritone	2.34
G. MS-9-A P1271	2.58
G. MLittle General110 P1485	2.28
Grebe	3.03
KolsterK43 P1192	3.99

Made	by	Stan	dard	Trans	form	er Co.
Make				Model	No.	Price
Majest	ic-	-Unmo	unted	15-		
Modern			0.1		P 906 P 954	\$2,13 2.88
				32, 233	P1102	4.35
				nd 25B	P1168	3.36
Majest	ie			50	P 905	3.27
Majes	tic—	-(Plat	e)	70-7P6	P 790 P 798	2.94 2.79
Majes	nic—	·(FII.)	9.0	70-7P6 B-100B	P 939	2.79
Majest	ic-	(Fil.)	1	80-3P6	P 805	3.12
	ic	-(Plate	e)1	80-8P6	P 789	4.47
Philco Philco					16-762 16-711	$2.73 \\ 2.54$
Phileo					6-785	2.79
Phileo				86	6-786	2.61
Philco				87	6-763	2.43
Phileo	17	(Code	e 122)	1	6-1571	$\frac{3.20}{2.71}$
Phileo Phileo	91	(Code	P 221-	3)1	6-1572	2.71
Philco		(Code	121).	1	6-1573	2.71
Philco				1		2.71
Phileo Phileo				kers) 1		$\frac{2.51}{2.89}$
Phileo				1		2.99
Phileo			95.	96, 296	16-787	2.91
Philco			1	11-211	L6-788	3.20
Phileo Phileo				(245's) (247's)		3.20 3.14
Phileo				.511		2.19
Phileo	70.	270. 3	70.47	0. 570 1	6-1119	2.51
Philco		50,	51, 5	2, 551 1	6-1460	2.07
Phileo		90-			6-1468 6-1469	2.81 2.63
Phileo Phileo		490			6-1409	2.63 4.05
1 111100	. 50	, 100	(2-11	a/	0-1401	2.00

TRANSI ORIVI	./Q
Make Model No.	Price
RCA17, 18, 33, 50, 51 P 791	\$3.24
RCA	
RCA	
RCA	
RCA64-67 P 827	
RCA66 P 883	
RCA 80, 82, 86 P 713	3.54
RCASuperette P1481	2.91
RCAR4-R6 P1487	2.88
RCA	
RCA	
RCAR8-R10-R12-RE19 P1483	
RCAR11-R21-RE18 P147	4 3.3€
RCA R32, RE45, R52, RE75,	
RCA R32, RE45, R52, RE75, RE154, RE156 P 717	7 4.08
RCA VictorR35-R39-RE57 P 713	
Sentinel104 P1253	
Sentinel	
Sparton89A P 92:	
Sparton	
Sparton410-420 P1196	
Sparton	
Sparton101-110-111 P141	
Sparton109-99 DeLuxe P141	
Sparton	
Stewart-Warner550 P147	
Temple8-60-8-80 P 21	
Westinghouse WR4 P 92	
Westinghouse WR 5-6-7 P 713 Zenith	
	1 4.14
Zenith 50 to 55 inc., 57, 60,	
61. 64, 67, 522, 602, 613, 622, 642. 672, 70 to 73, 77,	
712, 732, 777, 80 P 713	4.59
1.2, 102, 111, 00 X 121	



#### We Can Furnish Duplicates of Many Sets Not Listed or Rewind the Old One

\*While our small present stock lasts a few orders will be filled with Freed transformers. We list only the most popular receivers but can supply exact duplicates for nearly any receiver manufactured. Old transformers can be rebuilt. Don't try to make a "mis-fit," write us for quotation or send us the old unit. The cost is reasonable.

BARGAIN

AUDIOS CHOKES

**POWER** TRANSFORMERS Made for us by STANCOR



#### **POWER TRANSFORMERS**

These extreme values in replacement power transformers are fully guaranteed and conservatively rated.

#### FOR 2.5 VOLT TUBES

FOR 4-TUBE SETS
Size 2½x3 inches
650 volts C.T. at 50 MLA.
5 V.C.T. at 2 A.
2½ V. at 3½ A.
No. 16-2750. No. 16-2750. Net price....... \$0.98 

Net price....

\$1.69

#### FOR 6-VOLT TUBES FOR 4-TUBE SETS

Size 21/2 x3 inches 650 V.C.T. at 40 MLA. 5 V. at 2 A. 21/2 V.C.T. at 1.6 A. Not price..... \$0.98

FOR 7 TO 10-TUBE SETS Size 3 1/2 x 4 1/8 inches

700 V.C.T. at 120 MLA. 5 V. at 3 A. 6.3 V. at 3 A.

No. 16-949. No. 16-949. Net price..... \$1.73 A.C.-D.C. CHOKES

Res. MLA. Price No. 3-1080 200 60 \$0.39 No. 3-1279 400 50 .39 See illustration at right above. \$0.39

#### MIDGET AUDIOS

1 1/8-in.x2 H-in.x1 1/2-in.

MIDGET PUSH-PULL INPUT

No. A4119-3 to 1 ratio. Net price.... \$0.56

30 TO 19 DRIVER
No. 1-4292—Cl. B \$0.56
input. Net price... TRANSFORMERS
Secondary impedance, 3 to 5
ohms.
No. 1-3494—Primary
4000—
43's, etc.

2A5, 42, etc. **\$0.48** Net price..... No. 1-3496 - Primary 14000-

No. 1-3495 - Primary 7000-

Push-Pull, 47, 2A5, \$0.48 etc. Net price...

REGULAR SIZE AUDIOS 2-in.x3-5/16-in.x15%-in.

INTERSTAGE AUDIO
No. 8001—3 to 1 ratio.
Net price..... **\$0.69** PUSH-PULL INPUT No. 8002-3 to 1 ratio.
Net price..... **SO.72** 

UNIVERSAL OUTPUT
No. 6038-H—Push-pull primary to
sal secondary.
Net price..... \$0.69



DEDUCT 2% FOR CASH WITH ORDER

67

## **AUTO RADIO REPLACEMENT VIBRATORS**



# Radiart MALLORY

## REPLACEMENTS FOR ALL MODELS

Exact Electrically—Exact Mechanically



						AUB
	Radiar Stock		Mallory Stock	Net	Radiart Mailo Stock Net Stoc	
dake and Auto Radio Model	No	Price \$2.70	No. 294	Price \$2.70	Make and Auto Radio Model No. Price No 266SG, 266SD, 266SF	
Acratone—U6 49, 51, 92, 92A, 94A, 460	2867	2.70 2.70	292 294	2.70 2.70	266	\$2.7
dmiral—U6 Airline—(see Montgomery Ward).	. 5300	2.70	294	2.70		
ill-American Mohawk—A-60	. 2867	2.70	292	2.70	23S7, 33S6 (1st series)	3.00 3.48
arcadia—See Wells Gardner. arvin—(Noblitt-Sparks) 7, 17, 17A					S6 S7 (3 leads) 3308 3.30 225	3.48
27, 37 17B, 17C	. 4260	2.70	294	2.70		0.74
10A, 20A, 30A, 30B, 16, 20B,	. 2867	2.70	292	2.70	346, 347 (6-prong) 3356 2.70 297 346, 347 (4-prong) 4260 2.70	2.70
15, 25, 35, 45 (1st series) 15, 25, 35, 45 (2nd series)	. 3261	2.70	296 292	2.70 2.70	C6, 64, 74	2.70
18, 28, 33 280M, 28EM, 18FW, 33DM	. 4260	2.70	294	2.70	B6 3356 2.70 294 Firestone—R-1322 (R-132) 4414 3.30 2891 R-1332 (R-133), 1314, Travler 4260 2.70 294	3.30 2.70
twater-Kent-424, 534	. 3308	3.30	222	3.15	1 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	W 2.76
666, 776. 816 126, 136, 416, 446, 556	3848	2.70 3.15	296 226	2.70 3.15	Standard back 2210 4 20	3.00
uburn-980525-526	. 5300 . 4611	2.70 3.15	294 2731)	2.70 3.30	Plug-in Vibrator	
udiola—sec Fairbanks-Morse. utomatic—1933 models		2.70	292	2.70	40-18805 3442 2.85 2201 Glove Box (police) 3442 2.85 2201	3.00
1934 models, Jr., Sr.,	. 3398	2.85	292 292	2.70	Ford (Philco)—All models	2.40 2.70
Junior twin six	. 3227	3,00	292	2.70 2.70	Ford (Zenith) 3263 2.70 296	2.70
A600. AR600	. 3227	2.70 3.00	292 292	2.70 2.70	Galvin Mfg. ('orp.—see Motorola. Gamble (Coronado)—2681	2.70
alkeit—Chassis 54, 64, U6	5300	3.00 2.70	503 294	2.85 2.70	670 3263 2.70 295 General Electric—B40, C41, B52 3319 3.30 273 C01 4415 3.90 227	2.76 3.30
elmont—560 (head)	. 3314	2.85 4.80	292	2.70	C61	3.90 2.70
1932 models	. 3444	3.00	3118 296	2.85 2.70	D50, D51, D62	3.30
580, 670A	. 4260	2.70	296	2.70	1 Nou 5300 270 294	2.70 2.70
690, 880A, 880B, 880C	3263	2.70	294 296	2.70 2.70	123 De Luxe	3.90
680, 680A, 680B, 680C	. 3263	2.70 2.70	296 294	2.70 2.70	Goodyear - Wings (5-tube)	
osch—524A, 634, 634A	4260	2.70	253 Y 271	2.70	Wings (6-prong) 3263 2.70  Wings (6-prong) 3263 2.70  Gold Medal-Goldentone—U6 5300 2.70 294  Graybur—150 4502 3.30 271	2.70
160 (1st series)	. 3318	3.30	219	3.30 3.45	Graybar—150 4502 3.30 271 Grebe—61R 2867 2.70 292	3.30
150 (2nd series) 160-45 (sync.) 45 (non-sync.)	4502	3.30	271 271	3.30 <b>3.30</b>	Gulbransen—see Wells-Gardner.	2.70
45A, 45C	1502	$\frac{2.70}{3.30}$	271	3.30	11alson—199     Roadmaster     3442     2.85     2201       56U     5300     2.70	3.00 3.00
189HB, 189HR (police) 78	. 5406	3.30 2.70	249	3.30	Harley-Davidson—All 4502 3.30 2711	D 3.30
79 (1st series)	. 3263	2.70	253	2.70	Howard Highwayman—HA43263 2.70 296	2.70
536, 636, 637, 736, 737, 738	. 5321	$\frac{2.70}{2.70}$	294	2.70	Hudson-Terraplane-Majestic head 3412 285 2201	3.30
O. P. Buick, Olds, Pontine—se United Motor Service.	е				650HD, 651HE, 660TD, 661TE 2867 2.70 292 Zenith 1933-34 models, 650, 660 2867 2.70	2.70
valcade—Chassis 54, 64	. 5300	2.70	294	2.70	666, 668, 680, H6	2.70
06W Standard	3318	3.45	210	3.45		2.70
06W Master	. 3443	3.45	237 206	3.45	Karadio—57, 150, 160, 180, 35, 3261 2.70 296 65, 66, 88, Sheriff 5306 2.70 296 2.70 296	2.70 2.70
2722 (072A) 6U2 Standard	. 3318	3.45	211 253	3.45 2.70	U6	2.70 2.70 2.70
56V1	3313	2.85 3.00	221 287M	2.85 3.30	9737, G9881, 69882, F9737 2867 2.70 292 F9561 3444 3.00 3127	2.70
evrolet-see United Motor Service	е.		AG I ML	0.00	1 13760, 9897	3.30
arion—100	2867 4260	2.70 2.70	294	2.70	Lafuvette     \$\S17762\$     \$\\$343\$     \$\\$3.00\$     \$\\$210\$       B6?     \$\\$3883\$     \$\\$3.00\$     \$\\$2865\$       \$\\$62,\$     \$\\$62\$     \$\\$3443\$     \$\\$3.00\$     \$\\$2665\$	
TC50 (4-prong) TC50 (6-prong)	4260	2.70	294 296	2.70 2.70	L30	3.00 2.70
inton—1935, 1936 models	. 3262	2.70	294 294	2.70 2.70	L23 3417 2.70 296 C60 3888 2.70 294	2.70 2.70
plonial-106 ("B" power sup.)	3313	2.85	221	2.85	6U, 6S 3417 2.70 253	2.70
	3263	3.30 2.70	271 220B	3.30 3.00	1 LW10 (6-prong)	2.70 2.70
164B	. 3263	2.70 3.15	223	2.70 3.45	Larkin Co.—91	2.70 2.70
nsolidated—51 ontinental—U6 orona—105, 122	5300 5300	2.70	294	2.70	Lewol—9101, 9102	2.70
ronado—see Gamble,				0.47	Majestic-66, 116, 116A	3.00
rosley—98, 99, 102, 103, 5A1 4A1, 5A3, 6B1	3789	$\frac{3.45}{3.00}$	223	3.45 3.30	66 complete (pack), 84 tube 3311 5.40	
A156, A266	3461	$\frac{2.70}{3.15}$	501 P 273C	2.40 3.30	Hudson-Terraplane 3442 2.85 2201	
etrola—see United Motor Service. etrola—6A, 1100, 1100A	3442	2.85	220B	3.00	Mallory Eliminator— Types 1 to 6, inc	inc. 3.00
1934-1935 models (3 leads) 6M (1935 plug-in), 6R	2867	$\frac{2.70}{2.70}$	292 294	2.70 2.70	Types 10 to 14, inc	4, In. 3.45
ectric Autolite-062, 062A	3113	3.00	206	3.00	Mission Bell, 10A, 11, 12, 14, 25, 16, 2867 2.70 292	2.70
ectric Autolite—062, 062A ectronic "B" Eliminator merson—667, 965	2867 3263	2.70	292 296	2.70	MONARCH—54, 64, U6 5300 2.70 294	2.70
6A De Luxe	. 5300	$\frac{3.30}{2.70}$	2778 253 Y	3.30 2.70	Montgomery Ward—(Airline) 87. 2867 2.70 292 (62-166), (62-118), (6U) 3417 2.70 253	2.70 2.70
	3308	3.30	225	3.45	Auto radio	3.00 3.30
(678-1), (678-2)						0.00
(678-1), (678-2)	3313	2.85	221	2.85	Motomaster-611 5300 2.70 504	2.70
(678-1), (678-2).  rla—See Sentinel.  ada—101, 102, 104, 104B	3313 4260	2.85 2.70 3.00	221 253 <b>Y</b>	2.85 2.70		

# AUTO RADIO REPLACEMENT VIBRATORS











If Set Model is Not Listed Write or Send Model or Part Num-NOTE: ber, and We Will Obtain an Exact Duplicate Vibrator for you

	Radiar Stock	Net Stock	Net	Make and Auto Radio Model	Radiari Stock	Not Stock
Auto Radio Model	No. 5300	Price No. <b>\$2.70</b> 294	\$2.70	Make and Auto Radio Model 1934-35, ail models	4260	\$2.70 2.70
olden Voice)	5310	2.70 294	2.70	542, 642	. 5300	2.70 8.45 210
· · · · · · · · · · · · · · · · · · ·	9444	3.00 3028 3.00 3038	3.00	Prov—TR86	. 2867	2.70 296
	3445	3.45 230	3.45	86	. 2867	2.70 292 2.70
	4607	3.30 270B 3.45 231	3.30 3.45	Truetone—see Western Auto. Truevalue—6U	. 5500	2.70
	4607	3.45 234	3.45	Truevalue—6U	. 8417	2.70 253
100 110	3290	8.45 235 2.70 253T	3.45 2.70	United American Bosch—see Bosch United Motor Service—Buick, Old Pontiac, B. O. P.—393884, 39388	i. 3.	
00, 110 vin elght	3417	2.70 253	2.70	Pontiac, B. O. P393884, 39388	5 8461	3.15 273C
GM110	3815	2.70 253T	2.70	405045, 405046, 405057	8461	8.15 2780 8.15 273C
r—ten-ten	2867	2.70 292	2.70	544245. 544246	. 4613	8.15 273C
ks—see Arvin. -see B. O. P. Un	ited			544267, 544268	. 4618	8.15 273C
lervice.		0.80 000	0.70	544289, 544290	. 3461	3.15 273C 3.15 273C
01, 102 01C, 102B	K300	2.70 292 2.70 294	2.70 2.70	544297. 544298	. 4613	3.15 278C
o-see DeWald,				1291344, 1291345	4613	3.15 273C 3.15 273C
1933-34-35 models	3320	2.70 500P	2.40	980383	8813	2.85 221
lice (810PB, 811P) 1936, 816	3322	3.30 282P 2.40 500P	3.30 2.40	980441	. 3461	8.15 222
817, 818, 819	5320	2.40 501P	2.40	980455, 980459980504	9815	3.15 222 3.15
see B. O. P. United				980507, 980508	. 4611	3.15 273D
vice.	14m 9867	2.70 292	2.70	908509, 980525	. 4611	8.15 273D
3310, Majestic "B" E		2.10 252	2.70	980526, 982006	. 4613	3.15 273C 3.15 273C
r-5M, 6M, 6M2	5406	3.00 249	3.30	983506	. 4013	3.15
05 3/(116	3313	3.30 273 2.70 253	3.30 2.70	Chevrolet—364441	9818	2.85 221 3.15 222
(2-volt)dson), RS-631	3417	G253	3.30	COORCE COORCE	9916	3.15 222
dson), RS-631	4260	2.70 294	2.70	601038, 601176, 601177	. 3461	8.15 273C
	4418	3.90 224	3.30 3.90	601033, 601176, 601177. 601525, 601574, 601586 601662, 601814 985100, 985200	3461	3.15 273C 3.15 273C
1104. M108	3883	3.00 287M	3.30	985100, 985200	. 5321	2.70 294
1104, M108	991	3.30	3.90	980800	4011	3.15 273D 3.15 273C
		2.70 294	2.70	\$55400 \$4037, 4038	3313	2.85 221
	3883	3.00		4037, 4038	. 3315	3.15 222 2.70 294
-U6	5800	2.70 294 2,70 294	2.70 2.70	626. 627. 628. 629	3461	2.70 294 3.15 273C
n-U6	5300	2.70 292	2.90	634, 635	. 4613	3.15 273C
g-in)	4260	2.70		I'tab "'R" Film (non-sync)	3818	2.70 500P 2.85 221
arlson-44, 45, 60,	60S.	0.00 048	3.30	Warwick—511, 618	4318	2.70 504
70, 708, 71, 80	5304	2.70 245 2.70 245	8.80	665, 660, 550, 560	. 5300	2.70 2.70 294
0, 70, 71, 718	5304	2.70 245	8.80	Wells-Gardner—6P, 6L (Where DeVry carbon point v		W. 10 201
ck-3400	5300	2.70 504	2.70	brator is the original equipmen	t,	
ne) —4400. 4400A	0406	8.00 249 2.70 294	3.30 2.70	replace transformer. Specify Radiart transformer, net price \$1.50	1-	
orong)	3261	2.70 296	2.70	V6Z2, Z6Z1	. 2819	3.00 292
0 1950 A	4.MF2	3.80 271	3.30	Z6W1	. 2819	3.00 3.00 2868
27 1980	АХІНІ	2.70 294 2.70	2.70	25Y1 (12-volt)		G2868
odels (lead type)	5406	3.00 249	3.30	062. 062A	. 3443	3.00 206 3.45 211
		2.70 294	2.70 2.70	072, 072A 06W (1st series)	3318	3.45 211 8.45 210
-5500	2867	2.70 294 2.70 292	2.92	06W (2nd series)	. 3318	3.45 237
2	3375	2.70 292	2.70	26U1 (6U), 26SI (6S) 06X	8818	2.70 253 3.45 210
		2.70 3.00		CT/	8490	8.00 249
-5-tube	2867	2.70 292	2.70	6R 61	. 5300	2.70 258
-5-tube	2819	8.00 292 245C	2.70 8.80	6N	. Dauu	2.70 294
to—6-volt house set	3679	3.00		5Y	3883	3.00 2868 2.70
n-sync. auto		2.70	• • • •	Western Auto (Truetone)—S737	. 3417	2.70 253
	5300	3.00 2.70		990, 1349 Industrement	. TAUV	2.70 294
		2.85 292	2.70	(Note: Transformer information and as on Wells-Gardner)	)11	
33, 33A 1686, S676	3263	2.70 292 3.15 222	2.70 3.15	same as on Wells-Gardner) 8782 (Z6Z1), 8783 (V6Z2)	2867	2.70 292
	3263	2.70		9.6	. 2867	2.70 292 3.00 206
686, S676	5305	2.70	3.00	S690 (062), S691 (062A) S740 (6U), 670 (6S)	3417	2.70 253
U62A	OTTO	3.00 206 2.70 253	2.70	\$735 (25Y1)	3883	3.00 2868
Radio-50, 60	2867	2.85 292	2.70	062 (3rd series)	4260	3.00 2.70 294
		2.70		9745	0420	3.00 249
72, 1311, 1312, 1314,	4260	2.70 294	2.70	Westinghouse-WR25, WR26 (	4- 4980	2.70 294
7-prong)	4414	3.30 289Y	3.30	WR25, WR26 (6-prong)	3263	2.70 296
3	4260	2.70 294 2.70 292	2.70	WR502, WR503 WR500, WR501		2.70
122, 1123	4260	2.70 292 2.70 294	2.70 2.70	Wilcox Cov 4R6 Roadmaia	. 3203	2.70 253¥ 2.70 296
R118	4260	2.70 294	2.70			2.70 290
1123	2867	2.70 292 2.70 294	2.70 2.70			2.70 292 2.70 296
R1322	4414	3.30 289Y	3.30	Zenith CO (COEC) CEOUD COOTD	2887	2.70 292
143	5331	2.70 2948W	2.70	650HE	2867	2.70
13	5331	2.70		650HE	2867	2.70 292 2.70 294
Carleon—33 33A	8318	8.45 236	3.45	Ford	3263	2 70 998
er-AC206	8320	2.70 500P	2.40	668. 666	5300	2.70 294 2.70 294
-TI6		2.70 294 2.70 296	2.70 2.70	Ford 668. 666. 6M90. 680. 7M91S, 7M91D, 5616 5M90. 6M92O. 6M91. 7M91	5300	2.70 294 2.70 294
		2.70 296		FM00 6M000 6M01 7M91	5300	2.70
Tone—535, 536 -54, 64	K300	2.70 294	2.70	CASH WITH ORDER		

# FARM RADIO REPLACEMENT VIBRATORS



# Radiant MALLORY

# YOU WILL FIND OUR STOCK COMPLETE

A TYPE FOR EVERY RECEIVER



Mallory

# 6-VOLT HOUSEHOLD RECEIVERS

6-Volt Household Radio Sets

O-V olt	Household	Kaa	tio 3	sets	
	Ra	diart		Mallory	
		tock	Net	Stock	Net
Make and Model				Number	
Addlson-N655			\$3.00	285XS	\$3.60
Admiral-L7, X6, Z4,	25	5410	3.00	245C	3.30
Acratone-L7, X6, Z	4 7.5	17410	3.00	245C	3.30
167B, 167D, 168B.	168D	5410	3.00	240C	3.30
Aircastle-1.7, X6, Z4			3.00	245C	3.30
Airmaster-31B 34B	49B 50B	4409			
Airmaster—31B, 34B, 63BT, 63BC, 68BTE	68BCE	5413	$\frac{3.00}{3.00}$		
Arvin (Noblitt-Sparks	)-6V models	5409	3.00		
Arvin (Noblitt-Sparks 517, 517B, 617, 617	B		****	245	3.30
Atwater-Kent-237Q, sync.)	467Q (non				
sync.)		5300	2.70	294	2.70
Bulkeit-L7, X6, Z4,	Z5, GT156BA.	5410	3.00	245C	3.30
('ontinental—L7, Z4, 1935-36 models Z544, AZ593, M551,	Z5	5410	3.00	245C	3.30
1935-36 models	Mrrog	5410	3.00		
Carolanda 2511	M 981	5410	3.00		
Cavalcade 3511		5410	3.00	245C	3.30
Coronado—34B, 31B, models	1935 and 1936	4403	3.00		
Crowley6615 435		4612	3.00	246	3.30
Crostes — 6615, 435 546, 636		4612	3.00	246	3.30
Delco-U. M. S -6010		4403	3.00	281	3.30
Erla-31B, 49B, 50B		4403	3.00		
Erla—31B, 49B, 50B. 63BT, 63BC, 68BT, 68BCE, 66BTE, 661	68BC, 68BTE,				
"02011, 00212, 001		5413	3.00		
Fairbanks-Morse-43-	C-1B, 73-T-3-B,	~ * * * *		242	
73-C-2-B		5411	3.00	246	3,30
Grunow—1936 models 410, 411, 711	3	4611	3.15	0.46	0.00
Gold Medal-Goldenton	. I a Wa w.			245	3.80
Z5	137, Ab, 234,	5410	3.00	245C	3.30
Halson-1936 models.			3.00		
			3.00	246	3.30
Knight-Chassis 6820				285XS	3.60
F9515. F9741		2867	3.30	292	2.71
F9515, F9741 G9900 (6-volt. amp	.)	2867	$\frac{2.70}{2.70}$	292	2.70
G9571, H9850		5410	3.00	245C	3.30
G9571, H9850 G9875, G9876, H981 L7, X6, Z4, Z5		4608 5410	3.30 3.00	285XS 245C	3.60 3.30
Lewel—9682		4000	3.30		
Lafayette—J60		4008		285XS	3.60
Monarch-L7, X6, Z4,	E/E	4608	3.30	285XS	3.60
Musicolan 21D 21D	40D FAD		3.00	245C	3.30
63BT 63BC 68BT	68BC 66BTE	4403	3.00		
Musicaire—34B, 31B, 63BT, 63BC, 68BT, 66BCE	USBC, USBIE,	5413	3.00		
Parific-1936 models.		5411	3.00		
682		4608	3.30	285 X 8	3.60
Pllot-253, 255		5411	3.00	246	3.30
RCA-Victor-6BK,	BT6. 8BK8,				
8BT8, 4-Voit 1935-3	6 models	4417	3.00	*****	
6BT6, 8BT6, 6BK6, 8BK8, 8BT8	8BK6			W285 249	3.30 3.30
Reliance—L7, X6, Z4	2.5	5410	3.00	245C	3.30
Sentinel_24D 21D 4	OR FOR				
Sentinel—34B, 31B, 4 63BT, 63BC, 68BC,	68BT, 68BTE	4403	3.00		
OBBCE, DOBIE, DOE	CE	5413	3.00		
Setchell-Carlson-61,	32, 630, 40, 50.				
41, 51, 410, 510		5304	2.70	245	3.30
Supertone-L7, X6, Z4		5410	3.00	245C	3.30
Simplex-5DB, 1935 6.	volt house set	3679	3.00		
PB, DB-GB	·····	5410	3,00	245C	3.30
Stromberg-Carison—11 L'Tutro—6A, K665, J6 R5236, Q5636, P4626, (all 1st series)	5	5409	3.00		
L'Tatro—6A, K665, J6	65, H465, 1465	3283	3.30	275	3.30
(all 1st series)	Q4020, M14010	4608	3,30	275XS	3.60
R5235, Q5636, P4626	Q4625, M4616				
(all zilu selles)		X1700	3.30	285XS	3.60
		5409	3.00		
Western Auto (Truet	one)—L7, X6,	****	0.00	0.180	
Z4, Z5		5410	3.00	245C	3.30
		4403	3.00	281	3.30
Wilcox-Gay—SF8, SF8	390NS	3263	2.70		
Zenlth-4V31, 4V59, 6	V27, 6V62	5411	3.00	246	3.30
Zenlth—4V31, 4V59, 67 4B106, 4B131, 4B132, 6B164, 6V59	oB101, 6B129,	5411	3.00	246	3.30
		DED			OR C
70		JED	JU I	- 70 F	JII L

# 32-VOLT HOUSEHOLD RECEIVERS 32-Volt Farm Household Sets

Radiart

		Stock	37 . 4	Manor	
M	ake and Model		Net	Stock Number	Net
Ac	ratone—167B	2670	\$3.00		
Ai	rline-see Montgomery Ward.		\$5.00		
	idiola—see Fairbanks-Morse.				
	water Kant 9157 9057 500				
	water-Kent—215Z, 305Z, 563	1014	0.00		
	265Z	2181	3.00	F297 F297	\$3.30
Co	lonial-1934 models				3.30
	osley—119, 159		3.45		
Da	leo—3203, 3204	3007	3.60	F223	4.05
L	3203, 3204	. 4401	3.30	F247	3.90
	M. S.—4050, 4051	. 3607	3.60	F223	4.05
Kr	la—5600 32-volt	3607	3.60	F247	3,90
191	3101		3.00	1253	3.15
	lrbanks-Morse-33S8 (1st series)	• • • • • •		F 292	3.30
	(Audiola)—3388 (2nd series)	3608	3.15	F312	3.60
Kn	ight—F9777, G9615	0000		F221	3.45
				F 292	3.30
	fayette—464		3.00	F253	3.15
IAT 51	iestic—Complete pack Head for (Std. pack)	3316	6.00		
1	Vibrator for (3316 pack)	2181	$\frac{3.15}{3.00}$		
4	190, 491, 493 (trans, type)		0.00	F220C	3,60
-	190, 491, 493 (plug-in type)			F294	3.30
Mo	ontgomery Ward-(Airline) 62-13	36,			
4	32-138	3651	3.30	F253	3.15
	32-volt (sync.)	3651	3.30		
	ilco—32		3.15	F502P	3.60
311	vertone—(4-prong) (Sears-Roebuck)—6-prong	3395	3.00 $3.45$		
	ntinel—5600			F253	0.15
- 6	3101			F292	3.15
3	2-volt	3395	3.00	1 202	
	nplex—P			F292	3.30
1	933-34 models	3325	3.30		
1	935 (sync.)	. 3679	3.00		
1,17	Fatro—Admiral F923, Capta F913, Commander E83	in 3452	3.30	F204	0.00
	Governor N54, LtGovernor L54		3.75	F211	3.00
Č	Governor N74, LtGovernor L74	3395	3.00	F251	3.15
I	Pilot J5, G63	3462	3,30	F204	3,00
1	President 094. Recorder P54. R	e-			
C	corder P64, X6236, W6236, V522 J5226, T6216	3395	3.00	F251	3.15
Ī	President 084	. 3163	3.75	F211	3.75
î	F725, D625, C625	3395	3.00	F251	3.15
Un	F725, D625, C625lted Motors Service—see Delco.			*****	
	ells-Gardner-26B1, 26B5		3.30	F253	3.15
3	36D510, 36D560		3.00		

Write ns for application blank or ask to have one included with your next order.

Be sure to attend Northwest Radio Servicemen's Convention at Hotel Lowry in St. Paul. Watch for announcement of date.

# CLOUGH-BRENGLE



# SUPER-SERVICE **INSTRUMENTS**

## Model CRA



Housed in heavy metal case, finished in back crystalac. Etched silver finish.

# "INDUCTOR SWEEP" SERVICE INSTRUMENTS The CRA Oscilloscope

- Input sensitivity, .38 R.M.S. volts per inch.
- All controls on front panel.
- Wide range sweep circuit (up to 20,000 c.p.s.).
- Automatic synchronization.
- Oversize dual power transformer.
- Separate horizontal and vertical amplifiers.
- Shipping weight, 42 lbs. Complete with tubes.

Buy it on easy payments. \$9.50 cash and \$8.36 a month for 10 months. Used with Model OM-A illustrated and described on right, you can now own the most modern, accurate equipment money can buy at prices and terms within your means.

# Model OM-A



The OM-A Oscillator

- Exclusive C.B. "inductor

- sweep."
  Built-in frequency modulator.
  Sine wave modulation.
  Constant sweep width.
  Frequency range, 100 kc. to 30
- Guaranteed accuracy, 1/2 of 1%.

Own it on easy payments, \$6.50 down and 10 monthly payments of \$5.85.

# C.B. MODEL 99 SIGNAL GENERATOR

- · R.F output calibrated in microvolts.
- Adjustable modulation percentage.
- · Hand calibrated direct reading dial.
- Guaranteed accuracy, 12 of 1%.

Easy payment price, \$5.00 down and 10 monthly payments of \$4.44 each.

- Range, 100 kc, to 60 mc. on fundamentals.
- New all metal tubes.
- Tuning dial 25 inches long per band.
- Six range roto-inductor assembly.
- Adaptable to cathode ray use without alterations.





# MODEL 79A BEAT FREQUENCY OSCILLATOR

- 150 milliwatt output (14 db.).
- Linearity plus or minus 1% from 1,000 cycle level.
- New metal tubes. matching required.
- May be used to modulate R.F. Osc.
- Guaranteed less than 5% wave from distortion.

On time payments for \$6.00 down and 10 monthly installments of \$5.45

- Frequency range, 50 to 10,000 cycles.
- Cathode ray zero beat indicator.
- Accurately calibrated.
- Thorough filtering of R.F. from output.
- 8-inch dial scale for easy setting.

# IMPROVED MODEL OC-A OSCILLATOR

- · Frequency range, 100 kc. to 30 mc on fundamentals.
- Calibrated for use of 60 mc. harmonic range.
- 25-inch dial length per band. • Guarasteed 1/2 of 1% hand
- · Checked against crystal standard.

calibration.

On easy pay ments, \$4.50 down and 7 monthly payments of \$4.20 each.

- · New all metal tubes.
- · Modulated or unmodulated output
- 400 cycle sine wave output.
- Adaptable for us cathode ray tests. use
- New output attenuator con-



Limited space does not permit us to show all Clough-Brengle equipment. If interested in other models, write us for literature and prices.

- Model 95 Super Unimeter.....
   Model 85 Unimeter
   Model 88 Vacuum Tube Voltmeter...
   Complete Service Laboratory Models.

Equip Your Shop Complete. See Second Page for Details of Time Payments



# STARTLING NEW ENGINEERING DEVELOPMENTS

# NEW! SUPREME CATHORAY OSCILLOSCOPE

These features in addition to those found in other models make this an outstanding value.

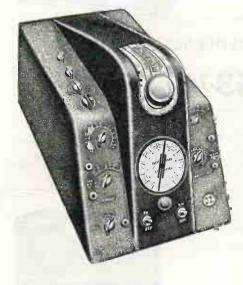
- Self contained, complete power supplies.
- Separate horizontal and vertical amplifiers.
- Amplifier input resistance of 500,000 ohms.
- Maximum input potential, 800 volts.
- Frequency range 20 to 90,000 C.P.S.
- · Sensitivity of 2 peak volts per inch.
- Linear time base (Saw Tooth Osc.) included.
- Deflecting plates accessible direct or through amplifiers.
- Synchronization of linear time base with input voltage.
- Synchronization of time base with power supply.
- Complete with R. C. A. 906,885,879, 80 and 2-57's.
- Fully shielded metal case. Complete instructions.

S. I. C. Easy Payment Price, \$10.00 cash deposit and 12 monthly payments of \$7.68.



Model 545 Cathoray Oscilloscope

\$92.95



Model 555

Diagnomoscope

\$147.95

# RADICALLY DIFFERENT!

The Instrument of Tomorrow

# Supreme Diagnomoscope

The most complete instrument of its kind on the market.

Self contained, compact and precise.

- Frequency modulated signal of constant band width.
- Variable between 125 K. C. and 15 megacycles.
- Built in dual purpose signal generator (direct reading).
- Beat frequency audio oscillator 50 to 10,000 C.P.S. (constant output).
- Fixed frequency (400 C.P.S.) modulation built in.
- "Saw tooth" oscillator 7 to 20,000 C.P.S.
- Phase shifting facilities for study of Lissajou's figures.
- High gain flat response horizontal and vertical amplifiers.
- Provisions for external use of built-in oscillator and audiosignal.
- Screen calibrated in K. C. off resonance.
- Component circuits may be used individually.
- Complete, compact, accurate, flexible.

S. I. C. Easy Payment Price, \$15.00 cash deposit and 12 monthly payments of \$12.05.

NEW PRICES

NEW

for 1937

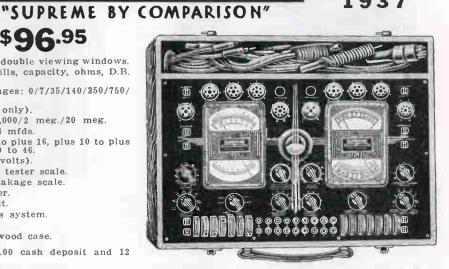
Testing Instruments

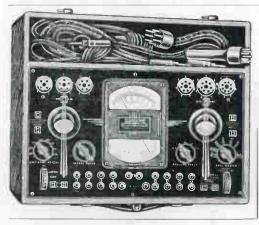
for 1937

MODEL 585 DIAGNOMETER

- ♦ Supreme "Quadrimeter" with double viewing windows.
- ♠ A.C. volts, D.C. volts, D.C. mills, capacity, ohms, D.B. ranges, output ranges!
- A.C., D.C., volts and mills ranges: 0/7/35/140/350/750/1,400.
- ♦ D.C. amperes 0/14 (external only).
- ♦ Resistance 0/2,000/20,000/200,000/2 meg./20 meg.
- ♦ Capacity 0/.07/.35/1.4/3.5/7/14 mfds.
- ♦ D.B. ranges —10 to plus 6, 0 to plus 16, plus 10 to plus 26, plus 20 to plus 36, plus 30 to 46.
- Output ranges (same as A.C. volts).
- ♦ Colored English reading tube tester scale.
- ♦ English reading condenser leakage scale.
- ♦ 0/200 ohms low range ohmeter.
- → Balance ratio tube test circuit.
- ◆ Free reference point analysis system. ◆ Evenly spaced A.C. readings.
- → Antique bronze finish. Hardwood case.

S.I.C. Easy payment price \$10.00 cash deposit and 12 monthly payments of \$8.00.





MODEL 550 **RADIO** TESTER

Reads AC-DC volts, DC mills 0 to 1400 in.

Reads capacity from .07 to 14 Mfds. in 6 ranges.

Reads resistance from 0 to 20 megs, in 5 ranges.

Reads DB from -10 to+46 in 5 ranges. Has output meter ranges, leakage teste power supply, and complete free reference. Point System for analysis. tester.

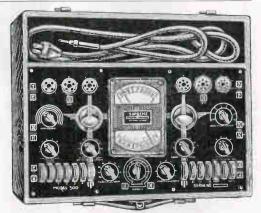
S.I.C. Easy payment price \$6.00 cash and 10 monthly payments of \$5.55.

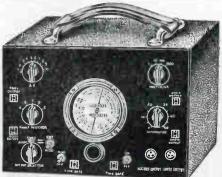
Combines features of Deluxe tube tester with unimeter functions, has neon short test. English reading dial for tube test. Tests condensers for leakage. A.C., D.C. volts and milliameter ranges 0 to 1,400 in 4 ranges. Reads resistance 0 to 20 megs. in 5 ranges. Reads from -10 to +26 D.B. in 3 ranges.

S.I.C. Easy payment price \$7.50 cash and 10 monthly payments of \$6.61.

MODEL 500 AUTOMATIO

**\$66.**95





MODEL 580 DE LUXE SIGNAL GENERATOR

.95

Frequency Modulated

MODEL 570 DE LUXE OSCILLATOR

\$31.95

90 K.C. to 60 M.C.

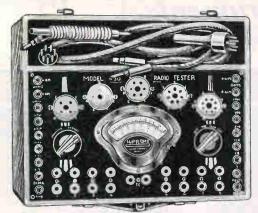
- Frequency modulated output of constant band width.
- + Coverage from 125 K. C to 60 M.C.
- ♦ Timing voltages for cathode ray synchronization.
- ♦ Beat frequency audio oscillator 50 to 10,000 C.P.S.
- ♦ Provisions for external modulation of output. \* Separate external connections for audio output. S.l.C. plan \$6.00 down and 10 payments of \$5.44 each.

The Model 570 Deluxe contains many of Model 580 features except the cathode modulator and beat frequency oscillator. the cathode ray

S.I.C. plan \$4.00 down and 8 payments of \$3.90 each.

# SUPREME NSTRUMENTS

## MODEL 450 STANDARD SET TESTER



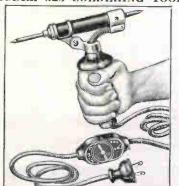
Model 450.

\$34.95 Net price.

An up-to-date test instrument with all popular ranges for average radio service. Simple and accurate, 28 ranges are included. A.C.-D.C. volts, D.C. mils. on scale reading 0/7/35/140/350/700/1,400 and ohms to 400,000 in three ranges with provisions for using external battery to read 4 lags. Complete free reference point system provided.

SIC—Easy payment price, \$4.00 cash and nine monthly payments of \$3.82.

MODEL 525 SOLDERING TOOL



The greatest individual contribution to the art of soldering in many years. Un-excelled for radio, telephone and general soldering

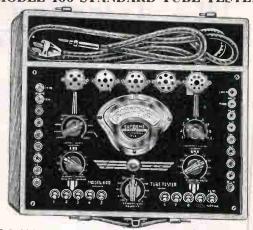
Three definite, different core heats controlled by cord switch, together with adjustable soldering rod provide a great number of possible tip temperatures.

Non-scaling copper soldering rod may be extended 6 inches maximum from heating body to reach locations totally inaccessible with straight soldering tools. Either end of soldering rod may be used by simply turning tool over in the hand, thus allowing two different types of points for instant use.

Soldering rod easily removable for pointing and shaping.

Soldering rods obtainable in a varlety of shapes.

MODEL 400 STANDARD TUBE TESTER



Model 400. Net price...

A high quality tube tester so reasonably priced as to be in the range of every service man's means. Incorporates all standard tube tester functions such as leakage, quality, separate diodes, etc., in addition to D.C. voits and mils. 0/7/35/140/350/700/1,400 and ohms 0/4,000/40,000/400,000 with self contained batteries

SIC-Easy payment price, \$4.50 cash and ten monthly payments of \$3.83.

## MODEL 490 STANDARD MULTIMETER



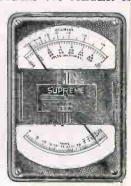
Model 490. Net price....

\$22,95

Here is just the unit thousands of radio servicemen, amateurs and general experimenters are looking for. A really good multi-meter. This new Supreme Model 490 Standard has the same meter circuit and ranges as the Model 450 set tester but does not include the set testing cable. Uses the Supreme 5-inch fan shaped meter with a 500 microampere movement. Incorporates 28 ranges: 0/7/ 35/140/350/700/1,400 D.C. volts, 0/7/35/ 140/350/700/1,400 A.C. volts, 0/7/35/140/ 350/700/1,400 D.C. mils., 0/4,000/40,000/ 400,000 ohms with provision for external forty-five volt battery to 4 megohms, and 0/7/35/140/350/700/1,400 A.C. volts output ranges.

S.I.C. easy payment price, \$4.00 cash and five monthly payments of \$4.25.

MODEL 510 METER KIT



The new Quadrimeter included in this kit employs a bi-indicating needle and a 1-mil, movement having a sensitivity of 1,000 ohms per volt. Dual viewing windows which can be illuminated by dial lights. The meter measures 5 1/4 x 7 1/4 inches and has a dustproof bakelite cover which is removable. In combination with the parts kit, twenty-seven ranges are available, 0/7/35/140/350/700/1,400 volts A.C., 0/7/35/140/350/700/1,400 volts D.C., 0/7/35/140/350/730/1.400 milliamperes D.C., 0/2,000/20,000/200,000 ohms and six output ranges of 0/7/35/140/350/ 700/1,400 volts A.C. The parts kit includes one Supreme Bi-Indicating Needle Quadrimeter, one meter adjustment resistor, 15 resistors with 6 attached matching capacitors, 1 0.3,600 ohm potentiometer, one A.C. rectifier and all necessary switches.

Model 510.

Net price....,

# Mew INSTRUMENTS RADIO

# **MODEL 500 COMPLETE "SERVICE LAB"**

## DISPLAY VALUE

The Jackson "Service-Lab" is the most impressive and elaborate equipment installation ever offered to the servicing profession. This "Display Value" impresses the customer with the importance and necessity of precision workmanship. The "Display Value" offered by the Model 500 "Service-Lab" will be used advantageously this year by many service shops to increase the price charged per job.



Standard Relay Rack Style, 20 ins. wide—38 ins. high.

## RELAY RACK CONSTRUCTION

The most modern equipment installation available at any price. Complete in every respect, includ-

• Cathode Ray Oscillograph • R.F.—A.F. Test Oscillator

• Frequency Modulated Oscillator

"Dynamic Output" Tube TesterComplete Circuit Tester

• Full Range Universal Test Meter The "Service-Lab" is designed to help you increase your profits. With the Type 500 you can speed up your work, do a more accurate

job and receive a much better price.

This complete laboratory consists of the following Jackson test equipment described on these pages: Model 520 cathode ray oscillograph, Model 540 frequency modulated R.F.—A.F. oscillator, Model 585 dynamic analyzer; all mounted in sturdy relay rack. Can be purchased on easy payment plan as follows: \$49.50 down and \$26.00 per month for 6 months, or \$49.50 down and \$16.00 per month for 10 months. Other terms can be arranged if necessary. Let us know your requirements. See outline of time payments on second page. Model 500—Complete "Service-Lab" (Net to Dealer)

# CATHODE RAY OSCILLOGRAPH



## MODEL 520

All controls on front of panel and grouped so as to separate the three distinct functions of these controls. Maximum input sensitivity of both sets of plates is .75 volts R.M.S. per inch of deflection. Saw-tooth oscillator range 10 to 20,000 cycles allowing ready inspection of frequencies up to 100,000 cycles. Attractively finished in black Morocco with control plates etched in black on white metal background. Dimensions: 10½x3½x18½. Shipping weight, 35 ibs. Complete with all tubes, ready to operate.

Price (Net to Dealer) .. \$79.50

# FREQUENCY MODULATED TEST OSCILLATOR MODEL 540

Self-contained frequency modulator is electronic type. NO MOTOR OR ROTATING PARTS ARE EMPLOYED



The Model 540 is basically a high grade test signal generator, but in addition contains a built-in "Frequency Modulator." Frequency sweep is provided with constant band width at all frequencies.

SPECIFICATIONS

FREQUENCY RANGE—100 kilocycles to 70 megacycles—all direct reading. LARGE GLASS-EN-CLOSED SCALE—total effective scale length is 72 ins. Knife-edged condenser shaft.

Planetary type.

Flanetary type.

SIGNAL OUTPUT—Either audio modulated or frequency modulated. Maximum signal is sufficient for any receiver. Two circuit attenuator provides variable ratio and also vernier control.

SHIELDING—Case is one-piece cast aluminum. Impertant circuits are isolated by excellent mechanical construction. All control shafts are at ground potential.

FREQUENCY MODULATION—The electronic sweep method is vastly superior to other methods now in use. No motor or rotating parts is required, therefore the sweep circuit remains in permanent adjustment and does not become inaccurate due to friction, wear, or dislocation. Furthermore, the electronic sweep provides a uni-directional frequency trace on the oscillograph screen. No reverse sweep appears and thus the confusion of double trace is eliminated. For securing visual resonance curves in connection with a standard oscillograph. The frequency modulation accomplished in the Model 540 (electronic method) produces a single image curve on the Cathode Ray screen. The band width of this image is automatically maintained at 30 Kc. regardless of the frequency delivered by the oscillator.

Operates from 110-volt 60 cycle A.C. line supply. Dimensions—11%x8%x4% ins. Shipping weight, 19 lbs.

PRICE-Complete with all metal tubes and accessories (net to dealer) .......\$56.25

# Mew 1937 JACKSON **NSTRUMENTS** RADIO TEST



#### MODEL 580 DYNAMIC ANALYZER SPECIFICATIONS:

TUBE TESTER—Tests over 200 types of tubes including all metal and metal-glass types. The test method is the well known Jackson "Dynamic Output" test. Tests each diode plate separately—also both sections of dual class B tubes and both plates of all rectifiers. Special tests for Pentagrid converter types.

METER RANGES—D. C. Volts—0-7.5/75/150/300/750/1500. D. C. Milliamperes—0-7.5/75/150. A. C. Volts—0-15/150/1500. Ohms—0-100/100,000/1 meg/10 meg. Microfarads—001 to 1.5/.01—1.5/1.-15. Decibels——10 to +18. All ranges are direct reading and any desired range can be instantly selected by the "Meter Selector" switch.

CONSTRUCTION—Main panel is one piece cast aluminum 19 inches long, 10 ½ inches wide. Control panels are etched metal having a white background and black characters. Case is genuine oak, measuring 19 ¾ inches by 13 ¼ inches by 6 inches. Shipping wt., 23 lbs. PRICE-Model 580 (less 8-wire cord and plug) (Net to dealer).......\$59.50

No. 908-CN 8 Wire Cable and Plug.....

# JACKSON "DYNAMIC OUTPUT" TUBE TESTERS

## **MODEL 535 Features**

- 1. Dynamic Output Test—the most perfect method devised for accurate determination of tube condition.

  2. Tests ALL tubes announced up to date. Provision for many more.

  3. All readings direct on "Good—Bad" scale. No special marks for diodes, etc. Most simplified operation ever attained in a precision instrument.

  4. Sensitive neon test for all shorts or possible leakage between elements.

  5. Deluxe Multi-Meter ranges for volts, M.A., ohms, megohms. Also condenser test incorporated.

  6. True "Unit Construction"—Socket plates removable and control panel removable. Protects instrument against obsolescence, should changes ever become necessary.

  MAKES A COMPLETE. ACCURATE test on EVERY tube.

MAKES A COMPLETE, ACCURATE test on EVERY tube. Tests over 200 different types, including the new metal and metal-glass octal base tubes. Tests each diode plate separately, also both sections of Dual Class B tubes and both plates of all rectifiers. Special tests for Pentagrid Converter types.

DIRECT READING METER RANGES—VOLTS, OHMS, MILLIAMPERES. D. C. Volts—0-7.5, 0-75, 0-150, 0-300, 0-750, 0-1500. Milliamperes—0-7.5, 0-75, 0-150. Ohms—0-100, 0-100,000, 0-1 megohm, 0-10 megohms. All ranges direct reading. Ohms range in sensitive from 1/10th Ohm—to 10 Megohms. Does not require external battery for megohms. Cast Aluminum Panel—Etched metal control plates—solid oak case, dimensions 1234x134x6 in. overall. Shipping wt., 17 lbs.

MODEL 535 PORTABLE TESTER—Net price ......\$39.50

Model 535-C Counter style. Net price.....





# TEST SIGNAL GENERATOR (A. C. Operated)

The specifications for this oscillator are the same as the Model 540 except that the electronic sweep circuit is not included. An instruction book is furnished which contains a list of the I. F. frequencies in use by over 2,000 radio receivers. Shipping weight, 17 lbs. Complete with tubes.

Model 441A-110 volt, 60 cycles. Net price......\$32.80

Model No. 441-A.

# **BATTERY OPERATED TYPE (MODEL 441-B)**

NET PRICE (Complete with tubes and instructions) . . . \$31.00

Model No. 412.

# D. C. MULTI-METER

- D. C. VOLTS—0-5/0-50/0-500/0-1000.
   1,000 ohms per volt.
   OHMS—Two scales—½ ohm to 500 ohms; 200 ohms to 500,-000 ohms.
   MILLIAMPERES—0-1 MA.
- MILLIAMPERES—0-1 MA.

   SPECIAL LOW RESISTANCE RANGE—Direct reading.

  METER—Sensitive D'Arsonval type in standard 2%-in. Bakelite case. Knife edged pointer and two colored scale. Equipped with zero corrector.

  PANEL ASSEMBLY—Bakelite panel attractively lettered.

  Phone jacks for standard test prods. Adjustable ohms zero
  control provides for compensating battery voltage.

  CASE—Sturdy, welded steel, 5×3×2 ins., finished in baked
  morocco enamel.

  BATTERY is self-contained within the instance.

BATTERY is self-contained within the instrument and is easily replaceable,

CONSTRUCTION is of exceptional quality throughout. Insulated for 1500 volts. All ranges designed to withstand 50% overloads without damage.

Supplied complete with battery. Shipping wt., 3 lbs.

MODEL NO. 412-Dealer's Net Price, only ................\$9.85 DEDUCT 2% FOR CASH WITH ORDER MODEL 427-A



## SPECIFICATIONS:

DIRECT READING METER with colored dial. Meter is 3% in.
TESTS ALL TUBES, INCLUD-ING METAL TYPES.
NEON SHORTS TEST.

OUTPUT "DYNAMIC makes complete tests on all mul-ti-element tubes such as diodes,

HIGH QUALITY CONSTRUC-TION. Solid oak case Bakelite panel tapped primary line volt-age control, rugged sockets. de-signed to accommodate future

signed to accutypes of tubes. MAY BE USED FOR OTHER TESTS by the addition of a simple attachment. Measures D.C. volts, 0-50/500. D.C. MA, 0-50. Ohms 0-500,000. Also condenser

test for shorts, opens and leakage. Attachment costs only \$3.75 (Catalog No. 428). Dimen-sions 11x11x5 ins. Weight, 9 lbs.

Model 427-A-Tube Testerprice .....\$29.50

# BANGER-EXAMINER FREE POINT TESTER AND MULTIMETER



Modei 640-740



## PRECISION BUILT

A complete line of Radio Test Instruments. Brings to the serviceman everything required in portable instruments. Precision built. Extremely durable and compact. Laboratory accuracy. Low

TRIPLETT METERS USED THRUOUT

# RANCER-EXAMINER SIGNAL GENERATOR AND MULTIMETER



Model 540-740

Model 640-740 Combination Volt-Ohm-Milliammeter and Free Point Tester is adaptable for every purpose in voltage, current or resistance testing, by the free point direct contact and the plug-in methods.

Volt-Ohm-Milliammeter unit has a Triplett precision instrument. Scale readings: 10-50-250-500-1,000 A.C. and D.C. volts at 1,000 ohms per volt; (D.C. Accuracy 2%, A.C. 5%) 1-10-50-250 M. A.: 0-300 Low Ohms; High Ohms to 250,000 at 1.5 volts. Rheostat adjustment will take care of 16 volts for ohms readings up to 2.5 magohms. Batteries may be added, permitting readings in 250,000 ohms steps. Low ohms reads to ½ ohms,—the 25 ohms portion being in center of the scale. The backup method used is without appreciable contact or other errors. The current draw is only 1 M.A.

Model 640 Free Point Tester has five sockets for handling any type glass, metal-glass or metal tube. Panel includes eight automatic switch type and ten single action jacks.

Case is same as model described opposite.

Model 540-740 has two instruments—Direct Reading All-Wave Signal Generator and Volt-Ohm-Milliammeter. With the 740 Volt-Ohm-Milliammeter the serviceman can locate most of the troubles common to radio receivers. Has Triplett precision instrument. This unit is the same as Model 740 described experits.

troubles common to radio receivers. Thas Inject the instrument. This unit is the same as Model 740 described opposite. The 540 Direct Reading Signal Generator has Plug-In type coils. Five frequency bands from 110 to 20,000 Kc., all fundamentals. Each coil is individually calibrated by an exclusive method of peaking with trimmer condensers built as an integral part of the coil. Guaranteed accuracy is 1% few broadcast and intermediate bands and within 3% for short wave bands.

Model 540 is completely shielded for static and magnetic fields. Attenuation and stability are outstanding features. Strong signals, both modulated and unmodulated, are furnished. The sturdy case is metal with built-in compartments, having snap-on covers, for accessories. Has strap handle. Case finish is electro black baked ename! Panels are silver and black Size of case is 11-7/16x7%x4% ins. All batteries and two type 30 tubes are included with necessary accessories.

\$36.60

Net price.... Model 540-740.

# PRECISION QUALITY AT NEW LOW PRICES

# RANGER-EXAMINER D.C. POCKET **VOLT-OHM-MILLIAMMETER**



Model 735



PRECISION BUILT ALL-WAVE SIGNAL GENERATORS

Resture Plug-In trimmer peaked coils.

Direct Reading-long scales. All fundamentals. Accuracy 1% broadcast

band. Accuracy 3% short wave bands.

Precision built. Perfected attenuation. Highest Quality. Lowest Prices.

RANGER-EXAMINER DIRECT READING SIGNAL GENERATOR



Model 735 is a pocket size D.C. Volt-Ohm-Milliammeter with selector switch, black molded case with all corners nicely rounded and ranges comparable to those of larger multimeters. Can be carried easily in the coat pocket. Provides measurements for every requirement of the serviceman on home calls and is suitable for extra utility use in the shop and laboratory.

laboratory.
Ranges are 15-150-750 volts; 1.5-15-150 M.A.; ½-1,000 low ohms; 0-100,000 high ohms at 1.5 volts. External batteries may be used for higher resistance measurements.
Has Triplett D'Arsonval type precision instrument with readings accurate within two per cent. Selector switch for all ranges and individual zero adjustment for resistance measure-

ments. Sturdy black molded case, 3-1/16x5%x2% ins. high. Attractive silver and black panel. Battery and test leads with alligator clips are included. Approximate shipping weight, 3 pounds, 4 ounces.

Model 735. Net price .....

Individually calibrated Plug-In Type coils, setting a new standard of obtaining laboratory accuracy at low cost, are used with Model 557 Ranger-Examiner All-Wave Direct Reading Signal Generator. See description above for Model 540 oscillator.

Supplied in attractive black leatherette case. Silver and black panel. When closed case measures 12x6 1/2x5 1/2 ins. Approximate shipping weight, 12 pounds.

Model 557. Net price ......\$18.00

Model 554-A-Same as Model 557 but not Direct Reading. Calibrated graphs included for accuracies under 1% on any band. Model 554-A. Net price



# Direct Reading Tube Tester

- 1. Checks glass, metal and glassmetal tubes.
- Applies proper load values to tube being checked.
- Tests for slightest leakages and all shorts.
- But four simple operations required.
- Uses Triplett Model 221 meter with GOOD-BAD scale.



# Eadrite

# **Equipped With** Triplett Meter

- 6. Meter especially protected against damage.
- Unique shadow type A.C. meter for line volts adjustment.
- 8. Has double grid cap for metal and glass-metal tubes.
- Sloping, all metal, silver and black panel.
- 10. Attractive quartered oak case with handle.

#### Greatest Tube Tester Value Ever Offered

Model 430 is designed to check all tubes speedily and accurately. Results noted on Direct Reading GOOD-BAD meter scale will convince the most skeptical buyer. This latest 1937 model applies the proper load to tubes under test. Be prepared for modern tube testing with this rugged and reliable tester. An up-to-the-minute 1937 tube tester. Five flush mounted sockets provide for the various tubes without the use of adapters. The lamp used to Illuminate the special shadow type A.C. line voltage adjuster meter also indicates when tester remains connected to the power supply. The tester circuit is designed to indicate all inter element shorts and leakages. leakages.

A complete tester with attractive oak case and sloping silver and black metal panel. Must be seen and used before true appreciation can be had. Removable cover makes tester equally satisfactory for either counter or portable use. Up-to-date tube charts furnished to all registered users.

Model 431, same as Model 430, but with Readrite meter having GOOD-BAD Direct Reading Scale.

MODEL 430

MODEL 431

\$14.40

## POINT-TO-POINT TESTERS



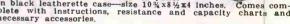
Model 720A is designed for speedy, efficient servicing on all radios including metal tube sets. Used to measure resistances, con-Used to measure resistances, continuity, capacity and voltages and tubes. Has 8 wire cable which plugs into set sockets. Includes two meters—D.C. having scales—15-150-300-500 volts; 15-150 M.A. A.C. meter reads—0-10-25-150-750 volts. Complete with instructions, charts and accessories.

No. R720A .....\$15.00

No. R730A—Same as No. R720A but with Triplett Model 223 D.C. voltmeter having 1,000 ohms per volt and scale reading 15-150-300-600 volts.....\$18.60

### SET TESTER

Model 710A—popular three-meter set tester is used to check all parts of radio tube circuits by plugging directly into receiving set socket on all sets including 8 octal metal tube models. D.C. voltmeter reads 0-20-60-300-600; D.C. milliameter reads 0-15-150; A.C. voltmeter reads 0-10-140-700. Selector switch connects all D.C. circuits to D.C. voltmeter. Panel jacks provide individual range connections for the three meters. Black and silver panel in black leatherette case—size 10% x8½ x4 inches. plete with instructions, resistance and necessary accessories.



No. R710A .....\$16.50 No. R712A—Same as No. R710A but with Triplett Model 233 D.C. Voltmeter, 1,000 ohms per volt, reading 0-15-60-300-600 ......\$22.20

## WESTON MODEL 698 SELECTIVE SET SERVICER



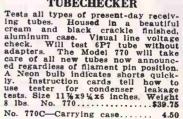
radio receiver Model 698 T Type 1-B (Complete).....

MODEL 666 SOCKET SELECTORS

**NEW WESTON MODEL 772** 

w analyzer with a meter sensitivity of 20,000 chms per Literature on request. volt. \$46.50

## **WESTON MODEL 770** Portable or Counter TUBECHECKER





# WESTON MODEL 771 CHECKMASTER

The CHECKMASTER combines the best features of a modern tube checker with many analyzer characteristics. And its price places it within reach of servicemen who want quality equipment.

It is completely self-contained. It checks all tubes—measures circuit voltages—spots condenser leakage—and makes resistance analysis. No need to haul your complete test equipment . leave it in the shop where your partner can carry on with ter work. Take the CHECKMASTER . . . quickly locate the trouble

Model 771-With carrying case.....\$45.00 DEDUCT 2% FOR CASH WITH ORDER

78

MODEL 1502 NEW "POWER OUTPUT" TUBE TESTER WITH NEON SHORT TEST





TESTING EQUIPMENT

The Standard of Comparison Recommended as Standard Service Equipment by Leading Radio Set Manufacturers and Outstanding Engineers

MODEL 1503 NEW "POWER OUTPUT" ALL-PURPOSE TUBE TESTER WITH NEON SHORT TEST



## "1937's BEST TUBE SALESMAN" The Most Accurate Tester Made

- Tests all tubes, metal or glass.
  Power output method.
  Hot tube neon short test.
  Correct voltage to tube elements.
  A.C. rectifier tests.
  Separate diode tests.

Furnished in very attractive heavy wood case with sloping panels for portable or counter use. 15% x11% x 71/2 ins.

MODEL 1502.

NET PRICE....

Shipping wt. 26 lbs.

\$36.67

# "ACKNOWLEDGED AS THE INDUSTRY'S FINEST" The Lowest Priced All-Purpose Tester Combines features of Milliameter (10 - 50 - 250

- Combines reatures of Model 1502.

  Electrolytic and paper condenser tests.

  D.C. voltmeter (10-50-250-500-1,000 volts).

  - and paper sts. Ohmeter (10 50 250 mills). Ohmeter (1,000-10,000-10,000-10,000-10,000-10,000-1 megohms). A.C. volts (10-50-250-500-1,000) and decibels down 10, up 15.

Furnished in very attractive heavy wood case with sloping panels for portable or counter use. 15 % x11 % x7 ½ in.

MODEL 1503.

NET PRICE.....

Shipping wt. 26 lbs.

#### MODEL 1310 EMISSION TYPE

#### AN IMPROVED EMISSION TYPE TESTER

Equal to any emission type tester on the market.

- Tests all metal, "MG," "G" glass tubes.
- Direct reading, GOOD or BAD.
- · Direct reading short tests.
- · Separate diode tests.



Shipping wt. 18 lbs.

## DIRECT READING TUBE TESTER.

Furnished in a beautiful modern wood case with sloping panel, and metal tube reading charts. Case measures 11x8 1/2 x8 inches with removable cover for either portable or counter use.

MODEL 1310. NET PRICE.....

\$24.67

\$46.67

# NOW! TRIPLETT DIRECT READING CONDENSER TESTER





NET PRICE **\$24.83** 

- Paper or electrolytic con-denser, worth shown on "good-bad" scale, Reads capacity directly
- Reads capacity directly on meter. Tests for intermittent shorts or opens. Indicates high resistance
- leakages.

- Tests condenser for break down.
   Break down voltages available to 1,000 volts.
   A.C. or D.C.
   Accuracy maintained by shadow type indicator.
   Meter protected by series resistors. resistors.

Sturdy metal case, finished in black wrinkle, measuring 7%x6%x4% ins. All test leads and clips included. Shipping weight, 10 lbs.

# **NEW! TRIPLETT "SELF-CALIBRATING"** VACUUM TUBE VOLTMETER



NET PRICE \$33,34

- Bridge type
- Low signal and A voltages read without current drain.

- Bridge type circuit Measures R.F. voltage, audio voltage, filter rippendent of tube life.

  Low signal and A.C. Measures R.F. voltage, audio voltage, filter ripped voltages, grid bias voltages and many others.

  • Measures signal gain per
- stage.

   Measures dielectric leak-Sensitive galvanometer for bridge balance.

  Same physical circleak
  ages to several thousand megohms.

  A.C. and D.C. voltage ranges 9 f

Same physical size and general appearance as Model 1240. Panels silver and black. Shipping weight, 13 lbs.

NEW NO. 1200A MASTER UNIVERSAL A.C.—D.C. VOLT-OHM-MILLI-AMMETER with the ANGLE-TILT METERS



A precision instrument having more features than any other at near its

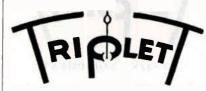
- + Exclusive Triplett tilting instrument.
- ♦ Newly developed shunts limit switch con than 1 mla. contact current to less
- Separate A.C. and D.C. movements (no rectifier).
- Accuracy guaranteed within 2% A.C. or D.C.
- → Individual zero adjustments for each ohmeter scale.
- + All D.C. volts readings at 1000 ohms per volt. ♦ Self contained batteries (included
- in price) → Most rugged meter movements made.

Model 1200A-Net price.....\$21.67 Model 1200B—Rectifier type (1000 ohms per volt)..... 28.67 ohms per volt).....

NEW NO. 1232 MASTER FREQUENCY STABILIZED. ALL-WAVE, CONTINUOUSLY VARIABLE SIGNAL **GENERATOR** 



**Buy Today for Tomorrow** KEEP UP TO DATE with



MASTER TEST UNITS The Modern Line of Test Equipment

# MASTER UNIT COMPLETE SERVICE LABORATORY



Model 1206 Master Unit Test Set is a complete Portable Laboratory for the radio servicing engineer. It includes all units required by the professional serviceman, doing the most expert work. It contains four Master Units in 1204 Portable Case.

Models 1200 Volt-Ohm-Milliammeter. 1210-A Tube Tester. 1220-A Free Point Tester.

1232 Direct-Reading All-Wave Signal Generator.

Model 1207-Net price......\$82.67

Illustrating ANGLE TILT **FEATURE** OF TRIPLETI 1200 UNIT



**NEW** NO. 1210A MASTER METAL AND GLASS **TUBES** TUBE TESTER Large Direct-Reading Meter



Handy portable instrument with English reading scale. Check these features:

- → Tests all types of tubes, metal and glass.
- → Actual load conditions during test.
- ◆ Colored "Good-bad" scale.
- → Large size D.C. meter.
- ♦ Short tests and cathode leakage test.
- + Separate diode and rectifier test. Model 1210A-Net price......\$20.00

NEW NO. 1220A MASTER FREE-POINT ANALYZER For Use with NO. 1200 MASTER UNIT



+ Large 12 inch direct reading dial.

+ 6 individually calibrated and shielded coils.

+ Fundamental output for all frequencies.

- + Perfect attenuation with low loss switching.
- ♦ 400 cycle audio note from panel jacks.
- + Operates from 110 Volt 60 Cycle supply.

Model 1231-Bat. operated. Net price..... 23.33

Designed for the hardest use and service. Rugged construction assuring accuracy and performance in-

> MASTER UNIT PORTABLE CASES Strongly made with black

grained leatherette cover-ing. Individual compartments are lined with soft, green felt.
No. 1201—Single Unit

No. 1202—Two Unit Case No. 1203—Three Unit No. 1204—Four Unit

**DEDUCT 2% FOR CASH WITH ORDER** 

definitely.

# **NEW MODELS** —Dependable—

# MODEL 1125 UNIVERSAL VOLT-OHM-MILLIAMETER



Has 16 different scale readings, all A.C.-D.C. volts at 1,000 ohms per volt

- ♦ 0-15, 150, 750 volts A.C. or D.C.
- ♦ 0-1.5, 15, 150 mills D.C.
- ◆ 0-15, 150 mills A.C.
- ◆ 0-1500, 1.5, 3 megohms.

In attractive oak case, batteries included. 

## MODEL 1151 ALL-WAVE **OSCILLATOR**



Frequency range 110 kilocycles to 18 megacycles, Completely shielded. Output either modulated or unmodulated. Tubes and batteries included.

No. 1180-Combines Models 1125 and 1151 in a 1181A case.

Net price.....

Model 1180. \$30.00 Net price.....

SENSATIONAL VALUE **OUALITY** TESTING EQUIPMENT

# TRIPLETT NO. 1181A **COMPLETE TESTING** LABORATORY



Free point tests. A.C.-D.C. volts, ohms, milliammeter. Ali-wave oscillator. Output meter. Tests all tubes.

No. 1181A is the most complete of the 1100 series Triplett Testers. Combines the following instruments described below into one unit: No. 1151 All-Wave Oscillator; No. 1125 Universal Volt, Ohm, Milliammeter, and No. 1166A Free-Point Auxiliary Set Tester. Read specifications of these instruments. In the No. 1181A they are all combined into unit-cased in a sturdy oak carrying case 16 1/2 x 7 1/2 x 4% inches.

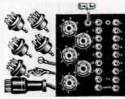
# **MORE FEATURES** —Accurate—

MODEL 666 Pocket Size Universal Volt, Ohm, Millianuneter



- D.C. range 10-50-250-500-1,000 volts at 1,000 ohms per volt.
- D.C. mills 1-10-50-250.
- A.C. range 10-50-250-500-1,000 volts at 1,000 ohms per volt.
- Ohms 1/2 to 300 to 250,000.
- Provision for higher ranges by use of external batteries.
- Separate zero adjusters.

# MODEL 1166A FREE-POINT SET-TESTER



Brings all set socket c o n nec-tions to each of each of the vari-ous tube e lements, through the attached cable and plug.

Simplified chart supplied for each type of tube. Also, five plug adapters. Furnished in same case as Model 1125.

No. 1166A—Less case......\$10.00 No. 1167A—Combines Models 1125 and 1166A in 1181A case.

Model 1167A.

# **NEW NO. 1260 MASTER AUDIO OSCILLATOR**

Generates Pure Sine Wave without Distortion or Harmonics

Model 1260

Model 1151.



Shipping weight, 15 lbs.

> NET PRICE \$28.34

100-250-500-1,000-2,000-3,000-4,000-5,000-

Frequency range 100-250-500-1,000-2, 7,500-10,000 cycles.

Variable impedance matching.

Accurate attenuation.

Operates on 110 voits 60 cycle supply.

Tubes and test leads furnished.

Suitable for testing range of deafness.

# NEW NO. 521 VOLT-OHM-MILLIAMETER FOUNDATION INSTRUMENT

Model 521

5-inch Meter



NET PRICE

# Ideal for Test Bench or Portable Use SHUNTS, RESISTORS AND ACCESSORIES

Wiring diagram furnished with meter.



Model 331—A.C. Model 341—R.F. Size: 3½ in. flush. Scale: 2½ in. long.



Model 421-D.C. Model 431-A.C. Model 441-R.F.



D'Arsonval type with an extra light moving coil and reinforced strong parts. Special quality chrome steel magnets. Sapphire jewel bearings. White enameled dials. Well damped—can be "keyed." Bakelite cases. Fully guaranteed. The fastest selling line of meters on the market.

Accuracy 2%



Model 221 Model 231 Model 241-R.F. Size: 2% in. flush. Scale: 1% in. long.

D. C. M. A.	Part No. Model 321	Your Cost	Part No.   Model 221	Your	Part No. Model 421	Your
0-1 0-1.5 0-3 0-5 0-10 0-15 0-25 0-750 0-250 0-250 0-250 0-250 0-250 0-300 0-500 0-500 0-500 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-100 0-200 0-200 0-300 0-300 0-300 0-300 0-500 0-500 0-500 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750 0-750	321-1 321-1P5 321-3 321-3 321-5 321-10 321-25 321-75 321-76 321-1H5 321-1H5 321-2H5 321-5H 321-5H 321-5H	\$4.67 4.67 4.67 3.82 3.82 3.82 3.82 3.82 3.82 3.82 3.82	221-1 221-1P5 221-3 221-3 221-5 221-10 221-15 221-25 221-25 221-26 221-1H5 221-1H5 221-2H5 221-2H5 221-2H5 221-3H 221-7H5 221-7H5 221-1G	\$3.82 3.82 3.82 3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.0	421-5 421-5 421-10 421-25 421-25 421-20 421-1H 421-1H5 421-2H 421-2H5 421-3H 421-3H 421-5H	\$6.67 5.00 5.00 5.00 5.00 5.00 5.00 5.00 5.0

	1	D. C. MI	CROAMME	TERS		
0	321-A2H	\$8.00	221-A2H	\$7.00	421-A2H	9.33
	321-A5H	6.17	221-A5H	5.17	421-A5H	7.17

Model 221 is a flush bakelite case instrument with a flange. Model 223 is a 2-5/16-inch clamp-on type and can be had at same price as Model 221.

# D. C. VOLTMETERS 125 Ohms Per Volt

D. C. Volts	Part No. Model 321	Your Cost	Part No. Model 221	Your	Part No. Model 421	Your
0-5 0-10 0-25	321V5 321V10 321V25	\$3.82 3.82 3.82	221V5 221V10 221V25	\$3.00 3.00 3.00	421V5 421V10	\$5.00 5.00
0-50 0-100 0-150	321V50 321V1H 321V1H5	3.82 3.82 3.82	221V50 221V1H 221V1H5	3.00 3.00 3.00	421V50 421V1H	5.00 5.00
0-200 0-300 0-500	321V2H 321V3H 321V5H	4.67 5.50 6.17	221V2H 221V3H 221V5H	3.82 4.33 5.17	421V1H5 421V3H	6.50
0-750 0-1000 0-2000	321V7H5 321V1G 321V2G	7.33 9.50 11.67	221V7H5 221V1G 221V2G	6.17 8.50 10.67	.,	

# D. C. VOLTMETERS

0-5	32125	\$5.50	1 22125	\$4,33	42125	56.50
0-10	321210	5.50	221210	4.33	421Z10	
0-25	321Z25	5.50	221225	4.33	421210	6.50
0-50	321Z50	5.50	221250	4.33	421250	
0-100	321Z1H	5.83	221Z1H	5.17	421Z1H	6.50
0-300	321Z3H	6.67	221Z3H			6.50
0-500	321Z5H	7,33	221Z5H	5.83	421Z3H	7.67
0-750	32127H5	9.17		6.67	14111111	122122
0-1000	321Z1G		221Z7H5	8.00	421Z7H5	10.67
0-2000		10.67	221Z1G	9.50	421Z1G	12.33
0-2000	321Z2G	16.50	221Z2G	15.33		

#### D. C. AMMETERS

Amps.	Model 321	Cost	Part No. Model 221	Your Cost
0-3	321R3	\$3.82	221R3	\$3.08
0-5	321R5	3.82	221R5	3.00
0-10	321R10	3.82	221R10	3.00
0-25	321R25	3.82	221R25	3.00
5-0-5	321R25	3.82	221R55	3.00
10-0-10	321R101	3.82	221R101	3.00
20-0-20	321R202	3.82	221R202	3.00



82

## THE TRIPLETT OUTPUT METER

No. TOM-Four ranges: 0-2.5, 5, 10, 50 volts. Copper oxide rectifier type. Contains condenser for blocking D.C. component test leads with clips and break-in adapter furnished. tip jacks or binding posts....\$11.17

## TRIPLETT-S METERS

JB	nen used on receiving sets, measure R.F. broadcast sength. Scale reads S-5. Knife-edge pointers.	-
N	. 321-S13-1/3 M.A. sensitivity	\$5.00
7.41	221-S13-1/3 M.A. sensitivity	4 17
7.4	321-S5—5/1000 M.A. sensitivity	4 12

Volts	Model 331	Your Cost	Part No. Model 231	Your Cost	Part No. Model 431	Your
0-3 0-5 0-10 0-15 0-25 0-50 0-100 0-150 0-300 0-500 0-15-150 0-150-750	331-3 331-5 331-10 331-15 331-25 331-50 331-1H 331-1H5 331-3H 331-5H 331-155 331-155	\$3.82 3.82 3.82 3.82 3.82 3.82 4.67 5.50 7.33 6.17	231-3 231-5 231-10 231-15 231-25 231-50 231-1H 231-1H5 231-3H 231-3H	\$3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.82 4.83 6.67	431-5 431-10 431-15 431-25 431-25 431-50 431-1H5 431-3H	\$5.00 5.00 5.00 5.00 5.00 6.00

A. C. VOLTMETERS

# THERMOCOUPLE AMMETERS (High Frequency)

Accuracy 2%

Have external couples which will withstand 50% overload. Connected to meter with 2-ft, leads,

R. F. Amps.	Part No.	Your	Part No.	Your	Part No.	Your
	Model 241	Cost	Model 341	Cost	Model 441	Cost
0-1	241-1	\$9.67	341-1	\$10.67	441-1	\$14.00
0-1.5	241-15	9.67	341-15	10.67	441-15	14.00
0-2.5	241-25	9.67	341-25	10.67	441-25	14.00
0-5	241-5	9.67	341-5	10.67	441-5	14.00

## VOLT-OHM-MILLIAMMETERS

These instruments are 0-1 D.C. Mil. Meters with 100 ohms internal resistance—with knife-edge pointers. Require 1.6 volts. No. 321A—Scale reads 30-300-600 volts, 30-300 mils., 100.000 ohms
No. T30—Res. on bak. strip for 30-300-600 volts 4.92 No. T31—Shunts on bak. strip for 30-300 mils. 1.33 No. T64—Current limiting res. for 100.000 ohms. 67 No. T10—Res. on bak. strip for 10-50-250-500 volts. 5.00 No. T11—Shunts on bak. strip for 10-50-250-500 mils. 1.84 No. T12—Current limiting res. for 100,000 ohms. 67

## RESISTANCE INSTRUMENTS

3 In. Case Range Your Cost Volts Ohms T-315 T-3150 T-45 T-450 0-1,000 0-100,000 0-50,000 0-150,000 \$4.67 5.50 5.50 5.50

Part	R	tange	Your
No.	Volts	Ohms	Cost
	0 to 1.5	0-50,000	\$4.67
TR-R 1 to ma 0-15-60-	Resistor for ke Voltm 300-600	or 0-1M.A. eter	\$5.83

# UNIVERSAL A.C.-D.C. METER Copper Oxide Type

D.C.-2% accuracy. A.C.-5% accuracy.

A.C. scale in red. D. C. scale in black.

Reads 0-1500, 0-1.5 megs. in ohms; 0-15-150-750 volts A.C. or D.C. at 1,000 ohms per volt. D.C. mil. readings are 0-15-150 M.A. Use with double pole double throw switch

switch.

No. TUM321—(0-.4 M.A.) with copper oxide unit and switch, complete...\$10.00

No. T1127—Kit consisting of mounted resistors and shunts for all above readings, selector switch, rheostat, jacks, panels, bar knobs, batteries (22.6 and 1.5 volts).

Complete, less meter.....\$13.33



#### METERS WESTON TRIPLETT

READRITE HOYT



### WESTON

We carry a complete stock of Weston Meters. We are listing only the most popular types. If you want any other Weston Meters, just write in. Our prices are as low as any distributor and we can get it to you quicker.

## DC MILLIAMMETERS—MODEL 301

Range 1	Price   87.50	Range 100	Price\$6.75
5	6.75	150	6.75
30	6.75	300	6.75
50	6.75	500	6.75

# THERMOCOUPLE AMMETERS Weston Model 425

0 to 1, 0 to 1.5, 0 to 2, 0 to 3, 0 to 5, and 0 to 10 .....\$12.00

## POWER LEVEL INDICATORS

Power Level Indicators are used to measure sound or noise levels in amplifiers for Public Address, Theaters, Broadcasting Station Equipment, etc. The Decibel Meter permits the operator to make instant adjustments to prevent sound blasting or distortion. Standard range furnished reads up 6 and down 10 decibels, zero decibel at 1.73 volts, 500 ohm lines, 6 milliwatts. Standard damping.



Decibel Meter

No. 321DB-Up 6 down 10 Decibel Meter. Price......\$12.00 No. 221DB-Up 6 down 10 Decibel Meter. Price...... 11.00

## DECIBEL METER KITS

To increase range of Power Level Indicators. Readings advance in steps of 4 decibels with constant impedance of 5,000 ohms—up to 22 decibels. Above 22 decibels the impedance is approximately 1,300 ohms resistance per voit. Triplett Decibel Meter Kits are supplied for either constant or non-constant impedance. 500-ohm input line. Using a Decibel Meter Kit facilitates immediate adjustments and the elimination of distortion.

Model 150 Decibel Meter Kit—(Non-constant Impedance)— includes: Triplett Model 321 Decibel Meter, Selector Switch, 9 Wire-wound Multipliers on Molded Mounting Board, Hook-up Wire, Diagrams and Instructions.

Model 150 Decibel Meter Kit, complete. Price......\$20.00 Model 200 Decibel Meter Kit—Constant Impedance (includes—same parts as Model 150 Kit, except it has Model 321 Constant Impedance Meter).

Model 200 Kit Meter has four studs allowing movement to be shunted without altering impedance over 50 ohms.

Model 200 Decibel Meter Kit, complete, Price......\$21.85

## TWIN INSTRUMENTS AND KIT



The Twin can be furnished in any combination of A. C. or D. C. instruments. The No. 1200 meter has the following scale readings: D. C., 10, 50, 250, 500, 1,000 volts at 2,000 ohms per volt; 1, 10, 50, 250 of mils; 1,500 ohms, 1.5 and 3 megohms. A. C., 10, 50, 250, 500, 1,000 volts. Simultaneous readings on both instruments when connected in same loads in 3-wire circuits, detect line fluctuations when load readings are taken, measure antenna and modulation current and similar applications.

No. 120—Twin Instrument\$10	.33
No. 1200—Kit, complete 16	
No. 121—Special Selector Switch 1	.67
No. 122-Shunt Board for 1, 10, 50, 250 M. A. readings;	
101 1,000-0mm Tanger	.33
No. 123-Resistor Board for 10, 50, 250, 500, 1,000 D. C.	
volts and 50, 250, 500, 1,000 A. C. volts and current limiting resistors for 1.5 and 3 megohms	.88

Ask us for the new complete Triplett Catalog

DEDUCT 2% FOR CASH WITH ORDER



We Carry a Very Complete Stock of All Types of Readrite Meters

## DC MILLIAMMETERS

No. No. No.	311—0 315—0 325—0 350—0	to to to	10 15 25 50	.60 .60	No. No. No.	3910 3920 3990 3940 3950 4020	to to to	200. 300. 400. -100.	.60 .60 1.20
No.	390-0	to	100.	.60	No.	4020	-15	-150.	1.20



No. 65A-Flange to use with Readrite Meters .....\$0.09

All Readrite DC Meters can be had with zero adjustment for \$0.15 extra.

## DC VOLTMETERS

A +a 100 00	0 to 300

# AC VOLTMETERS

					- 4	u												
0	to	4					. \$	1.65	10	to	300	٠.					. 5	\$3.80
Λ	to	6	 					1.65	0	to	600	٠.					٠	3.90
^	4 -	4 0						1 85	1.0	t n	750							4.00
0	to	15.		• •		 ۰	•	1.65	0.	15	1 TO	1110		, ,	Tv	ne	٠	2.70 1.95
0	to	190	 				•	2.70	ſ v.	-T 0	U F	ue	5-11	-	- 3	pc	•	2100

## DC POCKET METERS

0 to 40 amps.	\$0.60	0 to 50 volts\$0.60
Comb. 0 to 50	volts and 0 to	40 amps90

# Readulte TUNING METERS







TM-108

TM-102

TM-103

Furnished in 0-5, 0-7, 0-10 and 0-15 M.A. Escutcheons .....

## HOYT HOT-WIRE AMMETERS

For R. F. measurements. 3% in. diameter over-all, fits in 2%-inch hole. Bakelite case.

Has zero a												
No. HM15.	Price		 	٠	٠.	٠.						.\$3.55
No. HM3.	Price		 				٠	٠	٠.	٠		. 3.55
No. HM5.	Price	 ٠	 ٠.	٠	٠.		۰	۰		٠	٠	. 3.55



## CONTINENTAL METER MODERN-IZER RESISTOR KIT AND SCALE



# Meter Shunts, Fuses, Rectifiers

# LITTELFUSES



Rating		M.A.	Net
Amps.		Movements	Price
1/100 1/32 1/16	10 25 60	Up to 0-1 0-1 to 0-10	\$0.12 .12
1/8	100 200	0-10 to 0-25 0-25 to 0-75 0-75 to 0-150	.09
3/8	300	0-150 to 0-250	.09
1/2	400	0-250 to 0-350	
3/4	600	0-350 to 0-500	
1 1/2 2	1000	0-500 to 0-750	.09
	1500	0-750 to 0-1000	.06
2	2000	0-1000 to 0-1500	.06

# LITTELFUSE MOUNTINGS



No. 1010 - For Littelfuses. 1 in. x .250 in. Each . . . . . \$0.09

# **METER-BACK** MOUNTING

No. 1059 . . \$0.09 For Littelfuses



RADIO-GRYP CONNEC-TOR

No. 1039-Permits fuse to hang directly in the "line." Pair \$0.06

See 3AG and 1AG fuses on page 38

# PILOT LITE BRACKET



With jewelled indicator - red or green

310R—Red 18c 310G-Green 18c

Red or green jewelled indicator only . . . . . 9c

## CLIP-ON PILOT LITE SOCKET

For standard radio pilot 🧞 lites. Each......\$0.05



## METER RECTIFIERS



Converts a DC milliammeter into an AC voltmeter. Fully guaranteed. Life is indefinite when its rating of 20 M.A. is not exceeded. Full instructions and circuits are sent with each unit.

84



# DEPENDABLE SHUNTS-**MULTIPLIERS**

2% Accuracy Resistance Value All values up to 75000 . . . . . . . \$0.48 to 200000 ohms. Each.. .66 Values from 225000 ohms to 500000 ohms. Each . . .99 Values from 600000 ohms

to 1 meg. Each..... 1.85 Shunts for meters having resistance of 27-30 or 50 ohms (specify S27, S30 or S50). For 5, 10, 25, 50, 100, 250, 500, 1000 M.A. Each shunt......\$0.75

# PRECISION RESISTOR 500.000

## **ELECTRAD** PRECISION WIRE-WOUND RESISTORS

1% Accuracy Size 1x9/16 Inches. Rating—114 Watts. Type 6P

•	•	Type or	
Resistar	ce Max.	Maximum	
in	Potential	Current in	Drice
Ohms	in Volts	Milliamperes	FILE
1			
6	1.2 2.7	1,225	\$0.51
10		548	.51
25	3.8 6.1	387	.51
50	8.6	245	.51
100	12.0	173	.51
150	15	122	.51
200	17	100 86	.51
500	27		.51
1,000	38	55	-51
2,500	61	38	.54
4,500	82	24	.54
5,000	86	18 17	.60
7.500	106	14	.60
7,500 10,000	122	12	.60
12.500	137	11	.60
15,000	150	10	.66
12,500 15,000 20,000	173	8.6	.66
25.000	194	7.7	.81
30.000	212	7.1	.81 .81
35,000	229	6.5	.81
10,000	245	6.1	.81
0,000	274	5.5	.81
30,000	300	5	.96
5,000	336	4.4	.96
00,000	387	3.8	1.10
25,000	433	3.4	1.25
50,000	475	3.1	1.40
75,000	510	3.1 2.9	1.40
00,000	548	2.7	1.40
25,000	580	2.5	1.55
50,000	610	2.4	1.55
00,000	670	2.2	1.70
00,000	750	2.2	1.80
00,000	750	1.5	2.05
50,000	750	1.0	2.70
,000,000	750	.7	3.15

## FERRULE TERMINALS

Can be placed on ends of Electrad 6P resistors. Per pair.....\$0.15

MUELLER ALLIGATOR CLIP



## SEMI-PRECISION



## RANGE MULTIPLIER RESISTORS

Popular sizes of resistors for use as meter range multipliers, 1-watt, semi-precision. The \* marks resistors which allow for the 50-ohm internal resistance of the meter. When used with 0.5 mill. meters, divide volt range by 2.

Ohms	Volts	Ohms	Volts
1,450	• 1.5	50,000	50
2,950	• 3	60,000	60
3,500	3.5	75,000	75
4.450	• 4.5	85.000	85
4,950	* 5	90,000	
5.000	5	100,000	90
5,500	5.5	150,000	100
5,950	• 6.5		150
7,450	• 7.5	200,000	200
8,500		250,000	250
	8.5	300,000	300
8,950	* 9	450,000	450
9,950	•10	500,000	500
10,000	10	600,000	600
13,500	13.5	750,000	750
15,000	15	800,000	800
25,000	25	900,000	900
30,000	30	1,000,000	1.000
Type CF	R-Semi-Pr	ecision, 1-wa	tt size.
Each			\$0.18

## ACORN PENTODE V. T. VOLTMETER KIT



Contains all

Contains all materials required to build new Vacuum Tube Voltmeter Kit using new Type 954 Acorn pentode tube. Can be assembled in one hour. The ideal meter for servicemen, experimenters, etc. Small size and high input capacitances. Supplied complete down to last detail, except microammeter. Materials to assemble the flexible Acorn tube probe described above are also supplied. Complete instruction. Less tube and microammeter. Less tube and microammeter. No. I1036

## NEW! GRAFOLINE "A Radio Contact Lubricant"

Eliminates noise on con-trols and contacts. Protects from dirt and

dust.
"It Cleans As It
Lubricates" Net price......\$0.21



# G-C FINE OIL

"For the Shop, Office and Home"

and Home.

This is a high quality fine oil that is specially suitable for radio work in lubricating dials, condensers, controls, etc. It also makes an excelent household oil, and can be used for electric motors, sewing machines, door hinges and a thousand other uses.

4-02. can. Net price... \$0.18

## NON-SLIP COMPOUND FOR RADIO DIALS

This compound is specially made for aiding in repair of slipping friction, and cable or cord driven dials. It is easy to use, as it comes in powder form and should be applied freely to slipping parts parts.

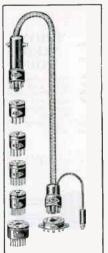
OIL



.05Net price......\$0.18 DEDUCT 2% FOR CASH WITH ORDER

# TEST ADAPTERS—NEUTRALIZING TOOLS

# NEW 9-WIRE OCTAL LOCKING TYPE ANALYZER PLUG



Complete Analyzer Plug, Cable, Cable Plug, Socket and Adapters

Twist locking analyzer plug with 5 ft. 9-wire cable and wired in dual grid stud. Cable fitted with 9prong finger grip type cable plug. An 8 octal socket is included for mounting on analyzer panel. Five associated adapters for testing both the new allmetal tubes and regular glass bulb tubes included. only .....

<b>\$1.05</b>						o. 1ly
		Adapters	ssociate A	A		
<b>80.60</b>	locking	associate	4-prong	-8 to	B492-	0.
\$0.00	1 - 0 - 1 - 0				dapter	ac
		associate				
	locking	associate	6-prong	-8 to	B494-	0.

No. B494-8 .60 adapter ..... No. B496-8 to 7-prong large associate .60 locking adapter ..... No. B495-8 to 7-prong small associate .60 locking adapter ......

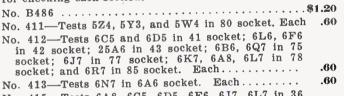
# INDIVIDUAL ADAPTERS FOR TESTING ALL METAL TUBES IN EXISTING TESTERS

# FOR TESTING 6H6 IN 36 SOCKET

No. B492-8

No. B493-8

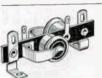
A specially designed resistance Octal top, 5-prong base. network supplies the diode plates with proper value of diode test voltage and current. A switch on the adapter provides for checking each section.



No. 415—Tests 6A8, 6C5, 6D5, 6F6, 6J7, 6L7 in 36 socket; and 6N7 in 37 socket. Each..... No. 422—Tests 6F5 in 75 socket. Each..... .60 No. 418-Tests 6C5 in 37 socket and 6X5 in 84 socket. Each.. .60 No. 1271—Tests 25Z6 in 25Z5 socket. Each..... .60

# SEXTET ADAPTER KIT

No. 414-Sextet Adapter Kit provides six adapters and grid clip adapter to test all present metal tubes in your regular tube tester. Each ......\$3.00



# MALLORY GRID BIAS CELLS



.21

Excellent for use in amplifiers, R.F circuits, A.V.C. circuits, etc. where a potential is required to eliminate grid current or where this potential is difficult to obtain.

The cell produces 1 volt (+ 10%) but must not be loaded with a resistor or electrolytic condenser or other current drawing load. Do not attempt to test the potential. Bias cell only. N

Holder for 4 cells .....

Bias cell only. Net	PU.10
HOLDERS FOR ABOVE	
Single cell holderNet	\$ .06
Holder for 2 cells	.12
Holder for 3 cells	.15
Holder for a commentation	04

DEDUCT 2% FOR CASH WITH ORDER

## NEUTRALIZING TOOLS



No. 118 4-in-1 Neutralizing Tool. Very durable .....\$0.45



Balancing and Neutralizing Majestics and other sets. Handy at-



No. 119-C-For Crosleys . . \$0.12

No. 996 -- 4-in-1 Neutralizing Tool with metal ends.....\$0.80

## "NINE LIVES" NEUTRALIZING WRENCH



new number. Entire length of "hot" 

## DE LUXE ADJUSTABLE **NEUTRALIZING TOOL**

No metal parts. Screw driver slides into one end of handle, Other end is hex. broached. Made of hard rolled fibre. No. B236—Adjustable 7 to 10-in....\$0.36 No. B237—Adjustable 11 to 17-in.....\$4.8

## **MUELLER "SNAPPER"** "TRIPLE THREAT" TEST CLIPS





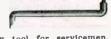
4-IN-1 NEUT. TOOL

of Phenolic in mottled two-color. Look like fountan pens.
No. I1027-Value plus......\$0.29

# ALADDIN RESONATOR

Aladdin Radio Industries

## OFF-SET SCREW DRIVERS



Another necessary tool for servicemen.

Made of hardened, high carbon steel,
cadmium plated.
No. Billi6—2% inches long......\$0.09
No. Billi7—4% inches long......\$12

85

# TEST BENCH ACCESSORIES

## INSULATED PLUG-IN PRONG



Solderless connection. Real contact. No. 131....\$0.07

### INSULATED PLUG-IN PRONG **JACK**

with shoulder washer and terminal lug. No. 136..........\$0.06

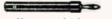


## LONG TEST-PROD HANDLE



Solderless, insulated. Needle point. No. 145-514 ins. long...... \$0.15

## PLUG-IN PRONG TEST PROD



4-inch handle; solderless connec-

## PLUG-IN TEST PROD



21/2-inch handle; solderless connection. 

#### INSULATED **PLUG** CONNECTOR

inches long; very handy for extending leads, etc. No. 144.....\$0.00



INSULATED TAPERED PLUG No. 133.......\$0.08

## INSULATED PLUG-TYPE ALLIGATOR CLIPS

## INSULATED SOLDERLESS PHONE-TIP PLUGS

Fit all standard tip-jacks, etc.



inior—1 1/2 ins. long. No. 142. Each......**80.07** Junior-Senior—21/4 ins. long. No. 141. Each..... Needle Point—11/2 ins. long. No. 132. Each.....



No. 138-Each

INSULATED PHONE-TIP JACK

Has strong grip. Head sure-7/16grip. Head inch wide. .....\$0.06

# BANANA PLUG AND TIP TYPE **JACK**



Mounts in ¼ in. hole. Insulated, Takes both banana piugs and phone tips. No. 148......\$0.09

All units listed above can be had in red, black, yellow, green or blue.

## PLUG-IN PRONGS

(Banana Plugs) 1 1/2 ins. long. No. 120. Each..\$0.04 Ten for ......35





### PLUG-IN PRONG **JACKS**

For banana style plug-in prongs.

No. for .....

## PHONE PIN TIP JACKS

Mount in 4-in, hole on panels up to in. thick.

Man Miles 137-Each Nο for ..... Ten



## SOLDERLESS PHONE TIPS **JUNIOR**

11/2 in. long. No. 9. Ea...\$0.03

## SOLDERLESS PHONE TIPS **SENIOR**

1% in. long. No. 10. Ea. 30.04

## EASY SOLDERING PHONE TIPS

Insert wire and drop solder in hole. Brass, nickel plated. 1 in. long. No. 20-10 for.....\$0.10



## INSULATED BINDING POST

Takes banana plug in top and phone tip in side as illustrated. Non-removable top. Available in black, red, green, blue and yellow. No. 143—Each...........\$0.09

# DOUBLE GRID CLIP

For either glass or metal tubes, Bakelite encased and fitted with flexible lead. No. 487. Each......\$0.18





# KENNEDY TOOL CHEST

Size 14x6x6 inch-Cantilever action — tray opens when lid is raised. Sturd-ily hulls ily built. No. C514....\$1.49

## UNION TOOL CHEST

Sturdily built-removable tray. Size 16x 7x7 inches. No. U6116 .....\$0.55

#### TEST KIT



Consists of test prods, plugs, jacks and interchangeand interchange-able testing parts. All solderless, Per-fect connections at all times. Made up of red and black parts for polarity parts for polarity identification.

No. AH100-Value-plus .... ....\$0,99

## TEST LEADS



## PHONO. NEEDLE POINT

With slim handles and flex-ible wire. Black and red kink-less wire. 54 inches long as illustrated on illustrated left.

-With alligator clips. ...\$0.36 No. I381—With spade terminals 30 No. I382—With phono, tips 30

## LONG POINT

Like No. I379
except they
have long
pointed prods
instead of
phono. needle
points. 50-inch
kinkless red
and black wire. and black wire



With phone, tips. No. 1369—With phono. 1198...... No. 1383—With spade lugs....... No. 1370—With alligator clips..... . \$0.30



# HEAVY DUTY LABOR-ATORY

With extended phono.
needle chuck.
Extra long
heavy handles. inch heavily insulated kinkless wires. You'li these.

# PENCIL TYPE TEST PRODS



## With Interchangeable Tip Ends

6-inch handles ¼ inch diameter. 5 foot duty heavy flexible red and black Comleads. plete as illustrated. No. A500

\$0.80

# BAKELITE TIE POINTS



Tinned lugs mounted securely on laminated bakelite strips. Ideal for mount-

ing parts, etc.
No. of No. of
No. Brackets Lugs Inches Length 11BT 21TBT

\$0.02 .03 .04 .05

86

# SOLDERING IRONS—ACCESSORIES—TORCHES

## ESICO SOLDERING IRONS

The Best Low-priced Soldering Irons Ever Made



Junior—85 watts, tip 7/16-inch diameter, weight 9 oz., length 12½ in. Quick heating and sturdy.

)		18
	0	· · · · · · · · · · · · · · · · · · ·

Midget—65 watts, tip 7/16-inch, weight 7 oz., length 11% in. A nice iron for intermittent work.

No.	E16M\$1.05	
No.	E16MT-Extra tip	
No.	E16ME—Element	

## NATIONAL SUPER-INDUSTRIAL "CORROSIVE-PROOF" SOLDERING IRON "THE FINEST IRON MONEY

O ARMORED TIP
O G. E. UNI-CORD
O MONEL METAL TII
O STAINLESS STEEL

EXCLUSIVE "FREEZE-PROOF" TIP GUARANTEED TO SATISFY

-UNDERWRITERS APPROVED-



Super-Industrial irons furnish adequate heat for the most exacting of continuous production operations within their range. Becathse of the corrosion resisting qualities of the Stainless Steel and Monel metal, which is used in their construction, the same high efficiency that characterizes their initial use, is maintained throughout the life of these tools.

						- 1	Ne	t	Price
No	4- 65	watt.	5/8	in.	tip				.\$3.35
	6100		7/6	in.	tip				. 4.00
	7-150			in.	tip			i	. 4.65
No.	8-200	watt	114	in.	tip				. 5.35

#### NATIONAL SUPER-INDUSTRIAL "CORROSIVE-PROOF" SOLDERING IRON TIPS



"THE FINEST TIP MONEY CAN BUY"
Tips fit most standard Brands of Soldering Irons. Absolutely Eliminates a 1 1 "Froze" or inates a l "Froze" Stuck Tips or

No.	Diame		Leng		Net Price
4	5/16	in.	4 1/2	in.	\$0.80
6	3/8	in.	5	in.	.95
7	1/4	in.	5	in.	1.10
8	5/8	in.	5	in.	1.20

## NATIONAL "REGULAR" SOLDERING IRON



Genuine chromel element. tion, ventilated handle. Mica insula

110-volt; 55 watt. 2 extra tips....\$0.75

VASCO

The World's Highest Quality Soldering Irons



We have sold hundreds of the Vasco Irons and recommend them unreservedly as being the best money can buy. Each iron has the Vasco Radiator Bushing. You'll like the fine balance and appearance and you'll find they really do the work and stand up.

No. V 75— 70 watts, 5/16 in. tip...\$3.00 No. V100—120 watts, % in. tip.... 4.50 No. V150—150 watts, % or % in. tip 5.00

## ELEMENTS No. V 75EA-For V 75......\$2.00

No.	V100EA—For	V150				•			3.30
		TIPS							
No.	V 75T-For	V 75.					•		.\$0.50
No.	V100T-For	V100.	 ٠		 ٠	٠	٠	٠	00

# No. V100T—For V150. % in...... No. V150T—For V150, % in.....

# "American Beauty"

The Best Soldering Iron for All-Around Usage That Has Ever Been Produced



No. 3138—100 watts, diameter of tip % in.: over-all length 12% in. Complete with cord and a new heat insulating \$5.80



ELEMENTS No. AB9273—For No. 3138.......\$2.95 No. AB9275—For No. 3158....... 3.70

TIPS 

## IACKSON SOLDER IRON



No. 145J—100 watts, tip % in., length 12½ in., weight 16 oz. Adjustable tip. Has heat deflector, keeps handle cool. A real heavy duty iron......\$2.25 No. 145JT—Extra tip...........40

## GM WARM IRON CONTROL

Saves money, time, trouble and tips. Will pay for itself in short while. You need one on your bench. A bargain.

No. GM-11 ..... \$3.70



# IRON OVEN



device that should be on every service bench. Keeps your iron Keeps your iron warm or brings it to full heat quickly. No. I1966A...\$0.75

## ICA SNAP-ON IRON HOLDER



Fits all sizes and makes of soldering irons. Can be left on constantly. Raises iron about 2 inches off from the work bench. No. 11956.....\$0.21

# **BUD RENEWAL TIPS**



#### SIGNAL OB-2 PORTABLE ELECTRIC DRILL



## ADJUSTABLE PANEL CUTTERS



Designed to cut large holes accurately and quickly. May be used in slow speed drill press or hand brace. May be used for cutting wood, bakelite, sheet metal, etc.

No. GH5—Jumbo size, heavy duty. Cuts holes 1 to 5½ inches. Square shank...\$1.85 holes 1 to 4 inches, round shank...\$1.10

No. GHJ—Junior, cuts holes % to 2½ inches...\$3.75

## STEEL HOLE SAWS

No. MF19 — For cutting holes 1-3/16 in...\$1.55
No. MF22 — For cutting holes 1½ in...\$1.55
No. MF34 — For cutting holes 2½ in...\$2.30
No. MF46 — For cutting holes 2½ in...\$2.30
Above prices include holding cup—it is necessary to use No. MF2054 mandrel. Each \$1.10

time to the

Each

# LENK NO. 17

Gas torch. Has priming cup for quick action. Automatic ......\$0.60

# **LENK NO. 225**

# **LENK NO. 125**

Heavy duty gas torch. Self-priming—large ca-pacity .......\$0.81

FOR CASH WITH ORDER **DEDUCT 2%** 

LENK NO. 105

Hi-heat alcohol torch. Flame control and cutoff valve.....\$1.20

**LENK NO. 104** 

Gas torch. Same features as No. 105..\$1.05

87

# SOCKET WRENCHES

**BUD INSULATED HANDLE** SOCKET WRENCHES



## ICA TURN-TITE SOCKET WRENCHES



# FLEXIBLE SHAFT SOCKET WRENCH



For RCA. Victor, R32, R35 etc. 1915......\$1.20 STEEL-WHITE, NICKEL FINISH SOCKET SET



# AVIATION TYPE SOCKET SET



Has ten sockets
with openings
from % to % in,
reversible ratchet
wrench 8 in,
long; 8 in, hinged
T handle with
cross bar 6 in,
long and an 8-in,
long and an 8-in,
long and an bar. extension bar. This set is of the

chrome vanadium steel, chrome plated. Weight, 2 lbs.



BOX WRENCHES Set of Three Handy Shorts it %, 7/16, %, 116, % and 11/16 Fit 9/16,

## No. H300X....\$1.23 REPLACEMENT SET SCREWS For Knobs, Dials, etc.

No. 318-7/16 in. - 8/32 x No. 319-1/2 in. - 6/32 x No. 320— 8/32 x 3/16 in. No. 3. 321- 10/32 x

10 For 21 Cents



## CENTER PUNCH

Knurled bodies, durable point. MF142—Each... \$0.15 ICA LOCK SOCKET WRENCH SET AND SCREW DRIVER



Cadmium plated, in sturdy box. Contains:

screw driver. handle. ¼-in. hex. han-dle and 5-in. 1 and 5-in. extension,

shaped. hex. straight, .3-in extension.

6 sockets, 3/16 in. to 7/16 in. 1 in ternal knurled socket. Fits 12 pt. double hex. nuts 3/16 in. to % in.

\$0.90



STEVENS WALDEN SPINTITE WRENCH SET Complete, as illustrated ... \$3.45



# NEW! ICA. SELF-ALIGNING PUNCHES

No. No. No.	758For	7/4 1-3/16 1 3/4	in. in. in.	hole       \$2.10         hole       2.70         hole       2.70         hole       2.70         hole       2.70
				and the second second

## ALL PURPOSE ANVIL



# HINSDALE TOOLS OF QUALITY

The steel used in the tools listed below is the finest chrome vanadium steel. They are fully guaranteed.



MIDGET SOCKET
SET
For all small nuts
and bolts, chrome
vanadium steel,

## COMPLETE SET



For servicing ra-dios, oil burners, r e f r i g e rators, electrical devices, automobiles, etc.
Finest chrome
vanadium steel,
chrome plated.

The set contains seventeen tools: Nine 9/32 square drive sockets as follows: Twelve point for hex. nuts with openings 7/32, 4, 9/32, 5/16, 11/32, 4, 7/16. Eight point for square nuts with openings 4½ and 5/16, 4½ in. slide T handle. 4½ in. adjustable ignition pilers to fit all nuts up to ½ in. Midget screw driver with alloy blade and transparent insulated handle. Four end wrenches as follows: 13/64x7/32, 15/64x4, 9/32x 11/32, 5/16x3 Size of metal carrying case 4x1/4x9. Weight, 1 lb. 10 oz.

## **ELECTRICAL-IGNITION** SERVICE KIT

SERVILE ALL
Contains four chrome
plated end wrenches
covering eight sizes
from 7/32 to % in. Fit
all standard ignition,
electrical and radio
nuts and boits; 3 locking position adjustable
pliers; shockproof, unbreakable handle screw
driver. driver. No. H6M.....\$2.37





## KEYHOLE HACK SAW

No. MF237 \$0.25 Extra Blades No. MF7—Each \$0.12

ADJUST-ABLE HACK SAW



Blade can be adjusted four way Capacity 8 to 12 in.; depth, With one 10-in. blade acity 8 to 12 in. h one 10-in, blade, MF99 234 in

HACK SAW BLADES Made of Hard Tungsten MF23-10 in. long. Each.....\$0.10 Dozen .... long. Each ....
Dozen .... No. MF



PRECI-SION FLEXIBLE STEEL RULE No. MF106 \$0.50

## INDICATING CALIPERS

INDICATING CALI
Capacity up to 2 in. Calibrated in 16ths of an inch.
One of the handlest measuring tools you can own.
No. GP331......\$0.50



# COMBINATION SQUARE

#### CARRON MIDGET IRON

7 ins. long-Smallest on the market-Heats instantly.

No. 105—110 volt. No. 106— 6 volt. \$0.75



# PLIERS SCREWDRIVERS

# KRAEUTER SUPREME

New Pliers for Radio Men Full Nickel Finish



#### LONG NOSE PLIERS With and Without Cutters

Vo.	824 1/2 - With cutters,	4 36	in	80.98
٧o.	814 1/2 -No cutters.	4 1/6	In	
10.	825 -With cutters,	5	in	1.15
۷o.	800-5-No cutters,	5	in	
vo.	826 -With cutters,		in	
VO.	800-6-No cutters,	6	in	.94



#### EXTRA LONG REACH PLIERS Ilat Nose

No.	1781-Wit	h cutters, 7	in	\$1.15
No.	1771-No	cutters, 7	in	1.05
		Needle Nose		
No.	837—No	cutters, 7	in	1.23



#### SIDE CUTTING PLIERS

No.	5601-41/4-41/4	in		٠.		٠	٠		٠	٠	٠	٠	٠	\$1.26
	5601-55													1.40
No.	5601-5 1/2 5 1/2	in	٠,											1.50
No.	5601-6 —6	in			٠			٠						1.58



# 



### OUR SALES LEADER

Six- Good	inch d qua	side tlity.	A	re	ng al	va	lor	ıg	n	08	se	plier.
No.	1332	Boker	٠		٠.							\$0.35



# FORGED STEEL COMBINATION

		PLIERS
No.	KS10-6	in\$0.25
		Value-Plus.

One 11/4 in. blade: one 21/4 in. blade, Good quality. Set of two.

No. GP300......\$0.10



# KRAEUTER INDUSTRIAL **OUALITY PLIERS**

Same high quality as the famous Su-preme Line except finish is the new last non-smudging black impregnated into



# ELECTRICIANS' SIDE CUTTING PLIERS

No. K1381-8-8	in\$0.79
---------------	----------



## HY-POWER HEAVY DUTY PLIERS

No. K8016-	-6 in	 
No. K8017-	-7 in	 1.20



## DIAGONAL CUTTING PLIERS

No. K6015-					
No. K6016-	-6 in	٠.,	 ٠	٠	 1.15



# EXTRA HEAVY DIAGONAL CUTTING PLIERS

No. K611614-614	in\$1.20
-----------------	----------



# NEEDLE NOSE SIDE CUTTING PLIERS

No.	K6616-6 in.			\$	0.85
No.	K6716—Same	but	no side	cutters	.75



EXTRA LONG NOSE PLIERS 

# EXTRA VALUE KRAEUTER NO. 435 KIT

A handy leatherette case including one each of Kraeuter tools No. 6014, 4 in., No. 6616, 6 in., No. 7817, 7 in., No. 6016, 6 in. and 1381, 6 in. "Tools well preserved in appearance lend pride to your work."

No. 435-Net price.....\$4.95

**Heavy Duty** 

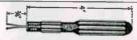


Hammered forgo	Hardw	ood 1	ha:	nd	He		
No. MS7777-4-4	in, b	lade.				 	0.15
No. MS7777-6-6	in, b	lade.				 	.18
No. MS7777-8-8	in, b	lade.					.20



### BUD "SHOCKPROOF" SCREW DRIVER Double grip bakelite handle.

	Blade	Length	
	Width	Over-All	Price
No.	1101B- 1/2 in.	5-5/16 in	
No.	1103B-5/32 in.	7 % in	18
No.	1105B- 1/4 in.	9-5/16 in	15
No.	1107B-3/16 in.	9-5/16 in	21
No.	1108B—¼ in.	10 % in	24



# BUD EASY STARTING SCREW HOLDERS

#### Really Holds Screws Tight—I Handle of Bakelite Double Grip

No.	852-4x4% 853-%x7		over-all	
			over-all	
	854-%x9% 856-%x8%		over-all	
140.	000-79 X 0 %	inches	over-all	.15





MSULATED
All with transparent handles of insulating amber. Beautiful appearance, tough and durable,

	Tip	Blade	Net Price
No.	R2 - 5/32 in.	2 in.	\$0.24
No.	R3 -5/32 in.	3 in.	.35
No.	TR4-5/32 in.	4 in.	.46
	TR10-5/32 in.	10 in.	.49
NO.	TS7—7/32 in.	7 in.	.51

# INSULATED HANDLE-HARDENED STEEL.

Narrow blade, just	right for screw slots
of knobs and dials	. Handle of amberoid
with pocket clip.	
No. AH802-3 in.	blade
No. AH303-4 in.	blade
No. AH304-5 in.	blade





STEEL AWL

**DEDUCT 2% FOR CASH WITH ORDER** 

89

# Drills — vises — punches — dies — taps



HAND DRILL

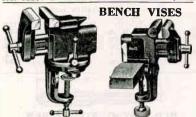
Capacity 0 to ¼ in. ame. Three-Single speed. Solid steel frame, jawed chuck. Length 10% in. No. MS2500 .\$0.70

BREAST DRILL Two Speed.

Capacity 0 to



Machine cut gears—quick, positive gear shift, Three-jawed steel chuck.
No. MS7740 ......\$2.20



#### FILES



# SOCKET AND CONDENSER PUNCHES



"T" HAN-

DLE TAP WRENCH 

90



### "GREENFIELD" STRAIGHT SHANK TWIST DRILLS

#### Carbon Steel No. 105 Diam. Inches If 1/32 ... 1/166 ... 1/166 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1/164 ... 1 Price Each .\$0.08 Diam. Price Diam. Inches 11/64 3/16 7/32 14 5/16 7/16 es Each 4 ...\$0.10 .08 .08 .08 .17 .23 .30 .45

## CARBON DRILL SET

Chrome Plated Stand

A very handy and popular drill set for radio men. Don't lose your drills—have them in this handy stand, ready for instant use. Consists of ten of the most popular drills most popular drills (1/16 in. to ¼ in.).
Best quality carbon steel.

BURRING

REAMERS

Finest Steel

No. GD21 ... Same set in twist drills. in HIGH-SPEED super service No. GD621.....\$2.25

## REPAIRMAN'S TAPER REAMER

With "T" Handle

For enlarging holes in all kinds of material. ll. TH-5—½ in. at large end, ½ in. oint. Length over-all, 5½ in....\$0.70



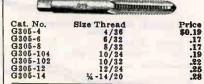
Designed especially for removing burrs,

Designed especially for removing burrs, for countersinking and for enlarging.

Bit Brace Shank

Cat. Capacity, Diam at Large Inches Point End 98.75 (3.16 in. 1 in. \$0.75 (3.16

# "O. K. JR." NO. G305 MACHINE SCREW TAPS



## "O. K. JR." ROUND DIES



The dies, which are adjustable, are held in the stock by three tapered screws which give the proper adjustment.

Sizes 4/36, 6/32, 8/32, 10/32, 10/32, 10/24, ½/20.

Each ......\$0.48 .....\$0.48

## "O. K. JR." ADJUST-ABLE DIE STOCKS

For "O. K. Jr." Round Dies. Insures the cutting of straight threads. Guide can be instantly adjusted to fit any size rod within range of the screw plate.

No. G13—For 13/16 in. O. D. round dies listed above......\$0.65

### "O. K. JR." ROUND DIE SCREW PLATES



# Hardware



HARDWARE ASSORTMENT

1.000 Pieces

1,000 assorted screws, bolts, nuts, lugs, washers, grommets, eyelets, etc., in heavy cardboard box with compartments for each assortment. All popular type hardware that you use every day. A VALUE-PLUS OFFER.

# FIBRE WASHER AND RUBBER GROMMET ASSORTMENT



100 pieces Fit No. 4, 6, 8, 10-4, %, 1/2 in. holes. \$0.29

Self-Tapping Screw Assortment 40 Screws Very handy for

service men. No. 12....\$0.29



## Angle and Bracket Assortment



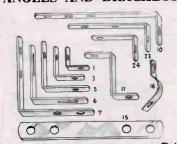
No. 10-28 pieces Most popular sizes a n d types. 80.29

# TINNED COPPER LUGS



No. 1— %-inch long—No. 8 hole.
No. 2- %-inch long-No. 8 hole.
No. 3- %-inch long-No. 8 hole.
No. 4— %-inch long—No. 8 hole.
No. 5- %-inch long-No. 8 hole.
No. 7-11/16-inch long-No. 6 hole.
No. 9-Double end-%-inch-No. 8 hole.
No. 22-Angle double %-inNo. 8 hole.
No. 9X-Center hole-4 ends-No. 8 hole.
No. 18-Mounting bolt-1-in-6-32 screw.
All 20 for\$0.05
All 20 for
Except
Nos. 9 and 9X-20 for\$0.10

# ANGLES AND BRACKETS



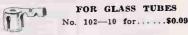
		Price
No. Name	Size	10 for
1-Coil Angle	. 1/2 x 1/2	80.09
3-Coil Angle	. 5% x 5%	.15
4-Panel Angle		.17
5-Panel Angle	.1 x1	.20
6-Adi. Angle	.1% x1%	.25
7—Corner Angle	.1 ½ x1 ½	.30
10-Large L Bracket.	. 12 X Z 1/4	.30
11—Coil Z Bracket	3/4 high	.15
15—Flat Strip3	in, long	.25
16-Grid Leak Br'ket	. % X %	.15
23-Mid. L Bracket	. ½ X1½	.25
24-Small L Bracket.	· ½ X %	.15
All above %	in. wide	3

## TRANSFORMER BRACKETS - Power Packs and Transformers

ror	I ower I uch	3 411	a Irans, or	
No.	18-34 x3x3/8	in.	Each	<b>\$0.0</b> 6
No.	25-34 x4x %	in.	Each	.08
	26-34 x5x %			

# SCREEN GRID CAPS

For METAL and GLASS TUBES



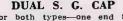
# S. G. CAP ADAPTER

Lower portion, fit new metal tube caps while your old style S. G. cap slips over the top portion. S. G. No. 77—Each .....\$0.08



# FOR METAL TUBES

S. G. cap—new style for metal tubes, with lug. No. GS-99T-10 for . . \$0.09



For both types—one end fits metal tubes—other fits glass tubes. Molded bakelite body. No. 9091—Each .......\$0.12



# No. 9091L—With 15 in high quality tin-sel copper insulated lead. Each....\$0.18

## RUBBER GROMMETS AND FIBRE WASHERS



FLAT FIBRE WASHERS Hole Size
No. 6-No. 8
No. 8-No. 10
No. 10-1/2 in.
No. 1/4-5/16 O. D. No. 88—5/16 No. 89—3/8 No. 90—7/16 No. 91—1/2

# SHOULDER FIBRE WASHERS

			e Size	- 1	
No.	92 - 5/16	No.	6	- (	Price
	93-3/8	No.	8	· >	10 fo
No	94-7/16	No.	8-No.	10	\$0.10
No.	95-1/2	No.	1/4-5/	16	
			373 0 341	A TOTAL	10

# RUBBER GROMMETS

I. D. Hole Mou	5/16	Price
No. 96—3/16	1/2	10 for
No. 97— 1/4	1/2	\$0.10
No. 98— 3/8 No. 99—7/16	9/16	10 for \$0.15

# RUBBER GROMMET ASSORT-**MENTS**

No. No.



Each.....

Each..

.04

for $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{1}{8}$ , $\frac{7}{16}$ and $\frac{1}{4}$ in. holes.  No. RGA—12 grommets	01.0

#### INSULATED BUSHINGS %-INCH DIAMETER INSULATED in. high. 74-75-Each . . . . . . \$0.03 No. Each . . . . . No.

## BRASS SHAFT COUPLINGS, REDUCERS AND EXTENDERS



N°2575	#°250	Nº 375	Nº 75 50	N°50 50	N ° 50-75	Nº 750
			Hole			
	Lo		I. D.	0.	D.	Price
No.			In.		n.	Each
25-75					%	\$0.05
	Abo	ve is	a dia	il bus	shing	
C250		4	% - ¼ % - ¼ ¼ - ¼		1/2	.09
C375	3	4	3/8	9,	/16	.09
C75-5	50	×4.	3/8 - 1/4	9,	/16	.09
R50-	50 1	/s	1/4		1/2	.09
R50-	75 1	<b>1</b> 8	3/8	9,	/16	.09
R750	1 1	18	1/4		1/2	.09
E254	—ı %	ın	- 1 II	. 1. 1	J., 72	m, U.
D.,	1/4 i	n. sh	aft, 13	in.	long	\$0.12
E255	-13	in	- 3% in	1. I.	D., 9,	/16 in.
Ο.	D.,	1/4	in.	shaf	t, 1	¼ in.
lor	g .					\$0.12
E256	-13	in	-1/4 ir	. I. I	0., 1/2	in. O.
D.,	3/4	n. sh	aft, 1	in.	long	\$0.12
C-C	uplir	g; R	-Redu	cer;	E-Ex	tender.

# DUAL GRID STUD For Analyzer Plugs Modernizes old analyzer plugs to accommodate both glass and metal tube caps. Solders to grid wire of any analyzer cable. No. SMGD—Each.....\$0.06

# OCTAL GRID LUG

Modernizes old analyzer plugs Modernizes old analyzer plugs having two grid studs. Replaces one of two regular studs for accommodating new small grid clips used on metal tubes.



## MACHINE SCREWS Steel—Nickel Plated We stock round heads only.



# BRASS, NICKEL PLATED HEXAGON NUTS

10 for 4-36 x 1/4\$0.03 6-32 x 1/4\$03 8-32 x 1/4\$03	6-32x5/16 8-32x5/16 10x32x%	05
----------------------------------------------------------------	-----------------------------------	----

# DIDEADED DDASS DOD

THREAD	ED BRASS ROD
8/32—12-inch	lengths

# MACHINE SCREW KITS

15—½, 10—%. 10—¾.	10-1. Round
head.	
Asst. No. 1-Round head	6-32 screws.
Asst. No. 4-Round head	8-32 screws.
Asst. No. 7-Round head	6-32 screws.
Nuts and washers-100	in box.
The -b connet mont	

## WOOD SCREW KIT

Asst. No. 6-Rous	nd,	fiat	and	oval	head,
agentted sizes					
Each assortment					. \$0.30

# **ROUND AND** HEX. HEAD SELF-TAPPING **SCREWS**

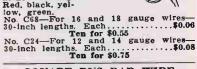


# SHAKE-PROOF WASHERS 6-32. 20 for \$0.09 8-32. 20 for .09 10-32 20 for .09



Very good quality.
inch long......12 for \$0.11
inch long.....10 for .11 No. 41-% -inch No. 42-1-inch

SPACHETTI Flexible var-nished tubing. Red. black, yel-



SQUARE BUS BAR WIRE

# **NUALS-BOOKS-MAGAZINES**

If you are interested in securing full particulars on any line, we can send you the factory pamphlets, free.

LOG BOOKS 35c ea 9 for

\$1.00



## RADIOGRAM BLANKS



Pad of 100 Sheets 25c

## RCA-VICTOR

Service Notes \$1.00 anv

Volume



No.	1.																								1923-28.
No.	2.	Ĺ																							1929-30.
No.	3.		٠						٠	*		*											٠		1931-32.
No.	4.	*	*				٠		٠	*	٠	٠	٠	٠	٠	٠	*	*	٠		٠	*	٠	*	1933.
No.	5.			*	٠	٠	٠	٠	٠		٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	1934.

## BOOKS BY GHIRARDI MODERN RADIO SERVICING

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By
ALFRED A. GHIRARDI
A SENSATION! The
greatest text ever
published. 1300
pages. Construction
and operation of latest radio test equipment—servicing of
all forms of receivers—locating and
eliminating interference—construction eliminating interference — construction and use of new Cathode-Ray Oscillographs, (the first text book to have this)—explanation of AVC and QAVC circuits — advertising and merchandising tips. Written in clear, simple style—illustrated with diagrams, photographs, charts, etc.



illustrated with 706

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1936 HAND-BOOK \$1.00

## **OUT NOW!**

The NEW 1936
League Handbook
—(13th edition)—
enlarged in every
respect—over twice
as large as previous issues—
everything that's
new in Amateur



LICENSE aller in the Park Street

## A. R. R. L. NEW LICENSE MANUAL \$0.25

Latest edition. Gives full dope on the new regulations. Helps you get your Class B or Class A Ham

# A. R. R. L. HINTS AND KINKS \$0.50

A popular booklet—revised. Shows you many new short-cuts that help you in build-ing that new XMTR or RCVR. A VY.FB. book that you'll like.



# A. R. R. L. "HOW TO BECOME A RADIO AMATEUR" \$0.25

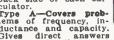
A really instructive booklet that will enable anyone to learn the basic principles of radio.

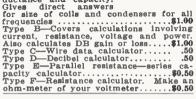


### A. R. R. L LIGHTNING CALCULATORS

LIGHTNING CALCIngenious devices for rapid, accurate and simple solution of various mathematical problems which arise in all kinds of radio work. Read direct answers without formulas and computations. Full instructions printed on back side of each calculator.

Type A—Covers problems of frequency, inductance and capacity, Glves direct answers for size of coils and co







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Buy It from The Friendly Ham Suppiy House"

W 9 F O Call Books ...\$1.25 Winter Edition out now. Spring Edition ready about Mar. 15.

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and Answers—\$2.50
Nilson & Hornung
Prepare to pass commercial
radio exams this direct, easy
way. 388 pages with over
600 typical questions and
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asked in government exams.
Full illustrated answers make
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tests, both commercial and
amateur.



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A new book of great value to all commercial radio operators, amateurs and beginners. 754 pages—435 illustrations. Balanced treatment of radio principles and practice. Equipment, operation, etc., in broadcasting marine, police, aero-nautical and amateur radio, transmitting and receiving. Up-to-date developments in ultra-short, medium and long-wave radio. Ideal for reference use.

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Voitage Tables for Broadcast Receivers
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Over 300 pages with more
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1927 to spring, 1935. Cross
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## NEW "RADIO" HANDBOOK Greatest of All Radio Books



Tells how to build any kind of a receiver, ANY kind of a c.w. or phone transmitter. Data on new antenna systems. New gridblas controlled carrier phones. Complete 10-meter chapter. All the new 2½ and 5-meter information.

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ANTENNA HANDBOOK

By "RADIO"
All the new dope on impedance matching, directive arrays, etc. Net price ........................ 50c

Thordarson Transmitter

Guide New for 1937 Ea. 





## Hammarlund Short-Wave Manual

16 pages - instructive information for beginners, illustrated. \$0.10

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1600 Pages! More Circuits! More Data! This is the biggest book Rider has published!

# THE BOOK YOU HAVE BEEN WAIT-ING FOR

320 pages. Theory on Cathode Ray tubes and Cathode Ray circuits. The 2nd half of the volume is devoted to specific and practical applications of commercial oscilliscopes to servicing and adjustment problems. Price \$2.50—and worth it!



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Everyone of these books covers their subjects in fullest detail. SERVICING SUPERHETS-SPECIALIZED AUTO RADIO MANU-

PLAN TO ATTEND NATIONAL RADIO TECHNICIANS CONVENTION

Hotel Lowry, St. Paul, Minn. In April, 1937!

# Here They Are!

ONLY

60c

Each Best Book Value Out!

ALTERNATING CURRENTS

RADIO RECEIVERS

D.C.VOLTAGE DISTRIBUTION



PROFUSELY ILLUSTRATED NEW FACTS

"AN HOUR A DAY" to keep abreast of the times

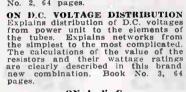
## "MODERN TIMES DEMAND MODERN METHODS"



RADIO RECEIVERS

A comprehensive book covering parallel and series resonant circuits . . . kinds of coupling . . . inductance reactance, impedance, etc. A combination of theory and practice that explains alternating currents in a brand new way. Book No. 1, 80 pages.

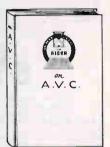
ON RESONANCE AND ALIGNMENT ON RESONANCE AND ALIGNMENT A clear explanation of resonance . . . types of circuits—single, double, and triple tuned systems . . latest highdelity i-f. amplifiers. This book tells you everything you should know about all this in Rider's brand new combination of theory and practice. Book No. 2, 64 pages.



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Treats on modern automatic volume control. Noise suppression systems . . . time delay circuits . . audio frequency volume expander systems and other such networks. A complete description of how these circuits operate written in a brand new manner. combining theory and practice. Book No. 4, 64 pages.





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#### Q. S. T. SUPER-REGENERATOR 5 METER KIT



The following list of parts represents the most important fundamental parts necessary to build the Novel Q.S.T. Pentagrid Converter 5 Meter Super Regenerative Ultra High Frequency Receiver as described in the May, 1936, Issue of Q.S.T. All parts are included except resistors, mica and tubular condensers, a list of which is enclosed with each kit and which are available in every jobber's stock of parts. In this kit we have included all the important tiems that are fundamentally necessary to build this kit, and which are manufactured by ICA.



# Newest

ALL-METAL TUBES

ONLY

Complete (Less xtal filter) **MODEL NC100** With 10-in. Speaker and Cabinet

# NC 10

Electric Eye Tuning



# Latest

NO PLUG-IN COILS

ONLY

Complete with xtal filter MODEL NC100X With 10-in. Speaker and Cabinet

## FEATURES AND TUBES USED

- ♦ Frequency range 30 megacycles to 540 K.C.
- R.F. preselector (all + Rectifier—80. + First detector—617. + First detector—627. + Second 1.F.—6K7. + Second detector—6C5. + Beat freq. osc.—617. + Tuning indicator—6E. + 12 tubes in cell. high frequence tor—6K7.
  Second I.F.—6K7.
  V.C.—6J7.
  output
- Shipping weight, 65 lbs.

-6 E5.

## MODELS AND PRICES

126.50

NC100—Complete with tubes and 10-in. speaker in DCS cabinet.

NC100S—Same as NC100 but with 12-in. Rolla speaker, chassis only.

NC100X—Same as NC100 but with crystal filter.

NC100XS—Same as NC100 but with crystal filter.

NC100XS—Same as NC100S but with crystal filter DCS—Wood lined metal cabinet for 10-in. speaker 149.00 RRA-(Pair) Steel flanges for rack mounting ... 1.50

Available on easy payment plan. See second page for

# STILL MOST POPULAR!

There are more SW3's in Ham shacks than any other type of receiver. Has one R.F. stage, regenerative detector, impedance coupled audio.

GENERAL COVERAGE COILS Catalog 
 Catalog
 Range
 Price

 Symbol
 7.5 meters
 \$3.00

 No. 60-9. to 15. meters
 3.00

 No. 62-23. to 41. meters
 3.00

 No. 63-40. to 70. meters
 3.00

 No. 64-65. to 115. meters
 3.00

 No. 65-115. to 200. meters
 3.00

 No. 66-200. to 360. meters
 3.00

 No. 67-350. to 550. meters
 3.30

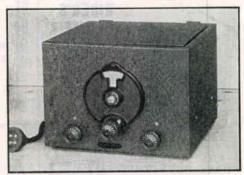
 No. 68-600 to 850 meters
 3.30
 68-500. to 850. meters..

Uses 258,156 R.F. Det. Audio.



BAND SPREAD COILS

	Lei D			
No.	60A10	meter.		 . \$3.00
	61A-20			
	63A-40			
No.	64A80	meter.		 . 3.00
No.	65A-160	meter	٠.	 . 3,00



SW-3

# AMATEUR'S FAVORITE

The full vision dial, plug in coils, send and receive switch, beat oscillator switch, calibration chart, etc., all on the front panel, result in an ease and convenience of operation that is possessed by no other receiver.

# **FB7 COILS**

Air Padded Osc.

Catalog No.

AB 20—20 Meter Band Spread.

AB 40—40 Meter Band Spread.

AB 30—80 Meter Band Spread.

AB 160—160 Meter Band Spread.

AB 160—160 Meter Band Spread.

FB AA—34,000 to 18,000 Kc.

FB B—11,700 to 7,000 Kc.

FB C—7,300 to 4,000 Kc.

FB C—7,300 to 2,400 Kc.

FB D—4,200 to 2,400 Kc.

FB E—2,500 to 1,500 Kc.

FB F—1,500 to 900 Kc.

All types types \$6.00

# THE NEW IMPROVED FB7-A

FB7-A with air dielectric condensers in I. F. Amp.—completely wired —less coils—less tubes—your cost

two 58's. TUBES—one 56, one 57, one 59 and two 24's—

Raytheons-Your net

\$4.21

# FBX-A

FBX-A has all the fine features of the FB7-A and in addition has a Crystal Filter working in the tried and proven Jim Lamb, Single-Signal Circuit. Adds extreme selectivity and reduces noise ratio. Crystal filter controls on side. Same general design as FB7-A and uses same tubes; without tubes, power supply, speaker or colls. Your net cost.....\$51.90

BUY SHORT WAVE RECEIVERS ON EASY PAYMENT PLAN. See Second Page.



# NEW HRO DE LUXE NATIONAL Frequency RECEIVERS



## **OUTSTANDING FEATURES**

Nine Tubes, not including rectifier.
Two preselector stages.
Single Signal (Crystal Filter) standard equipment.
Ganged Plug-in coils, with each coil individually shielded.

shielded.
Strictly single-control Tuning.
Calibration for each range mounted on coil.
Four gang precision condenser, with preloaded worm-drive tuning, 20-1 ratio.
Micrometer dial, spreading tuning over 500 divisions, numbered every 10 divisions, direct reading. Automatic or Manual Volume Control.
Vacuum Tube Voltmeter with Instrument calibrated in R scale of carrier intensity.
Electron Coupled, air padded oscillators.
Two I. F. stages with Litz-wound coils, air condenser tuned.
Beat Frequency Oscillator for "Offset" C.W. Tuning. Phone Jack on Panel.
Relay rack mounting available.

Tubes Used: 2½ volt type—4-58, 3-57, 1-2B7, 1-2A5. 6.3 volt type—4-6I 6, 3-6C6, 1-6B7, 1-42.

6.3 volt type—4-61-6, 3-6U6, 1-DD(, 1-Ta.

HRO—Amateur Receiver—table model—complete with coils to cover 1.7MC to 30MC and with full set of laboratory matched tubes (2½ V.) but without power supply and speaker.

\$167.70

(Supplied with 6.3 volt tubes if specified but not recommended for A.C. operation.)

HRO-In relay rack type-complete as listed above. Price .....

Power Supply

Extra Colla 

 175 KC to 400 KC.
 \$16.50

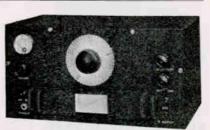
 500 KC to 1,000 KC.
 12.00

 900 KC to 2,000 KC.
 12.00



C-SRR—Size 7 % x7 % x7 ins \$2.10
C-FB7—Size 12x11½x8 ins 4.20
C-PSK—Size 5x12x8 ins 3.60
C-SW3—Size 9 1/2 x9x7 ins
All of these metal cabinets can be had undrilled.
Sub-panel is included.

NEW! only \$99.00 (Less Power Supply and Speaker)



## HRO JUNIOR RECEIVER

## POWER SUPPLIES

Famous National hum-free units with electrostatically shielded transformers. Quietest operating power supplies obtainable. National No. 5887AB, 180 volts "B" and Filament

Voltages (for FB7-A) Volts ...... \$20.70



# SCREEN GRID-DETECTOR COUPLING UNIT—TYPE S101

Used in coupling A S. G. detector to an audio stage ......\$3.30

# NATIONAL Type R-152 R. F. CHOKE

Isolantite insulation on metal base-10,000 volts insulation; continuous universal winding in 5 tapered sections; inductance 4 m.h.; distrib. cap, 1 mmf.; DC resistance 10 ohms; current ratings: continuous, 0.6 amp.; intermittent, 0.8 amp. For both high and low powered transmitters and laboratory oscillators. List price .....\$1.35



Type R-154-Like R-152 but designed for peak efficiency in 40 meter band.....\$1.35

NATIONAL **ISOLANTITE** SOCKETS



4-5-6-7 large and 7 small.

NATIONAL NO. 100 R. F. CHOKE

D. C. resist, 50 ohms, dist. cap. 1MMF., 2½ MLH., 125 M.A...\$0.45 The fastest selling piece Each ..... \$0.36 of Ham apparatus made.

OWN A "NATIONAL" ON EASY PAYMENT PLAN. SEE SECOND PAGE.





## NATIONAL TYPE N DIAL

The most precise dial manufactured available in 0-100, 100-0, 150-0, 200-0, 4 in. in diameter.

# NEW NATIONAL TYPE HRK DIAL

Used on HRO. Beautiful chrome finish with bakelite bar. Calibrated 10 to 0 in 180°.





# NATIONAL TYPE B AND BM DIALS

Type B 4 in., available in 0-100-0 or 200-0.

Type BM 3 in., available in same scales... I.50 Dial illuminators, each.....

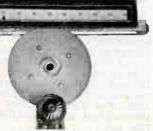
# VERNIER TYPE A DIAL

5 to 1 ratio. May be had in 0-100, 100-0, 150-0, and 200-0.



# NATIONAL TYPE VK DIAL

Full vision, 7 in. long scale. Ratio 10 to 1. Available in 100-0, 0-100, 





96

# TYPE CHV VARIABLE AIRGAP

Variable Frequency Crystal Holder

Made in low loss R39 housing plug in mounting with flexible shaft and locking device.

Net price (less crystal) . \$5.70 With Hollister Crystal \$19.50

## STEATITE TRANSMITTING COIL FORMS

Transmitting Types For 20, 40, 80, 160 meter bands.

Threaded for No. 10 wire or smaller. low-loss

Winding No. XR-10 XR-11 XR-12 Diameter Winding Max. No.
Length of Turns Band
3 % in. 26 20-40
4 ½ in. 34 80 3 % in. 4 ½ in. 5 ¼ in.

### CERAMIC TRANSMITTING COIL FORMS

While not as low-loss as the Steatite Forms, these ceramic 

**NEW! BUFFER COIL** FORM AND SOCKET

No. XR-13 Only

Excellent for grid tank for push pull tubes

Plug and Jack Base Only

5 prong plug and 5 prong Jack base as used in above combination. XR13—Plug base. \$0.45 XR13—Jack base .45 XR13—Coil only .60





## FLEXIBLE SHAFT COUPLING

Hubs take ¼ in. shafts. Works up to 90° angle. Plain and Isolantite.

No. TX12—Isolantite hubs \$0.75 No. TX11—Plain hubs......36

## SHAFT COUPLINGS





Type JX-100—For the new RK-28 and RCA 803 power pen-

**50 WATT SOCKETS** 

## NATIONAL GRID CLIPS

Type 12-Fit 866's, large..........\$0.06 Type 8—For metal tubes.....



# NATIONALPARTS



# R-39 COIL FORMS

Made of R-39. Can be drilled and grooved easily. Size 21/4 in. high by 1 1/4 in. wide. Available in 4, 5 and 6 prong types. XR-4, XR-5 or Tyne XR-6. Each ..... \$0.45 | Each ..... \$0.15 | XR20-6-6 prongs.



## MIDGET COIL **FORMS**

Made of R-39 in two sizes. XR-1-1% in. high by 1 in. wide, 4 prongs. 

in. wide, without prongs. Each .....\$0.21 XR-3-34 in. high by  $\frac{9}{16}$ in. wide, without prongs.



# STEATITE COIL FORMS

Size 2 1/4 x1 1/2 inches. Drilled for leads.

XR20-4-4 prongs. \$0.21 XR20-5-5 prongs.



# 5 METER COIL

Base of steatite, copper wire windings. Size over all, 1 % x17 in.

XR-9-Each .... \$0.27



ISOLANTITE STAND-

OFF INSULATORS

WGS-1-1 % x 1/2 in. \$0.15

.21

.48

WGS-2-2 % x 1/2 in.

WGS-3-2 % x % in.

WGS-4-4 % x % in.

# STEATITE STAND-OFF INSULATORS

WGS-5-14 x 1 x ½ in. Tapped 8-32 each end. Each .....\$0.15 WGS-6-2 x 1 1/8 x 5/8 in. Tapped 10-24 each end. Tapped 10-24 each end. .60 Each .....\$0.39



## H. F. BUSHINGS-STEATITE

WXS-1 —  $1 \times 1\frac{1}{12}$  in. Per WXS-2-1 1/2 x13 in. Per

pair .....\$0.48 Hardware included.



# H. F. BUSHING

Made of Steatite Button type. 3 in. thick,

5% in. diameter. 1/8 in. hole through center. Ideal for running leads through chassis.

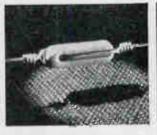
XS-6 .....\$0.06



# VICTRON TRANSPO-SITION BLOCK

Wafer-thin, these blocks have but a fraction of the weight of other blocks. Low-loss.

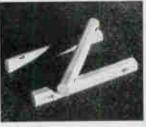
Type AA-1—Each. . \$0.18



# STEATITE STRAIN INSULATOR

Aircraft type. Very strong. Size 1 1/2 in. long by ½ in. wide.

Type AA-5-Each \$0.11 5 for 54c



# STEATITE ANTENNA INSULATOR

Real low-loss, eliminates power leakage and gets your signals out in the air.

Type AA-6-Size 4 1/4 x 1/2 in. Each . . . . . . . . . \$0.15



## STEATITE SPREAD. **ERS**

Unusual in Efficiency

Steatite is a white ceramic material specially developed for H. F. circuits. Type AA-3-Each . . \$0.18

"NET PRICES" NO FURTHER DISCOUNT





# NEW!

NATIONAL'S NEW LINE OF TRANSMITTING VARIABLE CONDENSERS 1000. 2000, 3000 Steatite - Isolantite Insulation.

## TYPE TMS

For Oscillators, Buffers, Doublers, Etc.

Cat. No.	Capacity L	ength Plates	Peak V.	Price
TMS-100	100 mmf.		1000 v.	\$1.35
TMS-150	150 mmf.	2 % in. 14		1.50
TMS-250 TMS-50 Dual	250 mmf.	2 % in. 23	1000 v.	1.65
TMS-100 Dual	50-50 mmf. 100-100 mmf.	2¾ in. 6-6 2¾ in. 9-9	1000 v. 1000 v.	2.10
IMS-100 Dual	100-100 mmi.	474 111. 9-9	1000 V.	2.55

For Low C. Type 210 Amplifiers 35 mmf. 50 mmf. 2 % in. 8 2000 v. 2 % in. 11 2000 v.

## TYPE TMC

For Moderate Power Rigs

COMPACT 3,000 **VOLTS** 

For RK18, RK20, RCA800, 830, 203A, 210, Etc.

Cat. No.		Capacity	Peak V.	Length	Plates	Price		
TMC- 50		50 mmf.	3000 v.	3 in.	7	\$2.40		
TMC-100		100 mmf.	3000 v.	3 ½ in.	13	2.55		
TMC-150		150 mmf.	3000 v.	4 % in.	21	2.85		
TMC-100	Dual	100-100 mmf.	3000 v.	6 3/4 in.	13-13	4.50		
Air gap=077 inch								



mounting on panel, chassis or stand-offs. Plates are heavy aluminum, rounded and buffed edges. Insulation is Isolantite. Heavy duty.

	Capacity	Peak			
Cat. No.	Mmf.	Volts	Length	Plates	Price
TMA-300	300	3,000	4-9/16 in.	23	\$6.60
TMA-200D	200-200	3,000	6 % in.	16-16	8.10
TMA-50A	50	6,000	4-9/16 in.	9	3.60
TMA-100A	100	6,000	6 % in.	16	5.40
TMA-150A	150	6,000	6 % in.	23	6.60
TMA-230A	230	6,000	9-5/16 in.	35	8.70
TMA-50DA	50-50	6,000	6 % in.	9-9	6.00
TMA-100DA	100-100	6,000	9-5/16 in.	15-15	9.60
TMA-100B	100	9,000	9 ¼ in.	23	7.20
TMA-150B	150	9,000	12½ in.	35	9.30
TMA-60DB	60-60	9,000	12 ½ in.	15-15	10.20
TMA-50C	50	12,000	7 1/2 in.	13	4.35
TMA-100C	100	12,000	12 % in.	27	6.60
TMA-40DC	40-40	12,000	12% in.	11-11	7.20



# NATIONAL PADDING CONDENSER

Compact, only 11/2 in. diameter by 11/2 in. high. W- 75-75 mmf. (air)......\$1.35 W-100-100 mmf. (air).

PRICES SHOWN ARE NET. NO FURTHER DISCOUNT

# **Midget Condensers**



SEU		SEH		ST	3	S	E
Catalog Type No.	Capacity in Mmf.	Air Gap	Plate Shape	Rotor Plates	Stator Plates	Depth behind Panel	Price
ST- 35 50 75 100 140 150 STH- 200 250	35 50 75 100 140 150 200 250	.026 .026 .026 .026 .026 .026 .026 .0175 .0175	0	5 6 8 10 14 15 14	4 5 7 10 14 14 13	2¼" 2¼"  2¾" 2¾" 2¼" 2¼" 2¼"	\$0.90 1.08 1.20 1.35 1.50 1.50 1.65
300 335 STN- 18 STHS- 15 25 STD- 50 STD- 50 STHD-100	300 335 18† 15 25 50 50* 100*	.0175 .0175 .065 .0175 .0175 .0175 .026	180° SLW	20 22 4 2 2 4 6* 7*	19 21 3 1 2 3 5* 7*	2 ½" 2 ½" 1 ½ 6" 1 ½ 6" 2 ½"	1.95 2.10 1.20 .85 .90 .95 2.10 2.70
SE- 50 75 100 150	50 75 100 150	.026 .026 .026 .026		6 8 10 15	5 7 10 14	21/4"	1.80 1.95 2.10 2.25
SEH- 200 250 300 335	200 250 300 335	.0175 .0175 .0175	270° SFL	14 16 20 22	13 16 19 21	2 ¾" 2 ¼" 2 ¾" 2 ¾"	2.25 2.40 2.40
SEU- 15 20 25	15 20 25	.055 .055 .055	5. 5	3 4 5	3 4 4	"	2.55 1.50 1.65 1.65
2SE- 100 2SEH- 200	100* 200*	.026		10 14	10 13	5"	3.30 3.90

Per Section

†3000 Volt Rating





# NEUTRALIZING CONDENSERS

## TYPE STN

STN-An efficient, sturdy condenser suitable for neutralizing 245, 247, 210 and like tubes in any stage \$1.20



## **TYPE 800**

800—High voltage neutralizing condenser for use with the R.C.A. 800. Both plates insulated from ground \$1.80



Heavy duty, peak voltage 6,000 volts. Suitable for use with 203A, 852, 150T, etc. Max. cap. 25 Mmf. \$2.10

# **TYPE M-30**

mica padding condenser mounted on steatite.  $1\frac{3}{16}$  in, long,  $\frac{9}{16}$ in. wide, 1/2 in. high. M-30-30 mmf., mica.....\$0.21



Type STN

# CARDWEL





## MIDWAY FEATHERWEIGHTS

Cardwell Midway Featherweights are REAL condensers—not midgets. Suitable for low-power transmitters using up to '10 type tube.

	.031 in.	air gap-	-1,200  vc	olts	
		Depth	Max.	Min.	
	No. of	Behind	Cap.	Cap.	Net
Cat. No.	Plates	Panel	Mfd.	Mfd.	Price
MR 25BS	3	$2\frac{9}{16}$ in.	26	7	\$1.38
MR 50BS	5	$2\frac{19}{16}$ in.	50	8	1.44
MR 70BS	7	$2\frac{9}{16}$ in.	70	9	1.52
MR105BS	11	2 18 in.	105	11	1.60
MR150BS	15	$2\frac{19}{16}$ in.	150	15	1.65
MR260BS	25	$3\frac{19}{16}$ in.	260	25	1.80
MR365BS	35	$3\frac{16}{16}$ in.	365	35	1.98

# MIDWAY SEMI-HEAVY DUTY

Suitable for Transmitters Using Up To 75-Watt Tube .070 in. air gap—3,500 volts

		Depth	Max.	Min.	
	No. of	Behind	Cap.	Cap.	Net
Cat. No.	Plates	Panel	Mfd.	Mfd.	Price
MT 20GS		$2\frac{9}{16}$ in.	22	6	\$1.70
	-	$2\frac{9}{16}$ in.	35	9	1.85
MT 35GS	1			_	
MT 50GS	11	$2\frac{9}{16}$ in.	50	11	2.10
MT 70GS		$3\frac{19}{16}$ in.	70	15	2.35
MT100GS	21	3 % in.	100	21	2.65
MT150GS		$4\frac{19}{18}$ in.	150	31	3.30
				1 5	3.60
*MG 35GS	15	4 ½ in.	34	15	
*For neut	ralizing	50-watt	modulated		es171
1 C. House	3/1	realow inc	sulation—5,	200 1	volts
in air	gap—M;	ycarex ins	suration—5,	200	10100



## CARDWELL "TRIM-AIR" MIDGET CONDENSERS

Isolantite Insulation

Type	Max.	Min.	Air		Depth Benina	70.1
No.	Cap.	Cap.	Gap	Plates	Panel	Price
	10	1.2	.031			80.75
ZR 10AS			.031	5	15/16	.75
ZR 15AS	15	1.5		0	1-1/32	.83
ZR 25AS	25	2.0	.031		1- 1/32	.89
ZR 35AS	35	2.5	.031	11	1-5/16	
ZR 50AS	50	2.8	.031	13	1-5/16	.96
	75	2.7	.020	15	1- 5/16	1.02
ZR 75AS			.020	19	1-13/32	1.05
ZU100AS	100	2.9		27	1%	1.89
ZU140AS	140	4.5	.020			1.00
(ZU14	IS SAO	double	ended,	with tw		
*ZV5TS	, v	1.8	.061	3	2 1/8	.75
	14 mg T			ed strain	ght or spllt	stator.
*Special for	ultra I	I.F. Ca	II De us	ou strait	5 V. ~ F	



# **CARDWELL** NEUTRALIZING CONDENSERS



New	max- imum	imum	Gap	Use for Neutralizing Price	е
Type No. XG-25-KS XG-50-KS XK-55-KS* MG-35-GS*	Cap. 25 50 55 35	Cap 8 15 20 11	.171 .171 .230 .171	203-A, 211's\$1.8 Parallel 203-A or 211's 3.60 204-A's parallel	0
NA- 4-NS	4		2 Pl. djustable	203-A's, etc. Plate Modu- lated	
NA- 5-NS	6		.218	Required for above tubes in some cases of single-	
NA-14-NS VZ- 5-RS	14 5	2	.218 .500 djustable	ended amplifier	0
ZS- 4-SS	4	1,15	.150	Modulated 9.9 For 35-T's, Special "Trim-Air" 1.1	



HEAVY DUTY TRANSMITTING **TYPES** 

	Max.	Min.	No. of	Air	Depth Behind	
Type	Cap.	Cap.	Plates	Gap	Panel	Price
XT-220-PS	220	23	21	.070	4 in.	\$2.40
XT-440-PS	440	42	43	.070	5 % in.	4.20
XP- 90-KS*	90	14	ii	.084	3 in.	2.70
XP-165-KS*	165	20	19	.084	4 in.	3.90
	290	32	33	.084	5 % in.	5.70
XP-290-KS*		41	37	.084	6 ½ in.	6,00
XP-330-KS	330	32	33	.100	6 ½ in.	6.00
XE-240-KS	240		5	.171	3 in.	1.80
XG- 25-KS	25	10 17	11	.171	4 in.	3.60
XG- 50-KS	50		23	171	6 ½ in.	5.40
XG-110-KS	110	31			5 % in.	6.00
XK- 55-KS*	55	20	15	.230		3.30
XC- 18-XS*	18	6	5	.200	2 ½ in. 4 in.	4.50
XC- 40-XS*	40	13	11	.200		5.70
XC- 65-XS*	65	18	17	.200		6.90
XC-100-XS*	100	26	25	.200	7 % in.	13.80
TJ-150-US*	150	28	15	.168	5-13/16 in.	19.20
TJ-315-US*	315	38	31	.168	9-9/32 in.	
TC-150-US*	160	38	19	.200	7¼ in.	14.40
TC-200-US*	200	40	23	.200	8 ¼ in.	16.80
TC-300-US*	300	42	35	.200	11¼ in.	19.20
TL- 50-US*	50	18	7	. 294	4-13/16 in.	12.00
TL- 80-US*	80	29	13	.294	6 % in.	13.20
TL-160-US*	160	40	25	.294	11 in.	18.00
TL-200-US*	200	46	31	. 29 4	13 % in.	19.80
TZ- 40-RS*	40	15		.500		16.80
TZ- 80-RS*	80	22		.500		23.70
2 00 100						~

CARDWELL SPLIT STATOR TYPES

MIDWAY DOUBLE CONDENSERS

Max. Min. No. of Air Depth Behind
Cap. Cap. Plates
Each Each Per
Ser Ser Ser Ser Price Type MR- 25-BD MR- 50-BD MR- 70-BD MR-100-BD MR-160-BD MR-260-BD MT- 20-GD MT- 50-GD MT- 70-GD MT-100-GD\* Sec. Sec. Sec. 2-9/16 in. 3-9/16 in. 3-9/16 in. 3-9/16 in. 3-9/16 in. 4½ in. 2-9/16 in. 3-9/16 in. 3-9/16 in. 4½ in. 6¼ in. 6¼ in. 25 50 70 2.52 2.64 2.76 2.88 .031 .031 .031.031 .031 260 3.00 3.30 3.50 3.90 4.80 5 7 11 20 35 50 70 100 6 9 11 13 .070 15 21 .070 4.80

STANDARD	DOU	BLE	TRA	NSMIT	TING
CONDENSERS	Max-	Min-	Air Gap	Net Price	Peak Flashover
Type No. XT- 80-PD	Cap. 88	Cap.	.070	\$ 3.00	at 4 M. C. 3,500 V.
XT-210-PD XP-325-KD*	214 328	22 38	.070	4,80 13.20 12.60	3,500 V. 4,000 V. 4,250 V.
XE-240-KD* XG- 50-KD XG-110-KD*	240 50 110	32 14 27	.100 .171 .171	6,00 10,80	5,250 V. 5,250 V.
T.J-200-UD* XC- 40-XD*	200 40	30 13	.168	21.60 7.80	5,200 V. 5,800 V.
XC- 75-XD* TC-160-UD*	77 160	20 38	.200	10.20 20.40	5,800 V. 5,800 V. 5,800 V.
TC-200-UD* TC-250-UD* TL- 50-UD*	200 250 45	40 40 13	.200 .200 .294	22.80 25.20 15.00	5,800 V. 7,250 V.
TI-100-UD*	94 160	30	.294	20.70 26.40	7,250 V. 7,250 V.
TZ- 40-RD*	40	18	.500	25.80	12,000 V.

#### NEW HIGH FREQUENCY TRANSMITTING For 5 and 10 Meters, Etc. CONDENSERS

	Max- Min- mum imum	Air Gap	Net Price	Flashover
Type No. NP-35-GD† .1D-28-GD JP-48-GD† Data given is for one	Cap. Cap. 35 5 28 5 48 6	.084 .125 .084	\$ 6.00 16.25 16.25	at 4 M. C. 4,000 V. 4,600 V. 4,000 V.

\*Mycalex-Standard Insulation. †Isolantite Insulation.

## TRANSMITTING TYPE

	Max.	IVI 1 II.	Air			
	Cap	Cap.	Gap			Price
ZS 4SS	4	1.5	.150			\$1.11
ZT 30AS	30	2.0	.070	17	2 1/8	1.10
	AC	CESSO	DRIES 1	EXTRA	<b>A</b>	
Mounting b	racket	with t	wo sere	ws an	d nuts	06
Extra exte						
setting nu						
Mounting p						
with screw						



CARDWELL ROTOR LOCKING **DEVICE** 

DEDUCT 2% FOR CASH WITH ORDER

99

# For Better Radio

PRODUCTS

## **NEW! HAMMARLUND LOW-LOSS** COIL FORMS



Made of XP-53 dielectric natural amber color. Durable and extremely low-loss. 21/2 inch winding space by 11/2 inch dia.

Same as above, but larger. 4 1/2 x2 % ins.

For Transmitters TCF-4—(4 prong) ......\$0.42 

## NEW! HAMMARLUND COIL SET



SWK-4—(Kit of four, 4 prong, 2 winding, coils SWK-6-(Kit of four, 6 prong, 3 winding, coils range 17 to 270 meters)......\$2.25 

## INDIVIDUAL COILS

H60— 10 meters H61— 17 to 41 meters H62— 33 to 75 meters H63— 68 to 150 meters H64-135 to 270 meters .....

## SHORT WAVE COIL FORMS

Made of Isolantite. Numerous holes cut make drilling unnecessary; size 1 1/2 x 2 1/2 ins.



CF-5—5 prongs. CF-6—6 prongs.

CF-5M—Size 1%x2 ins. Made only in 4 prongs. Each .. \$0.45 CF-5M-Is ideally suited for ultra H.F. work.





100

## HAMMARLUND FLEXIBLE COUPLING

Very strong, made of bakelized canvas for 1/4-in. shafts. Brass 

## HAMMARLUND IMPROVED MIDGET CONDENSERS

		Min. Cap.	Max. Cap.	
No.	Plates	MMF.	MMF.	Price
MC325M	43	12	320	. \$2.10
MC250M	34	10	260	. 1.80
MC200M	27	10	200	. 1.65
MC140M	19	7	140	. 1.50
MC140S	19	7	140	. 1.50
MC100M	14	6	100	. 1.35
MC100S	14	6	100	. 1.35
MC 75M	11	6	80	. 1.20
MC 75S	11	6	80	. 1.20
MC 50S	7	5	50	95
MC 35S	5	4	35	90
MC 20S	3	3	20	85



"M"-Midline plates. "S"-Semi-circular plates.

ISOLANTITE INSULATION Very rigid construction. If you want real results when building a short-wave receiver, spend just a little more money and use Hammarlund condensers.

# **DUAL MIDGET CONDENSERS**

MCD-140M-(140 MMF. max.
cap. per section) \$2.40
MCD-140S-(140 MMF, max, cap.
per section)
MCD-100M—(100 MMF, max. cap.
per section)\$2.10
MCD-100S(100 MMF, max. cap.
per section)
MCD-50M(50 MMF.) 1.80
MCD-50S—(50 MMF.) 1.80





## **DUAL-DOUBLE** SPACED MIDGET CONDENSERS

MCD-35MX-(33 MMF. max. cap. per section)....., \$2.10 MCD-35SX-Same in semi-cir-F.B. for 5 meter rigs.

## DOUBLE SPACED MIDGET CONDENSERS

MC-20SX-20 mmf. max. cap.-5 mmf. . . \$1.35 min. cap. .....\$1.65



## BAND SPREAD MIDGETS

These condensers are designed for use as band spread tuning condensers for S. W. Receivers and for use in amateur band frequency meters. The "tank" section can be



set and locked at any desired capacity permitting the tuning section to spread narrow frequency ranges over entire dial, regardless of the range of the band or the coils used.

Tank Cap MC120B....100 MMF. MC150B....100 MMF. Tuning Cap. 20 MMF. 50 MMF,

Price \$1.80 1,95

# Jor Better Radio ammariund PRODUCTS

# HAMMARLUND ISOLANTITE SOCKETS

S-4-4 prongs. S-5—5 prongs.

S-6-6 prongs.

S-7—7 prongs. S-7B—7 prongs for small base tubes.

S-8-For 8-prong octal tubes. Each .....\$0.36





## SOCKET FOR ACORN **TUBES**

Glazed for high surface resistance. No. S900-Each.....\$0.90

A popular choke among all Hams! Inductance 2.1 M.H., D.C. resist. is 35 ohms, Dist. Cap. 1 MMF., 125 milliamperes. Hammarlund CH-X.....\$0.36



# HAMMARLUND CH 500 TRANSMITTING

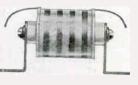
CHOKE Heavy Duty

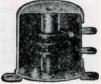
Equally effective and efficient on all amateur bands. Inductance 2.5 M.H., Dist. Cap. less than 1.5 MMF., D. C. resist. 8 ohms, max. current 500 M.A.

CH-500 .....\$1.05



efficient, low-loss, purpose, all-wave verv A general Windings protected by lacquer and cellophane. CH-8 .....**\$0.65** 





# HAMMARLUND SHIELDED R. F. CHOKE

For use in high gain circuits. Inductance 10 M.H., D.C. resist. 65 ohms, current 100 M.A.

CH-10S .....\$0.60

# HAMMARLUND HIGH IMPEDANCE R. F. CHOKE

For detector plate circuits, B plus and grid return leads, etc. RFC-85—Inductance 85 M.H., D.C. resist. 215 ohms.........\$1.20 RFC-250—Inductance 250 M.H., D. C. resist. 420 ohms......\$1.35



## **NEW HAMMARLUND** AIR PADDING **CONDENSER**

APC25-25 MMF. .....\$0.78 APC50—50 MMF. ..... APC75—75 MMF. .... .90 .... 1.00 APC100-100 MMF.... 1.15



APC1400-140 MMF.... 1.35 Size of 100 MMF., size 1-7/32x15/16 ins. Isolantite base, brass plates.

## NEW HAMMARLUND H. F. SINGLE VARIABLE CONDENSERS

For tuning or trimming on high frequencies. Cadmium plated soldered brass plates. B-100 Isolantite. Base mounting; single hole panel mount, or panel mounting with bushings. ¼-inch shaft. 140 mmf. only. 1-9/16 inches high, 1-13/16 inches behind panel.

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	HF-15												15	mmf.								\$4	).'	75	6
	HF-85												35	mmf.									4	90	)
	HF-50													mmf.											
	HF-10					٠		٠			٠	. 1	00	mmf.				٠	٠			- 1	١.:	14	ļ
	HF-140	J.,	*	*	*	٠	٠		٠	٠		. 1	40	mmť.	*	*	٠	٠				- 1	l.:	35	5
	HF-30										, .	٠	30	mmr.	*	*	*			٠	٠		ı.	1	l
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# H. F. DUAL VARIABLE CONDENSERS



A compact dual—ideal as a high frequency tuning condenser or for tuning and neutralizing low-powered short wave and ultrashort wave transmitters, etc. Heavy B-100 Isolantite base equipped with new outstanding Hammarlund split rear bearing and individual noiseless wiping contact for each section. Rotor contacts variable to several positions for shortest leads. Shield between sections for grounding. The 140 mmf. size is only 1½ inches high by 3% inches long behind panel—¼-inch shaft. Cadmium plated soldered brass

mmf. pe	r section\$1.65
mmf. pe	r section 1.95
mmf. pe	r section 2.25
mmf. pe	r section (Double spaced) 1.95
	mmf, pe

## ALUMINUM COIL SHIELDS

This new Hammarlund coil shield is a very effective housing for coils. It is constructed of heavy aluminum and is a two-piece affair. It is three inches in diameter. Base has mounting holes. This is the same shield as used in the popular "Comet-Pro" receiver.

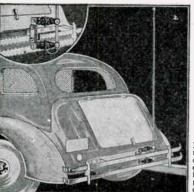
No. CS-3-Net price......\$0.30



# HAMMARLUND NEW TYPE "MEX"

Midget equalizer condenser. Size %x% ins.; base range, 3-30 MMF. Dandy for trimming R.F. coils. .....\$0.18





WARD "FISH POLE" and "BUGGY WHIP" Telescoping Auto Antennas

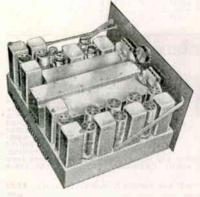
Mount in a few minutes without drilling. Ward pow-erhouse-type rubber insulators add to appearance and assure dependability. Lead-

Model H.F.C .- Chrome "Buggy Whip" for door pin mounting..... Model B.F .- Black "Fish Pole" for bumper mounting...

For Better Radio

# HAMMARLUND

# PRECISION PRODUCTS



# These Features Give the "Super-Pro" an Edge Over All Others

- \*Uses FIFTEEN of the new type, Higher Efficiency Tubes.
- \*It's an All-Band Receiver—Range is 15 to 560 Meters.
- \*An efficient Front-of-Panel 5-Band Switch, NO Plug-In-Coils.
- \*Band Spread Tuning on all Bands.
- Volume and Radio Frequency gain are regulated by individual controls.
- \*Switch for disconnecting B Supply when transmitting.
- \*Both Dials Highly Illuminated.
- \*Beat Oscillator Switch on front panel.
- Calibration of Dial Settings to better than 4% accuracy.
- \* Electro-static shielded input.
- \*18 Watts of available undistorted audio output when needed.
- \*Class A prime Push-Pull audio system.
- \*Designed for use on doublet, "double doublet" or any standard antenna system.
- \*Lower Noise Level.

100

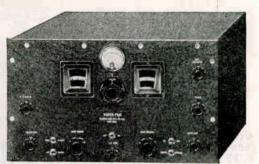
- \*Two stages of Radio Frequency preselector stages—no image interference.
- \*Three high gain, high Q, i.f. stages giving high selectivity.
- \*Automatic and manually operated Volume Control.
- \*Crystal filter system supplied if desired at small additional cost.
- \*Air-tuned R.F. Transformers throughout—High Q Circuit design.

# STANDARD COMET PRO Still Available

This popular receiver is still being built by Hammarlund for those who want a better receiver than average,

 The New
"SUPER-PRO"
No equal at any
price

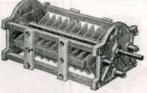
Complete coverage from 20 megacycles to 540 K.C. (15 to 560 meters) is provided. This range is covered in 5 bands which are changed by means of a specially designed switch with silver-plated multiple contacts which automatically short circuit all colls not in actual The main dial is accurately calibrated in megacycles from 2.5 m.c. to 20 m.c. and in kilocycles from 540 to 2,500. Only the scale in actual use is visible. This is accomplished automatically when the band switch is set. The "Super-Pro" receiver consists of two major units-receiver proper and power unit. Rack mounting with dust covers available.



# NEW HAMMARLUND TRANSMITTING CONDENSERS

Cat.	Capacity	No. *:	Plate	Voltage	Over-All	Your
No.	mmf.	Plates S	pacing	Rating	Length	Cost
TC- 30-A	30	7	.192"	6500 V.	3 % "	\$ 3.00
TC- 50-A	50	- 11	.192"	65#0 V.	45/16"	3.90
TC-100-A	100	21	.192"	6500 V.	6 % "	5.70
TC-150-A	150	31	.192"	6500 V.	815/16	8.10
TC-225-A	225	47	.192"	6500 V.	1 22162"	10.80
TC-100-B	100	11	.080**	3000 V.	33/16"	3.30
TC-150-B	150	17	.080"	3000 V.	3 7/4 "	3.90
TC-225-B	225	23	.080"	3000 V.	4 %"	4.80
TC-335-BX	335	43	.100"	3500 V.	7 % "	7.20
TC-450-B	450	47	.080"	3000 V.	71/2"	7.20
TC-225-X	225	23	.080"	2000 V.	4952"	3,60
TC-350-C	350	19	.038"	1000 V.	33/32	3.00
TC-500-C	500	27	.038"	1000 V.	3 % "	3.30
* 4 0	tual Air-car	hotwoo	n adiacont	noton and	states plates	

\*Actual Air-gap between adjacent rotor and stator plates.





# NEW DUAL (Split Stator) TRANSMITTING TYPES

Cat. No.	Cap. Per Sec. Mmf.	Series Cap.	No. Plates	Plate Spacing	Over All Length	Peak Volts in Series	Your Cost
TCD-500-C	500	260	27	.038"	514"	2000 V.	\$ 5.40
TCD-100-X		50	11	.080"	4 3/4 "	6000 V.	5.40
TCD-225-X	225	110	23	.080"	6%"	6000 V.	6.60
TCD- 50-A		27	11	.192"	65%"	13000 V.	7.20
TCD-100-A	100	51	21	.192"	111/4"	13000 V.	10.80
		_				AND DESCRIPTION OF THE PERSON	A PRINT

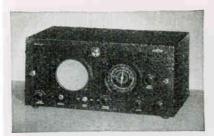
Lew Bonn Co. sells all Special Short Wave Amateur Receivers on a generous Time Payment Plan. Write for full details.

# HALLICRAFTER

# SHORT WAVE RECEIVERS **ALL-STAR KITS**

# SKYRIDER

# THE SKYCHIEF 7 TUBE SUPERHETERODYNE



to 540 17 Meters Iron Core I.F.

Band Switching Eye Tuning

Designed expressly for the use of transmitting amateurs and advanced short wave listeners, the HALLICRAFTERS "Sky Chief" includes all the latest features shown in all of the high priced communication receivers.

priced communication receivers.

It covers all the short-wave, broadcast, amateur and code bands with the highest efficiency. The regular broadcast band has been added to appeal to the wide field that includes amateurs and experienced short wave hobbyists.

All the features and special controls so desirable to the critical operator make it possible to get the last degree of usable sensitivity and selectivity. Built in dynamic speaker.

Dimensions: 21½ by 9¾ by 10½ in, high.

On easy payment plan \$10.00 down and 6 installments of \$6.90

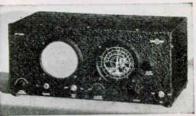
THE "SKY BUDDY" 5 TUBE SUPERHETERODYNE

18 to 550 Meters

Iron Core L.F.

AVC

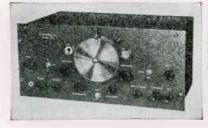
No Plug-in Coils



#### Complete With Tubes and Speaker

Tuning from 18 to 555 meters in three bands, its single iron core I.F. stage and an improved mechanical band spread system make it a receiver difficult to beat in sensitivity and selectivity even when compared with the higher-priced communication Bands tuned are 16 to 5.5 Mc.; 5.5 to 1.68 Mc.; 1680 Kc. to 550 Kc. Dimensions:-17 in. long, 71/2 in. high, 8 % in. deep. On easy payments at \$7.00 down and \$4.50 per month for 6 months.

## **NEW 1937** SUPER SKYRIDER



Model S-11

Model SX-11 with Crystal.. \$99.50 535 Ke. to 40Mc. Steatite R.F.

Sockets Rack-Panel Style Air Trimmed

Improved 10 meter performance, Automatic volume control, Duo-Micro-Vernier band spread. A headphone jack is provided for the use of headphones. The antenna circuit is arranged for doublet or conventional antenna. Set arranged for rack and panel mounting. The panel being 8% in, high by 19 in, long. Controls at convenient height for operating. Frequency range

40 to 16 Mc.; 1 1.34 to .535 Mc. 16.5 to 6.6 Mc.; 6.8 to 2.7 Mc.; 2.9 to 1.16 Mc.;

Time payments Model S-11 (without speaker) \$20.20 down and 10 monthly payments of \$8.28 each.

Model SX-11 (without speaker) \$22.70 down and \$9.18 a month 10 months

Price does not include speaker  Model S-10

Model SX-10 Crystal \$114.50

3.76 to 53

I.F. Expander Noise Silencer

# **NEW 1937** ULTRA SKYRIDER



1600 Kc. I. F.'s are used to improve the immage ratio on the high frequency bands. The immage ratio at 7 Mc. being better than the average receiver on the broadcast bands. The 20 meter band immage rejection is better than the average receiver on the police bands.

air trimmed and iron cored making for the The I. F.'s are air ultimate in stability.

The I. F.'s are fitted with an expander unit so that they may be broadened to receive 5 meter tabulation phones three degrees selectivity.

Model S-10 on payments at \$22.70 down and 10 monthly payments of \$9.18 each.

Model SX-10 at \$24.90 down and 10 payments of \$10.68 each. Speaker not included in price



Space does not permit us to list the Junior Kits or the prices on individual parts. Write us for a circular showing the dia-gram and parts list.



SENIOR KIT PRICES	
Foundation Kit	.\$2.50
Thordarson Units	. 5.70
Cornell Dubilier Kit	
Meissner Coil Unit	. 7.65
Hammarlund Condensers	. 3.60
Ohmite Resisters	. 2.50
Electrad Controls	. 1,40
Crowe Dials and Plates	. 2.10
Belden Wire Kit	. 3.40
Raythern Tube Kit	
Miscellaneous Parts	. 2.10

For only \$2.50 you can start building the All-Star Receiver—then buy remaining parts as you build.

FEATURES

\*\*CONTINUOUS BAND-SPREAD — Over entire tuning range — wide spread on all Amateur Bands and Foreign Broadcast Bands,

\*\*10 TO 550 METER TUNING RANGE—Continuous without any skips.

7-TIBE SUPERLEBERTOONALE

uous without any skips.

7-TUBE SUPERHETERODYNE CIRCUIT — A.C.
operated — power supply built-in. Can be furnished as a 6-tube Super, leaving out Beat-Note
Oscillator. Uses latest tubes — 2A7 Oscillator and
first Detector, 58 Ist I. F., 58 2nd I. F., 56 2nd Detector, 58 E. C. Beat Oscillator, 2A5 Pentode Power
tube and 80 Rectifier.

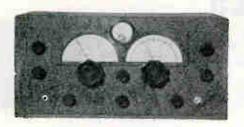
Pre-adjusted coils—Oscillator and I. F. coils are pre-set—eliminating need of alignment.

★ Super sensitivity and selectivity. High gain I. F.'s on New 370 K. C.
OTHER FEATURES—Standard parts used throughout, Speaker Volume, Airplane Dial, Tone Control, Eraydo finished Panel and Subbase, etc.

# SHORT WAVE RADIO

Lew Bonn Co. carries, in stock all the time, all of the receivers listed on these two pages as well as a full stock of National and Hammarlund receivers. When new models are brought out, Lew Bonn Co. is one of the very first to order them so that we can test them out and give you our opinion of their

merits. All of the receivers we list in this catalog have proven their ability to please amateurs with real FB performance. Remember, Lew Bonn Co. is willing to help you own a GOOD receiver through our time payment plan.



## **NEW RME-69**

The RME-69 is the 1936 successor to the famous RME-9D. This precision-built communication type receiver has proven to be one of the very best in performance. Now features continuous band-spread tuning on six bands from 9 to 550 meters. The amateur bands are grouped for a minimum amount of tuning. New, large, improved dials. Built-in monitor for both phone and C.W. Heavy black crackle finish metal cabinet is 19 in. long, 10 % in. deep and 9 in. high. Has calibrated microvolt "R" meter. Uses the expensive electrical (condenser) system of band-spreading. Uses the 6.3 volt tubes as follows: 6D6 R.F. amplifiers, 6B7 second det., A.V.C., and first audio, 6D6 B.F. osc., 42 A.F. output and 80 rectifier—nine tubes in all. Has single signal crystal filter (Billey 456 Kc.) as standard equipment. Has the following front panel controls: Line switch and tone control combined, beat freq. osc. adjustment, headphone jack, manual gain control, resonator control, band change switch, volume, A.V.C. and send-receive switch combined, beat osc. on-off switch, crystal selectivity control and crystal filter switch as well as the two main tuning controls.

RME-69—Single signal super receiver complete in steel

RME-69—Single signal super receiver complete in steel cabinet with crystal and tubes but no speaker.....

# RCA NEW TRANSMITTERS



This new line of amateur transmitters consists of a number of units which can be assembled to make up sither a 40 watt C.W., 40 watt phone, 260 watt C.W., or 200 watt phone transmitter. The amateur may purchase either complete assemblies or individual units

units.

ACT-40 (40 WATT PHONE
and C.W. TRANSMITTER)
This transmitter consists of
an antenna coupling panel,
an r-f unit, and a modulator unit as pictured at left.
ACT-200—(200 WATT
PHONE, 260 WATT
C. W. TRANSMITTER)
This transmitter consists of
an antenna coupling unit,
an r-f exciter unit, an r-f
power amplifier unit, an
modulator unit and a
high-voltage power-supply
unit housed in a metal cabinet. inet.

The ACT-200A antenna unit is similar to the ACT-40A except that parts having the necessarily higher ratings are employed. The ACT-200P power-amplifier unit uses two RCA-838 in pushpull.

Prices are subject to change or withdrawal with the prices are subject to change or withdrawal with the prices are subject to change or withdrawal with the prices are subject to change or withdrawal with the prices are subject to change or withdrawal with the prices are subject to change or withdrawal with the prices are subject to change or with the prices are subject to the prices are subject to change or with the prices are the

The ACT-200P power-ampliner unit uses two RCA-838 in pushpull.

Prices are subject to change or withdrawal without notice.

Prices are less tubes, crystals, microphones, and all other accessories except one set of coils for one amateur band.

ACT-40—(Complete phone and C.W. transmitter).

\$235.00

ACT-40A—(Antenna Unit).

ACT-40A—(R.F. Unit).

Extra coils for 40 watt transmitter, per set.

Coils action of the coils action



# THE NEW BRETING "14" DX RADIO

Note: Illustration is of famous Breting 12 now superceded by the model 14.



# RCA MODEL ACR-175

Tunes from 500 to 60,000 Kc. (5 meters)! Superheterodyne, 460 Kc. Iron-Core Intermediate-F: Transformers; crystal flifer and automatic yelume 10 metal tubes and one electron-ray tube. (5 meters)!
ron-Core Intermediate-Frequenc

RCA-6K7 r-f and i-f amplifiers; 2 RCA-6J7 oscillators; 1 RCA-6K7 frst detector; 1 RCA-6H6 second detector and A.V.C.; 1 RCA-6F5 first audio; 1 RCA-6F6 audio output; 1 RCA-6E5 tuning and signal strength indicator: 1 RCA-5E4 rectifier. All metal tubes except RCA-6E5, 8 in, dynamic speaker, crystal filter, Beaf Osc., AVC and many other features. Model ACR-175. Net price. \$119.50



Buy and build in easy stage....step by step. Start with a 40-watt unit and low-voltage power supply for CW operation. Add speech amplifier and power supply to make a 40-watt phone station, with simultaneous screen and plate modulation, giving a peak power of 160 watts. To increase power add high-power R. F. amplifier and high-voltage power supply. This gives 500-watt CW transmitter. The same high-powered R. F. amplifier and high-voltage power supply, with the addition of the 200-watt modulator, gives a 400-watt plate modulated phone, with peak power \*f 1600 watts. All Units Are Inter-connected by Plug-In Cables so Units Can Be Readily Removed from Rack.

Complete construction data and diagrams......\$0.15

## Midget Condensers - Dials - Neons

#### HAMMARLUND "STAR" MIDGETS

Single		ounting.	
shaft.	Low-loss	bakelite	insula-
tion.			
SM15-	-3 plates,	15 mmf	\$0.50
SM25-	-5 plates,	25 mmf	50
SM50-	-7 plates,	50 mmf	55
SM100-	-13 plate	es, 100 mr	nf60
SM140-	-17 plate	es, 140 mr	nf75



#### NEW STAR DOUBLE SPACED MIDGET



Just the thing for neutralizing 210's or 50-watt amplifiers. SM35X - Maximum, 35 mmf.; minimum, 6 mmf........\$0.60 SM50X — Maximum 50 mmf.; 

See Hammarlund Isolantite Midgets on Page 101

		011	- upo
"PILOT TYPE"	MI	DGET	CONDENSERS
J 5-000015 mfd.	5		Made by Federal Co.
J 7000025 mfd. plate	7	.50	
J1300005 mfd.		.55	
J230001 mfd. 23 pl J1400015 mfd. 23		.60	
			0 1



#### PRECISION CONDENSERS

Just the right condensers for that S. W. you're building. No. 533-150 mmf........\$0.75

Two Gang No. 538-150 mmf. Per section 1.35

INSULATED FLEXIBLE COUPLER

Very Good Quality Fits 1/4 in. shaft. No. I 2101-\$0.19





UTILITY CHOKES

For the XMTG Ham. Type B—200 mils., 1.75 M. H., dist. cap. less than 1½ mmf. Very low DC resistance........\$0.75 Type A—1000 mils., 1.95 M. H., dist. cap. less than 1½ mmf. Very low DC resistance......\$0.90



#### GLOW LAMPS

Genuine G. E.

Every amateur needs one. Used for indicating R. F. feed backs and peaks in feeders. Three sizes.



		Each
No.	GE 25-1/4	watt\$0.40
	GE 50-1/2	watt40
No.	GE100-1	watt40
	GE200- 2	watt50
No.	GE300 3	watt55



No. 206 Same as No. 204 except scale is 6 in. diameter. No. 206 ..... ...\$0.75



#### KURZ KASCH BAKELITE DIAL





## BAKELITE VERNIER DIAL 3% in, high by 3 in, wide, Easy to Install, No gears to strip. Scale 0 to 100 and 100 to 0. No. E599-B—Black \$0.45 No. E599W—Brown 49

#### CHROME SILVER DIALS

Satin finish with black etched markings. Large bakeiite fiange knob, easy to grip.

#### BRASS-BLACK SATIN **FINISH DIALS**

Satin black finish with etched silver markings. Bar knob,



		Silve	r				Blac	k	
No. 2284 2285 2290 2291 2292 2293	Dia. of Dial In. 2 2 2 3 1/2 4 4	180° 325° 180° 325° 180° 325°	Calib. 0-100 0-100 0-100 0-100 0-100 0-100	Price \$0.54 .54 .78 .78 .96	No. 2220 2219 2218 2216 2215 2214	Dia. o Dial In. 2 2 3 1/2 3 1/2 3 1/2	180° 325° 325° 180° 180° 325°	Calib, 0-100 100-0 0-100 0-100 100-0 0-100	Price \$0.27 .27 .27 .36 .36



#### FINGER GRIP BAKELITE KNOBS

Large flange type is illustrated. Very fine for transmitters and amplifiers.

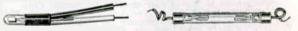
With Metal Pointer	No Pointer
No. 1168—1% in	No. 1165—11/6 in

#### DIAL MARKER

With self-tapping screws. Silver finish. No. 2191—For 325° dials. No. 2192—For 180° dials. Each



#### NEON TATTELITES



Protect meters, transformers, condensers, rectifiers against lightning surges. Effective in locating blown fuses, defective resistors, condensers. Indicate resonance peaks. Glow brilliantly when operated. Life range is from 1,000 to 5,000 hours.

Cat. No.	Rating Volts	Price	Description	Volts	**DC ma.	t Series Resist. Built in
5076	100	\$0.60	Copy A	85	3	30,000
5078	500	1.20	Copy C	200	10	30,000
5079	1,000	1.80	Copy D	300	15	50,000
5080	2,000	2.40	Copy E	450	15	120,000

#### DESCRIPTION

Copy A: For general test purposes. Has blind lead for shorting out built-in resistor. Size 1% in. by % in. diameter. 6 in. insulated leads. No sec. electrodes. Copy C: Protection and circuit applications. Size 5 in. by % in. diameter. Sec. electrode connected by 6 in. pigtail on ends.

Copy D: Protection and circuit applications. Size 8 in. by ½ in. diameter. Sec. electrode connected by 6 in. pigtail on ends.

Copy E: Protection and circuit applications. Size 9 in. by 1/2 in. diameter. Sec. electrode connected by 6 in. pigtail on ends.

\*\*AC 100% higher (double).
"MID-AMERICAN" CONVENTION

Scheduled Lowry Hotel, St. Paul. June 21, 22, 23. Be sure to attend!

## CRYSTALS - BAKELITE - RESISTORS



#### **BLILEY CRYSTALS** AND HOLDERS

New Low Prices!

#### NEW LOW-DRIFT CRYSTALS

	Within 5	16.0	** * * * * * * * * * * * * * * * * * * *	20	110	 	10.00
_							
Type	HF-2-14,400 to	15,000	within	30	Кс	 	6.50
	Within 5	Kc				 	15.00

#### BLILEY X-CUT MOUNTED CRYSTALS

 
 Type BC-3—Are power-type, larger, X-cut. In special host supplied to specified frequencies within Mc. Band 10 Kc. 5 Kc. 1 Kc. Ext. 7.0, 3.5......\$3.95
 \$4.90
 \$5.90
 In special holders. Exact F.

We carry a large stock of both Bliley LD-2 and BC-3 crystals in stock and can usually come within 5 Kc. of the frequency you want. Exact frequencies in most cases will have to be ordered from the factory at exact frequency prices.

#### BLILEY CRYSTAL HOLDER



#### W9FBU JOHN VESEL W9FBU VESEL'S VALUE-PLUS BT-CUT CRYSTALS

#### NEW 40-METER BT CUT CRYSTALS

#### OMAHA CRYSTAL LABORATORIES X CUT CRYSTALS

#### For 40 meters. Each.....\$1.85

Omaha crystals are made from only the very best grade of Brazilian quartz. which have been critically inspected and thoroughly tested before cutting. Each crystal is individually tested and accurately calibrated before shipping.

Each crystal carries an unconditional guarantee of satisfaction. If for any reason a particular frequency ordered is not entirely satisfactory, if returned within 30 days, we will exchange the crystal for one of another frequency.

Many amateurs have found it necessary to struggle along with only one crystal due to the relative high cost of each unit, with the result that they frequently are unable to get out with their transmitters due to excessive QRM on their frequently.

With this thought in mind we offer you a quality crystal, that is being supplied at a moderate price.

Specify frequency and allowances plus and minus when ordering. These crystals are accurately calibrated but we obviously cannot supply exact frequencies at these low prices.

106

We carry a full stock of bakelite, rods and tubing. **BAKELITE PANELS** Black only

No. Size 832. 7x10x½ in 833. 7x12x½ in 834. 7x14x½ in 835. 7x18x½ in 836. 7x21x½ in 837. 7x22x¼ in 837. 10x12x½ in 860. 10x12x½ in 861. 10x18x¼ in	 7x10x3/16 7x12x3/16 7x14x3/16 7x18x3/16 7x21x3/16 7x24x3/16 10x12x3/16 10x18x3/16	in \$0.95 in 1.15 in 1.35 in 1.75 in 2.00 in 2.25 in 1.74 in 2.34
86210x16x78 in		

#### SPECIAL FOR W9LIP RACK

#### HARD RUBBER PANELS Black only-3/16 in. thick

No.			Size	Price
800 7x1	l) in	.80.75 803	Size 7x18 in	\$1.28
801 7x1	∰ in	84 804	7x21 in	1.50
802.,7X	in	. 1.02   805	7x24 in	1.71

#### BAKELITE TUBING

Black only-1/16 in. wall. O. D. size given

			Per	r Inch	1			Pe	r Inch
No.	147—1	in.	\$0	0.05	No.	152-21/4	in.	8	0.07
No.	14811/4	in.		.05	No.	153-2 1/2	in.		.08
No.	149—11/2	in.		.06	No.	154-284	in.		.08
No.	1512	in.		.061/2	No.	1553	in.		.081/4
								1	

#### FENOLINE TUBING

Black only-1/16 in. wall. O. D. size given

			Per	Inch	l			Per Inch
No.	1341	in.	\$0	0.031/4	No.	139—21/4	in.	\$0.05
No.	13514	in.		.031/2	No.	1402 1/4	in.	06
No.	13611/2	in.		.04	No.	1412 %	in.	80. 80.
No.	138—2	in.		.041/4	No.	1423	in.	061/2

#### SOLID BAKELITE ROD

		Black	only-Cat.	No. I-175	
4	in.—Per 6	in	\$0.25	Per ft	80.45
%	inPer 6	in	35	Per ft	65

#### SOLID INSULINE ROD

Black only—Cat. No. I-168 .....\$0.18 Per ft... ¼ in.—Per 6 in.....

.\$0.35

#### NATIONAL CRYSTAL HOLDER







#### BUD HY-FREQ. CRYSTAL HOLDER

Recommended for use with crystals between 500 and 7,000 kc. Spring ten-sion feature allows adjustment of pres-

#### BLILEY NEW OSY (Variable Frequency) **CRYSTALS**

A few pertinent facts: (See Oct. QST 1936.)

Same size and shape as LD2 unit.
Finger-tip frequency control.
Same stability as LD2 unit.
6KC-QSY on fundamental.
24KC variation at 20 meters.
Mount in any position.
Ideal for front of panel.
Can replace present plug-in holder.

Furnished within 5 KC of frequency specified they are calibrated at the minimum frequency.) specified. Type VF-1-80-meter band .....

(Remember ....\$8.00

**DEDUCT 2% FOR CASH WITH ORDER** 

World Radio History

#### JOHNSON QUALITY PRODUCTS

New! E. F. JOHNSON CO. Announces New! MYCALEX INSULATED TRANSMITTING VARIABLE CONDENSERS

#### E. F. JOHNSON HI-O TRANS-MITTING INDUCTORS

New Low Prices!



High electrical efficiency is secured by carefully proportioned dimensions, generous conductor size, and the elimination of all insulating material from the inside of the coil. Special edgewisewound copper strip conductor makes a compact, rigid inductor. Inductance can be accurately adjusted by clip placement, Taps for coupling or bandswitching can be tried and changed quickly.

TANK CIRCUIT COMPINATIONS

Amateur	Tuning (M.A	Capacity 4.F.)	Johnson		
Band	Single Section	Dual Section •	"Hi-Q" Inductor No		
	100	200	No. 620		
160 m. (1.715 mc.)	200	200	No. 622 2-No. 622		
	50	100	No. 622		
	100	200	No. 624		
80 m.	200		No. 626		
(3.5 mc.)		100 200	2-No. 624 2-No. 626		
	25	50	No. 624		
40	50	100	No. 626		
40 m.	120	240	No. 628		
(7.0 mc.)		50 120	2-No. 626		
	* * * * * * * * * * * * * * * * * * * *	120	2-No. 628		
	15	30	No. 626		
20 m.	30	60	No. 628		
(14 mc.)		30	2-No. 628		

\*Capacity per Section

#### JOHNSON SOCKETS

For Transmitters

No. 211 is for use with 50 and 75 watt tubes. Very sturd-ily built, strong positive contacts. No. 211—50 Watt Socket. Each..\$0.90





No. 210 is for use with type '10, 800, RK20, 825, 866, etc. A heavy duty junior model of No. 211. No 210-UX Socket Each . . . . . . . . . . . . . \$0.60

250 WATT SOCKET

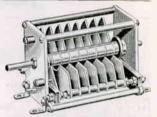


Glazed porcelain, plate terminal has safety cup. No. 215.....\$2.10

#### 803—RK28 SOCKET

construction as No. 211 but has lve contacts. No. 216 .....

Extra heavy plates-Mycalex insulation-laminated rotor brushes-shaft extended front and rear-insulated tie rods.



#### JOHNSON TYPE "D" TRANSMITTING CONDENSERS

Catalog Number		Plate Spacing	Volts Per M Section	Capac M. F. F Max.	ity (2) Per Sectio Min.	n (3) Inches	Dulas
501)35	Single	.080	3,500	46	20		Price
100 D35	Single	.080	3.500	100	23	2-15/16	\$ 3.90
1501)35	Single	.080	3,500	145	27	2-15/16 2-15/16	4.35
2501)35	Single	.080	3,500	250	34	4-5/16	4.80 5.70
350D35	Single	.080	3,500	350	40	5 1/2	6.60
5001)35	Single	.080	3,500	500	53	6 5%	7.95
50D70	Single	.175	7.000	50	25	2-15/16	
100D70	Single	.175	7,000	100	31	4-5/16	4.50
1501)70	Single	.175	7,000	150	40	65%	5.70
2501)70	Single	.175	7,000	250	55	9 1/2	6.90 9.30
350D70	Single	.175	7.000	350	70	12 1/8	11.85
501)90	Single	.250	9,000	50	27	4	
1001)90	Single	.250	9.000	100	39	6 %	5.40
150D90	Single	.250	9.000	150	50	9 1/2	6.60
2501)90	Single	.250	9,000	250	76	15 %	7.80 10.20
1001)1)35	Dual	.080	3,500	100	23		
150DD35	Duat	.080	3,500	150	27	4 %	6.60
200D D35	Dual	.080	3,500	200	32	5 ½ 6 %	7.50
3001)1)35	Dual	.080	3.500	300	42	9 1/2	8.40 10.20
70DD70	Dual	.175	7,000	70	27		
10011170	Dual	.175	7,000	100	30	6 %	7.50
150DD70	Dual	.175	7.000	150	38	8 % 12	8.85
200DD70	Dual	.175	7,000	200	45	15%	10.95
50DD90	Dual	.250	9,000				13.20
1001)1)90	Dual	.250	9,000	50 100	27	8 %	7.95
	***************************************	.200	3,000	100	39	_14	10.35

#### JOHNSON TYPE "C" TRANSMITTING CONDENSERS

500C70	Single	.175	7,000	500	60	12 %	\$12.60
350C90	Single	.250	9,000	350	70	15 %	12.36
50C110 100C110 250C110	Single Single Single	.350 .350 .360	11,000 11,000 11,000	50 100 250	30 40 70	4 % 8 % 18 ¼	5.40 7.08 12.48
50C130 100C130	Single Single	.500	13,000 13,000	50 100	35 48	6-13/16 12%	5.94 8.46
200CD90	Dual	.250	9,000	200	45	181/4	15.18
50CD110 100CD110	Dual Dual	.350 .350	11.000 11.000	50 100	22 30	8 % 15 %	8.22 11.58
50CW130	Dual	.500	13,000	50	29	12 %	9.33

#### JOHNSON HI-Q INDUCTORS

Type No.	1nd. (Mh.)	Band	Turns	Inside Diam.	Length	Net Price
620	88	160	46	4 -in.	9 -in.	\$4.05
622	44	160-80	33	3 ¼ -In.	6 ½ -in.	8.09
624	21	80-40	23	3 ¼ -in.	6 -in.	2.52
626	10	40-20	18	2 ½ -in.	5 -in.	2.10
628	4.4	20	12	2 ½ - in.	3 1/4 -in.	1.80
619	2	Coupling	15	4 -in.	3 ½ -in.	2.00
623	, 8	Coupling	10	3 ¼ -in.	2 1/4 - in.	1.65
627	.26	Coupling	6	2 1/2 -In.	1 1/4 - in	1.00

#### INDUCTANCE CLIPS

No LC4-Inductor Clip. Clips are not included with "Hi-Q" inductors and must be 

#### PI NETWORK INDUCTORS

No. 2202111.3—Impedance-Matching Inductor. For balanced networks (two required for complete networks). Inductance 14 mch. Complete with three clips. Price. \$2.52 No. 2403HL3-Impedance-Matching Inductor. For unbalanced networks (one re 

#### JOHNSON HI-Q PLUG-IN INDUCTORS

ssembly designed
n length.
\$4.98
9.76
3.30
9 88

DEDUCT 2% FOR CASH WITH ORDER

2.88 107

## JOHNSON INSULATORS





5 1/4 " high (body 4 1/2"). Base 2 1/4" 1/4 "-20 square. hdwe. used. Brown or white. No. 60-Each \$0.39

**NEW** Metal Base STAND-OFFS

Eliminate breakage through use of steel base.

BEE-HIVE TYPE New space-saving oval base. 1% ins. high—uses 10-32 hard-\$0.15 JDN 





No. 44 thru-panel stand-off. Body  $\frac{5}{8}$ " above and  $\frac{5}{16}$ " bepanel. 6-32 hdwe. Mounts in 5" hole. No. 44-Each ..... \$0.09 2 for \$0.17

No. 42 thru-panel standoff. Body \( \frac{5}{8} \)" above and \( \frac{3}{8} \)" below panel. \( 10-32 \) off. Mounts in hdwe. hole.

42—Each....\$0.12



Same as

G. R.

No. 40 thru-panel standoff. Body 1¼" above and ½" below panel. 10-32 Mounts in hdwe. hole.

No. 40-Each .... \$0.15

No.

出

No. 42J jack type thrupanel stand-off. Same as No. 42 except with standard jack.

No. 42J-Each....\$0.15

No. 40J jack type thrupanel stand-off. No. 40 except with standard jack fitting. Banana style plug. No. 40J-Each .... \$0.18

BEE-HIVE TYPE Preferred by many.

.\$0.18 No. 45J-Same as above with No. 74 Jack.....\$0.21



Medium large through-paniel stand-off. Body 2% ins. above and 1 in. below panel. \(\frac{1}{4}\)-20 hardware—mounts in \(\frac{1}{4}\)-in.

hole. No. 46. No. 46 

"Spring-Sleeve" Type



No. 72 No. 73 No. 71 No. 70

JOHNSON ANTENNA **EOUIPMENT** 

Made of highly vitrified, glazed, Low Absorption porcelain suitable for R.F. and high voltage, low frequency insulation. All white glazed finish.

#### TRANSPOSITION BLOCKS



Size 1 % "x2 1/2 " For Doublet Antennas. Considered to be highest quality on the market.
No. 31 Transposition

#### FEEDER SPREADERS



long with grooves in ends for lead wires and holes for tie wires. Very good quality.

No. 132—2-inch. Each. \$0.07 No. 134—4-inch. Each. .09 No. 136—6-inch. Each. .12



#### **AIRPLANE** STRAIN INSULATORS

Excellent for guy wire support. Least weight and less wind resistance. Very sturdy. No. 32 Strain Insulator. Each. . \$0.05 10 for \$0.40

#### "CRUCIFORM"



#### ANTENNA INSULATORS

All 1" Will s diameter. Will stand 1,500 pound pull without breaking.

No. 107—Ant. Insulator. 7" long.

Each 

JOHNSON No. 112-Ant. Insulator. 12" long. Each ......\$0.54 No. 120—Ant. Insulator. 20" long. Each (Not illustrated)

#### JOHNSON TYPE "O"

Transmitting Antenna Systems



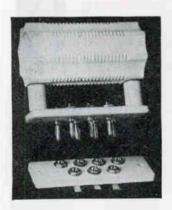
plete instructions included.

Write for special Johnson Technical Bulletin on the "Q" Antenna Systems. If you want the best, the Johnson "Q" is it.

#### TRANSMITTING COIL FORMS

#### GENERAL RADIO

#### TYPE 677 TRANSMITTER COIL FORM



This form is used in oscillators and power amplifiers in low and medium power transmitters. It is of impregnated moulded porcelain having low losses, and moulded with six heavy ribs on which coil is wound. The form is 2½ inches outside diameter, 4% inches long and has 21 V-cut threads occupying a winding space of 3 ins. Any size wire up to No. 10 B&S gauge may be used. Spacers and plugiack bases are available so that the coils may be jack bases are available so that the coils may be plugged in to the circuit. The bases are supplied with seven plugs and seven jacks, allowing any combination of standard circuit to be used. Grid and plate or wound on one form for

plate and antenna coils may be the higher frequency bands.

Transmitter Coil Form Assembly. Complete ..... \$2.30

Уре 77-U	Description	Price
	Coil Form	
77-Y	80-160 meters	80
77-PI	Coil Form Spacer (2 Required	d)35 per pr.
78-P	Plug Base with 7 Type 274-P Pl	
78-J	Jack Base with 7 Type 274-J Ja	icks .70

#### ICA WOUND TRANSMITTING INDUCTANCES

These inductances are designed for use in amplifiers and transmitters, equipped with taps for neutralizing and antenna coupling coils. Precision winding with double silk covered wire. Forms are 2½ in, diam, are 3½ in, long, and are the 5-prong type. Designed for use with tuning condenser of 100 Mmfd. Wire size is No. 16 on 20, 40, 30 meter coils and No. 18 on 160 meter coils.



20 METER INDUCTANCE Has 6% turns spaced % and tapped at 1% turns. Antenna coll 6 turns close wound.

40 METER INDUCTANCE

Has 121/2 turns spaced 1/6, tapped at 41/2 turns. Antenna coll
No. 10001

80 METER INDUCTANCE

Has 20 1/2 turns close wound, tapped at 6 1/2 turns. Antenna coil 10 turns close wound.

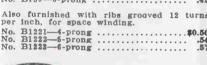
No. 12682

#### BUD "GIANT" PLUG-IN COIL FORM

Special low-loss tan colored bakelite. Size, body of coil form, is 2-7/16 inches in diameter and 3% inches long. Winding space, 3½ inches. Eight ribs extend % inch out

iron	1	po	dy.	H	18	me	οl	u)	ld	le	d	l	g	ri	p	r	Ιċ	lg	re				
No.	В	173	44	-pi	101	ıg															. \$	0.	36
No.	В	73	55	- pi	101	18																- 1	39
No.	Е	373	66	-p:	01	ıg														۰			42

Also furnished with ribs groaved 12 turns per inch, for space winding.

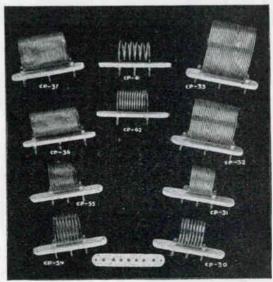






#### ICA INSULEX TRANSMITTING PLUG-IN COIL FORM

Size 2½x4 inches high. Low dielectric and sorption losses. Ideal for H.F. work. Heavy stand well out from body.
No. 2660-7-prong, large.... ..\$0.75 NEW "LOCTURN" TRANSMITTING INDUCTANCES



"Locturn" self supporting coils produce the highest possible R.F. coil performance and efficiency. All have a "Q" over 350. Their much superior mechanical construction places "Locturn" coils far ahead of any product of their kind.

#### Characteristics and New Low Prices of "Locturn"

		1 ran	SHILLLI	ing andrec	TOI S	
Our Code	Band	Wire I	Mtg.	Approx.	Tune	*Price
No.		Size Ce	nters	Ind.	with	
CP-30	20	No. 10	3"	3 mh	50 mmf	\$ .85 ea. net
CP-31	40	10	3"	10 mh	50 mmf	1.25
CP-32	8.0	10	5"	50 mh	50 mmf	1.45
CP-33	160	10	5"	70 mh	100 mmf	1.90
CP-34	20	14	3"	3 mh	50 mmf	.70
CP-35	40	14	3"	10 mh	50 mmf	1.10
CP-36	80	14	5"	50 mh	50 mmf	1.30
CP-37	160	14	5"	70 mh	100 mmf	1.75
CP-61	10	.128"	3"	3 mh	50 mmf	
ing-\$.	85 net	complete	with	lugs and	hardware	for mounting
CP-69	20	.128"	3"	1 mh	50 mmf	Self support-
ing-8.	85 net	complete	with	lugs and	hardware	for mounting
* Coils of						
03110 01						

#### VITROLEX FLUTED COIL FORM

CP-14--Here is probably No. CP-14—Here is probably the greatest value in a ceramic coil form of its size. Wound with No. 10 wire, its inductance is high enough to cover the 160 meter band in a high "C" circuit. It is beautifully glazed with a special highly brilliant glaze, is mechanically rugged, drilled with plenty of large holes for taps, for conveniently ending ceil wire and mounting. The coil form is 5 in. long by 2% in. dlameter and is threaded for 30 turns. No.

Price. net ......\$0.60



HMIT



#### SHORT-WAVE CHOKES

Z-1-5 meters...80.15 Z-2-10-20 meters .45 Z-3-20-40 meters .66 Z-4-40 to 160 meters ..... .90 rated at 1,000

109

#### COIL SETS - COIL FORMS - ACCESSORIES

#### ICA WOUND COIL SETS





No. 1433—20-40-30-100. For aniateti, battles, 54 Any single coil, any band.

BAND-SPREAD S. W. BROADCAST COILS, FIVE PRONGS
No. 1434—19-25-31 and 49 meter bands. Set of 4 coils...\$2.10

Any single coil, any band.....54



Regular standard 3-circuit 6-prong coils. Primary and secondary and tickler on each coil. Tune 15 to 200 meters. Use 140 or 150 mmf. tuning

#### ICA SMALL RIBBED BAKELITE COIL SET





ICA 6-PRONG COIL SET On large ribbed bakelite coil forms. 3 circuit-primary, secondary and tickler. Tune with 140, 150 mmf. condenser. 16 to 200 meters. Set of four coils.

No. 1428—S. W. Coil Set.. No. 1441—Ultra H.F. Coil. 9.5 to 21 meters. . .60 No. 1429—Broadcast Coils. Set of 2. 190 to 550 meters..... . . . . . . 1.35

#### ICA INSULEX COIL SET

6-prong, 3 circuit-primary, secondary and tickler. Tune with 140, 150 mmf. condenser. Range 16 to 200 meters. This is a very high quality set of 4 coils.



.90 No. 966-Broadcast Coils. Set of 2..... 1.80

#### TWO POLE BAND CHANGE SWITCH



110

#### SINGLE POLE BAND CHANGE SWITCH

#### SMALL BAKELITE COIL FORMS

Genuine bakelite coil forms with color code ring-red, yellow, blue, green. Winding space, 11/4 x 21/6 inches.

 No. 1168B—4-prong
 \$0.12

 No. 1113B—5-prong
 12

 No. 1114B—5-prong
 12

NEW BAND-SPREADING COIL FORMS

Complete with quality ceramic padding condenser mounted on coil form top.

No. 1463—Form with 80 mmf. condenser. \$0.27
No. 1464—Form with 180 mmf. condenser. .27





#### ICA BAKELITE RIBBED LOW-LOSS COIL FORMS

Designed for easy grooving. Heavy thick ribs. Good for low power transmitters, oscillator and buffer coils. Size 3 % x1 o inches. Colors: black, and brown.

No. 1051—4-prong	\$0.18
No. 1052-5-prong	
No. 1053-6-prong	
No. 1054-7-prong,	

#### ICA SMALL RIBBED BAKELITE COIL FORM

Size 1 % x2 1/4 inches. Have rim on top. Recess in top for wave band labels and

pau	ling condensers.										
No.	2158-4-prong								. \$0	.12	
No.	2159—5-prong									.15	
No.	2160—6-prong			٠						.15	





#### ICA INSULEX COIL FORMS

Insulex is a non-hygroscopic ceramic compound, having very good low-loss qualities. Beautiful in appearance, these coils are slotted to eliminate necessity of drilling. Size 3 % x1 p inches. 

No. 954—6 prong...... .36 No. 955-7 prong, large..... 39

#### UTILITY COIL ASSEMBLY

Price complete, net.....\$0.95



#### VITROLEX UNIVERSAL COIL FORM



No. CP-15—This coil form is unique in that it provides notches for winding coils of 10, 20 or 33 turns. By loosening the screws in the ends of the transverse Vitrolex hars, notches are available for small diameter wire or as large as 5/16 in, diameter tubing. One face of the bars is smooth and when this surface is turned outward, hand spaced windings may be made. For either experimental inductor construction or for permanent use, this Vitrolex coil is an ideal unit insolar as simplicity, coil efficiency, form factor, loss and ease of either soldering or clipping on taps are concerned. Shipped knocked down. Assemble yulckly and easily. Outside dimensions 64 in, long by 4 in, diameter.

#### Fixed Transmitting Conde

Saint Paul



Cornell-Dubilier—the safe, dependable condenser line since 1910. At these NEW LOW PRICES you can't afford to take chances on "bargains." Use C-D Condensers and be safe!

See the full line of Cornell-Dubilier Receiving Condensers on pages 12, 13, 14, 15. All types of electrolytic and paper condensers.





#### OIL FILLED TRANSMITTING TYPE FILTER CONDENSERS

Heavy Metal Case Notice Compact Sizes Fully

			Gu	iarante	ed	
					Y	our
Type	Cap		Size	3		Cost
We	rki	ng V	oltage	, 600	DC	
TD6010		2 1/8 X	1 - 13/1	.6x1-1/	16 \$	1.05
TD6020	2	2 % x	1 - 13/1	6x1-1/	16	1.65
TD6040	4	4 x	1 - 13/1	6x1-1/	16	2.70
Wor	rkin	r Vo	ltage,	1,000	DC	
TD10010				6x1-1/		1.50
TD10020		4 x	1 - 13/1	6x1-1/	16	2.70
TD10040	4			x1½		4.20
Wo	rkin	g Vo	ltage.	1,500	DC	
TD15010	1			6x1-1/		2.25
TD15020	2	4 3/4 X	1-13/1	16x1-1/	16	3.75
TD15040	4	4 3/4 x	2 1/2	x1 ½		5.40
Wo	rkin			2,000		
TD20010	) 1	4 3/4 X	1-13/1	16x1-1/	16	3.15
TD20020	2		2 1/2	x 1 1/2		4.80
TA20040			/16x33	% x 2 1/4		6.60
		ag Ve	oltage	. 2,500	DC	
TA25010		4 3/4 X		x11/4		8.40
TA25020			3 3/4	x2 1/4		10.20
TC25030	3	4 3% X		x3 3/4		12.60
			ltage.		DC	
TC30010		3 5% >		x3 3/4		10.80
TC30020		6 3		x 3 %		13.80
T(30040			5 3%	x 3 3/4		18.00
		/				



#### OIL IMPREGNATED SPRAGUE SHORT WAVE H. F.

By-Pass Condensers. FB for bypass, blocking and antenna coupling. Metal cased-non-inductive. Dimensions

				Dime	TIDIOI	19
Cat. C	apac-	Wor	k'g	Dia.	L'th	Your
No.	ity V	oltag	e	Incl	hes	Price
SW-22	.002	1500	9/1	16x1-	9/16	\$0.27
SW-25	.005	1500	- 1	% x1-1	1/16	.27
SW-11	.01	1500	11/1	16x1-1	1/16	.42
SW-15	.05	1000	7	%x21/4		.48
SW-1	0.1	1000	1 1	% x 2 1/4		.54



#### SANGAMO

Mica Condensers Are Accurate! Stay Accurate! Known for Quality!

TYPE A-10	TYPE A-25
1,000 Volts DC	2,500 Volta DC
Test	Test
Cap. Mfd. Price	Cap. Mfd. Price
.00011\$0.24	0001. \$0.42
.0002524	00025. 42
.000524	00025. 42
.00130	00154
.00230	00281
.00336	00393
.00542	005. 1.05
.006	.006 1.05 Volts DC Test Cap. Mfd. Price .001 80.90 .0015 1.17 .002 1.35

#### TRANSMITTING MICA CONDENSERS

RATED + OR - 10%

	2010-002			/-					100		
1.00	0 Volts D	.C. 7	Cest				Type 4			-	
600 Vo	lts D.C. V	Vork	. Volts	2,50	0 Volts I olts D.C.	Wor	Volts	1	T	ype	9
		rice	Price	1,200 V	OLUB D.C.	****	Price				
Cap.			Type 9			rice		5.00	0 Volts D	.C. 7	Cest
.00005	Mfd\$	0.21	\$0.24				Type 9	2 KOO V	olts D.C. V	Vork	. Volts
.00007	Mfd		.24	.00005	Mfd	0.36	\$0.42	2,000 1			Price
.0001	Mfd		.24	.00007	Mfd	.36	.42		_P1	rice	
.0002	Mfd	.21	.24	.0001	Mfd	.36	.42	Cap.	Tyr	pe 4	Type 9
.00025	Mfd	.21	.24	.0002	Mfd		.42	.00005	Mfd\$0	1.42	\$0.54
.0005	Mfd	.21	.24	.00025	Mfd	.36	.42	.00007	Mfd	.42	.54
		.24	.30	.0005	Mfd	.36	.42	.0001	Mfd	.42	.54
.001	Mfd					.45	.54	.0002		.54	.63
.002	Mfd	.27	.30	.001	Mfd	.57	.81	.00025	Mfd	.54	.63
.003	Mfd	.33	.36	.002	Mfd		.93		Mfd	75	.78
.005	Mfd	.33	.42	.003	Mfd	.72		.0005			.90
.006	Mfd	.39	.51	.005	Mfd	.90	1.05	.001		.90	1.00
.01	Mfd	.48		.006	Mfd	1.02	1.05	.002	Mfd		1.35
.02	Mfd	.72		.01	Mfd			1.005	Mfd		1.98



#### NEW! CORNELL-DUBILIER CERAMIC CASE—HIGH VOLTAGE

High Amperage Mica Capacitors

Type 86 Condensers are hermetically sealed-capacity remains constant. Recommended for amateur and broadcast station plate blocking, grid and tank condenser applications.

	Cap.	Max.	Max. Amps.	Your
Cat. No.	Mfd.	Volts	at 80 Meters	Cost
45A-86	.00005	12,500	1.5	\$2.25
	.0001	12,500	3	2.25
31A-86		12,500	6	2.25
325A-86	.00025	12,500	8	2.55
35A-86	.0005		0	2,25
21 <b>D</b> -86	.001	3,500	10	2.55
21C-86	.001	7,000	10	
21A-86	.001	12,500	11	3.00
22D-86	.002	3,500	9	2.55
22C-86	.002	7,000	10	3.15
22A-86	.002	12.500	13	3.90
23A-86	.003	12,500	13	4.80
	.005	7,000	12	4.20
25C-86		10,000	14	5.70
25B-86	.005	3,500	14	4.20
11D-86	.01		15	5.70
11C-86	.01	7,000		5.70

Write for C-D Catalog on Other Type 86 Capacities.



#### CONCENTRIC TRANSMISSION LINE

Concentric transmission line is increasing in popularity in amateur radio. It provides a completely shielded line and is stable in operation under all climatic conditions. Low in impedance, concentric cable of this construction permits impedance matching with very desirable antenna networks.

desirable antenna networks. Constructed of specially drawn copper tubing having an inside diameter of 5/16 in. and No. large hard drawn copper wire. The inner conductor is supported in the tube on Ultra Steattte spacers which are crimped in place on the wire. The inner conductor is thus held concentric with respect to the tubing throughout its length. The ends of the tubing are then sealed with sulphur.



#### Prices of Concentric Cable Complete

CP-70A-(10-ft, le				
CP-70C-(25-ft. le	ength.)	Net		 8.25
CP-70D-(30-ft, 10 CP-70E-(40-ft, 10	ength.) ength.)			. 13.00
CP-70F -(50-ft, le			Stautita	
and crimping	tool. N	et		 . 1.70
CP-23-Ultra Stea				
Net per 100				 

#### TRANSMITTING KEYS...INSULATORS









#### SPEEDX KEYS

No. 301-Moulded bakelite base, coin silver contacts. base, coin silver contacts. Metal parts chrome plate. Each ..

No. 303—Same as No. 301 except has ¼ in. contacts. Each ......\$1.25

No. 321—Heavy-duty type, ¼ in. coin silver contacts. All chrome plated .... \$1.95

No. 311—Standard key. Has provisions for plugging in SpeedX Bugs. All chrome plated......\$1.50

No. 310—Same as No. 311 except has black crinkle base ......\$1.35

400-Constant frequen 

No. 350—Bakelite replace-ment knob......\$0.12

No. 450—Practice Set. No. 301 key and No. 400 buzzer mounted on base.....\$1.95

#### NEW SPEEDX "BUGS"

One of the finest automatic keys ever made.

Balanced to perfection and fully adjustable to give plenty of pep and life.



No. 501—Chrome base ..... 7.50

#### JUNIOR HI-SPEED KEY

The Junior No. 510 Key is a smaller model of the popular No. 500 HI-SPEED key. Fully adjustable to give plenty of PEP and LIFE. A favorite of the amateur who prizes his clean cut sending. No. 511-

Chrome base ....

Guarantee-Every SPEEDX Hi-Speed Key is manufactured to the highest standard of quality and is unconditionally GUARANTEED.

#### "SIGNAL" KEYS



NEW! \$0.90

The new Signal Sales Leader. Heavy cast base, well insulated, black crackle finish, ¼ in. coin silver contacts, nickeled parts and compo. knob. A real value. No. R-50. ....\$0.90

#### IA AS STANDARD TELEGRAPH TYPE KEY

The Key with the "Fee!"
Platinor contacts, rated at ¼ Kw.
ished key lever and lacquered parts.
No. R-48. Pol-

SIGNAL HEAVY DUTY KEY All brass construction with lacquer finish, 1/2, in. coin silver contacts; navy type knob No. R-64—% in. contacts.....

#### SIGNAL PRACTICE SETS



R-68—Set consists of a key and an adjustable high frequency buzzer on mahogany finished board on which de is printed.
quality set.....\$2.00

R-69—Code practice set. Consists of a key and a non-adjustable buzzer on a metal base on which the code printed. Good quality. R-69...... \$1.05



Signal R-60 - Hi-frequency buzzer. Adjust-Resist. 2 ohms. able. \$0.85

## OFFICIAL BOY SCOUT SIGNALLER

Radio-Blinker-Telegraph — Consists of high pitched buzzer, light blinker and telegraph sounder operated from two No. 2 Burgess flashlight cells. Code is printed on instrument. Sturdy all-metal construction.

No. 1095-Without batteries ... . \$0.90



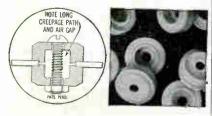
#### NAVY KNOB

You should have one on your key.

No. 360......\$0.15

#### **BUTT-INS**

(BUTTON LEAD-INS)



This is one of the most convenient feedthru insulators on the market. Although only % in. diameter they insulate for over 5000 volts at 60 cycles. Are better than porcelain and much more economical. Fit 7/16 in. hole; pass 6-32 screw.

CP-19-Per doz. net..... Nickle Plated Jacks for mounting 

112

#### UNIVERSAL PLUG AND JACK STRIPS FOR "LOCTURN" COILS



CP-40—Plug Strip only, each net. \$0.48 CP-41—Five standard banana plugs, screws for plugs, screws for mount-ing coils, spacers, etc., net per set. . .50 CP-42—Jack Strip only, each net. . .48 CP-43—Five standard jacks, nuts and lugs for above, net per set. . .40

#### VICTRON "G" The Magic Insulator of Radio

Victron is one of the most remarkable organic substances yet contributed to radio. It is practically loss free, manifesting no more "response" to high frequency alternating current fields than fused quartz. Victron may be used to advantage as a material for insulating condensers, switches, sockets, terminals, etc. It may be used to construct inductors which will not rise in temperature, due to dielectric power loss, will provide maximum "Q" and promote circuit performance. For 56 megacycle service or at the higher frequencies it is without equal in its field.

PRICES OF VICTRON G Thickness x 12' \$2.00 1.35 3/16" 1/8" . \$3.60 \$0.75 .45 CONDENSER INSULATION STRIPS Net Price

\$0.35



#### Heavy Duty Custom Built

## Taylor Tubes

"More Watts per Dollar"

New!-T55



168 Watts Output for Only \$8.00

Efficient on all frequencies up to 200 megacycles. Fil. 7.5 volts, 3.25 amps. Max. plate volts 1500 max. Plate current 150 M.A. Plate to grid 2.5 MMF. 55 watts plate dissipation.



756

40 watts plate dissipation — Fil. 7.5 volts—2.0 a m p s., max. plate volts 850—max. plate current 110 M.A. An extremely efficient doubler or crystal osc. tube. Pair will deliver 100 watts audio in class B. A high mu. tube.

\$4.95

825

40 watts plate dissipation, Fil. 7.6 volts, 2.0 amps. max. plate volts 850, max. plate current 110 M.A. Efficient on 5 to 160 meters.

\$4.95

841A-\$7.00

50 watts plate dissipation. Efficient performance on all bands from 10 to 160 meters. Fil. 10 volts, 2 amps. Max. plate volts 1000. Max. plate current 150 M.A.

Hams who remember our former sales engineer Rex L. Munger (W9LIP) will be pleased to hear that he is now sales manager for Taylor tubes. "We Guarantee Em!" sez Rex.

Guarantee: All Taylor tubes are guar-

anteed against defective workmanship and material. Any tube which has failed due to mechanical or electrical defects will be replaced if returned direct to the factory.



New! 814 400 Watts only \$18.50

200 watts plate dissipation. Efficient on all frequencies from 10 to 160 meters. Fil. 10 volts, amps. Max. plate volts 2000. Max. plate current 300 M.A.

600 Watts Audio (2 tubes) 822

Same construction as 814. 200 watts plate dissipation. 600 watts audio in class B. Fil. 10 volts. 4 amps. Max. plate volts 2000. Max. plate current 300 M.A. Efficient on 10-20-40-80-160 meters. A super HD-203A.

Net Price \$18.50

Taylor 866

Half wave mercury vapor rectifier. Fil. 2.5 volts, 5 amps. Inverse peak 7500 volts. Inverse current 600 M.A. Mul-ti strand filament construc-

\$1.65



**Taylor** 866B

Half wave mercury vapor rectifier. Fil. 6 volts, 5 amps. Inverse peak voltage 8 5 0 0. peak Inverse current 1 amp.

\$3.00

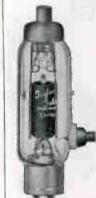
New! T155

450 Watts Output for Only \$19.50



The ideal high power ultra high frequency tube. Fil. 10 volts, 4 amps. Max. plate volts 3000. Max. plate current 200 mla. grld to plate; cap. 3 mmf. Easy to drive. 200 watts plate dissipation.

500 Watts on 5 Meters!



T200

Plate dissipation 200 watts. A high frequency tube for efficient operation on 2½ meters at full input. 500 watts output on 5 meters as a class C amplifier. Large carbon anode, prid leak at side. Plate lead at top.

\$21.50

HD203A-\$17.50

150 watts plate dissipation. Fil. 10 volts, 4 amps. Max. plate volts 2000. Max. plate current 250 M.A. A favorite with many amateurs.



203A \$12.50 160 Watts Output (Class C)

100 watts plate dissipation. Efficient on 20-40-80-160 meters. Fil. 10 volts, 3 amps. Max. plate volts 1250. Max. plate current 1250. 175 M.A.

Other TAYLOR Tubes

211-Same general characteristics as 203A except Mu. is lower.

\$12.50

211C-Same general characteristics as 211 except grid to plate capacity is 7 mmf.

\$12.50

F-52-Regular Carbon Anode 852 except has type 50 watt base.

\$15.00

Write Is For TAYLOR Tubes Combined Catalog and Handbook

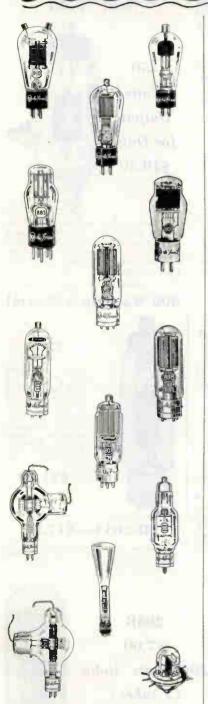
203B \$7.00

200 Watts Audio (2 tubes)

200 watts audio in class B. Fil. 10 volts, 3.25 amps. Max. plate volts 1000. Max. plate current 176 M.A.



# de forest amateur radio tubes



Complete Stock



All the Time

## EXCLUSIVE RCA-DE FOREST TUBE DISTRIBUTORS IN THE NORTHWEST

We are very proud of our appointment as the exclusive distributor of this leading line of transmitting tubes in the Northwest, and we strive hard to merit the appointment by carrying a large stock, offering technical advice and by assisting our customers in every way possible. We stand back of the generous RCA-De Forest guarantee 100% at all times. Our slogan, "When you think of tubes—order from Lew Bonn Co., applies to the transmitting types also.

Type	Ama- teur's Net Price	AMATEUR TARNSMITTING TYPES  DESCRIPTION	Elec- trodes	Max. Plate Dissipation Watts	Cathode Type	Cath- ode Volts
203-A	\$15.00	R-F Power Amplifier, Oscillator, Class B Modulator	3	100	Filament	10.0
204-A	97.50	Oscillator, R-F Power Amplifier, Class B Modulator	3	250	Filament	11.0
211	15.00	R-F Power Amplifier, Oscillator, A-F Power Amplifier, Modulator	3	100	Filament	10.0
800	10.00	R-F Power Amplifier, Oscillator, Class B Modulator	3	35	Filament	7.5
801	4.50	R-F and A-F Power Amplifier, Oscillator, Modulator	3	20	Filament	7.5
802 803	3.90	R-F Power Amplifier Pentode R-F Power Amplifier Pentode	5	10 125	Heater Filament	6.3
804	15.00	R-F Power Amplifier, Pentode R-F Power Amplifier, Oscillator	5 5	40	Filament	7.5
805	18.00	Class B Modulator Class B Modulator, R-F Power Amplifier,	3	125	Filament	10.0
830-B	10.00	Oscillator Ultra-High Frequency R-F Power Amplifier,	3	60	Filament	10.0
831 834	265.00 12.50	Oscillator, R-F Power Amplifier Oscillator	3	400 50	Filament Filament	11.0 7.5
837	8.50	R-F Power Amplifier, Pentode Class B Modulator, R-F Power Amplifier,	5	10	Heater	12.6
838	16.00	Oscillator	3	100	Filament	10.0
840 841	6.00 3.25	R-F Pentode R-F Power Ampliffer, Oscillator,	5		Filament	2.0
842	3.25	A-F Voltage Amplifier A-F Power Amplifier A-F Power Amplifier, Modulator Power Amplifier, Oscillator Screen Grid R-F Power Amplifier Modulator, A-F Power Amplifier Modulator, A-F and R-F Power Amplifier, Oscillator	3	15 15	Filament Filament	7.5 7.5
843 844	12.50 18.00	Power Amplifier, Oscillator Screen Grid R-F Power Amplifier	3	15 15	Heater Heater	2.5 2.5
845 849	16.00	Modulator, A-F Power Amplifier Modulator, A-F and R-F Power Amplifier.	3	75	Filament	10.0
850	37.50	Oscillator Screen Grid R-F Power Amplifier	3	400 100	Filament Filament	11.0 10.0
851	350.00	Modulator, A-F and R-F Power Amplifier, Oscillator	3	750	Filament	11.0
852 860	16.40	Oscillator, R-F Power Amplifier Screen Grid R-F Power Amplifier	3 4	100	Filament Filament	10.0
861 864	32.50 295.00 1.60	Screen Grid R-F Power Amplifier	4 3	400	Filament	11.0
865	12.75	Amplifier (Low Microphonic Design) Screen Grid R-F Power Amplifier	4	15	Filament Filament	1.1 7.5
868 917	6.00	Phototube Phototube (High Vacuum Type) Phototube (High Sensitivity)	2			
918 919	5.00 6.00	Photo Tube (Plate Lead out Top)	2			
954 95 <b>5</b>	5.80 3.75	Detector, Amplifier Pentode (Acorn Type) Amplifier, Detector, Oscillator (Acorn Type)	3		Heater Heater	6.3
217-A	\$20.00	RECTIFIERS		3 500	Eilenant	10.0
217-C	20.00	Half-Wave High-Vacuum Half-Wave, High-Vacuum	2	3,500 7,500	Filament Filament	10.0
866 866-A	4.00	Half-Wave, Mercury-Vapor Half-Wave, Mercury-Vapor	2 2	7,500 10,000 7,500	Filament	2.5
872 872-A	14.00 16.50	Half-Wave, Mercury-Vapor Half-Wave, Mercury-Vapor Half-Wave, Mercury-Vapor	2	10,000	Filament	5.0 5.0
878	11.00	Tubes	2	20,000	Filament	2.5
879	3.00	Half-Wave, High-Vacuum for Cathode-Ray Tubes	2	7,500	Filament	2.5
885	2.00	Gas-Triode for Cathode-Ray Sweep-Circuit Control	3	300	Heater	2.5
	607.50	CATHODE-RAY TUBES				
903	\$97.50	9-inch Electromagnetic Deflection, High- Vacuum	5	7,000	Heater	2.5
904	52.50	5 In., Electrostatic-Magnetic Deflection, High-Vacuum	5	4,600	Heater	2.5 2.5
905 906	45.00 18.00	5 in., Electrostatic Deflection, High-Vacuum 3 in., Electrostatic Deflection, High-Vacuum 5 in., Electrostatic Deflection, High-Vacuum,	4	1,200	Heater Heater	2.5 2.5
907	48.75	Short Persistence Screen	4	2,000	Heater	2.5
908	21.00	3 in., Electrostatic Deflection, High-Vacuum, Short Persistence Screen	4	1,200	Heater	2.5
909	49.00	5 in., Electrostatic Deflection, (Long Persistence Screen)	4	2,000	Heater	2.5
910	21.25	3 in., Electrostatic Deflection, (Long Persistence Screen)	4	1,200	Heater	2.5
911	22.50	3 in., Electrostatic Deflection, (With Non-Magnetic Gun)	4	1,200	Heater	2.5
991	.90	Neon Voltage Regulation	7	-1,200		

NOTICE NEW LOW PRICES! R. C. A. 866 \$ 1.75

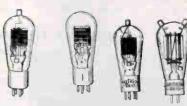
#### THE LEADER IN NEW **DESIGNS**

## Thoroughly

#### **AMATEUR** TRANSMITTING TUBES

	None				
7763	Nom.			0	(000)
	Watts Output DESCRIPTION	NET	Contract of the last of the la		10
Type No. Volts		MEI	Territ	100.00	A STATE OF THE STA
RK10 7.5	10R. F. Oscillator and Amplifier, Class A or B		/1980 EV	MA INC.	
	Modulator	\$ 3.50	21/2 21	100	
RK15 2.5	10R. F. Amplifier Doubler, Zero Bias Class B		1000	111113	
	Modulator	4.50	i Li		
RK16 2.5	1.5R. F. Amplifier, Class A Driver	4.50	1	1 18	Michigan III and Market
RK17 2.5	10R. F. Oscillator, Amplifier and Doubler Pen-			- 4	(50% To )
	tode	4.50		11,381	
RK18 7.5	40 Class B Modulator, R. F. Oscillator and Am-			The T	
	plifler	10.00	77 17	N 1111	
RK19 7.5	Full Wave, Vacuum Heater Type Rectifier	7.50		CH 2004	
	50 R. F. Osc., Amp., Doubler, Suppressor Modu-			77/401	2)_04
	lation Pentode	15.00		1.3	A 4
RK21 2.5	Half Wave, Vacuum Heater Type Rectifier	5.00		1000	11 17 23 (2)
RK22 2.5	Full Wave, Vacuum Heater Type Rectifier	7.50		PHI TAI	I Visably
	15 Shielded Pentode R. F. Osc., Amp., Doubler	4.50		10000	1 1 1
	1.5 Triode Modulator, R. F. Oscillator, Amplifier	2.25		3 1 3	
	15 Pentode R. F. Oscillator, Amplifier and		12		vflipa.
	Doubler	4.50	Tr. STORE		A RAYTHEON
RK28 100	100 High Output Pentode, any R. F. Service	38.50	Anne		K K - 33
RK 29 10 0	100 Pentode Osc., Mod., R. F. Power Amp., Class		- C- 600 - 1	6	- 14 - 1 1 1
111100	B and C	38.50	\$200		
PK30 75	65 High Frequency R. F. Oscillator and Am-	00.00	2712		100
161200 1.0	plifier	10.00	1		6.8 (8)
B K 3 1 7 5	125Zero Bias Class B Modulator	10.00	14.85		
RK32 7.5		12.00	The state of the s	Control	
RK34 6.3		3.50	Name and Address of the Owner, where the Owner, which is the Owner, which is the Owner, where the Owner, which is the Ow	1	II de
12 K 25 7 5	61Triode, Modulator, R. F. Amplifier, Oscillator		(ESS)	1.11	
10 L- 26 E	200 Triode, Modulator, R. F. Amplifler, Oscillator	8.190	Special Control		The second second
ILIX 30 9	200 Triode, Modulator, R. F. Amplifier, Oscil-		January .	111	122
DIZ100 02	lator	14.50		1 2 4	
2024 100	15Gaseous Discharge Amplifier	7.00	10.000		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
203A,10.0	100R. F. Oscillator, Amplifier, Class B Mod	17.50	100	1 24	CMG
841 7.5	13Audio Amp., R. F. Osc., Amp., Doubler	3.25	1338		CT TO THE
842 7.5	7Class "A" Amplifier Modulator	3.25	-		- Marie - Control
864 1.1	1 Non-Microphonic Triode Amplifier	1.60	100	PALIMEDN	7.
866A 2.5	Half-Wave Mercury Vapor Rectifier		1.00	556A-	1192
872A 5.0	Heavy Duty Half-Wave Mercury Vapor Rec-		311	rio tela	TIN av
	tifler	18.50	17.7	anda	844 54
DA WOTTE	A A A A METER OF A MARKET OF THE		п		
MAIIMEU	N AMATEUR TRANSMITTING TUB	ES			0 0-0
			-	4111153	A X X
are ruggedly bu	ilt to give excellent service and long life at full	rated	1 55 1	1 500	( Attend
output. A type f	or every amateur need is offered in the list above.			N RIPS	1 1 1 1 1 1 1 1

output. A type for every amateur need is offered in the list above. We recommend, unreservedly, the use of the RK20 as a buffer or doubler tubes in medium and high power transmitters. Our experience has proven that the RK20 is ideally suited for this purpose. The use of the RK314s as Class B Modulators is also recommended. They are zero bias tubes giving 125 watts of audio in Class B and are just the ticket for modulating a single 03A The RK34 is also showing up well as a crystal oscillator tube. You can't beat Raytheon tubes for outstanding performance.



#### "EIMAC" TRANSMITTING TUBES

Operating with normal input Eimac Tubes are capable of far more output than is generally conceded possible in amateur practice. Plate efficiencies of as high as 75% and more are an everyday occurrence with Eimac tubes. It may be of interest to note that a pair of Eimac 300T's can give an antenna power of 2.5 KW! IMPORTANT! Eimac tubes should never be operated with less than rated fil. voltage and ½ to ¾ volt too much is better than .1 volt too little!

WRITE FOR BULLETIN ON TYPE in which you are interested.



#### NEW EIMAC "35T"

#### PERFORMANCE!

	Class "C"	Class "B"
Plate	R.F.	Andio
Voltage	(75% eff.)	(2 tubes)
700 volts	38 watts	50 watts
750 volts	56 watts	85 watts
1000 volts	75 watts	115 watts
1250 volts	91 watts	130 watts
1500 volts	112 watts	140 watts
Net price		\$8,00

#### The EIMAC "50T"

A medium mu three element tube. High out-

#### EIMAC "150T"

A medlum mu, three element vacuum tube for high efficiency and output, as oscillator or amplifier at audio and radio frequencies up to 75 Mc. May be used at reduced output, up to 300 megacycles. No "Getter" inside envelope to give off gas when heated. Exclusive design insures high vacuum during tube life. Fil. voits 5, fil. cur. 10 amps. Rated plate dissipation 150 watts, amp. factor 13. Normal max. plate cur. 200 M.A. Base; stand 50 watt. Plate voits 3,000. Normal power output (Class C 75% eff.), 450 watts \$24.50

#### EIMAC "300T"

Departing with the normal maximum permissible input, the EIMAC 300T is capable of a radio frequency output in excess of 920 watts. This output is obtained at a readily obtained plate efficiency will give correspondingly higher outputs. Filament Voltage (A.C.) 714 to 8 volts; Filament Voltage (A.C.) 714 to 8 volts; Filament Current (approx.) 11½ amps.; Amplification Factor (average) 16; Maximum Plate-Voltage 3590 volts; Maximum Plate Current 350 amperes

EIMAC "500T"





115

5 METERS Transceivers Coils—Kits

## ULTRA HIGH FREQUENCY

10 METERS Antennas Inductors



#### 5 METER PLUG, COIL AND JACK BASE

Micalex plug and jack base with mounted selfsupporting coil.

No. 1006—Complete as shown.....\$0.51

#### UNITY COUPLED

	5 METER COILS	000	
	1011-Coil A\$0.78		ì
	1012—Coil B		ı
No.	1013—Coil C		ı
	10 METER COILS	人 人 科 月 前	7
No.	1017—Coil A\$1.00		
No.	1018—Coil B	# 18	
No.	1019—Coil C	A A A A	

#### Low Frequency Osc. Coil

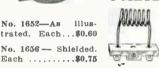


TRANSCEIVERS No. 1655—Kit of 5-meter coils. Includes

1 No. 1652, 1 No. 1653 and 1 No. 1654 as illustrated. . . . . . . . . . . . . . \$1.35

#### 5-METER COIL AND BASE

**COILS FOR 5-METER** 



No. 1650—As illustrated, insulex base......\$0.24
No. 1654—As illustrated above, two coils on one insulex base......\$0.45
No. 1653—Special spacewound 5-meter choke.

#### BARR DB3 TRANSCEIVER



Class B Modulated A complete, self-contained ultra H.F. radio-telephone transceiver that has proven to be one of the outstanding units on the market. Beautiful appearance. Output is 10 times more than that of units using only Type 30 tubes. Working range from 2 to 100 miles depending on conditions and elevation of locations. pending on conditions and elevation of locations. Size 11 in. long, 9½ in. high and 6½ in. wide. Black crackle finish metal case has heavy leather handle. Uses one 30, one 49 and one 19. Comes with complete instructions. Price does not include tubes, batteries, microphone or earphones.

No. DB3.....\$16.20

#### **NEW RCA** 5-METER TRANSCEIVER



#### ARHCO DE LUXE RESONANT LINE OSCILLATOR KIT

Designed by Arthur H. Lynch
This kit will really put out a wallop on 5
meters. %-inch diameter tubes blus high
dielectric insulation results in a high "Q"
circult of great stability and high efficiency.

List of Individual Parts



#### ARHCO STANDARD 5-METER KIT

Polished copper tubes, spring clip connectors, natural wood supports.

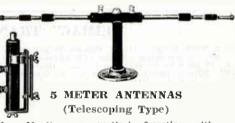
No. 1475-Standard. \$8.10

ARHCO DE LUXE 5-METER KIT

Polished chrome plated tubes binding post connectors, jet black wood supports, No. 1450-DeLuxe.

\$10.50

#### TELESCOPING ANTENNAS



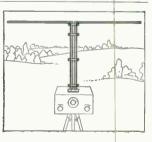
					3-section		
No		11-4	wave	vertical,	3-section	, no	
No	1	7-1/2	wave	vertical,	3-section	with	-
					3-section		1.35
- l	ase				ith base		
No		141/2	wave do	oublet, no	base		
					se with N		1.20
"B	ull	Dog"	screw ty	pe suction	n cups		.09

#### **JOHNSON** 5-METER "Q" **ANTENNA**

An extremely efficient antenna for 5-meter Xmtrs. or transceivers.

\$3.90

Complete with antenna and quarter-wave tubes and eight porcelain spacing bars. Write for bulletin on this if interested.



#### **Name Plates** Relays - Insulators

#### STRUTHERS DUNN "DUNCO" RELAYS



This concern is a "specialist" in the manufacture of relays of all types and is one of the largest exclusive producers of relays in the world. All Dunco relays are thoroughly guaranteed.

#### DUNCO MIDGET KEYING RELAY



	OTHER DUNCO	MIDGE	T RELAYS	
No.	ABTX1—S.P.D.T.	Double	break\$3.85	
No.	ADBX1—D.P.S.T.	Single	break 4.90	
No.	CSBX1—S.P.S.B.	Double	throw 4.70	
No.	CSBX1—S.P.S.B.	Double	throw 4.40	

#### **DUNCO TIME DELAY RELAY**

Comes with a snap-on housing that covers relay completely. This unit is suitable for use with transformers up to 500 watts condenser input or 1,000 watts choke input. Delays plate outlage for 30 seconds after 866 filaments are lit. Size 3x2 1/2 x2 1/2. TD-96

#### **DUNCO VACUUM TUBE RELAY**

#### WARD LEONARD UNDERLOAD RELAY

Underload relay. For protection to Class B modulator tubes and transformers when Class C stage drops load due to loss of excitation. Adjustable. No. 507-514—Max. 300 M.A. \$6.00 No. 507-515—Max. 600 M.A. 6.00

#### **PYREX INSULATORS**

Known the world over as the best form of "low-loss" insulators. They cost more because they really are much better than other insulators.

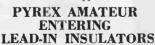


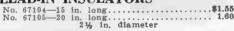
PYREX ANTENNA **INSULATORS** 

## **PYREX**

STAND-OFF INSULATORS **OVAL BASE** 

No. 67106—3 in. high.....\$1.55 No. 67107—7 in. high..... 1.75 Size of base 3 18 x 1 % inches.







**BEEHIVE STAND-OFF** Brown or White Body 1½ in. high, base 2 in. diameter. No. 1673A-. . . . . . \$0.09 Each .

Ten for \$0.85

FLERON LEAD-IN INSULATOR in. high, dark brown glazed Very strong. Hole-inporcelain. top type. No. 14—Each ......\$0.15



#### GUARDIAN RELAYS



This is a new line of radio relays especially designed for amateur radio transmitters. They have proven to be very dependable in operation.

100% guaranteed.

#### MODEL K100 KEYING RELAY

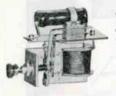
## **GUARDIAN BREAK-IN**

Essentially a double pole, double throw switch that is actuated by a control switch in 110 volts A.C. line supplying power to the coil. Is a necessity in remote control operation.

No. B-100......\$4.50



#### **GUARDIAN OVERLOAD** RELAYS



The best means of protection for tubes, transformers, condensers and meters. Can be mounted on front panel—push a button and circuit is closed. Three

Model L-250-Will break at 250 M.A. Model L-500-Will break at 500 iversal. Can be 

adjusted to break at any current from 150 to 500 M.A..... 7.20

#### **CUTLER-HAMMER RELAYS**

o. CH381-O—S.P.S.T. Operates on 110 volts A.C. \*Fine for keying. Open type.\$3.30

o. CH381-E—Same as above except completely cased..... 3.95



## · ANTENNA ·

## CLASS A MODULATOR

#### BAKELITE AND METAL NAME PLATES

For Transmitters and Amplifiers

Bradley bakelite name plates are engine engraved on 1/16 in. thick by % in. wide, drilled, beveled and polished bakelite. Type NPB-5—As listed below. Each. \$0.15 Bud name plates are made of high grade aluminum with raised polished letters on black satin finish. Type B1130 Series—As listed below. Each. \$0.06

Oscillator Plate Volts Microphone Input Input
Monitor
D.C. Volts
Send
Selector
Buffer
Crystal Osc.
CW-Phone
200 Ohm
Tone Contro Tone Control Fil. Volts Rectifier Output Freq. Meter

Beat Osc. Receive Send-Receive Plate Power Amp, Neutralizer Fader Fader
Antenna
Key
A.C. Input
Transceiver
A.C. Volts
Speech Amp.
Gain Control
Tritet Osc.
Grid
Modulator

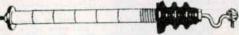
Modulator

Transmitter Amplifier Plate Voltage Off-On Class "B"
Modulator
Grid Current Ground

Ground Crystal Osc. Plate Buffer Plate Buffer Grid Power Amp. Plate Power Amp. Grid Screen CurModulator Plate Modulator Grid

Microphone Current 200 Ohm Input 200 Ohm Output

500 Ohm Input 500 Ohni Output Radio Record



FLERON LEAD-IN BUSHING

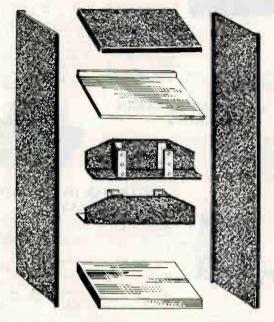
14 inches long-go through 10-inch wall. No. 9...

.\$0.66 117

## METAL RACKS - CANS - PANELS

#### W9LIP SPECIAL $\star$ TRANSMITTER RACKS

The phenomenal success of these racks, pionerred by W9LIP assure us of their continued acceptance. We guarantee that you will like them and know that when you dress up your rig to look like good old "W9LIP," you will be proud of it.



SIDE PIECES—These metal side pieces are the backbone of our whole rack and panel layouts. As shown in the illustration above these pieces have a bend outward in the front and inward in the rear. This permits the proper fastening of the panels in the front and mounting of any screen desired in the rear. The bend in the rear also will cover any wiring cables from view. These pieces are finished completely in black crystalline.

Cat.		Price	Each	Cat.		Price	Each
No.	H. D.	Thick.	Panel	No.	H. D.	Thick.	Panel
SP-A	60x14 in.	14 gauge	\$1.95	SP-EX	31x14 in.	18 gauge	\$0.90
SP-B	60x11 in.				31x11 in.	18 gauge	.75
SP-C	48x14 in.	14 gauge			21 x 11 in.	18 gauge	.40
SP-D	48x11 in.	16 gauge	1.35				

TOP COVERS—Designed to correctly fit on top of the above sides, furnishing that "complete" appearance to the whole unit. Finished in black crystalline. Two sizes. ST-G-20x14 in......\$0.80 | ST-H-20x11 in.....\$0.70

SHELVES—Made of 16 gauge leaded steel. By using these shelves, you get a perfect arrangement for chassis support as well as complete shielding between each chassis unit of your transmitter. These shelves have an upward bend extension in the rear and a down bend in front.

SS-I-12x19 1/4 in.......\$0.55 | SS-J-9 1/2 x19 1/4 in......\$0.50 CHASSIS—Two types. Aluminum and leaded steel. The aluminum chassis are recommended for R.F. units and the leaded steel for power supplies. Both are supplied in 16 gauge material and are 2 inches deep.

 Steel
 Aluminum

 SC-KS—12x19 % in...
 \$0.70

 SC-LS—9 ½x19 % in...
 .55

 SC-LA—9 ½x19 % in...
 .55

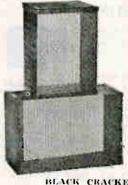
BOTTOM SUPPORTS—Made of 14 gauge steel finished in black crystalline. They are constructed so that our side pieces fit right into them—making ideal supports for the whole completed transmitter. These supports are not necessary but so a long way in adding that "factory-built" appearance to the whole layout. They are 20 inches wide and 5 inches high. No. SB-S-Each.....

#### METAL PANELS

These panels are unfinished but can be supplied in black wrinkle at slightly higher cost. We considered this advisable so that drilling could be done without marring the finish. Send them to us for finishing after they are drilled. Our wrinkling service is very reasonable.

Size,	ln	ı.	L	a	(	e	•	1	51	e	e	1		1	Р	rice.	1 5	si:	26	٥.	I:	n.				A	i	u	n	ni	ir	11	11	n				1	Pric	e.
7 x 1 0	) —														1	\$0.35																							80.	
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7x21																.70		7	x	21																ı	l		1.	10
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9x21																.90				21																			1.	20
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12x21														, ,		1.15	1	2	x	21		٠.											ì						1.	35
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#### ON BLACK CRACKEL FINISH, CADMIUM PLATED AND CHROME PLATED CHASSIS





Federal chassis bases are constructed of heavy metal, easy to rill and tap. All corners of base are reinforced with angle irons and spot welded. Flanges in bottom turned to the inside. Made in either black drackel, which is baked on, giving I long wearing quality, or genuine cadmium plated, absolutely rustproof and satin finish.

BLACK CRA	CKEL,	1	CADMII	IM	
Chassis Size,	Net				Net
Inches Cat. No.	Price	Cat. No.			Price
5 x 9½x1½FC-105	\$0.42	FC-605			80.45
5 x 9 1/2 x 2 1/2 — FC-110		FC-610			
5 x13 14 x2 12 FC-130		FC-680			
7 x 9 x2 —FC-115		FC-615			
7 x 9 1/2 x 2 1/2 — FC-120		FC-620			****
7 x11 x2 -FC-125		FC-625			
7 x13 x2 - FC-135		FC-635			BH . 9
7 x12 x3 —FC-145		FC-615			
7 1/2 x 1 1 x 2 1 > F C-155		FC-655			
7 x17 x2 1/2 FC-140		FC-640			
8 x12 x3 16 - FC-150	.75	FC-650			
10 x12 x3 -FC-165		FC-665			43.44
10 x17 x3 -FC-175		FC-675			
9 x16 x2% FC-180		FC-680			
11 x17 x3 - FC-160	1.11	FC-660			
7 x23 x3 —FC-185		FC-685			
10 x23 x3 FC-170		FC-670			
11 x17 x316—FC-190					
11 X17 X3 12 -F ( -190)	1.11	FC-690			1.50

#### CHROME PLATED CHASSIS

Chassis Size, Cat. Inches No.					1	Net rice
7x10x3FC-710	٠				. 5	\$1.50
7x17x3- FC-720						1.95
8x12x3- FC-730						1.80
10x12x3-FC-740						1.95
11x17x3—FC-750						2,25



#### **METAL CANS**

Made of heavy leaded steel. All seams welded, sub-panels included. Finished in attractive black crystallized lacquer. Nice for S. W. receivers, monitors, frequency meters, portable XMTRS. No. 18PC—5x6x8 in... \$0.90 No. 2SPC—7x9x9 in. 1.25

#### RECEIVER CABINETS



METAL CABINET FOR ALL-STAR SUPERS

Built especially for the All-Stars but will house any set mounted on \$x16 in. panel. Has hinged lid. black crackle finish. No. B1190—16 in. long, 8 in. high, 8 in. deep....\$3.00

## **HEAD-PHONES—"SERV-U-FONES"**

TRIMM Featherweight **EARPHONES** 

The 4-oz. Comfortable Phones



The most sensitive and comfortable earphones ever made. For amateurs, hard-of-hearing, hospitals, etc. Shock-proof. No. F-100-4,000 ohms .....\$6.00 o. F-106-24,000 ohms. Use these for utmost sensitivity.......... 6.00



#### TRIMM SINGLE FEATHER-WEIGHTS

The finest phone made for theatres, churches, etc., available in either 1,000 or 2,000 ohms.

No. F101-Net



14-in. handle (when extended). 

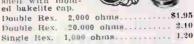
#### TRIMM DEPENDABLE



PHONES Bakelite shell and cap, 2,000 ohms. No outside terminals. No. 65 \$1.80

#### "REX" NEW LIGHT WEIGHT PHONES

New bi-pole construction with laminat d magnet, chrome steel shell with metals. shell with mold-





ACME LIGHT-WEIGHT DE LUXE **EARPHONES** New 1936

Type

Exceptionally efficient, small, low price head phones for amateurs or any other use requiring high grade, lightweight, comfortable head phones at low cost. Size 11/16 in. deep, 2 in. diameter. Weight, complete headset, 5 oz.

With Metal Caps

No. A2M-2,000 ohms.....\$0.98

#### TRIMM OSCILLATOR

Bone conduction unit is of an ex-clusive design. ecmi act. an extra hi headlaight, having

having an extendight the light weight head-band. Furnished from 1 to 2,000 ohms D.C. resistance. (State resistance desired.)

#### BRUSH CRYSTAL HEADPHONES

Super-Sensitive High Fidelity Lightweight

Frequency response from 60 to 10,000 cycles. High impedance and and High impedance and great sensitivity permit them to be used from any source. Plate voltage must be fed by blocking condenser with current carried by a choke or resistor—10,000 to 100,000 ohms (not critical). Weigh only 6 oz. Different and better. better.
Type BAP.....\$5.40



#### SINGLE AND LORGNETTE TYPE A HEADSETS

No. BASP—Single Brush Crystal Phone with head band \$3.00 No. BALP—Single Brush Crystal Phone with lorgnette handle. \$3.90

Double phone cord, 5 ft. Good quality. No. 192 . . . . \$0.24



Rubber cushions for earphones. No. 195-Per pair .... \$0.45

#### PHONE PLUGS

Bud long handle No. 230 . . . \$0.24



Carter flat type. \$0.30

E a g l e "Quick-Change" Type Plug......\$0.15 Yaxley long handle type. No. 75......\$0.29

## "SERV-U-FONES"

FOR HOMES—FACTORIES— WAREHOUSES—SCHOOLS-OFFICES—SUMMER RESORTS



For offices, factories and homes. Made by company with 40 years' experience in designing and constructing telephone systems. These phones are not designed for connection to public exchange sys-tems. Real clear speech with good vol-ume are obtained with Serv-U-Fones. Fully guaranteed.

#### TWO STATION SYSTEM (Green Label)



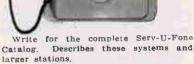
#### THREE STATION SYSTEM (Red Label)

The master station can selectively call either of the two outlying stations. The outlying stations can only signal central station and calls between outlying stations must pass through the central station. 4-wire line required. Complete instructions furnished.

No. RP127-Master Desk Phone. Each

No. RP133—Outlying Desk Phone.

No. RP132—Outlying Wall Phone.



Serv-U-Fones have many fields of use.

Sell them to offices, factories, homes, summer resorts, doctors' offices, schools. Serv-U-Fones offer profit opportunities to live-wire radiomen.

AMATEURS! Plan to Attend "Mid-American" and Dakota Division A.R.R.L. Convention in St. Paul, May 21, 22, 23, 1937.

#### SERVICE MEN!

Attend National Servicemen's Convention, Hotel Lowry, St. Paul-Date To Be Announced

## Pick-ups, Cutting Heads, Records



Specify high or low Impedance.

AUDAK NO. 433





**AUDAK** No. 2033 Music King

Extra good response— plays up to 12-inch rec-ords, Both fast and slow speed

\$7.25 Specify high or low impedance.

AUDAK NO. HR33



Has special needle ballast for obtaining maximum efficiency from slow-speed records. Plays up to 12-inch records—fast or slow. A very high quality instru-..... \$9.85

For broadcast studios—Audak Professional Model. Plays all types transcriptions. Extremely good frequency range. ....\$26.50

#### UNIVERSAL STROBO-SCOPE

Shows when used under an AC light, the correct speed for any phonograph turn-table. Calibrated

120



for 33 1/3 and R.P.M. Diameter 6 inches .... \$0.15

Send for Universal Catalog if interested in recording.

#### ASTATIC CRYSTAL PICK-UP

Model S

Very good response from 30 to 10,-000 cycles. High impedance (100,-000 ohms). Only 2 - 0z. pressure on needle point. Non-resonant. This is an extremely high quality pick-up. Two lengths.

Model S-8-8-in, arm..... \$7.20 Model S-12-12-in. arm.....



PATENTED

**PROCESS** 

ALUMINUM

DISCS

#### AN EXTREMELY HIGH QUALITY LINE OF PICK-UPS AT LOW PRICES

Specify whether you want low or high impedance

No. V-8-S — 8%-inch arm overall. Volume control type less weight. Complete with springs for both 331/3 ings



and 78 R.P.M. recordings .....\$4.50 No. V-W-11 — 114-inch arm overall. Volume control type with weight for 331/2 and 78 R.P.M. recordings.. \$5.40 

No. 11-S-11 1/4-inch arm overall. No volume control. 78 and 33 1/2 R.P.M. \$4.00 No. R. W .- Recording Weight .... . 70

No. P-W-15—Theatre pick-up arm—15 ½ inches overall. For both 33 1/3 and 78 R.P.M., no volume control..... \$5.80

#### UNIVERSAL FULL FREQUENCY PICK-UP



A high class pick-up for play-back of all types of instantaneous records—especially aluminum, silveroid, etc. Particularly good for transcription work. Should not be used as recorder. Matches input of standard mike transformers—400 ohms. Other inputs on special order. Plays both 78 and 33½ R.P.M. No. UFP .....\$9.00

#### UNIVERSAL CUTTING HEAD AND ARM



A scientific recording head capable of cutting or grooving all types of material. Size but 2½ in. high x 1 in. wide x ½ in. high x 1 in. wide x ½ in. thick. Response to input frequency substantially flat from 30 to 8,000 cycles. Furnished in either 15 or 50 or 200 or 400 ohm. Specify which wanted in ordering. Made primarily for use on Professional Recording Machine but is also sold separately for other scientific recording head sold separately installations. for

Cutting head and arm ......\$45.00



#### EXTRA HEAVY ALUMINUM DISCS, EITHER BLANK OR PREGROOVED

(State which type desired when ordering)

No. UAR6-Extra heavy, 6 in.... \$0.18 No. UAR10-Extra heavy, 10 in. ..... .45 No. UARi?-Extra heavy, 12 in....

#### STANDARD WEIGHT DISCS (Blanks Only)

								•	•						
No.	UA56-6	in.											.80	.15	
No.	1 A58-8	in.												.21	
No.	UA510-1	0 ir	1.									ļ		.29	
No.	UA512-1	2 ir	١.								J			.35	

#### SILVEROID RECORDS The Silent Background Records

Equal to high grade commercial pressed records. Can be processed and any num-ber of copies made. Use "D" qutting sapphires. For play-back use bamboo or cactus needles. Groove becomes smoother with use. Supplied ungrooved only.

#### UNIVERSAL MODEL 12 RECORDER



For up to 12-inch records. Has powerful notor. Weighted turntable, two speeds, 33½ and 78 R.P.M., rubber mounted. Fitted with volume indicator, volume control, "off" and "on" switch, cuts eighty lines per inch. Fitted with Universal power head with 6-volt field. Complete instructions furnished.

## UNIVERSAL PROFESSIONAL

Words in a small space cannot describe the wonderful features of Universal's Professional Recording Machine. Write for a catalog showing this unit in detail. Net price ......\$35.00

## Phono. Motors - Pick-ups - Needles



GREEN FLYER

PHONO. MOTORS

Dual speed, 33½ and 78 R.P.M. Governor controlled, Uniform peed. Smooth running induction motor. No brushes or computator to create radio interference. Silent in operation. Rugedly built. Heavy cast frame, Oversize self-lubricating bearings. Machined gears sealed in oil. Rubber floating suspension. Will not overheat in enclosed cabinet. For "long playing" or tandard records. Mounts in 8½x5% in, cut-out. Motor dimensions overall, 8½x5% ins. Suspends 3½ inches below base board. For 105-120 volt, 60-cycle AC. Shipping weight, 16 pounds.

Single Speed 78 R.P.M.

Todel A-10—Same construction as above. Furnished with 10-nch turntable. Automatic stop not included. Motor dimensions, 6 % x3 % inches; suspends 3 inches below base board. For 05-120 volt, 60-cycle AC. Shipping weight, 13 pounds.....\$7.50

Single Speed 331/2 R.P.M.

Model B-12-Same construction and sizes as above. 12-in. turn

6-Volt DC. Type

PACKARD AUTOMATIC RECORD CHANGER



#### UNIVERSAL RECORDING AND PLAYBACK QUALITY PHONO. NEEDLES

No. UB—For both recording and playback on pregrooved discs such as black composition home recording discs, and pregrooved aluminum. Bent shank provides proper angle when used in 25° cutting head. Sapphire .....\$2.40

SPECIAL ACETATE PLAYBACK NEEDLE—.004 radius at point. Red shank highly polished. Envelope of 10. Net...\$0.15
No. URC10—Red Cactus Needle—the most durable non-metallic needle. Plays 5 to 15 records without repointing. Record groove actually improves each time used. Envelope of 10......\$0.60

WRITE FOR SPECIAL TECHNICAL UNIVERSAL BULLETIN IF INTERESTED IN PROFESSIONAL RE-CORDING.

#### R.C.A.-VICTOR RECORD PLAYER

An inexpensive instrument built by R.C.A.-Victor. Makes an ideal record player for use in adapting radio sets to fine phonograph performance. May be used in conjunction with the R.C.A. RK24 Phonograph Oscillator, or may be directly connected to the radio receiver. In sets with low audio gain the Oscillator must be used. The ready portablity of the R.C.A. Record Player also adapts it for effective use with portable AC. operated sound equipment.



#### PORTABLE-ELECTRIC OPERATED

The R.C.A. Record Player consists of an electrically driven, constant speed turntable capable of playing either ten or twelve-inch records, and a modern electrical pickup. Motor operates on 110 volt, 60-cycle current. A volume control extends out of one end of the case.

CAN BE USED WITH ANY RADIO RECEIVER

Sell extra entertainment profitably by means of the R.C.A.-Victor Phonograph Record Player. Easily connected to any radio receiver. Housed in an attractive walnut finish chest, only 10 % x8x5 inches. \$10.990



R.C.A.-VICTOR ELECTRIC PHONOMOTOR & TURNTABLE NO. 9038 110 V.-60 CYCLE

A valuable unit in compact size. Hand starting. Synchronous motor. 7 ins. diameter, 2½ ins. deep. Plays 10 or 12-in. records at standard speeds.

#### R.C.A.-VICTOR PICK-UP AND ARM



#### R.C.A.-VICTOR 2-SPEED PICK-UP



A counter-balanced magnetic pick-up. Used in 1934 R.C.A.-Victor Model 331 Radio Phono. Combination. Has Plotor Model as Phono. Combination. Has frequency response flat from 50 to 5,000 cycles at impedance of 28 ohms. The arm is counter-weighted for both the 33½ and 78 R.P.M. records, and is mounted on a special rubber cushion. The complete assembly consists

#### R.C.A.-VICTOR PHONO. NEEDLES

STEEL-3 sizes: Half Tone, Full Tone and Extra Loud Tone. 100 needles to envelope (except 75 in Half Tone). Per enve-CHROMIUM—A new Victor development to fill the need of a sturdy, semi-permanent needle. Two types: One type (with green shank) for use with 78 R.P.M. records; the other type (with orange shank) for use with 33½ R.P.M. records. 6 needles in container. \$0.20 lope 



#### RCA PHONOGRAPH OSCILLATOR

A simple device for broadcasting records into your radio receiver. Excellent tone quality, easily and quickly installed and works perfectly with all pickups. Uses either 2A7 or 6A7 tube. Includes radio-record switch and special connectors for obtaining nower. obtaining power.
No. 9554—List price (less tube)....\$4.65

#### UNIVERSAL CARBON MIKES



#### CRYSTAL MIKES HAND MIKES

#### UNIVERSAL



New Universal Model XX Two-button; pure gold contacts. stretched duraluminum diaphragm, 200 ohms per button. Frequency range 100 to 4,000 cycles. Low hiss Model X—Single button; no front bar, same features as Model XX \$4.50

#### UNIVERSAL MODEL BB

1935 Improved Type Two-button; extra heavy 24-kt. gold spot, stretched duraluminum diaphragms. New super design. 3-inch dia. 2 ins. thick; weighs 1½ pounds. Frequency response increased. Now 50 to 5000 cycles. 200 ohms per button.....\$15.00



#### UNIVERSAL MODEL A

Heavy duty single button; 200 ohms. The Model A is furnished in the extra sensitive type and is wonderful for hard-of-hearing

work ..... ...\$9.00

#### UNIVERSAL LAPEL MIKE

Two-button; thin, compact, light Real broadcast reproduction; very sensitive; 200 ohms per button. Furnished with long, small size leads-not a plaything . . . \$15.00



#### UNIVERSAL WATCH MODEL Microphones

Small-Light-Sensitive

Model W-Single button; extra sensitive; good for detectaphone work, etc. ....\$1.80

#### UNIVERSAL HANDIMIKES

Scientifically damped; built for rough, hard usage; good quality. Have "off and on" switch on handle. Equipped with 6-ft. cord. Single button ideal for announcing sports events, call systems, etc.....\$6.00 Double button; damped for use close to loud speakers, sound trucks, etc. Very good quality ......\$9.00





#### NEW MODEL 5M Improved

Here's the Unit you have wanted for your 5 and 10 meter portable transmitters and receivers. A good quality-button mike on one end and a sensitive ear phone on the other. French style. Equipped with a long 5-ft. cord.

8.40

See 5-Meter Page in Amateur Section

#### ASTATIC THE NEW IMPROVED ASTATIC D104 CRYSTAL MICROPHONE

Acclaimed the Most Practical Microphone Increased Frequency Response

No adjustment required.

No carbon rush.

No packing. No blasting.

No freezing.

No button current.

No field current.

No polarizing voltage.

Connects direct to grid or through matching transform-

Only genuine Brush Bimorph crystals used, output level, -60 db.

Finished in chromium, 3 inches in diameter, 1 inch 

The new, improved Astatic D104 is offered in a 2-wire shielded cable model for use with push-pull amplifiers, 25 feet of cable model for use with push-pull amplifiers, 25 shielded cable furnished. Model D104P—Net



#### **ASTATIC D104HS HAND TYPE** CRYSTAL MICROPHONE

Same microphone exactly as in the new, improved D104, with 8 feet of shielded cable.
D104HS—With handle switch. \$15.30 D10111—No switch ...... 15.00





A high fidelity microphone. Response flat to 6,000 cycles. Size 1% in. diameter, ½ in. thick. Same acoustic principles as Model K-2. Output —60 db. Weight 1% oz. Fuished in dull black and furnished with 25 feet of shielded cable.



MODEL D2 Net price. \$15.00

ASTATIC WATCH CASE MODEL D2 CRYSTAL MICROPHONE

MICROPHONE

The D-2, recently introduced, has won the hearts of every user of microphones where public appearance is made. Utilizing the same exclusive Dual Diaphragm principle and Grafoil Bi-morph Crystal element as the K-2, it is designed like a watch—the same shape and size—and is not only a work of art to look at but does not obstruct the face of the performer.

Essentially Non-directional, it has a frequency response substantially flat from 50 to 6,500 c.p.s.—an output of -60 decibels—and a definitely reduced feed back tendency.

Case is only 2½ inches in diameter and ½ inch thick with bright chromium finish; total net weight only 9 oz. exclusive of cable; built to stand shock far beyond the ordinary. Adapter threaded %-inch x 27 threads per inch for stand mounting; 8 feet of single which shielded rubber covered cable which may be threaded through stand or outside.

## SHURE MICROPHONES

#### CRYSTAL (Piezo-Electric) TYPE

#### MODEL 74B "SPHEROID"

For the first time—a crystal microphone combining High Output Level, true "Wide-Range" Reproduction and Non-Directional Pickup! Sound reaches the small Curvilinear diaphragm through a complete angle of 360 degrees with a frequency response from 40 to 10.000 cycles, Response is non-directional for sound approaching from any angle. Special "Grafoil" Bimorph Crystal, "Cantilever" actuated, lowers cable losses, Overall diameter 2½ in. Rubber-black finish with chromium circles. Furnished with new locking, shielded, moisture-proof 3-conductor plug, convertible receptacle for stand or suspension use, and cable strain relief. (No cable furnished—see C10A and C20A listings.) Net weight, 7½ oz. Shipping weight, 1 lb. Model 74B. "Spheroid" Crystal Microphone.

#### MODEL 75A SPHERICAL CRYSTAL MICROPHONE

A new economical Shure Non-Directional Crystal Microphone with wide-range response! Acoustic streamlining and scientific placement of the small curvilinear diaphragm insure non-directional response for sound approaching from any angle. Crystal element is a genuine "Bimorph" unit, "Cantilever" actuated. Only 2½ in. in diameter. Rich rubber-black finish. Mounts on any Shure Stand. Complete with "side cable outlet" and 25 feet of shielded single-conductor rubber jacketed cable. Shipping weight, 1½ lbs.



Model 75A—Spherical Crystal Microphone. Less

#### CRYSTAL MICROPHONES MODEL 70H



The Shure 70H sets the "standard of performance" for diaphragm-t y p e crystal microphones. Adopted by leading Sound - Equipm e n t Manufacturers. phones. Adopted by leading Sound - Equipment of Manufacturers. "Curvilinear" diaphragm and "Bimorph" crystal, "Cantilever" actuated. Beautiful cast case, chromium-plated overall. Mounts direct on any Shure Stand or Cable may be brought through stand tubing or outside as desired. Complete with removable "close-fitting" ring, 4 "Quickway" Hooks and shielded single-conductor rubber jacketed cable.

Model 70H-Cable 1gth., 7 ft. Code, Rurab. Shpg. wt., 1½ lbs. List......\$13.50
Model 70H-25FT-Cable 1gth., 25 ft.
Code, Rurov. Shpg. wt., 2 lbs. List \$14.58
Model 70H-35FT. Cable 1gth., 35 ft.
Code, Ruriz. Shpg. wt., 2½ lbs.



#### **MODEL 73A LAPEL**



Highly efficient and faithful in voice reproduction, due to new Shure diaphragm design and improved mechanical system. Free from "background" noise and vibration pick-up, plameter only 2 in. Weight, less cord, under 2 oz.! vibration pick-up, Diameter only 2 in. Weight, less cord, under 2 oz.! Baked rubber-black finish. E qu ipped with special spring lapel clip and 25 feet of shielded ck mercerized cotter of the cotter

single-conductor black mercerized cot-ton-covered cordage. Shipping weight, Model 73A-Price......\$15.00

THE NEW SHURE "ULTRA" WIDE-RANGE CRYSTAL MICROPHONES 701A 700A

Ultra "wide-range" reproduction from 40 to 10000 cycles. New cruciform crystal mounting makes possible a higher output rating than on any previous diaphragm types of similar frequency characteristics. Dual-drive Grafoil Bimorph crystal. Curvilinear diaphragm. Complete barometric compensation—moisture

#### VOLUME CONTROLS FOR CRYSTAL MICROPHONES



#### CARBON TYPES MODEL 3B TWO-BUTTON





Model 3B-Two-button. Price.....\$3.30



Model 10B-Convertible Hand Microphone. Convenient general purpose P.A. microphone, convertible from hand to 3B type for stand mounting by removing mounting ring and in-serting four "Quickway" hooks. Black enameled handle. Overall length, 8% inches. Net weight, % lb. Shipping weight, 1 lb. Complete with 6 feet of three-conductor cable and "Quickway" hooks. Price \$6.30

#### MODEL 5B TWO-BUTTON

full-size two-button A full-size two-button microphone (diameter over-all 3% inches, thickness 1-1/16 in., weight 15½ ozs.) Regular full-size precision adjustable buttons and enected diaphram asadjustable buttons and special diaphragm assure exceptional quality of reproduction. Ideal for low cost sound systems. Attractive modern design, finished in chromium plate. Screen-protected diaphragm and "Quickway" hooks. Shipping weight, 1% lbs.

#### MODEL A80A STAND SWITCH





Switch. Price .......\$1.50 DEDUCT 2% FOR CASH WITH ORDER

## **AMPERITE**—Electrovoice Velocity Microphones

#### NEW! RB TYPES All High Impedance

Compact, Streamline. Modern. Embodies the latest and best technique in microphone design. Cilves studio type reproduction. Unexcelled for quality, fidelity and ruggedness!
Features: 1. All-cast case, achieving maximum ruggedness. 2. Acoustically designed to eliminate any possibility of cavity resonance. 2. db. higher output. 4. Triple shielded. 5. Switch. 6. New cable clamp.
RBHn (High Impedance) 2,000 ohms. Excellent for speech and music. Permissible cable length up to 125 feet. Output —60 db. Frequency response 40-11,000 c.p.s. Complete with shock absorber, switch, 25 ft. cable. Obtainable without switch upon request. Shipping weight 5 lbs. Available in low impedance models (200 ohms).

Models Gun metal.	RBMn	and	RBBn	(beam	type)
Gun metal. Net price				🧿	20.20
Chrome.				<b>S</b>	25.80

Model RB-Din-Dual impedance for low or high impedance amplifiers. Can be used with high impedance input with S.C.S. cable lengths up to 125 feet—or low impedance input with D.C.S. cable lengths up to 2,000 feet. Just plug in the proper cable. No dead windings or taps, therefore, maximum efficiency for low or high impedance connection. Shipping weight, 5 bs. Switch cannot be furnished on Model RB-DIn. cost ......\$27.00

#### **NEW MODEL RAH**

A specially designed microphone built to Amperite standards which can be used for both speech and music, No peaks. Flat response over audible range. Output —68 db. Triple shielded. Shock absorber. Swivel bracket. Shipping weight 5 lbs.

Model RAH (2,000 ohms). High impedance with 12 feet of cable.

Gun metal. Net price.... Chrome finish. \$13.53 Net price....



#### AMPERITE JUNIOR (LAPEL) VELOCITY



Size of a match box. Ideal for lectures, specialty acts and "walking" after-dinner speakers. Can be hidden under coat. Output is constant with any position of the head. Transformer included in microphone case. Frequency response, 60-7,500 c.p.s. Size 2 ½x1 ½x ½ inches. Shipping weight 2 ths. 2 lbs.

Model 7J (200 ohms) or Model 7J-H (high impedance) with 25 feet of cable.

Dealer \$18.00 cost .....

#### INPUT TRANSFORMER (CABLE TYPE) LGP

Enables the use of low impedance microphone with amplifiers having high impedance input. Microphone cable can be any length up to 2,000 feet. Hum trouble is eliminated by special balanced windings. Will withstand mechanical abuse. Can be used with 25. 50 or 200-ohm microphones. Output connects directly to high impedance input

impedance input.	
Model LGP (Standard) 60-8,000 c.p.s.	69 00
Net price	\$3.00
Model LGP (Laboratory), 40-14,000 c.p.s.	66 00
Net price	\$6.00

#### ATTENTION!

Customers south and east of St. Paul will find our St. Paul store very conveniently located right on Route 12-just two blocks up the hill toward the State Capitol from the Golden Rule and Emporium. We carry a complete stock at the St. Paul store and you will always find room to park. We feel sure you will like the service you get at the St. Paul store-try it the next time you come to the Twin Cities.

#### ELECTROVOICE "K" SERIES (All High Impedance)

\$14.70



#### ELECTROVOICE "V" SERIES

(All High Impedance.)

with cradie, swivel and shielded hug, Output: —66 db.

Net price.

Model V4HIZ—The finest microphone that research and development can evolve. Built for the most exacting requirements of broaddast and recording. Accurately calibrated. Equipped with cradle, swivel and shielded plug. Output: —64 db.

Net price.

Low impedance types available Specify

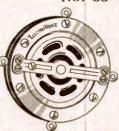
#### NO. 100—"OLD FAVORITE"

A medium small high quality two button mike. High sensitivity results from correct damping. Extremely low hiss level, acid-treated granules reduce ash content, increase their life and allow higher current. Chrome finish.

\$6.00



#### NO. 88—TWO BUTTON



You get "condenser mike" reports when you use a No. 88. This is an extra high quality mike that can be used under the most exacting conditions, has all features, and more, that are incorporated in much higher priced mikes. Response 30 to 7,000 cycles.

\$15.00

#### MODEL 77—TWO BUTTON

200 ohms per button. Here is a mike that is really pleasing everyone that buys it. If you want a mike that has REAL QUALITY plus durability, you can bank on the Model 77. Frequency response 40 to 6,500 Removable buttonscycles. air damped.

S10.80



## Microphones and Microphone Accessories

#### COMET MODEL—OUR SALES LEADER

LEADER

selected by us to rive you the greatset value of all time. Not to be compared with any other mike at this price as it is a well made instrunent. Pure gold consects, chrome plate lnish, protected disphragm and other expensive features. Low hiss level—double button. 200 ohms sponse 50-4,500 cycles.







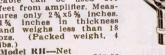
#### ELECTRO-VOICE HAND MICROPHONES

A Phenolic diaphragm gives performance impossible with any other type. Blasting is eliminated. Extremely durable. Response 50-5,000 cycles. 200 ohms per button. Supplied with 5-foot cable.

201-S-Single button .... \$6.00 201-D-Double button ... 9.00

## UNIVERSAL VELOCITY MICROPHONE

impedance veloc-High microphone. ity microphone. Frequency response that from 40 to 10,000 C. P. S. Output —63 db. direct to grid without necessity of transformer. Can he transformer. Can be used without preamplifier used without preamplifier on amplifiers of not less than 85 db. gain. Also by use of low capacity R.F. cable can be used 2000 feet from amplifier. Measures only 2% x5% inches. 1% inches in thickness and weighs less than 18 ozs. (Packed weight, 4 lbs.) lhe '



price ......\$13.50 Available in 200 ohms. Model RL same price.

#### UNIVERSAL SUSPENSION RINGS



#### UNIVERSAL NEW X-DESK MOUNT

HIGHly polished nickel plate, rubber base cover and 8 suspension springs especially for Universal X Unit or any medium or small diameter microphone. Not a cast-fron pipe fixture assembly with a spray finish.

No. UX420 .....\$2.10



#### UNIVERSAL "K" DESK MOUNT



Model "K" 5 in. diameter for Models "X." "A," 4 point suspension, 8 springs. Base set in moulded rubber. Finished in highly polished chrome plate, blank call letter name plate as shown. Cable passes through hollow base. Wt., 24 lbs. 83 ins. high. With covers as shown. No. UK120 \$3.60 214 lbs, 8 w Hard With covers as shown. No. UK720 ......\$3.60 Without covers.

No. UKN480 .....\$2.40

#### BRUSH CRYSTAL MICROPHONES

Considered by experts to give the finest reproduction of any microphones made. Finest studio quality. New Brush Sound Cell Microphone for P. A., amateur and remote broadcast pick-up use. Frequency response 50 to 11,000 C. P. S. Output —71 db. Size 4½ x1½ x½ inches. Weight 3 oz. Furnished with 15-foot shielded cable. High impedance—direct to grid type.



#### MICROPHONE SADDLE

A dandy support for crystal mikes—tilts to any angle and locks in place. Aluminum. Chrome plated.
No. FU700 ......\$1.20

#### TURNER MODEL 38 Non-directional

Non-directional
Model 38 has an excellent
frequency response, flat from
500 to 7,000 cycles with a
rising low frequency characteristic of approximately 5
db. at 50 cycles. Average
output. 60 db. Very low
feed back due to new design
principle.

reed tack que to new design principle. Model 38—Mike only with 8 feet cable .....\$13.50 Model 38-B-3—With desk stand ....\$15.00



#### TURNER HI-LEVEL MASTER MODEL



mendously improved mendously improved frequency response and rugged construction, the Hi-Level Master Model 24 replaces the popular type "G" Turner microphone. M u chrosenth and development has gone into the making of a truly Hi-Fidelity general purpose unit. Every requisite of a high class microphone has been incorporated in this model. The excellent flat frequency response with high output level has given this unit an enviable position in its field. This model has a frequency response flat from 500 to 6,000 cycles with a rising low frequency characteristic of approximately 5 db. at 50 cycles. Output 54 db. Model 24—Mike only with 8 feet response frequency

Model 24-Mike only with 8 feet Model 24-T-1-With desk stand.... 15.00

#### TURNER MULTI-CRYSTAL MIKES

All are basically flat from 40 to 7,000 cycles with a slight rising characteristic from 7,000 to 10,000 cycles which is particularly favorable in offsetting the falling characteristic of most amplifiers at these frequencies. Single ended models are offered in four, six and eight crystals. Push pull models are also offered in four, six and eight crystals.



Push Pull Single Output P4MX 84-MX --72 ..... .. \$27.00 --70 ..... 33.00 P6M X 86-MX P8MX 88-MX --68 39.00 **DEDUCT 2% FOR CASH WITH ORDER** 

#### ELECTROVOICE MICROPHONE REPAIR PARTS

Carbon Granules Carefully Selected Stock of Rest Quality

No. 307-No. 60 grains - repack two mikes-for hard usage mikes......\$0.35 

#### DURAL. DIAPHRAGMS For Condenser Mikes

Electrovoice 414 inches duraluminum sheets for making condenser mike dia-phragms—001 thick, 80.30

#### AMPERITE REPLACEMENT DIAPHRAGMS

#### For Ribbon and Condenser Microphones

CONDENSER DIAPHRAGMS
No. ACD-1—Standard, mounted ... \$0.60
No. ACD-1X—Supersensitive, 

#### SUSPENSION SPRINGS



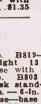
Highest grade spring steel. Rust proofed and polished chrome plated. No. MS8—8 for ....\$0.22

#### Bud JUNIOR MIKE RING



No. B820 with spring Senior Mike Ring—6 in —round—chrome plated— with springs. No. B800

No. B817 — Modernistic desk stand, 5%-in. ring. Octagon. Black crackle finish. Ht. 9 ins.—with springs S.1.5 No. B818—6-in. ring. Height 10 ins. Black crackle finish — with springs \$1.35



No. B819—Like B818—height 13 ins.—heavier base with springs. . \$1.75 No. B803 — Adjustable desk stand—12 ins. to 18 ins. —6-in. ring — heavy base—base and ring black crackle—tubing is chrome—with springs . . . . \$2.95

## COLLAPSI-BLE FLOOR STAND

Cable Connectors will be found on page 45. Mike Wires and Speaker Cables

on pages 43-44.

125

### MIKE STANDS

#### **AMPLIFIER** CASES

#### FEDERAL DE LUXE MICROPHONE STAND Model FE-60

RWIVE



ring. FE-60-Floor stand. \$7.50

> Model FT-20

TABLE STAND Hand spun shell, brass tubing and fittings are triple chrome plated. The base which is supported on three vibration eliminating feet is 5½ inches in diameter and weighs

5½ inches in diameter and weights 2½ pounds.

Provided with one reducing nipple and ball socket joint.

Model FT-20—Net price. \$2.25

Model FT-35—3½ inches high.

#### FEDERAL STANDARD MICROPHONE STAND Model FS-50

Model FS-50 Microphone Stand is the same size and has the same de luxe features as Model FE-60 except that it is lighter in weight. The base of this stand is ten inches in diameter and weighs seven and one-half pounds. Extends to 62 inches and comes equipped with ball swivel. Also available in black wrinkle at a reduced price. Price does not include cradle. Model FS-50.

\$5.40 Net price....

#### Model FD-10 DESK STAND

Beautifully chrome plated, 10 Inches high with a 6-inch diameter ring with dual hooks providing easy microphone mounting. Has a two-pound base with diameter of 4½ inches supported by three vibration eliminating feet.

FD-10-Chrome. \$2.25 Net price..... FX-10-Black. \$1,20 Net price....





#### MICROPHONE SADDLES Model FU-700

(Non-Directional)

Made of heavy brass triple chrome plated allowing m crophone to be used at any angle and held stationary with chrome plated thumb screws.

Net price \$1.20 Net price ....



#### MICROPHONE RINGS Model FR-500

Triple chrome plated, 6-inch diameter. Double hooks provide easy microphone mounting. Furnished with male loop for suspension mounting. Less springs. Net price.....

#### **SWIVEL JOINT** Model FJ-600

Made of heavy brass triple chrome plated. Provides universal tilting of crystal type microphones. Fits all types of Federal mike stands. Net price.....



#### FEDERAL SPEAKER AND AMPLIFIER CASES Model FH-450



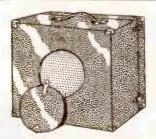
Case constructed of highest quality three-ply non-warping plywood. Steel corner reinforcing brackets used inside, and nickel plated steel corner brackets outside. Fine grain black leatherette covering insures beauty, durability and long life. Speaker baffle openings suitable for ten or twelve-inch speakers. Grills made of heavy metal mesh for speaker protection. Baffle openings provided for snap-on covers. Extra heavy easy carrying leather handle. Designate size of speaker to be used. Dimensions: 21 inches high by 16% inches deep by 14 inches wide.

Model FH-450—Net price (for speakers only).

Model FH-420—AMPLIFIER HOUSING CASE will accommodate chassis pans up to 11 inches by 17 inches. Equipped with extra heavy easy carrying leather handle. Designate size of speaker to be used. Dimensions 20½ inches high by 18¼ inches wide by 14 inches deep. \$8.40 Model FII-420-Net price (for speakers and amplifier) ......

#### AMPLIFIER CASE Model FH-410

of finest quality three-ply Case constructed 



#### **AUXILIARY SPEAKER CASE** Model FH-430

Speaker case constructed of special hree-ply non-warping plywood. Steel angle brackets reinforce inside corners. Beautiful black leather-ette covering is used throughout. Baffle opening sultable for ten or twelve-inch speaker. Sliding rear panel makes speaker easily accessible. Heavy easy carrying leather handle. Designate size of speaker to be used. Dimensions: 14 inches high by 14 inches wide by 10 inches deep. \$4.50 Net price ...

#### FEDERAL AMPLIFIER CASE

Completely Equipped to Accommodate Microphone, Speaker, Amplifler, Cables, Etc.

Case constructed of highest quality three-ply non-warping plywood. Steel corner reinforcing brackets used inside, and nickel plated steel corner brackets outside.

Fine grain black leatherette covering insures beauty, durability and long life. Speaker baffle opening suitable for eight or ten-inch speakers. Grill made of heavy metal mesh for speaker protection. Extra heavy easy carrying leather handle. \$8.40 Model FH-460L-22x18 1/2 x14 inches. Net price......



## WRIGHT The LEADER

## ${f DeCOSTER}$ The ORIGINAL

NOKOIL REPRODUCERS

PERMANENT MAGNET

8-INCH MODEL



Universal output handling capacity.

transformer, 5 watts

Completely dust protected. Shipping weight, only 24 MODEL 582. pounds. Net price





Dirt proof and filing proof. The most powerful for its weight of any reproducer on the market. 7 watts handling capacity. Universal transform-er. Shipping weight, only 41/2 MODEL 782.

\$3.91

Completely shielded magnet eliminates loss in power from touching other metal objects. 6 watts handling capacity. Universal transformer. Ship-ping weight, only 2½ pounds.

MODEL 682. Net price....

FILING PROOF

\$3.41

You won't believe your ears -nor your eyes-until you

> Universal Transformer Handles 8 Watts

see and hear this model.

HERE IS THE ANSWER! A 12-inch Nokoil at a price

What price!

A magnet smaller

than a field fur-

nishes the flux.

What buy!

PARACURVE DIAPHRAGM

Model 982 ONLY - - - -

Shipping Weight, 61/2 Lbs.

WRIGHT-DeCOSTER "WEATHER-PROOF" HORNS

Silver Horn and Speaker

TENT-DECISIE

Silver "Stadium" Horn

WALLEST - DECEMBER

Silver "Port-A-Horn"



Complete with Speaker Unit

Complete with Speaker Unit
An inexpensive efficient reproducer and weather-proofed
horn that is ideal for use in
hotels, banquet halls, and
small auditoriums. Standard
field resistance of the special
6-inch speaker unit is 2,500
ohms. Field dissipation, maximum, 12 watts: minimum, 6
watts. Voice coil impedance,
5 ohms. Length over-all, 27½
inches. Bell at opening, 22½
by 14 inches. Weight, 15 bs.
The Model 900 matching transformer will handle from one to
six speakers with amplifiers
having an output of 500, 1,500
or 4,000 ohms. Size 3½ inches
high, 5 inches deep, 4½ inches
wide: weight, 4½ ibs.

Model 2050—Less transformer.

Model 2050-Less transformer Net price......\$10.25

Model 2300-With transformer. Net price......\$11.50

Model 900 — Matching transformer, Net price.....\$4.50

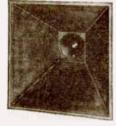
"Stadium" and "Full-Range" Model Speakers. For "Stadium" and "Full-Range" Model Speakers. Reinforced and bound with metal. Guaranteed weather-proof. Screen across opening excludes all foreign substances. Outside measurement: Length over-all, 48 inches. Bell at opening, 30x21½ inches. Weight, 31 lbs.

Model 5000—Net price ...\$25.00 ..\$25.00

WRIGHT-DeCOSTER DIRECTIONAL BAFFLE

The Model 2750 Baffie, fully covered by patents, has a hardwood interior surface for adequate high frequency transmission and a soft insulating exterior which prevents the

Model 2750



walls of the horn from vibrating. You will be delighted with the results that this correct baffle will give. Size 37% inches wide. 3714 inches high. 201/2 inches deep.

#### Complete with Speaker Unit

The metal speaker housing which makes an excellent baffle, is detachable without the use of tools. Speaker will handle ample power. Reinforced and metal stripped, the Model 6000 is extremely strong. The terminal strip is accessible from the outside and has three impedances—500, 1,500, and 4,000 ohms. Field resistance is 6,000 ohms.

One Model 520 Field Supply installed in the speaker housing, will operate one Model 5000 while the Model 2760 Field Supply will handle two or three Port-A-Horns perfectly.

Outside measurement, length over-all, 39¼ inches. Bell opening, 28x18½ inches. Unit housing, 10¼x7¼ inches. Weight, 77 lbs.

Model 6000-Net price..\$30.00

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**World Radio History** 

## WRIGHT PARA-CURVE DIAPHRAGMS



## DeCOSTER SOLID CENTER SPIDERS

**BAKELITE VOICE COIL FORMS** Featuring

Moisture-proof — Warp-proof — Heat-resistant — and that's the answer to why Wright-DeCoster Reproducers HAVE GREATER POWER HANDLING CAPACITY

#### THE OUTSTANDING CHOICE OF PUBLIC ADDRESS ENGINEERS

#### 12 WATTS actual



Formerly Model 2940, 2,500-ohin field, Universal transformer. Shipping weight, 26 pounds.

Net price...

MODEL 1990. \$9.95

#### 9 WATTS actual



Formerly the Model 1750, this speaker comes to you in improved appearance and at a new low price. 2,500-ohm field, l'niversal transformer. Shipping weight. 17 pounds. MODEL 1490,

\$7.45 Net price.

#### 11 WATTS actual



Formerly Model 1980, 2,500-ohm field, Universal transformer. Shipping weight, 17 pounds.

MODEL 1590. Net price.

\$7.95

## America's Most Desired Public Address Reproducer

NOW! This Stadium Senior for only

\$17.45

THE GREATEST VALUE OF ALL TIME



The Acknowledged STANDARD of Comparison The LEADER

Formerly Model 5800

Weatherproof

Rustproof

Power handling capacity, 15 watts actual. Impedances 10, 500 1,500, 4,000 ohms. Field, 1,800 ohms. 40 watts maximum, 18 watts minimum. Shipping weight, 32 pounds.

#### WRIGHT-DeCOSTER "PORT-A-CASE" MODELS



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A sturdy, good looking case priced so low as to enable our customers to house their Wright-DeCoster reproducers at far less than they would ordinarily have to pay. The Port-A-Case has room to house many of the different popular amplifiers as well as the 114 or 514 field supply. Yet it is not too large to work in with practically any sound installation.

## WRIGHT **Electro-Dynamic**



## DeCOSTER Reproducers

## FEATURING UNIVERSAL FIELDS AND OUTPUT

GONE IS THE NEED FOR CHANGING FIELDS

One Universal Field, one Universal Transformer, make one speaker adaptable to all needs

The dynamic reproducers shown below (with the exception of the Model 390-5 in. unit) all have universal field coils which furnish the following fields: 2,500, 2,200, 1,800, 1,800 tapped at 300, 1,500, 1,000 and 700 ohms.

Speakers for Auto Radio indicated by "VC"

STANDARD 5-INCH D.C. MODEL

- ♦ Voice coil impedance (400 cycles) 4.2 Ohms.
- ♦ Field coil, 6 watts max., 3.5 watts min.
- ♦ Power handling capacity, 3 watts. → Dimensions, 5 in. dia., 2-7/16 in. depth, weight 1% lbs.
- + Transformer for single 43 tube.
- ♦ Standard field resistance, 3,000 ohms.

Model 390--Net price ...

Model 390VC-Net price......\$1.95

UNIVERSAL 6-INCH D.C. MODEL ♦ Voice coil impedance (400 cycles) 5.05 ohms.

♦ Universal field coil.

♦ Universal output transformer. handling capacity, ♦ Power watts.

\*Dimensions 6% in., dia. 3% in. depth; weight, 3½ lbs. + Vehicle speaker, 6-volt field universal transformer.

Model 490-

Net price Model 490VC-Net price....\$2.95



#### UNIVERSAL 8-INCH D.C. MODEL

- ♦ Voice coil imp. 5.05 ohms. ♦ Universal field and output
- transformer.

  + Handling capacity 7 watts.

  + Dimensions 8½ in. dia., 4 in. depth; weight 4½ lbs.

Model 590-\$2.95 Net price

Model 590VC-Net price. . \$2,95

#### WHAT A VALUE!



Genuine WRIGHT-DECOSTER

12-inch

Electro-**Dynamic** Reproducer

→ Handling capacity 9 watts. → Paracurve cone, 12 1/8 in. dia.; 7-in. depth; weight 8 1/2 lbs. **S4.**95 Net Price .....

UNIVERSAL 10-INCH D.C. MODEL

- ohms. ♦ Voice coil imp. 5.05 ohms. ♦ Universal field and output transformer.
- + Handling capacity 8 watts. → Dimensions, 10% in. dia.; 5-7/16 in. depth; weight, 5% lbs.

Model 690-Net price .....

\$3.45



The above model Wright-DeCoster reproducers are made for NOW! A.C. operation by use of this field supply

Smallest field supply made. Only 8 ½ x2 ½ x1 inches: weighs only 2 lbs. packed for shipping and will deliver 9 watts to a 2,500 ohm field; requires 25Z-5 tube for operation.

For only-Net price.....

#### WRIGHT-DeCOSTER

Vehicle or Monitor Cabinet



speakers The ideal separate The ideal separate speakers for automobiles, sound trucks and wherever separate speakers are required. Electrodynamic speakers have 6-volt, 9-watt fields. Price Model 226—Cabinet only \$1.13

## 6-Volt Electro-Dynamic Equipped

Model 646VS-6 in. 6-volt 3.23 Model 746VS-8 in. 6-volt 3.73

Nokofi Equipped Model 736VS-6 in. . . . . 3.68 Model 836VS-8 in. . . . 4.18

## The Sensational and Startlingly New

#### HYFLUX MAGNETIC SPEAKER

**♦** Metal Dust-Proofing

+Seamiless Cones

♦ Single Type

7,000 ohms.



- Bakelite Coll Form
- **♦** Accessible Adjustment
- A Push Pull Models

10,000 Ohms

#### Specify Push-Pull or Single When Ordering.

6-Inch	Model	400-Net	price									. \$2.00
8-inch	Model	450-Net	price		٠.							. 2.25

FOR CASH WITH ORDER DEDUCT 2%

#### WRIGHT-DeCOSTER



"METAL MULTI-PURPOSE" CABINET

For use by "Hams," amateurs. experimenters, and sound engineers. Black crystalline finished all-metal cabinet with black and grey grille cloth. Size: 10 in. wide, 9 in. high, 5 in. deep. Weight; 3¾ lbs.

Model 426—Cabinet only \$2.13

Hyflux Equipped

Model 756—6 in. ..... 3.78

Model 806—8 in. ..... 4.03

Nokoil Equipped

Model 936—6 in.

Model 1036—8 in. 4.68 

 Model 1036—8 in.
 5.18

 Electro-Dynamic Equipped

 Model 846—6 in.
 4.23

 Model 946—8 in.
 4.73

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**World Radio History** 



## No Field Coils!

#### ELECTRO-DYNAMIC PERFORMANCE PRECISION BUILT — DEPENDABLE

There are available eight models of Jensen types, one 10 inch and three 12 inch types. Each type can be secured with one of the following input impedances: 8, 500, 4400 and 10,000 C. T. Jensen does not supply speakers with universal output transformers. For complete details on Jensen PM models ask for bulletin LMS.

#### Six and Eight Inch PM Speakers

					Net	
PM	6 E	less	imput	\$7.00	\$4.20	
PM	6 <b>E</b>	with	imput	8.00	4.80	
PM	8E	less	imput	7.50	4.50	
PM	8 E	with	imp <mark>u</mark> t	8.50	5.10	
PM	6 C	less	imput	8.00	4.80	
PM	6C	with	imput	9.25	5.55	
PM	8C	Less	$imput.\dots.$	8.50	5.10	
PM	8C	with	imput	9.75	5.85	





#### Ten and Twelve Inch PM Speakers

					Net
PM	10C	less	imput	.\$12.25	\$ 7.35
PM	10C	with	imput	13.50	8.10
PM	12C	less	imput	. 14.25	8.75
PM	12C	with	imput	. 15. <mark>5</mark> 0	9.30
PM	12B	less	imput	. 23.00	13.80
PM	12B	with	imput	. 24.50	14.70
PM	12A	less	imput	. 34.75	20.85
PM	12A	with	imput	. 36.50	21.90

For all practical purposes these 10 and 12 inch speakers will do everything expected of a regular dynamic speaker of the field type with the many added advantages the PM offers in weight, ease of wiring, etc.
The PM 10C is rated at 8 watts of continuous addio output, the PM 12C at 8 watts, the PM 12B at 8 to 12 watts and the PM 12A at 12 to 18 watts.
The PM 12B and PM 12A are available in high fidelity models at no extra cost. For regular P.A. work it is recommended the operator use the standard models listed.

#### CABINET MODEL 816-INCH MAGNETIC SPEAKER

Handsome walnut finish table cabinet is 11 in. high, 10% in. wide, 61/2 in. deep. Equipped with 51/2 ft. cord. The speaker is a high quality "ortho" type magnetic, 81/2 in, cone.

No. OMC .....\$2.95



#### OXFORD DYNAMICS

All, with the exception of the 5A, are supplied with specially designed Universal output transformers, for Single, Pushpull, Parallel or Class B operation. A chart is furnished with each speaker indicating the correct taps to use. Standard field resistance 2500 ohms -except the 5A. Available in 5 ohms or 1000 ohms as well.

area canno de mi	U				
Model 11A	11"	8	watts	 	.\$4.29
Model 11A(A.C.)	11"	8	watts	 	. 7.50
Model 8A	8 1/2 "	6	watts	 	. 3.42
Model 8A (A.C.)					
Model 6A			watts		
Model 5A			watts		



#### ALL ALUMINUM DIRECTIONAL BAFFLE



UM DIRECTIONAL BAFFLE

Entire unit is constructed of heavy gauge spun aluminum, reinforced, and free from any metallic resonance conditions. Has a special aluminum lacquer finish. This baffle permits a more even sound distribution, and effectively reduces bothersome feedback difficulties. It is ideal for installations where a small yet efficient baffle horn is required. Suitable for all 10, 11 and 12-inch speaker cones. Equipped with suspension rings. Dimensions: 12½ in. deep by 10 in. deep; speaker opening, 10½ in.; length of horn, 10 in.; bell, 17 in. in diameter. Over-all size, 17x20 in.



#### MAGNETIC REPLACEMENT **SPEAKERS**

resistance 1000 ohms. Generous mag-D.C. net, sensitive, powerful. Model 5SL 5 inch Model 8SL 8 inch .....



	211	ugre	Tuc	e	L.16	ela.	Su	pp	ue	S
Mod	lel	1614	110	v.	50-	60	cvel	e		. 88.07
Mod	lel	1914	-110	V.	25	CVC	ele			9.57
Mod	lel	2014	-220	v.	50-	60	cyc	le		10.03
Mod	lel	2314	-220	٧.	25	сус	le			11.57
(Ou	tpu	t of	above	m	ode	18-	-200	VO	Its.	min

(Output of above models—200 voits, min. load resistance, 750 ohms.)

Model 1714—110 voit, 50-60 cycle... \$8.57 Single Tube Field Supplies use one 523 tube.

Size: 7 in. long, 3½ in. wide, 6½ in. high. Weight, 10 lbs.

MODEL 514—Expressly designed to furnish A.C. field excitation for Models 1490, 1590 and 1990. Delivers 100 M.A. t 170 voits. Finish: Black crystalline. Size: 8¼ in. long, 2½ in. wide, 1 in. deep. Packed 1 to carton. Ship. weight, 2 lbs.

MODEL 514-Less 25Z5 Tube.....\$2.57

#### Double Tube Field Supplies

Model	2914-110	v.	50-60	cycle.	 \$14.57	
Model	3314-110	v.	25 сус	le	 16.57	
Model	3414-220	v.	50-60	cycle.	 17.07	115
Model	3414—220 3714—220	v.	25 cyc	le	 18.57	I
						1

(Output of above models-200 volts, min. load resistance, 600 ohms.)

Double Tube Field Supplies use 5Z3 tubes.

Size: 8 in, long, 6 in, wide, 61/2 in. high. Weight 18 1/2 lbs.



The above prices do not include tubes and they are not furnished with these Field Supplies.

## for PORTABLE or FIXED Installation

WEBSTER CHICAGO MODEL PA-308 8-WATT PORTABLE COMPLETE PRICE, \$108.00

Shipping weight, 35 lbs.

#### AMPLIFIER SPECIFICATIONS

Power Output—8 watts. Gain at 400 cycles—115 D.B. Power Requirement—50 watts at 115 V, 50-60 cycles.

Number stages-3.

Input for high impedance ribbon or crystal microphone and 5,000 ohm phono pickup.

Output Impedance—3-6-500 ohms. Amplifier Dimensions — 6½x7½x11½ ins.

Tubes furnished—1 6C6; 1-76; 2-42; 1-82.

#### PRICES

SYSTEM PA-308—(Portable) complete with 8-watt Amplifier (tubes furnished); No. 1231-A Dual Diaphragm Crystal Hand Microphones; one matched 8-in. D.C. Dynamic Speaker with 50 feet cable; all contained in attractive and durable portable case. Net weight, 27 lbs.; shipping weight, 35 lbs. List price...\$108.00 SYSTEM PX-308—(Fixed) complete with 8-watt Amplifier (tubes furnished); No. 1231 Dual Diaphragm Crystal Microphone; 1120 Floor Stand; one matched 8-in. D.C. Dynamic Speaker (for Fixed installation). Shipping weight, 46 lbs. List price ...\$104.25

#### ADDITIONAL SPEAKERS

#### OTHER SYSTEM COMBINATIONS



WEBSTER CHICAGO MODEL PA-417A 17-WATT PORTABLE COMPLETE PRICE. \$147.50 LIST

#### Shipping weight, 50 lbs.

AMPLIFIER SPECIFICATIONS

Power Output—17 watts.
Gain at 400 cycles—114 D.B.
Power Requirement—110 watts at 115

Power Requirement—The water at the V, 50-60 cycles. Number Stages—4. Input for high impedance ribbon or crystal microphone and 5,000 ohm

crystal merophone and 5,000 phono pickup.
Output Impedance—3-6 and 500 ohms.
Amplifier Dimensions—7.xxx13½ ins.
Tubes furnished—1-57, 1-53, 3-2A5 and 1-5Z3

PRICES

#### ADDITIONAL SPEAKERS

#### OTHER SYSTEM COMBINATIONS

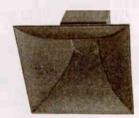
#### HORN TYPE BAFFLES.



Model 2510.

Made of non-tarnishing crystalline aluminum. Very light in weight. Acoustically correct and guaranteed to be free of resonance peaks to the response of the speaker.

MODEL 2510—HORN TYPE SPEAKER BAFFLE Dimensions of bell, 30 ½ in. square; overall depth, 20 ½ in. Shipping weight, 40 lbs. List price \$30.00



Model 2600.

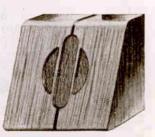
#### WALL TYPE BAFFLES



Model 2931.

Heavy construction with walnut finish to harmonize with interior decorations.

-SPEAKER BAFFLE. Face size, 114x11 ins.; for use akers. Shipping weight, 13 lbs. List price.....\$8.00 with 6-in, speakers.



Model 2911.

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PRICES SHOWN ARE LIST. WRITE FOR QUOTATIONS

#### ASK ABOUT LEW BONN CO. EASY PAYMENT PLAN

# WEBSTER CHICAGO WATT WEBSTER CHICAGO MOBILE SYSTEMS 6 VOLT D.C. 110 VOLT A.C.

DETACHABLE POWER PACKS



TWO 12-INCH PERMANENT MAGNET DYNAMIC SPEAKERS HAND TYPE DUAL DIAPHRAGM CRYSTAL MICROPHONE

With 6 V. Power Pack only.

No. 6MP420.

List price..\$200.00 Shpg. wt., 85 lbs.

Power Supplies may be interchanged at will simply by removing the turntable, loosening the screws, and plugging in the other unit, an exclusive Webster - Chicago feature. Storage battery drain (no load) only 3 amperes!



System MP-420 complete with Amplifier and Turntable, Crystal Microphone, two 12-in. Speakers and both 6 V. and 110 V. Power Packs. Shipping wt., 95 lbs.

No. 106 MP-420 LIST PRICE \$22350

With 110 V. Power Pack only.

No. 110MP420. List price..\$186.50 Shpg. wt., 84 lbs.

Controls: Consist of microphone volume, phonograph volume, tone control, master power switch, filament and turntable switch.

Tubes Used: 1—6C6, 3—6A6, 1—6E6, 1—83. A 1 1 tubes included in price of complete unit.

Gain: 115 DB. Power Consumed: 6 volts..66 watts 110 volts..98 watts

#### WEATHER-PROOF ACOUSTEX PARABOLIC DEFLECTOR BAFFLE MODEL NO. 111

## PARABOLIC PROJECTOR For Use with 8 to 12-Inch Dynamic Cone Speaker

Consists of speaker housing portion of bafile illustrated; resembles searchlight in appearance. Specify speaker size. Model P12.

#### ACOUSTEX FLARE BAFFLE

#### BAFFLE STAND MODEL 300

Heavy duty baffe stand with base 18 inches in diameter. The stand is adjustable in height from four to nine feet. When the baffle mounting bracket is attached the baffle can be placed at any angle. Black wrinkle finish. Shipping weight, 35 lbs.

List price (stand only).....\$20.00

No. 500—Wall bracket, all models...\$ 7.00 No. 400—Mounting bracket for 111

No. 300—Bracket for 300 stand only 15.00
Reducer rings (specify size of speaker)

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#### CRYSTAL MICROPHONES

Model 1231—Dual diaphragm of nondirectional characteristics with graphoil bimorph crystal. Response, 50 to 8,000 c.p.s.; 25 ft. cable. \$29.50

Model 1232—Same as 1221 except equipped with handle as hand mike. List price \$31.50

#### VELOCITY RIBBON MICROPHONE



PRICES SHOWN ARE LIST. WRITE US FOR QUOTATIONS

## WEBSTER MULTIPLE SYSTEMS CHICAGO

15 WATTS

4P-15 Basic System

(With Tubes)—See below

\$163.00

List Price

#### SPECIFICATIONS

Power Output—15 watts.
Gain—114 Db.
Power required—149 watts.
(Output Impedances Tapped at 2-4-6-8-16-500 ohms.
Hum Level—26 Db below zero Level.
Amplifier size—7½x10½x13½ ins.
Number stages—4.
Tubes—4-6C6, 2-6A6, 1-76, 2-2A3, 1-573.

(All tubes furnished with amplifiers)
Speaker—12 in. Permanent Magnetic Speaker, power handling capacity 10 watts per speaker.

Microphones—Dual diaphragm crystal microphone with stand, 25 ft. cable supplied, or velocity ribbon micro-phone with stand, 25 ft. cable.

#### PRICES

Systems can be purchased in various combinations to suit requirements. In ordering please refer to system num-bers or designate each component by its own part num-

1-CPX-4P-15 (as mentioned above) consists of amplifier 4P-15 complete with tubes, one crystal microphone No. 1231 with floor stand, and one 12 in. P. M. speaker No. 2850. Shipping weight 55 lbs. List price....\$163.00

#### OTHER COMBINATIONS

If base system other than specified here is desired, prices of all parts can be obtained from accessory pages in catalogue. Add price of amplifier.

4P-15-(Complete with tubes). Shipping weight 38 lbs. List price......\$102.00



#### 30 WATTS

4P-30 Basic System

(With Tubes)—See below

List Price SPECIFICATIONS

Power Output—30 watts. Gain—113 Db. Power required—220 watts, 115V-60 Cycles.

Cycles.
Output Impedances Tapped at 2-4-6-8-16-500 ohms.
Hum Level—26 Db below zero Level.
4P-30 Amplifier size—8x15½x16 ins.
Number stages—4.
Tubes—4-6C6, 2-6A6, 2-56, 4-2A3.
1-83, 1-80.
(All tubes furnished with amplifiers)
Speaker—One 12 in. Permanent Magnet Speaker.

No. 2850—Power handling capacity 10 watts per speaker. Microphones—Dual diaphragm crystal microphone No. 1231 with stand, 25 ft. cable supplied, or velocity ribbon microphone No. 1221 with floor stand, 25 ft. cable.

#### PRICES

Systems can be purchased in various combinations to suit requirements. In ordering please refer to system num-bers or designate each component by its own parts number.

1CPX-4P-30 (as mentioned above) consists of amplifier 4P-30 complete with tubes, one crystal microphone No. 1231 with ficor stand, 25 feet of cable, and one 12 in. P. M. speaker, No. 2850. Shipping weight 72 lbs. Light

#### OTHER COMBINATIONS

If base system other than specified here is desired, prices of all parts can be obtained from accessory pages in catalogue. Add price of amplifier. Shipping weight 55 lbs.

4P-30-(Complete with tubes). List price.......\$145.00

#### PERMANENT MAGNET DYNAMIC **SPEAKERS**



Matched for perfect performance to Webster-Chicago systems. No Field Current required. Greater power handling ability than reg-ular dynamics of the same size and weight. Equipped with transformers tapped 500-1000-1500-2000 ohms. 1500-2000 ohms.

Model 2871—12 in. handles up to 18 watts. Shipping weight 19 lbs. List price....

price .....

#### PORTABLE TURNTABLE AND PICK UP

A well designed and ruggedly constructed unit with self starting synchronous Record compartmotor. ment inside cover. Volume control and "off-on" switch. Six feet of extension cord. Size 14x14x8 ins., operates on 110 volts, 60 cycles only. Beautifully finished in black walrus grain leatherette. Shipping weight 25 lbs.

Model Single, 78 RPM. List 

Model Dual, 78 and 33 1/3 RPM. List price.....\$55.00



PRICES SHOWN ARE LIST. WRITE US FOR QUOTATIONS

#### 60-WATT WEBSTER-CHICAGO 6-VOLT **AMPLIFIER**

#### MODEL 4P-60 **USING 6L6 TUBES**

The 4P-60 Amplifier has been designed around the 6L6 tube. Adequate factors of safety have been employed

signed around the 6L6 tube. Adequate factors of safety have been employed throughout.

Amplifier 4P-60 is furnished with a four position electronic mixer with four input controls and master control (noiseless). The output terminates in a 7 prong receptacle plug which is sunnied.

sunnlied.

Will supply one to ten permanent magnet speakers.

The amplifier is contained in a metal case with rounded corners and neutral tone japanned finish. The case is well ventilated and equipped with carrying handles. Case size is only 9 ln. x 16 % in. x 19 in. and weighs 57 lbs.

POWER OUTPUT-60 Watts. GAIN-143 db.

OUTPUT IMPEDANCES TAPPED AT 2. 4, 6, 8, 16 and 500 ohms.

HUM LEVEL minus 20 db.

AMPLIFIER SIZE-9 in. x 161/2 in. x 19 in.

NUMBER STAGES-5.

TUBLES 4-6C6, 2-6A6, 1-76, 1-6E6, 2-6L6, 1-83, 1-5Z3. (All tubes furnished with amplifier.)

Model 4P-60

Amplifier only. Complete with radio tubes and receptacle plugs.







AMPLIFIER SIZE-7 in. x 71/2 in. x

NUMBER STAGES—3. TUBES—16C6, 3-6A6 (Tubes furnish-

ed).
MICROPHONE—Hand type crystal microphone, 25 feet of flexible rubber covered cable.
SPEAKER—10 in. Heavy Duty Electrodynamic Unit. Sound Projector of spun aluminum with bracket.
15 feet of flexible rubber covered cable.

System MV-410

Complete with amplifier, crystal microphone-hand-type, heavy duty speaker with aluminum directional sound projector and mounting bracket. 

System MV-410S

Same as described above but with two 10-in. heavy duty speakers mounted in aluminum directional sound projectors. 

#### COMPACT HIGH FIDELITY

#### PREAMPLIFIERS HUMLESS A.C. OPERATED

#### MODEL 21C MIXER-PREAMP.

(Illustrated)

The Type 21C is a two stage amplifier The Type 21C is a two stage amplifier for two high impedance microphones, each having a separate mixer tube. The two gain controls are located after the first stage, resulting in very quiet operation. The input tubes are cushioned on rubber preventing vibration and microphonics from affecting them.

The cast cases on the transformers, the complete electrostatic shielding of all parts, and a five section filter in the "B" supply completely eliminate all hum from this amplifier,

#### Technical Information

Power Supply-110 volts, 60 cycles-12 watts.

Gain-65 db. on microphone input, 30 db. on phonograph input.

Tubes-Three type 75 tubes, one type 84 tube.

Input for all high impedance micro-

Input Connections—Two jacks for microphones, one jack for phonograph pickup. When the phonograph plug is inserted, one microphone input is disconnected.

Output Impedances-200 and 500 ohms. Output Connections on screw terminals under removable cover plate.

Dimensions-15x7x4 inches. Shipping weight 13 pounds.

Complete set R.C.A. tubes ...... 4.25



#### MODEL 11A

#### for diaphragm crystal mikes

A smaller unit designed for feeding a high output crystal or ribbon mike into any power amplifier with sufficient gain for a carbon mike.

When supplied with low impedance output it feeds into the regular carbon mike input of the power amplifier.

When supplied with 10,000 ohm output it may be fed directly into grid. The outside appearance is the same as the 13C except that it is smaller.

#### Technical Information

Power Supply-110 volts, 60 cycles 7

Frequency Response-Less than 2 db. variation from 30 to 10,000 cycles. Tubes-One 75, one 84.

Output Impedance-200 and 500 ohms standard.

Dimensions-9 1/2 x 6 x 3 1/2 inches. Shipping weight 10 pounds.

List price, less tubes.....\$29.85 With 10,000 ohm output...... 32.50 Complete set R.C.A. tubes..... 2.25

**World Radio History** 

#### **MODEL 13A** High or Low Impedance

The Type 13A Amplifier is designed for use in the many places where a low level microphone cannot be connected to the power amplifier because the microphone is too far from the amplifier, or the power amplifier has too low a gain to operate a crystal or velocity microphone satisfactorily. It is ideal for use in replacing the carbon microphone on the older type public address systems with a new high fidelity microphone.

#### Technical Information

Power Supply—110 voits, 60 cycles. Power Consumption—10 watts. Gain—65 db. Maximum Output—Plus

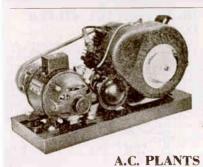
db. Tubes—Two 75-type tubes, one 84-type

Input Impedances—50 ohms, 200 ohms, and 5 megohms.
Output Impedances—200 ohms and 500 ohms. Output connections on screw

Prices Shown are LIST. Write for Quotations

#### CONVERTERS GENEMOTORS

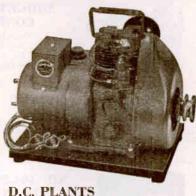
#### POWER **PLANTS**



#### GAS - ELECTRIC POWER **PLANTS**

ELECTRIFY THE FARM

this modern, easy way-with these high-grade, reasonably-priced power plants. Models to meet all requirements. Excellent also for Sound Cars and for the remotely situated amateur.



Blue Diamond generates 300 watts at 110 volts A.C. 60 cycles, Runs 12 hours on a gallon of gasoline. Shipping weight 72 lbs.

ı	LB6X-6 volts, 200 watts, 49 lbs. Net	33.70
ı	LB12X-12 volts, 200 watts, 49 lbs. Net	33.70
١	L32R-32 volts, 250 watts, 49 lbs, Net	44.97
ı	L110-110 volts, 250 watts, 49 lbs. Net	44,97
ı	De Luxe Models (Marine Type.)	
ı	De Luxe Models (Marine Type.) L6M—6 volts, 150 watts, 49 lbs. Net	41.50
ı	L6XM-6 volts, 200 watts, 52 lbs. Net	44.97
ı	L12XM-12 volts, 200 watts, 52 lbs. Net	48,35
	Prices on other models on request.	



600 watts. 1,000 watts. 1,500 watts.

#### ROTARY CONVERTERS

Double wound dynamotors suitable for radio or P.A. use. Prices on other models furnished on request. Ask for "Purple Dot" circular. Model 3215—32 V. D.C. input. 110 V. A.C. output. 150 volt amps. Model 1115—110 V. D.C. input. 110 V. A.C. output. 150 volt amps. Price less filter. \$24.90 Price with filter. \$27.60



#### MODEL JW GENEMOTOR UNIT WITHOUT FILTER

	Ou	tput	Battery	List
No.	Volts	M.A.	Drain	Price
JW-18	180	30	2.5	\$7.80
JW-20	200	40	3.15	7.80
J W-25	225	50	4.3	7.80
JW-50	250	50	4.7	7.80
	FOR 32	VOLT RAD	IOS	
J W-32	210	45	.7	9.90
S	hipping v	velght, each	6 lbs.	

Gold Crown Heavy Duty Models

Other models quoted on request.

#### DYNAMOTORS

Without Filter. P.A. MEN and AMATEURS!

May be had in 32-volt models.

Add 15% to prices shown.

Aluminum bearing brackets for light weight.



Туре	Ut	itput	Inpu	11	weight	
Number	Volts	M.A.	Volts	Α.	(Pounds)	Price
E1W272*	250	50	6	4.7	7/2	\$ 21,00
E2W353						24.00
	250	50	6	4.8	9 14	
E1W339*	250	100	6	7,5	7 1/2	21.00
E2W397	250	150	6	13.2	9 1/4	24.00
E2W351	300	100	6	2.7	9 1/4	24.00
E2W243	300	150	6	14.0	9 1/4	24.00
E2W256						
	350	150	6	15.2	9 1/4	25.20
E2W438	400	125	6	14.2	9 1/4	25.20
E8W413	500	100	6	15.0	11	28.50
RA0W158	300	200	6	18.0	16	45.00
RA1W201	400	225	6	25.0	17 1/2	49.50
RA1W189	500	200		27.0	17 1/2	51.00
			0		1 6 7/2	
RA1W331	600	200	6	31.0	17 1/2	52.50
RA1W549	750	125	6 6	25.0	17 1/2	54.00
RA3W550	750	250	12	24.0	23 1/4	58.50
RA2W475	1000	150	12	20.0	19 1/4	63.00
						69.00
RA3W534	1000	250	12	32.0	23 1/4	
All units may be						
above at an add	ition of	15% 1	o list 1	price.	Add "X"	to code
word and follow	with in	put vol	tage re	anired		
Standard filter fo	or "(E")	inite	Net pri	00		811.70
Manual alter A	on 41D 411		aret bill			15.00
Transient filter f	or RA	units.	Net b	rice		15,00

\* Steel frame-furnished only on 50-watt models.

#### ATR INVERTERS PROVEN—DEPENDABLE—GUARANTEED

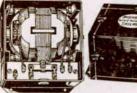


A simple, inexpensive device for producing stand-ard 110-volt alternating current from 6-volt stor-age batteries, 32-volt age batteries, 32-volt farm plants, and 110 D.C. systems. No need to purchase special appliances! The ATR D.C.-A.C. Inverter will supply regular A.C. power for operating standard A.C. devices at an efficiency of approximately 80%; the current input being proportional to the load. There are no rotating parts, and the only element that moves like a radio tube.

the state of the seatons.	marked and a source of the con-	1 A 143a	
is the vibrator	which plugs in .	just like a radio t	ube.
Type	D.C. Input	A.C. Output	Rating
6	6 Volts	116 Volts	50 Watts
12	12 Volts	110 Volts	100 Watts
32	32 Volts	110 Volts	100 Watts
110	110 Volts	110 Volts	200 Watts
Net price with	filter		\$13.50
Net price with	out filter		\$11.10

#### GENE-**MOTORS**

with filter for Radio and P.A. work



Size: 5%x5%x3% ins.; weight
Output Ba Battery Volts M.A. Drain 7.75 9.5 265 300 135 30 1.80 2.50 180

5250 **DEDUCT 2% FOR CASH WITH ORDER** 

7565 7300

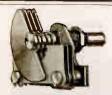
5135-A

5180-A 5200-A

10.80 135

Price \$18.60 20,40 10.80 10.80

EVERY ONE A GUARANTEED BARGAIN



#### MIDGET VARIABLE CONDENSERS

Very good quality. Minimum capacity, 3 to 5 mmf.

#### DOUBLE-SPACED MIDGET CONDENSERS





#### NO. 464-201 FILAMENT TRANSFORMER

For 866's 2,250 volts insulation. 2.5 V. C. T .- 12.25 Amps. \$1.14

#### FILTER CHOKE

18 Henries-150 M.A.-425 Ohms-D.C. Resistance.

No. 466-210

A remarkable buy

SO.99





#### **SWINGING CHOKE**

3 to 8 Henries at 150 M.A.—80 Ohms D.C. Resistance.

#### LO-LOSS 50-WATT SOCKET

Base is Isotex, metal parts are heavy brass, nickel plated. Positive contacts. No. B226 .....



#### **HEAVY DUTY 210 SOCKET**

Made of bakelite. Standard UX base. Ideal for 10's, 866's, etc. No. 400 .....\$0.29



#### A DANDY MEDIUM HIGH VOLTAGE TRANSFORMER

No. BFS-550--550-0-550 volts at 150 M.A. and 5 volts-3 amperes for rectifier ... \$2.15

#### VALUE-PLUS HIGH VOLTAGE TRANSFORMERS

our last catalog we've since our last catalog we've sold hundreds of these two transformers. They are giving universal satisfaction and stand out as the best trans-former buys on the market. Guar-anteed.

5½ inches.....

No. F-1001—800-400-0-400-800 volts at 150 M.A. Size 3 % x 4 % x 3 % inches \$3.95



#### SECURITY HIGH VOLTAGE FILTER CONDENSERS



These high quality oil-filled condensers are thoroughly guaranteed for six months at their rated voltages. Their appearance is exactly the same as the illustration—heavy metal container with ceramic stand-oifs. For universa use wherever high voltage condensers are needed. Your money cheerfully refunded if you are not satisfied with these condensers. Hun dreds in use in the Northwest—ask the nex Ham you work—he's probably using one or more already. Furnished in the new medium size containers. 4½ inches high.

Notice the low prices!

D.C. Work.

Cap. Volts Price Cap. Volts Price in mid. 1,000 \$1.10 2 mfd. 1,500 \$2.00 2 mfd. 1,000 1.50 1 mfd. 2,000 1.71 1 mfd. 1,500 1.45 2 mfd. 2,000 2.41



#### BONN'S SPECIAL 866's

Absolutely Guaranteed

Each Two for..... 2.75 These are real quality tubes that will give you long service.

#### **GENUINE MAJESTIC TUBES**

Fully Guaranteed

Type 47

Type 46 \$0.20 3 for \$0.50 Type 59 \$0.20

#### SPECIAL POWER TRANSFORMER

No. T6877.....\$1.95







Type EA Type E GENERAL "progressive" audio units; real de luxe units except for open type mounting. You can't go wrong on these quality units at these value-plus prices.

INPUT TRANSFORMERS

Part No.	Pri.	To Couple To	MTG	Class C Stage M. A.	Н.	Size D.	w	Price
3262	P. P. 45's or 2A3's	830 B's, RK 18's Class B	٧		3'	21/4"	235'	\$1.50
3272	Single 46 or 59	46's or 59's	V		3'	21/4"	236"	1.65
3276	P. P. 45's ct 2A3's	Class B Class B 210's	V		3'	21/4"	236"	1.65

OUTPUT TRANSFORMERS

2340	Class B 800's, 830 B's, RK 18's	5000 or 20000 ohm load	EΑ		200 100	434"	334"	336"	4.95
2344	Class B 46's or 59's	5000 or 10000 ohm load	٧		100	33%"	3°	23%	2.70
2346	Class B 4-46's or 4 59's	500, 3000 or 6000 ohm locd	EA	2	200	43%*	3%"	336"	4.95
2348	Class B 210's	5000 or 10000 ohm load	EA	1	200	434"	31/4"	3 7/8"	4.80

FILTER CHOKES TYPE E

Part No.	Henries	M. A	Resist D. C. Ohms	Insulation	Н.	Size D.	W.	Price
2114 2118 2122	12 12 12	200 300 500	125 100 100	3000 5000 5000	3 1/4 °	3%	33%	\$2.55 3.60 5.70

SWINGING CHOKES-TYPE E

2116 2120 2124	6-18 6-18	20-200 30-300 50-500	125 100 100	3000 5000 5000	3 1/2 4 1/2 4 1/2	3 % ' 3 % '	3 % 3 %		2.55 3.60 5.70
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## Send All Mail Orders to LEW BONN CO.

Phone Main 5313



#### 1126 Harmon Place MINNEAPOLIS, MINN.

#### RUSH ORDER

TERMS: You may deduct 2% from your cost on all merchandise in this catalog (except on National Co. apparatus) IF your "Cash with Order" order amounts to \$2.00 or over, OR if your C. O. D. order is \$3.00 or over. On all orders not coming up to these specifications, your costs are net-no cash discount allowed. On all orders of less than \$1.00, add 15 cents for a handling charge. All merchandise quoted at prices

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Total Amount End	losed							

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## HOW TO ORDER

## PARCEL POST RATES EXPRESS CHARGES

#### HOW TO ORDER

Print ye and the very selection of the following and address are on your order. Use our catalog numbers or give FULL details on the item you want. State whether or not we may substitute if the part you want is not in stock. We guarantee to send equal or better quality parts.

#### SIZE OF ORDER

It is impossible for us to handle mail orders of less than \$1.00 without losing money. Therefore, on any order amounting to less than \$1.00 ADD 15 CENTS IN ADDITION to merchandise price and carrying charges. On your small orders you can evade this by adding a tube or two to the order.

#### **TERMS**

You may deduct 2 for ash with order on all orders for more than \$2.00 and we will deduct 2% on all C.O.D. orders for \$3.00 and over. This applies to all merchandise in this catalog except National Co. amateur apparatus. Prices shown on National are "Net"—no further discounts allowed. On all orders of less than \$1.00 we charge a 15-cent handling charge.

#### FAST DELIVERY SERVICE IN TWIN CITIES

We use a commercial delivery service that gives very prompt service. We can get merchandise to any part of Minneapolis or St. Paul within two to three hours. If you can't come over, telephone, and have your order delivered. Orders amounting to over \$3.00 will be delivered free.

Minneapolis MA in 5313 St. Paul GA rfield 2100

#### **ADJUSTMENTS**

Do not return anything without sending a letter the same day—do not attach letter to the package. Explain fully why you are making the return and how you want the transaction handled—credit or replacement. Always give date and invoice number on which you purchased this material.

REMEMBER—We insure all packages, so add 5 cent to all shipments of less than \$5.00—in cents to all shipments of less than \$25 and 15 cents to orders less than \$50. In other words—the carrying charges of all shipments should include both parcel post AND insurance charges. If you do not include enough money for carrying charges, we will ship your orders express collect

ALL PRICES CONTAINED IN OUR CATALOG are subject to change without notice.

#### **CANADIAN DUTIES**

The duty on Canadian shipments is 25% of the value of the order. On freight shipments, a sales tax of 6% of the value (plus the duty), and an excise tax of 3% of the value (plus duty), applies. On Parcel Post of express shipments the excise tax does not apply. It is not necessary to send this money to us as the charge is made when the package is delivered.

Example: Value of shipment..... 80.00 Duty ...... 20.00

\$100.00

The sales tax will be \$6.00 and the excise tax will b \$3.00 additional if shipped by freight.

#### PARCEL POST RATES

Zone No.	Distance in Mile	up to 1 lb.	Each Lb. Add'nl or Fraction
1	Not Over 150 Mi.	Se	1.1e
2	Not Over 150 Mi.	84	1.1e
3	150 to 300 Mi.	9e	2c
4	300 to 600 Mi.	10e	3.5c
5	600 to 1000 Mi.	11e	5.3e
6	1000 to 1400 Mi.	12e	7e
7	1400 to 1800 Mi.	14e	8e
8	Over 1800 Mi.	15e	11c

#### EXPRESS CHARGES

Weight Nor			FC	OR DIST.	ANCES	)F		
More Than	50 Mi.	150 Mi.	300 Mi.	500 Mi.	750 Mi.	1000 Mi.	1500 Mi.	2000 M
5 Lbs.	80.39	\$0.41	\$0.45	80.48	\$0.52	\$0.56	\$0.66	\$0.76
10 Lbs.	.43	.48	.56	.62	.69	.76	.98	1.16
15 Lbs.	.47	.54	.66	.75	.86	.97	1.29	1.57
20 Lbs.	.51	.61	.77	,89	1.03	1.18	1.61	1.98
25 Lbs.	,55	.67	.87	1.02	1.20	1.85	1.93	2.39
35 Lbs.	.63	.80	1.08	1.29	1.54	1.79	2.56	3.20
45 Lbs.	.71	.93	1.29	1,56	1.88	2.21	3.19	4.02
55 Lbs.	.79	1.06	1.50	1.83	2.22	2.62	3.82	4.83
75 Lbs.	.95	1.32	1.92	2.37	2,90	8.44	5.08	6.46
95 Lbs.	1.11	1.58	2.34	2.91	3.58	4.26	6.33	8.09
For Each 100 Lbs.	1.15	1.65	2.45	3.05	3.75	4.47	6.65	8.50

Be Sure Vour Name and Address is Clearly Shown

#### GUARANTEE

We guarantee each and every item shown in our catalog to be exactly as represented and to conform to R.M.A. standards. Any item found to be other than as represented, if promptly returned with a letter of explanation, will be speedily adjusted.

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Print the way the extra copies are addressed.

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